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21
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Table structure

The tabular structure enables an overview of the essential features.

Type
Designation
of the luminaire

LED Specification
Luminous flux lumen (lm)
Colour rendering index RA
Colour temperature Kelvin (K)

NEW

Item-number → the last digit of the article number indicates the housing colour
543 3044 10... → ...1

Luminaire weight net
(without packaging)

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
Sample luminaire	LED 2400lm 840 LB	20	ED	543 3044 10...	...5	...1	...4	3
	LED 4500lm 840 LB	41	DALI	543 3144 10...	...5	...1	...4	3

P_{SYS} | Lighting system performance

Driver

ED | Electronic Driver, non dimmable

DALI | Electronic Driver, DALI, dimmable

DALI DT8 | Electronic Driver, DALI, dimmable, adjustable light colour

Tast dim | dimmable via push button

NL-B | Emergency light battery powered

Colour code/colour

| aluminium natural anodized

| traffic white (similar RAL 9016)

wa | withe-aluminium (similar RAL 9006)

| deep black (similar RAL 9005)

sg | silver grey

| stainless steel

cr | chrome

si | silver

tc | translucent

cl | clear

gr | grit grey

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

FSC
www.fsc.org
MIX
Paper from responsible sources
FSC® C105039

Definition of measurement table variants

- L | Length
- □L | Length/Width for square luminaires
- L2 | Additional length
- B | Width
- H | Height
- ØD | Diameter
- FL | Length of luminaire base
- FB | Width of luminaire base
- FD | Diameter of luminaire base
- T | Depth
- KE | Cable infeed
- KL | Length of luminaire head or ballast box
- KB | Width of luminaire head or ballast box
- KH | Height of luminaire head or ballast box
- KD | Diameter of luminaire head or ballast box
- A1 | Fixing distance in case of single mounting
- A2 | Fixing distance between the luminaires in case of light run mounting
- X | Distance from centre of the luminaire to the electrical feed in (x direction = length)
- Y | Distance from centre of the luminaire to the electrical feed in (y direction = width)
- SL | Length of cut for recessed luminaires
- SB | Width of cut for recessed luminaires
- SD | Diameter of cut for recessed luminaires
- e | Minimum necessary depth for luminaire mounting
- ML | Modul (axis) Length
- MB | Modul (axis) Width
- P | Wire suspension
- P min/max | Min./Max. length wire suspension
- DS min/max | Min./Max. ceiling thickness in case of suspended ceiling
- for ceilings with visible T-rails
- for cut-out ceilings

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Recessed luminaires

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micro-EFA P. 62

pilo-EOTBT

IP20 3000 UGR 19

Housing
Extremely flat and rimless recessed luminaire, made of sheet steel. Suitable for ceilings with visible T-rails 24mm. In combination with mounting frame pilo-ER also for cut out ceilings. Bottom of the housing one-piece with hole pattern. Housing powder-coated traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other RAL colouring available on request.

Lighting technology -EOTBT
Direct narrow-wide light distribution.
Fully integrated translucent lens optics made of acrylic.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
pilo-ER mounting frame for cut-out ceilings must be ordered separately.

traffic white

deep black

Type	Ceiling	□ L	H	ML	MB	e
pilo-EOTBT/625		618	37	625	625	120
pilo-EOTBT/600		593	37	600	600	120

for cut-out ceilings with mounting frame pilo-ER

Type	Ceiling	□L	H	SL	SB	e	DS min/max
pilo-EOTB/625 + pilo-ER		655	72	642	642	120	10-25

pilo-EOTBT

4600lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	15,0
UGR long	14,6

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
pilo-EOTBT/625	LED 4600lm 840	38	ED	768 3044 10...	□ ...0	■ ...4	5,9
	LED 4600lm 840	38	DALI	768 3046 60...	□ ...0	■ ...4	5,9
pilo-EOTBT/600	LED 4600lm 840	38	ED	768 3044 11...	□ ...0	■ ...4	5,7
	LED 4600lm 840	38	DALI	768 3046 61...	□ ...0	■ ...4	5,7

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	kg
Mounting frame	pilo-ER 625	Mounting frame for cut out ceiling	768 5000 10...	□ ...0	■ ...4	1,8

pilo-EOTB/400

IP20 UGR 19

Housing
Extremely flat, frameless recessed luminaire made of sheet steel. Suitable for cut-out ceilings. Bottom of the housing one-piece with hole pattern. Traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Toolless mounting by means of fixing springs.

Lighting technology -EOTB
Direct distribution, narrow and wide beam.
Fully integrated translucent Individual Lens Optic made of acrylic.
UGR ≤ 19. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

traffic white

deep black

Type	Ceiling	L	B	H	ML	MB	e	DS min/max
pilo-EOTB/400		360	110	42	350	90	70	10-25

pilo-EOTB/400

1300lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	18,6
UGR long.	18,2

UGR 19

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
pilo-EOTB/400	LED 1400lm 840	11	ED	768 3044 13...	☐ ...0	■ ...4	5,9
	LED 1400lm 840	11	DALI	768 3046 63...	☐ ...0	■ ...4	5,9

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

taro-EMP

IP54 3000 UGR 19

Housing
Sheet steel housing suitable for ceilings with visible T-rails 24mm. Painted traffic white (similar to RAL 9016). Suitable for food and beverage industries according to DIN 10500/Food. The protection rating applicable to visible luminaire surface.

Lighting technology -EMP
Direct distribution.
Light distribution via microprismatic panel with conical glare elimination
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 100.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

HCL DALI DT8
Luminaire in tunable white technology for Human Centric Lighting.
927/warm white (2700K) - 965/daylight white (6500K) continuously adjustable. Suitable controls for tunable white technology on request.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 100.000h.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	Ceiling	□L	H	ML	MB	e
taro-EMP/625		622	81	625	625	180
taro-EMP/600		597	81	600	600	180

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
taro-EMP/625	LED 4500lm 840	28	ED	722 0014 150		4,5
	LED 4500lm 840	28	DALI	722 0016 650		4,5
	LED 4600lm 927-965	38	DALI DT8	722 0066 950		4,5
taro-EMP/600	LED 4500lm 840	28	ED	722 6014 150		4,3
	LED 4500lm 840	28	DALI	722 6016 650		4,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Kaffee
pause

taro-EG

IP54

Housing
Sheet steel housing suitable for ceilings with visible T-rails 24mm. Painted traffic white (similar to RAL 9016). Suitable for food and beverage industries according to DIN 10500/Food. The protection rating applicable to visible luminaire surface.

Lighting technology -EG
Direct distribution.
Homogeneous illumination by satinised special acrylic panel, with high transmission. Rated life time = L80 B10 100.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

HCL DALI DT8
Luminaire in tunable white technology for Human Centric Lighting. 927/warm white (2700K) - 965/daylight white (6500K) continuously adjustable. Suitable controls for tunable white technology on request. Rated life time = L80 B10 100.000h.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	Ceiling	□L	H	ML	MB	e
taro-EG/625		622	81	625	625	180
taro-EG/600		597	81	600	600	180

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
taro-EG/625	LED 4500lm 840	28	ED	722 0014 110		4,5
	LED 4500lm 840	28	DALI	722 0016 610		4,5
	LED 4600lm 927-965	38	DALI DT8	722 0066 910		4,5
taro-EG/600	LED 4500lm 840	28	ED	722 6014 110		4,3
	LED 4500lm 840	28	DALI	722 6016 610		4,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Iopia R-EMP

IP20 3000 UGR 19

Housing
Round housing made of sheet steel with minimalistic rim, for cut out ceilings.
Painted traffic white (similar to RAL 9016) or white aluminium (similar to 9006).
Other colours on request. Sizes 300, 400 and 600 mounted via clips (included).
Wire suspension for size 600 is optional available.

Lighting technology R-EMP
Direct distribution.
Light distribution via microprismatic panel with conical glare elimination
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 100.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Separate pluggable driver unit. Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Iopia-SAS optional wire suspension to bare ceiling must be ordered separately.
Iopia-EM reinforcing for mineral fibre ceilings must be ordered separately.

Type	Ceiling	D	H	SD	e	DS min/max
lopia R 300		360	77	345	78	10-25
lopia R 400		440	107	425	108	10-25
lopia R 600		640	107	625	108	10-25

lopia R 400-EMP

1700lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	18,2
UGR long.	18,1

3000

UGR 19

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
lopia R 300-EMP	LED 1100lm 840	8	ED	366 3044 15...	...0	wa ...6	2,0
	LED 1100lm 840	8	DALI	366 3046 65...	...0	wa ...6	2,0
lopia R 400-EMP	LED 1700lm 840	13	ED	366 4044 15...	...0	wa ...6	2,7
	LED 1700lm 840	13	DALI	366 4046 65...	...0	wa ...6	2,7
lopia R 600-EMP	LED 3800lm 840	38	ED	366 6044 15...	...0	wa ...6	6,5
	LED 3800lm 840	38	DALI	366 6046 65...	...0	wa ...6	6,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Reinforcing	lopia-EM R 300	Insert for mineral fibre ceilings for lopia R300 625x625	366 3200 000	1,3
	lopia-EM/6 R 300	Insert for mineral fibre ceilings for lopia R300 600x600	366 3260 000	1,2
	lopia-EM R 400	Insert for mineral fibre ceilings for lopia R400 625x625	366 4200 000	1,3
	lopia-EM/6 R 400	Insert for mineral fibre ceilings for lopia R400 600x600	366 4260 000	1,2
Wire suspension	lopia-SAS R600	Wire suspension 2000mm to bare ceiling for lopia R 600	366 6080 000	0,06

Iopia R-EG

IP20

Housing
Round housing made of sheet steel with minimalistic rim, for cut out ceilings. Painted traffic white (similar to RAL 9016) or white aluminium (similar to 9006). Other colours on request.Sizes 300, 400 and 600 mounted via clips (included), size 900 mounted with wire suspension to bare ceiling (included). Wire suspension also available for Iopia 600 (optional).

Lighting technology R-EG
Direct distribution.
Homogeneous illumination by flush inserted satinised special acrylic pane with high transmission.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Separate pluggable driver unit. Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Iopia-SAS optional wire suspension to bare ceiling must be ordered separately.
Iopia-EM reinforcing for mineral fibre ceilings must be ordered separately.

Type	Ceiling	D	H	SD	e	DS min/max
lopia R 300		360	77	345	78	10-25
lopia R 400		440	107	425	108	10-25
lopia R 600		640	107	625	108	10-25
lopia R 900		900	147	885	200	10-25

lopia R 400-EG

4700lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,8
UGR long.	24,8

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
lopia R 300-EG	LED 2000lm 840	13	ED	366 3044 18...	...0	wa ...6	2,0
	LED 2000lm 840	13	DALI	366 3046 68...	...0	wa ...6	2,0
lopia R 300-EG	LED 2800lm 840	21	ED	366 3144 18...	...0	wa ...6	2,0
	LED 2800lm 840	21	DALI	366 3146 68...	...0	wa ...6	2,0
lopia R 400-EG	LED 2900lm 840	21	ED	366 4044 18...	...0	wa ...6	2,7
	LED 2900lm 840	21	DALI	366 4046 68...	...0	wa ...6	2,7
lopia R 400-EG	LED 4700lm 840	36	ED	366 4144 18...	...0	wa ...6	3,8
	LED 4700lm 840	36	DALI	366 4146 68...	...0	wa ...6	3,8
lopia R 600-EG	LED 6600lm 840	56	ED	366 6044 18...	...0	wa ...6	6,5
	LED 6600lm 840	56	DALI	366 6046 68...	...0	wa ...6	6,5
lopia R 600-EG	LED 9900lm 840	91	ED	366 6144 18...	...0	wa ...6	6,6
	LED 9900lm 840	91	DALI	366 6146 68...	...0	wa ...6	6,6
lopia R 900-EG	LED 12200lm 840	82	ED	366 9044 18...	...0	wa ...6	13,2
	LED 12200lm 840	82	DALI	366 9046 68...	...0	wa ...6	13,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Reinforcing	lopia-EM R 300	Insert for mineral fibre ceilings for lopia R300 625x625	366 3200 000	1,3
	lopia-EM/6 R 300	Insert for mineral fibre ceilings for lopia R300 600x600	366 3260 000	1,2
	lopia-EM R 400	Insert for mineral fibre ceilings for lopia R400 625x625	366 4200 000	1,3
	lopia-EM/6 R 400	Insert for mineral fibre ceilings for lopia R400 600x600	366 4260 000	1,2
Wire suspension	lopia-SAS R600	Wire suspension 2000mm to bare ceiling for lopia R 600	366 6080 000	0,06

Iopia Q-EMP

IP20 3000 UGR 19

Housing
Housing made of sheet steel with minimalistic rim, for cut-out ceilings and ceilings with visible T-rails 24mm. Painted traffic white (similar to RAL 9016) or white aluminium (similar to RAL 9006). Other RAL colours on request.

Lighting technology Q-EMP
Direct distribution.
Light distribution via microprismatic panel with conical glare elimination.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
UBS mounting bracket for Iopia Q 625-EMP installation in cut-out ceilings must be ordered separately.

Type	Ceiling	□L	H	SL/SB	ML/MB	e	DS min/max
Iopia Q 625		622	94		625	300	15-45
Iopia Q 625		622	94	610		150	15-45

Iopia Q-EMP

5100lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	18,6
UGR long.	18,9

3000

UGR 19

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
Iopia Q 625-EMP	LED 5100lm 840	35	ED	368 2234 10...	☐ ...0	wa ...5	6,6
	LED 5100lm 840	35	DALI	368 2236 60...	☐ ...0	wa ...5	6,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Mounting mechanics	UBS	Mounting brackets (Set) for Iopia Q 625 installation in cut-out ceilings	723 8000 100	0,75

Iopia Q-EG

IP20 3000 F CE

Housing
Housing made of sheet steel with minimalistic rim, for cut-out ceilings and ceilings with visible T-rails 24mm. Painted traffic white (similar to RAL 9016) or white aluminium (similar to RAL 9006). Other RAL colours on request.

Lighting technology Q-EG
Direct distribution.
Homogeneous illumination by satinised special acrylic pane, with high transmission. Versions Iopia Q- 625/600-EG 3300lm for VDU workstations according to DIN EN 12464-1, 65°<3000cd/m².
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Iopia Q-EG 330 comes with external pluggable supply unit. Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
UBS mounting bracket for Iopia Q 625-EG installation in cut-out ceilings must be ordered separately.
Iopia-EM reinforcing for Iopia Q-EG 330 ceiling panel installation must be ordered separately.

Type	Ceiling	□L	H	SL/SB	ML/MB	e	DS min/max
lopia Q 330	⊥ ⊐	330	102	315		120	10-20
lopia Q 625	⊥	622	94		625	300	15-45
lopia Q 625	⊐	622	94	610		150	15-45

lopia Q-EG

3700lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	19,5
UGR long.	19,7

lopia 330-EG

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
lopia Q 330-EG	LED 2400lm 840	23	ED	368 0144 18...	☐ ...0	wa ...5	2,4
	LED 2400lm 840	23	DALI	368 0146 68...	☐ ...0	wa ...5	2,4
lopia Q 625-EG	LED 3700lm 840	27	ED	368 2234 18...	☐ ...0	wa ...5	6,6
	LED 3700lm 840	27	DALI	368 2236 68...	☐ ...0	wa ...5	6,6
lopia Q 625-EG	LED 4800lm 840	35	ED	368 2244 18...	☐ ...0	wa ...5	6,9
	LED 4800lm 840	35	DALI	368 2246 68...	☐ ...0	wa ...5	6,9

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Mounting reinforcing	lopia-EM	Insert for mineral fibre ceilings for lopia Q 330, 625x625	368 3200 000	1,3
	lopia-EM/6	Insert for mineral fibre ceilings for lopia Q 330, 600x600	368 3260 000	1,2
Mounting mechanics	UBS	Fixing brackets (Set) for lopia Q 625 mounting in cut-out ceilings	723 8000 100	0,75

epic R-EF

IP20

Housing
Round aluminium profile, natural anodised.
Surrounding shadow joint between housing and flat inserted film frame.
Minimal dirt ingress via sealing lip between frame and housing.
For cut-out ceilings.

Lighting technology R-EF
Direct distribution.
Aluminium profile set flush in the ceiling with translucent film for a homogenous illumination appearance.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Mounting on site or via wire suspension kit, to be ordered separately.
Extraction tool for removing the film frame, to be ordered separately.

Type	Ceiling	D	H	SD	e
epic R 950		980	178	968	240
epic R 1280		1310	184	1298	240
epic R 1560		1590	184	1578	240

epic R 950-EF

7800lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	20,9
UGR long.	20,9

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
epic R 950-173-EF	LED 7800lm 840	111	ED	625 0954 154		20
	LED 7800lm 840	111	DALI	625 0956 154		20
epic R 1280-173-EF	LED 15200lm 840	218	ED	625 1284 154		35
	LED 15200lm 840	218	DALI	625 1286 154		35
epic R 1560-173-EF	LED 22000lm 840	314	ED	625 1564 154		47
	LED 22000lm 840	314	DALI	625 1566 154		47

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Wire suspension kit	epic R-E	Wire suspension kit 2000mm for epic R-E	630 0000 100	0,5
Film frame extractor tool (Set)	epic R	Film frame extractor tool for epic R	630 0000 110	0,1

Finnamic

epic Q-EF

IP20

Housing
Aluminium profile, natural anodised. Surrounding shadow joint between housing and flat inserted film frame. Minimal dirt ingress via sealing lip between frame and housing. For cut-out ceilings.
epic Q 1200 also suitable for ceilings with visible T-rails.

Lighting technology Q-EF
Direct distribution.
Aluminium profile set flush in the housing with translucent film for a homogenous appearance.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Connection cable pre-mounted.

Accessories
Mounting on site or via wire suspension kit, to be ordered separately.
Extraction tool for removing the film frame, to be ordered separately.

Type	Ceiling	□ L	H	□ SL	e
epic Q 600		630	96	618	160
epic Q 900		930	96	918	160
epic Q 1200		1238	103	1226	160
epic Q 1500		1530	103	1518	160

epic Q 900-EF

10700lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	21,1
UGR long.	21,2

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
epic Q 600-88-EF	LED 4800lm 840	47	ED	624 0604 164		12
	LED 4800lm 840	47	DALI	624 0606 164		12
epic Q 900-88-EF	LED 10700lm 840	105	ED	624 0904 164		19
	LED 10700lm 840	105	DALI	624 0906 164		19
epic Q 1200-88-EF	LED 18400lm 840	187	ED	624 1204 164		34
	LED 18400lm 840	187	DALI	624 1206 164		34
epic Q 1500-88-EF	LED 28800lm 840	292	ED	624 1504 164		42
	LED 28800lm 840	292	DALI	624 1506 164		42

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Wire suspension kit	epic Q-E	Wire suspension kit 2000mm for epic Q-E	630 0000 100	0,5
Film frame extractor tool (Set)	epic Q	Film frame extractor tool for epic Q	630 0000 110	0,1

fino-EOB

IP20

Housing
Aluminium profile, natural anodised, for cut-out ceilings.
Trapezoid tray made of sheet steel with holepattern on the bottom and lateral openings for light emission. Mounting via swivel bracket or optional wire suspension. Powder-coated traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other RAL colouring available on request.

Lighting technology -EOB
Direct/indirect distribution.
Fully integrated translucent lens optics made of acrylic with additional lateral transmission. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
fino-ETS optional wire suspension to bare ceiling must be ordered separately.

Type	Ceiling	L	B	H	SL	SB	e	DS min/max
fino-EOB/0900		944	86	141	934	77	135	11-30
fino-EOB/1400		1404	86	141	1394	77	135	11-30
fino-EOB/1900		1864	86	141	1854	77	135	11-30
fino-EOB/2800		2784	86	141	2774	77	135	11-30

fino-EOB/1400

3400lm 840

η_{LB}	100 %
Direct	98 %
Indirect	2%
UGR lat.	20,3
UGR long.	19,8

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
fino-EOB/0900	LED 2200lm 840	18	ED	135 1244 10...	☐ ...0	■ ...4	3,7
	LED 2200lm 840	18	DALI	135 1246 60...	☐ ...0	■ ...4	3,7
fino-EOB/1400	LED 3400lm 840	27	ED	135 1344 10...	☐ ...0	■ ...4	5,1
	LED 3400lm 840	27	DALI	135 1346 60...	☐ ...0	■ ...4	5,1
fino-EOB/1900	LED 4500lm 840	36	ED	135 1444 10...	☐ ...0	■ ...4	6,8
	LED 4500lm 840	36	DALI	135 1446 60...	☐ ...0	■ ...4	6,8
fino-EOB/2800	LED 6700lm 840	54	ED	135 1644 10...	☐ ...0	■ ...4	10
	LED 6700lm 840	54	DALI	135 1646 60...	☐ ...0	■ ...4	10

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Wire suspension	fino-ETS Set/Paar	Wire suspension 2000mm	135 0080 105	0,1

fino-EMP

IP20

Housing
Aluminium profile, natural anodised. For cut-out ceilings.
Fixing via swivel bracket or wire suspension.

Lighting technology -EMP
Direct distribution.
Transparent polycarbonate extruded profile with inserted micro-prismatic diffuser and white reflectors.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
SH 55 suction pad for removing the diffuser must be ordered separately.
fino-ETS optional wire suspension to bare ceiling must be ordered separately.

Type	Ceiling	L	B	H	SL	SB	e	DS min/max
fino-EMP/1100		1163	86	130	1153	77	135	11-30
fino-EMP/1400		1444	86	130	1434	77	135	11-30
fino-EMP/2200		2292	86	130	2282	77	135	11-30
fino-EMP/2800		2854	86	130	2844	77	135	11-30

fino-EMP/1400

3600lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0%
UGR lat.	19,9
UGR long.	21,7

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-EMP/1100	LED 2900lm 840	24	ED	135 4144 150		3,9
	LED 2900lm 840	24	DALI	135 4146 650		3,9
fino-EMP/1400	LED 3600lm 840	29	ED	135 5144 150		4,8
	LED 3600lm 840	29	DALI	135 5146 650		4,8
fino-EMP/2200	LED 5800lm 840	47	ED	135 8144 150		7,8
	LED 5800lm 840	47	DALI	135 8146 650		7,8
fino-EMP/2800	LED 7200lm 840	59	ED	135 0144 150		9,6
	LED 7200lm 840	59	DALI	135 0146 650		9,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Suction pad	SH 55	Suction pad for fino-EMP pane	903 0055 100		0,1
Wire suspenion	fino-ETS Set/Pair	Wire suspension 2000mm	135 0080 105		0,1

fino-EK

IP20

Housing
Aluminium profile, natural anodised. For cut-out ceilings.
Fixing via swivel bracket or wire suspension.

Lighting technology -EK
Direct distribution.
White-opal satin-finished polycarbonate extruded profile with white reflectors
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
SH 55 suction pad for removing the diffuser must be ordered separately.
fino-ETS optional wire suspension to bare ceiling must be ordered separately.

Type	Ceiling	L	B	H	SL	SB	e	DS min/max
fino-EK/1100		1163	86	130	1153	77	135	11-30
fino-EK/1400		1444	86	130	1434	77	135	11-30
fino-EK/2200		2292	86	130	2282	77	135	11-30
fino-EK/2800		2854	86	130	2844	77	135	11-30

fino-EK/1400

3100lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,9
UGR long.	24,9

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-EK/1100	LED 2500lm 840	24	ED	135 4144 180		3,7
	LED 2500lm 840	24	DALI	135 4146 680		3,7
fino-EK/1400	LED 3100lm 840	29	ED	135 5144 180		4,6
	LED 3100lm 840	29	DALI	135 5146 680		4,6
fino-EK/2200	LED 5000lm 840	47	ED	135 8144 180		7,4
	LED 5000lm 840	47	DALI	135 8146 680		7,4
fino-EK/2800	LED 6300lm 840	59	ED	135 0144 180		9,2
	LED 6300lm 840	59	DALI	135 0146 680		9,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Suction pad	SH 55	Suction pad for fino-EMP pane	903 0055 100		0,1
Wire suspenion	fino-ETS Set/Pair	Wire suspension 2000mm	135 0080 105		0,1

Bayerische Musikak
Hammelburg Projekt

micro-EFAT Wallwasher

IP20

Housing
Sheet steel, painted traffic white (similar to RAL 9016) for ceilings with visible T-rails 24mm. LED support unit made from aluminium profile, natural anodised.

Lighting technology -EFAT
Direct asymmetrical distribution.
Light distribution via Fresnel-lens made from acrylic.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
External supply unit wired ready for operation with luminaire. Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	Ceiling	L	B	H	SB	ML/MB	e
micro-EFAT/625		623	57	27	36	625	60
micro-EFAT/600		598	57	27	36	600	60

micro-EFAT+Driver

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
micro-EFAT/625	LED 1900lm 840	18	ED	732 2144 190		1,5
	LED 1900lm 840	18	DALI	732 2146 690		1,5
micro-EFAT/600	LED 1900lm 840	18	ED	733 2144 190		1,5
	LED 1900lm 840	18	DALI	733 2146 690		1,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

micro-EGT

IP20

Housing
Sheet steel, painted traffic white (similar to RAL 9016) for ceilings with visible T-rails 24mm. LED support unit made from aluminium profile, natural anodised.

Lighting technology -EGT
Direct symmetrical distribution.
Light distribution via white-opal satin-finished acrylic profile.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
External supply unit wired ready for operation with luminaire. Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	Ceiling	L	B	H	SB	ML/MB	e
micro-EGT/625		623	57	27	36	625	60
micro-EGT/600		598	57	27	36	600	60

micro-EGT+Driver

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
micro-EGT/625	LED 1800lm 840	17	ED	732 2144 180		1,5
	LED 1800lm 840	17	DALI	732 2146 680		1,5
micro-EGT/600	LED 1800lm 840	17	ED	733 2144 180		1,5
	LED 1800lm 840	17	DALI	733 2146 680		1,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

4
5

micro-EFA Wallwasher

IP20

Housing
Sheet steel, painted traffic white (similar to RAL 9016) or white aluminium (similar to 9006). LED unit made from aluminium profile, natural anodised finish, arrangeable as optically continuous light-lines through easy removable end-caps.

Lighting technology -EFA
Direct asymmetrical distribution.
Light distribution via Fresnel-lens made from acrylic.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
micro-DV through wiring kit for continuous light line installation must be ordered separately.

Type	Ceiling	L	B	H	SL	SB	e	DS min/max
micro-EFA/0800		876	110	57	856	100	60	10-20
micro-EFA/1100		1157	110	57	1137	100	60	10-20
micro-EFA/1400		1438	110	57	1418	100	60	10-20

Light line mounting

micro-EFA/1400

4800lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,3
UGR long.	26,7

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
micro-EFA/0800	LED 2900lm 840	25	ED	731 3144 19...	☐ ...0	wa ...6	3,0
	LED 2900lm 840	25	DALI	731 3146 69...	☐ ...0	wa ...6	3,0
micro-EFA/1100	LED 3800lm 840	34	ED	731 4144 19...	☐ ...0	wa ...6	3,8
	LED 3800lm 840	34	DALI	731 4146 69...	☐ ...0	wa ...6	3,8
micro-EFA/1400	LED 4800lm 840	42	ED	731 5144 19...	☐ ...0	wa ...6	4,7
	LED 4800lm 840	42	DALI	731 5146 69...	☐ ...0	wa ...6	4,7

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
LED through wiring kit	micro-DV	Through wiring kit 5x1,5 for light-line assembly	531 9000 100	0,2

SURFACE MOUNTED LUMINAIRES

Surface mounted luminaires

ciros-AG/ciros-AIG P. 74

ciros-AMP/ciros-AIMP P. 78

clip-it-OB P.80

clip-on-OTB P. 96

clip-on-OG P. 98

epic R-AF P. 102

rason-RSAIMP HCL P. 116

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galant-pro-GPAK P. 124

Surface mounted luminaires from other chapters

Glass luminaires

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clip-it-OG P. 88

clip-on-OB P. 92

epic Q-AF P. 106

fino-AMP P. 108

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scala-AG P. 142

linar image II-AMP P. 146

linar image II-AG P. 150

corona-A P. 428

puck-A P. 436

dyski-A P. 444

ciros

Housing

Round aluminium profile in
diameters of ∅ 400, 600, 900 and 1200.

Housing colours

Textured paint

- □ traffic white
- wa white-aluminium
- ■ deep black

ciros-AIG/1200
ciros-AG/1200

Lighting technology
Surface mounted luminaires

ciros-AG/-AMP
with direct distribution only

multilayer
microprismatic

3000 UGR 19

ciros-AIG/-AIMP
with indirect distribution

white-opal satinised

NEW

The surface mounted luminaires ciros-AG und ciros-AIG
are also suitable for wall mounting.

Lighting technology
Wall luminaires

white-opal satinised

ciros-AG/ciros-AIG

IP20

Housing
Round aluminium profile, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).
Suitable for ceiling and wall mounting.

Lighting technology -AG
Direct distribution.
Homogenous illumination by satinised special acrylic pane with high transmission. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Tunable white on request.

Lighting technology -AIG
Direct/indirect distribution.
Homogenous illumination by satinised special acrylic pane with high transmission. Indirect ratio for a smooth ceiling illumination.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Tunable white on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Easy mounting due to bayonet lock and plug & play connection.

Type	D	H	T	A1	A2	A3
ciros/400	365	69	102	80	40	139
ciros/600	600	69	102	150	75	260
ciros/900	880	69	102	311	311	
ciros/1200	1160	69	102	546	315	630

Attachment ciros/400 + ciros/600

Attachment ciros/900

Attachment ciros/1200

ciros/900-AG

14400lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	23,6
UGR long.	23.6

ciros/900-AIG

14400lm 840

η_{LB}	100 %
Direct	99 %
Indirect	1 %
UGR lat.	23,5
UGR long.	23,5

ciros-AG/ciros-AIG Suitable for ceiling and wall mounting

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-AG/400	LED 2700lm 840	22	ED	468 4144 18...	wa ...6	...0	...4	3,3
ciros-AG/400	LED 2700lm 840	22	DALI	468 4146 68...	wa ...6	...0	...4	3,3
ciros-AG/600	LED 6300lm 840	46	ED	468 6144 18...	wa ...6	...0	...4	7,5
ciros-AG/600	LED 6300lm 840	46	DALI	468 6146 68...	wa ...6	...0	...4	7,5
ciros-AG/900	LED 14400lm 840	91	ED	468 9144 18...	wa ...6	...0	...4	14
ciros-AG/900	LED 14400lm 840	91	DALI	468 9146 68...	wa ...6	...0	...4	14
ciros-AG/1200	LED 26200lm 840	168	ED	468 1144 18...	wa ...6	...0	...4	25,6
ciros-AG/1200	LED 26200lm 840	168	DALI	468 1146 68...	wa ...6	...0	...4	25,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-AIG/400	LED 2800lm 840	22	ED	467 4144 18...	wa ...6	...0	...4	3,3
ciros-AIG/400	LED 2800lm 840	22	DALI	467 4146 68...	wa ...6	...0	...4	3,3
ciros-AIG/600	LED 6400lm 840	46	ED	467 6144 18...	wa ...6	...0	...4	7,5
ciros-AIG/600	LED 6400lm 840	46	DALI	467 6146 68...	wa ...6	...0	...4	7,5
ciros-AIG/900	LED 14400lm 840	91	ED	467 9144 18...	wa ...6	...0	...4	14
ciros-AIG/900	LED 14400lm 840	91	DALI	467 9146 68...	wa ...6	...0	...4	14
ciros-AIG/1200	LED 26300lm 840	168	ED	467 1144 18...	wa ...6	...0	...4	25,6
ciros-AIG/1200	LED 26300lm 840	168	DALI	467 1146 68...	wa ...6	...0	...4	25,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

ciros-AMP/ciros-AIMP

IP20 3000 UGR 19

Housing
Round aluminium profile, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -AMP
Direct distribution.
Light distribution via microprismatic panel with conical glare elimination in multilayer techology. For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Tunable white on request.

Lighting technology -AIMP
Direct/indirect distribution.
Light distribution via microprismatic panel with conical glare elimination in multilayer techology. For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Indirect ratio for a smooth ceiling illumination.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Tunable white on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Easy mounting due to bayonet lock and plug & play connection.

Type	D	H	T	A1	A2	A3
ciros/400	365	69	102	80	40	139
ciros/600	600	69	102	150	75	260
ciros/900	880	69	102	311	311	
ciros/1200	1160	69	102	546	315	630

Attachment ciros/400 + ciros/600

Attachment ciros/900

Attachment ciros/1200

ciros/900-AMP

8200lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	19,0
UGR long.	19,0

UGR 19

3000

ciros/900-AIMP

8800lm 840

η_{LB}	100 %
Direct	98 %
Indirect	2 %
UGR lat.	19,0
UGR long.	19,0

UGR 19

3000

ciros-AMP/ciros-AIMP Suitable for ceiling mounting

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-AMP/400	LED 1300lm 840	9	ED	468 4044 15...	wa ...6	...0	...4	3,3
ciros-AMP/400	LED 1300lm 840	9	DALI	468 4046 65...	wa ...6	...0	...4	3,3
ciros-AMP/600	LED 3700lm 840	25	ED	468 6044 15...	wa ...6	...0	...4	7,5
ciros-AMP/600	LED 3700lm 840	25	DALI	468 6046 65...	wa ...6	...0	...4	7,5
ciros-AMP/900	LED 8200lm 840	54	ED	468 9044 15...	wa ...6	...0	...4	14
ciros-AMP/900	LED 8200lm 840	54	DALI	468 9046 65...	wa ...6	...0	...4	14
ciros-AMP/1200	LED 14800lm 840	99	ED	468 1044 15...	wa ...6	...0	...4	25,6
ciros-AMP/1200	LED 14800lm 840	99	DALI	468 1046 65...	wa ...6	...0	...4	25,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-AIMP/400	LED 1300lm 840	9	ED	467 4044 15...	wa ...6	...0	...4	3,3
ciros-AIMP/400	LED 1300lm 840	9	DALI	467 4046 65...	wa ...6	...0	...4	3,3
ciros-AIMP/600	LED 3800lm 840	25	ED	467 6044 15...	wa ...6	...0	...4	7,5
ciros-AIMP/600	LED 3800lm 840	25	DALI	467 6046 65...	wa ...6	...0	...4	7,5
ciros-AIMP/900	LED 8800lm 840	57	ED	467 9044 15...	wa ...6	...0	...4	14
ciros-AIMP/900	LED 8800lm 840	57	DALI	467 9046 65...	wa ...6	...0	...4	14
ciros-AIMP/1200	LED 15200lm 840	99	ED	467 1044 15...	wa ...6	...0	...4	25,6
ciros-AIMP/1200	LED 15200lm 840	99	DALI	467 1046 65...	wa ...6	...0	...4	25,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

clip-it-OB

IP20

Housing
Housing made of sheet steel traffic white (similar to RAL 9016), powder coated.
The luminaire is attached solely by clips for 24mm T-rail, included in delivery.
Variable mounting spacing.

Lighting technology -OB
Direct wide light distribution.
Translucent lens optics made of acrylic with additional lateral transmission.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via pre-mounted 5-pole connection cable, 2m.

Type	Ceiling	L	B	H	A1	X	Y
clip-it-OB/1200		1220	55	30	756-1179	0	0
clip-it-OB/1500		1525	55	30	1062-1485	0	0

clip-it-OB/1200

4400lm 840

η_{LB}	100 %
Direct	98 %
Indirect	2 %
UGR lat.	19,7
UGR long.	20,1

any arrangement on ceilings with visible T-rail 24mm

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
clip-it-OB/1200	LED 4400lm 840	27	DALI	769 1446 600		2,2
clip-it-OB/1500	LED 5500lm 840	33	DALI	769 1546 600		2,8

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

clip-it-OTB

IP20 3000 UGR 19

Housing
Housing made of sheet steel traffic white (similar to RAL 9016), powder coated.
The luminaire is attached solely by clips for 24mm T-rail, included in delivery.
Variable mounting spacing.

Lighting technology -OTB
Direct narrow-wide light distribution.
Translucent lens optics made of acrylic with additional lateral transmission.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via pre-mounted 5-pole connection cable, 2m.

Type	Ceiling	L	B	H	A1	X	Y
clip-it-OTB/1200		1220	55	30	756-1179	0	0
clip-it-OTB/1500		1525	55	30	1062-1485	0	0

clip-it-OTB/1200

4400lm 840

any arrangement on ceilings with visible T-rail 24mm

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
clip-it-OTB/1200	LED 4400lm 840	27	DALI	769 3446 600		2,2
clip-it-OTB/1500	LED 5500lm 840	33	DALI	769 3546 600		2,8

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

clip-it-OG

IP20

Housing
Housing made of sheet steel traffic white (similar to RAL 9016), powder coated.
The luminaire is attached solely by clips for 24mm T-rail, included in delivery.
Variable mounting spacing.

Lighting technology -OG
Direct diffuse light distribution.
Frosted lens optics made of acrylic with additional lateral distribution.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via pre-mounted 5-pole connection cable, 2m.

Type	ceiling	L	B	H	A1	X	Y
clip-it-OG/1200		1220	55	30	756-1179	0	0
clip-it-OG/1500		1525	55	30	1062-1485	0	0

clip-it-OG/1200

4100lm 840

η_{LB}	100 %
Direct	90 %
Indirect	10 %
UGR lat.	25,2
UGR long.	24,5

any arrangement on ceilings with visible T-rail 24mm

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
clip-it-OG/1200	LED 4100lm 840	27	DALI	769 7446 600		2,2
clip-it-OG/1500	LED 5200lm 840	33	DALI	769 7546 600		2,8

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

clip-on-OB

IP20

Housing
Sheet steel, powder-coated traffic white (similar to RAL 9016) or painted white aluminium (similar to 9006). Arrangeable as optically continuous light-lines through easy removable end-caps.

Lighting technology -OB
Direct wide light distribution.
Translucent lens optics made of acrylic with additional lateral transmission.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
For surface mounting as continuous light-line one through-wiring clip-on-DV per joint is needed.
For pendant mounting as single luminaire one mounting kit clip-on-SAES is required.
For pendant mounting as continuous light-line one mounting kit clip-on-SAES is needed. Additionally for each joint one suspension with mechanical connection clip-on-SAVS and one through-wiring clip-on-DV is necessary. Free height adjustment between 150 and 2000mm. Accessories have to be ordered separately.

Type	L	B	H	A1	A2	X	Y
clip-on-OB/1200	1222	55	44	1120	101	0	0
clip-on-OB/1500	1527	55	44	1425	101	0	0
clip-on-OB/1800	1832	55	44	1730	101	0	0

clip-on-OB/1200

4400lm 840

η_{LB}	100 %
Direct	98 %
Indirect	2 %
UGR lat.	19,7
UGR long.	20,1

Light line mounting

Type	LED Specification	P_{sys}(W)	Driver	Item-number	Colour	Colour	kg
clip-on-OB/1200	LED 4400lm 840	27	ED	771 1444 10...	☐ ...0	wa ...6	2,1
	LED 4400lm 840	27	DALI	771 1446 60...	☐ ...0	wa ...6	2,1
clip-on-OB/1500	LED 5500lm 840	33	ED	771 1544 10...	☐ ...0	wa ...6	2,7
	LED 5500lm 840	33	DALI	771 1546 60...	☐ ...0	wa ...6	2,7
clip-on-OB/1800	LED 6600lm 840	40	ED	771 1644 10...	☐ ...0	wa ...6	3,3
	LED 6600lm 840	40	DALI	771 1646 60...	☐ ...0	wa ...6	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Through wiring	clip-on-DV	Through wiring set 5 x 1.5 for light-line assembly	771 9000 100	■	0,2
Suspension set	clip-on-SAES 3x0,75	Suspension set 2000/120 3x0,75 ED	771 0037 105	■	0,3
	clip-on-SAES 5x0,75	Suspension set 2000/120 5x0,75 DALI	771 0057 105	■	0,3
Mechanical connection	clip-on-SAVS	Wire suspension with mechanical connection 2000/120	771 0000 105	■	0,1

clip-on-OTB

IP20 3000 UGR 19

Housing
Sheet steel, powder-coated traffic white (similar to RAL 9016) or painted white aluminium (similar to 9006). Arrangeable as optically continuous light-lines through easy removable end-caps.

Lighting technology -OTB
Direct narrow-wide light distribution.
Translucent lens optics made of acrylic with additional lateral transmission.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
For surface mounting as continuous light-line one through-wiring clip-on-DV per joint is needed.
For pendant mounting as single luminaire one mounting kit clip-on-SAES is required.
For pendant mounting as continuous light-line one mounting kit clip-on-SAES is needed. Additionally for each joint one suspension with mechanical connection clip-on-SAVS and one through-wiring clip-on-DV is necessary. Free height adjustment between 150 and 2000mm. Accessories have to be ordered separately.

Type	L	B	H	A1	A2	X	Y
clip-on-OTB/1200	1222	55	44	1120	101	0	0
clip-on-OTB/1500	1527	55	44	1425	101	0	0
clip-on-OTB/1800	1832	55	44	1730	101	0	0

clip-on-OTB/1200

4400lm 840

Light line mounting

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
clip-on-OTB/1200	LED 4400lm 840	27	ED	771 3444 10...	☐ ...0	wa ...6	2,1
	LED 4400lm 840	27	DALI	771 3446 60...	☐ ...0	wa ...6	2,1
clip-on-OTB/1500	LED 5500lm 840	33	ED	771 3544 10...	☐ ...0	wa ...6	2,7
	LED 5500lm 840	33	DALI	771 3546 60...	☐ ...0	wa ...6	2,7
clip-on-OTB/1800	LED 6600lm 840	40	ED	771 3644 10...	☐ ...0	wa ...6	3,3
	LED 6600lm 840	40	DALI	771 3646 60...	☐ ...0	wa ...6	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Through wiring	clip-on-DV	Through wiring set 5 x 1.5 for light-line assembly	771 9000 100	■	0,2
Suspension set	clip-on-SAES 3x0,75	Suspension set 2000/120 3x0,75 ED	771 0037 105	■	0,3
	clip-on-SAES 5x0,75	Suspension set 2000/120 5x0,75 DALI	771 0057 105	■	0,3
Mechanical connection	clip-on-SAVS	Wire suspension with mechanical connection 2000/120	771 0000 105	■	0,1

clip-on-OG

IP20

Housing
Sheet steel, powder-coated traffic white (similar to RAL 9016) or painted white aluminium (similar to 9006). Arrangeable as optically continuous light-lines through easy removable end-caps.

Lighting technology -OG
Direct diffuse light distribution.
Frosted lens optics made of acrylic with additional lateral distribution.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
For surface mounting as continuous light-line one through-wiring clip-on-DV per joint is needed.
For pendant mounting as single luminaire one mounting kit clip-on-SAES is required.
For pendant mounting as continuous light-line one mounting kit clip-on-SAES is needed. Additionally for each joint one suspension with mechanical connection clip-on-SAVS and one through-wiring clip-on-DV is necessary. Free height adjustment between 150 and 2000mm. Accessories have to be ordered separately.

Type	L	B	H	A1	A2	X	Y
clip-on-OG/1200	1222	55	44	1120	101	0	0
clip-on-OG/1500	1527	55	44	1425	101	0	0
clip-on-OG/1800	1832	55	44	1730	101	0	0

clip-on-OG/1200

4100lm 840

η_{LB}	100 %
Direct	90 %
Indirect	10 %
UGR lat.	25,1
UGR long.	24,5

Light line mounting

Type	LED Specification	P_{sys}(W)	Driver	Item-number	Colour	Colour	kg
clip-on-OG/1200	LED 4100lm 840	27	ED	771 7444 10...	☐ ...0	wa ...6	2,1
	LED 4100lm 840	27	DALI	771 7446 60...	☐ ...0	wa ...6	2,1
clip-on-OG/1500	LED 5200lm 840	33	ED	771 7544 10...	☐ ...0	wa ...6	2,7
	LED 5200lm 840	33	DALI	771 7546 60...	☐ ...0	wa ...6	2,7
clip-on-OG/1800	LED 6200lm 840	40	ED	771 7644 10...	☐ ...0	wa ...6	3,3
	LED 6200lm 840	40	DALI	771 7646 60...	☐ ...0	wa ...6	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Through wiring	clip-on-DV	Through wiring set 5 x 1.5 for light-line assembly	771 9000 100	■	0,2
Suspension set	clip-on-SAES 3x0,75	Suspension set 2000/120 3x0,75 ED	771 0037 105	■	0,3
	clip-on-SAES 5x0,75	Suspension set 2000/120 5x0,75 DALI	771 0057 105	■	0,3
Mechanical connection	clip-on-SAVS	Wire suspension with mechanical connection 2000/120	771 0000 105	■	0,1

Radiologie
Fotolabor
Röntgen

epic R-AF

IP20

Housing
Round aluminium profile, natural anodised.
Surrounding shadow joint between housing and flat inserted film frame.
Minimal dirt ingress via sealing lip between frame and housing.

Lighting technology -AF
Direct distribution.
Aluminium profile set flush in the housing with translucent film for a homogenous illumination appearance.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Extraction tool for releasing film frame must be ordered separately.

Type	D	H	A1	A2	X	Y
epic R 950	954	178	650	560	142	0
epic R 1280	1284	184	724	868	0	90
epic R 1560	1564	184	1010	900	0	95

epic R 950-AF

7800lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	21,1
UGR long.	21,1

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
epic R 950-173-AF	LED 7800lm 840	111	ED	627 0954 154		20
	LED 7800lm 840	111	DALI	627 0956 154		20
epic R 1280-173-AF	LED 15200lm 840	218	ED	627 1284 154		35
	LED 15200lm 840	218	DALI	627 1286 154		35
epic R 1560-173-AF	LED 22000lm 840	314	ED	627 1564 154		46,5
	LED 22000lm 840	314	DALI	627 1566 154		46,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Film frame extractor tool (Set)	epic R	Film frame extractor for epic R	630 0000 110	0,1

TGZ
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11:07

epic Q-AF

IP20

Housing
Aluminium profile, natural anodised. Surrounding shadow joint between housing and flat inserted film frame. Minimal dirt ingress via sealing lip between frame and housing.

Lighting technology -AF
Direct distribution.
Aluminium profile set flush in the housing with translucent film for a homogenous illumination appearance.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Extraction tool for releasing film frame must be ordered separately.

Type	L	H	A1	A2	X	Y
epic Q 600	604	96	520	520	0	0
epic Q 900	904	96	700	840	0	0
epic Q 1200	1212	103	1120	900	0	568
epic Q 1500	1504	103	1400	1160	0	714

epic Q 1200-AF

18400lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	21,3
UGR long.	21,3

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
epic Q 600-88-AF	LED 4800lm 840	47	ED	626 0604 164		11
	LED 4800lm 840	47	DALI	626 0606 164		11
epic Q 900-88-AF	LED 10700lm 840	105	ED	626 0904 164		19
	LED 10700lm 840	105	DALI	626 0906 164		19
epic Q 1200-88-AF	LED 18400lm 840	187	ED	626 1204 164		34
	LED 18400lm 840	187	DALI	626 1206 164		34
epic Q 1500-88-AF	LED 28800lm 840	292	ED	626 1504 164		43
	LED 28800lm 840	292	DALI	626 1506 164		43

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Film frame extractor tool (Set)	epic Q	Film frame extractor for epic Q	630 0000 110	0,1

fino-AMP

IP20

Housing
Aluminium profile, natural anodised. Face ends sheet steel, painted white aluminium. Concealed sheet steel rail as ceiling mount, traffic white, for mounting the luminaire without tools. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -AMP
Direct distribution.
Transparent polycarbonate extruded profile with inserted micro-prismatic diffuser and white reflectors.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Suction pad SH 55 for removing the diffuser must be ordered separately.

Type	L	B	H	A1	A2	X	Y
fino-AMP/1100	1143	72	102	850		0	0
fino-AMP/1400	1424	72	102	1130		170	0
fino-AMP/2200	2272	72	102	850	280	565	0
fino-AMP/2800	2834	72	102	1130	280	875	0

fino-AMP/1400

3600lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	19,9
UGR long.	21,7

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-AMP/1100	LED 2900lm 840	24	ED	435 4144 150		4,8
	LED 2900lm 840	24	DALI	435 4146 650		4,8
fino-AMP/1400	LED 3600lm 840	29	ED	435 5144 150		5,9
	LED 3600lm 840	29	DALI	435 5146 650		5,9
fino-AMP/2200	LED 5800lm 840	47	ED	435 8144 150		9,6
	LED 5800lm 840	47	DALI	435 8146 650		9,6
fino-AMP/2800	LED 7200lm 840	59	ED	435 0144 150		11,8
	LED 7200lm 840	59	DALI	435 0146 650		11,8

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Suction pad	SH 55	Suction pad for fino-AMP diffuser	903 0055 100	0,1

fino-AK

IP20

Housing
Aluminium profile, natural anodised. Face ends sheet steel, painted white aluminium. Concealed sheet steel rail as ceiling mount, traffic white, for mounting the luminaire without tools. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -AK
Direct distribution.
White-opal satin-finished polycarbonate extruded profile with white reflectors.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Suction pad SH 55 for removing the diffuser must be ordered separately.

Type	L	B	H	A1	A2	X	Y
fino-AK/1100	1143	72	102	850		0	0
fino-AK/1400	1424	72	102	1130		170	0
fino-AK/2200	2272	72	102	850	280	565	0
fino-AK/2800	2834	72	102	1130	280	875	0

fino-AK/1400

3100lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	23,9
UGR long.	24,3

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-AK/1100	LED 2500lm 840	24	ED	435 4144 180		4,8
	LED 2500lm 840	24	DALI	435 4146 680		4,8
fino-AK/1400	LED 3100lm 840	29	ED	435 5144 180		5,9
	LED 3100lm 840	29	DALI	435 5146 680		5,9
fino-AK/2200	LED 5000lm 840	47	ED	435 8144 180		9,6
	LED 5000lm 840	47	DALI	435 8146 680		9,6
fino-AK/2800	LED 6300lm 840	59	ED	435 0144 180		11,8
	LED 6300lm 840	59	DALI	435 0146 680		11,8

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Suction pad	SH 55	Suction pad for fino-AK diffuser	903 0055 100	0,1

CENTOGENE
THE RARE DISEASE COMPANY

rason-RSAIMP

IP20 3000 UGR 19

Housing
Ultra-flat luminaire housing, aluminium profile, natural anodised, visible construction height 30mm; with continuous longitudinal groove, rounded towards the bottom of the luminaire.

Lighting technology -RSAIMP
Direct/indirect distribution.
Direct ratio by means of a microprismatic panel with conical glare elimination; homogeneous light emission through lateral LED light coupling and fitted aluminium reflector in a highly reflective white coating. With micro-perforation at upper side of the housing for a moderate ceiling illumination.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

HCL DALI DT8
Luminaire in tunable white technology for Human Centric Lighting.
927/warm white (2700K) - 965/daylight white (6500K) continuously adjustable. Suitable controls for tunable white technology on request.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	L	B	H	A1	A2	X	Y
rason-RSAIMP/1200	1199	330	42	700	230	0	0
rason-RSAIMP/1500	1480	330	42	700	230	0	0

rason-RSAIMP/1500
6300lm 840

rason-RSAIMP/1500
4700lm 927-965

Micro-perforation housing top

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
rason-RSAIMP/1200	LED 4900lm 840	44	ED	442 1014 175		7,5
	LED 4900lm 840	44	DALI	442 1016 675		7,5
	LED 3700lm 927-965	45	DALI DT8	442 4016 975		7,5
rason-RSAIMP/1500	LED 6300lm 840	55	ED	445 1024 175		9,0
	LED 6300lm 840	55	DALI	445 1026 675		9,0
	LED 4700lm 927-965	55	DALI DT8	445 4026 975		9,0

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

rason-RSAIG/-RSWIG

IP20

Housing
Ultra-flat luminaire housing, aluminium profile, natural anodised, visible construction height 30mm; with continuous longitudinal groove, rounded towards the bottom of the luminaire.

Lighting technology -RSAIG/-RSWIG
Direct/indirect distribution.
Homogeneous illumination by satinised special acrylic panel, with high transmission and homogeneous light emission through lateral LED light coupling and fitted aluminium reflector in a highly reflective white coating.
With micro-perforation at upper side of the housing for a moderate ceiling illumination. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

HCL DALI DT8
Luminaire in tunable white technology for Human Centric Lighting.
927/warm white (2700K) - 965/daylight white (6500K) continuously adjustable. Suitable controls for tunable white technology on request.
Rated life time = L80 B10 50.000h.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	L	B	H	A1	A2	X	Y
rason-RSWIG/355	355	330	42	265		0	0
rason-RSWIG/635	635	330	42	548		0	0
rason-RSAIG/1200	1199	330	42	700	230	0	0
rason-RSAIG/1500	1480	330	42	700	230	0	0

rason-RSAIG/1200
4900lm 840

η_{LB}	100 %
Direct	84 %
Indirect	16 %
UGR lat.	20,1
UGR long.	20,0

rason-RSAIG/1200
3700lm 927-965

η_{LB}	100 %
Direct	84 %
Indirect	16 %
UGR lat.	19,3
UGR long.	19,2

HCL

rason-RSWIG suitable for ceiling- and wall-mounting

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
rason-RSWIG/355	LED 1300lm 840	12	ED	460 1034 115		2,4
rason-RSWIG/635	LED 2600lm 840	24	ED	461 1044 115		4,2
	LED 2600lm 840	24	DALI	461 1046 615		4,2
rason-RSAIG/1200	LED 4900lm 840	44	ED	442 1014 115		7,5
	LED 4900lm 840	44	DALI	442 1016 615		7,5
	LED 3700lm 927-965	45	DALI DT8	442 4016 915		7,6
rason-RSAIG/1500	LED 6300lm 840	55	ED	445 1024 115		9,0
	LED 6300lm 840	55	DALI	445 1026 615		9,0
	LED 4700lm 927-965	55	DALI DT8	445 4026 915		9,1

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

galant-pro-GPAK

IP44 IK04 0,50 J 5,00 Nm

Housing
Extruded sheet steel trapezoid luminaire body, white polycarbonat end faces.
Cable entries near centre of luminaire. Diffuser fixing by engaging;
Housing colour traffic white (similar to RAL 9016).
Suitable for ceiling- or for wall-mounting.

Lighting technology -GPAK
Direct distribution.
Direct diffuse light distribution using diffuser profile made of white-opal acrylic glass, convex with inner longitudinal prisms, snap-fit white end faces made of UV-stabilised polycarbonate.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Suspension set GPA-PS 1700mm must be ordered separately.

Type	L	B	H	A1	A2	X	Y
galant-pro-GPAK/0600	604	218	80	520	234	65	0
galant-pro-GPAK/1200	1204	218	80	900	454	0	0
galant-pro-GPAK/1500	1504	218	80	1100	554	0	0

galant-pro-GPAK/1500

5400lm 840

η_{LB}	100 %
Direct	95 %
Indirect	5 %
UGR lat.	21,5
UGR long.	21,0

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
galant-pro-GPAK/0600	LED 2300lm 840	19	ED	216 6214 180	☐	2,1
	LED 2300lm 840	19	DALI	216 6216 680	☐	2,1
galant-pro-GPAK/1200	LED 4300lm 840	36	ED	216 2214 180	☐	2,8
	LED 4300lm 840	36	DALI	216 2216 680	☐	2,8
galant-pro-GPAK/1500	LED 5400lm 840	45	ED	216 5214 180	☐	3,3
	LED 5400lm 840	45	DALI	216 5216 680	☐	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Suspension set	GPA-PS 3x0,75	Suspension set ET 3x0,75	216 9003 100	0,6
	GPA-PS 5x0,75	Suspension set DALI 5x0,75	216 9005 100	0,7

Station 7
Röntgen

galant-pro-GPAKPC

IP44 IK06 0,60 J 6,00 Nm

Housing
Extruded sheet steel trapezoid luminaire body, white polycarbonat end faces.
Cable entries near centre of luminaire. Diffuser fixing by engaging;
Housing colour traffic white (similar to RAL 9016).
Suitable for ceiling- or for wall-mounting.

Lighting technology -GPAKPC
Direct distribution.
Direct diffuse light distribution using white-opal diffuser profile made of polycarbonate, convex with inner longitudinal prisms, snap-fit white end faces made of UV-stabilised polycarbonate.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Suspension set GPA-PS 1700mm must be ordered separately.

Type	L	B	H	A1	A2	X	Y
galant-pro-GPAKPC/0600	604	218	80	520	234	65	0
galant-pro-GPAKPC/1200	1204	218	80	900	454	0	0
galant-pro-GPAKPC/1500	1504	218	80	1100	554	0	0

galant-pro-GPAKPC/1500

5000lm 840

η_{LB}	100 %
Direct	95 %
Indirect	5 %
UGR lat.	21,4
UGR long.	20,7

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
galant-pro-GPAKPC/0600	LED 2100lm 840	19	ED	216 6214 181	☐	2,1
	LED 2100lm 840	19	DALI	216 6216 681	☐	2,1
galant-pro-GPAKPC//1200	LED 4000lm 840	36	ED	216 2214 181	☐	2,8
	LED 4000lm 840	36	DALI	216 2216 681	☐	2,8
galant-pro-GPAKPC//1500	LED 5000lm 840	45	ED	216 5214 181	☐	3,3
	LED 5000lm 840	45	DALI	216 5216 681	☐	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Suspension set	GPA-PS 3x0,75	Suspension set ET 3x0,75	216 9003 100	0,6
	GPA-PS 5x0,75	Suspension set DALI 5x0,75	216 9005 100	0,7

drop

IP40 3000 IK02 0,20 J 0,20 Nm 10 F 650°C CE

Housing
Round luminaire housing of deep-drawn sheet steel.
Suitable for ceiling- and wall-mounting.

Lighting technology
Direct distribution.
Round, domed acrylic glass diffuser, with opal frosted, smooth surface.
Variant drop/300 + drop/500 (low) for VDU workstations according to DIN EN 12464-1, 65°<3000cd/m².
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Version ED+S9
With integrated HF motion sensor. Range 1-8m, time setting 30sec - 30min. and brightness threshold value of 2 to 2000lx continuously adjustable. Switching capacity max. 4 luminaires drop 400 or drop 500.

Miscellaneous
Electrical connection via 3-pole plug-in connection terminal. With integrated earth conductor connection and unlocking button, suitable for rigid and flexible cables up to 2,5 mm². On request luminaire with integrated emergency inverter 3h.

Accessories
Decorative ring sheet steel, silver.

Type	D	H	A1	A2	X	Y
drop/300	302	105	208	180	0	60
drop/400	373	125	272	232	0	77
drop/500	477	150	360	312	0	103

drop with decorative ring drop-DR

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
drop/300	LED 1100lm 830	9	ED	231 0204 110	☐	0,9
	LED 1200lm 840	9	ED	231 0214 110	☐	0,9
drop/400	LED 2100lm 830	18	ED	231 0124 110	☐	1,4
	LED 2100lm 830	18	ED + S9	234 0124 110	☐	1,6
	LED 2300lm 840	18	ED	231 0134 110	☐	1,4
	LED 2300lm 840	18	ED + S9	234 0134 110	☐	1,6
drop/500	LED 2900lm 830	25	ED	231 0144 110	☐	2,4
	LED 2900lm 830	25	ED + S9	234 0144 110	☐	2,6
	LED 3100lm 840	25	ED	231 0154 110	☐	2,4
	LED 3100lm 840	25	ED + S9	234 0154 110	☐	2,6
	LED 4300lm 830	37	ED	231 0184 110	☐	2,5
	LED 4300lm 830	37	ED + S9	234 0184 110	☐	2,7
	LED 4600lm 840	37	ED	231 0194 110	☐	2,5
	LED 4600lm 840	37	ED + S9	234 0194 110	☐	2,7

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Dcorative ring	drop-DR 300	d 318 mm, h 5mm for drop/300	231 1000 100	si	0,4
	drop-DR 400	d 388 mm, h 5mm for drop/400	231 2000 100	si	0,4
	drop-DR 500	d 492 mm, h 5mm for drop/500	231 3000 100	si	0,4

Kein
Durchgang

micro-AFA Wallwasher

IP20

Housing
Housing of sheet steel, powder-coated traffic white (similar to RAL 9016) or painted white aluminium (similar to 9006). LED support unit made from aluminium profile, natural anodised finish, arrangeable as optically continuous light-lines, through easy removable end-caps.

Lighting technology -AFA
Direct asymmetrical distribution.
Distribution via Fresnel-lens made from acrylic.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
For surface mounting as continuous light-line one through-wiring micro-DV per joint is needed.
For pendant mounting as single luminaire one mounting kit micro-SAES is required.
For pendant mounting as continuous light-line one mounting kit micro-SAES is needed. Additionally for each joint one suspension micro-SAVS and one through-wiring micro-DV is necessary. Free height adjustment between 150 and 2000mm. Accessories have to be ordered separately.

Type	L	B	H	A1	A2	X	Y
micro-AFA/800	850	82	32	700	148	95	10
micro-AFA/1100	1131	82	32	980	149	0	10
micro-AFA/1400	1412	82	32	1260	150	0	10

micro-AFA/1400

4800lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,3
UGR long.	26,7

Light line mounting

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
micro-AFA/800	LED 2900lm 840	25	ED	531 3144 19...	☐ ...0	wa ...6	2,0
	LED 2900lm 840	25	DALI	531 3146 69...	☐ ...0	wa ...6	2,0
micro-AFA/1100	LED 3800lm 840	34	ED	531 4144 19...	☐ ...0	wa ...6	2,4
	LED 3800lm 840	34	DALI	531 4146 69...	☐ ...0	wa ...6	2,4
micro-AFA/1400	LED 4800lm 840	42	ED	531 5144 19...	☐ ...0	wa ...6	3,0
	LED 4800lm 840	42	DALI	531 5146 69...	☐ ...0	wa ...6	3,0

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Through wiring	micro-DV	Through wiring set 5 x 1.5 for light-line assembly	531 9000 100	0,2
Suspension set	micro-SAES 3x0,75	Suspension set 2000/120 3x0,75 ED	531 0037 105	0,2
	micro-SAES 5x0,75	Suspension set 2000/120 5x0,75 DALI	531 0057 105	0,3
Mechanical connection	micro-SAVS	Wire suspension with mechanical connection 2000/120	531 0000 105	0,1

scala-AG

IP20

Housing
Housing made from sheet steel, powder coated traffic white (similar to RAL 9016), diffusor frame made from aluminium natural anodised or powder coated traffic white (similar to RAL 9016). Different RAL colours and combinations available on request.
Suitable for ceiling- and wall-mounting.

Lighting technology -AG
Direct distribution.
Homogeneous illumination by satinised special acrylic panel, with high transmission. Variant scala-AG LED 3500 for VDU workstations according to DIN EN 12464-1, 65°<3000cd/m².
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Accessories
Suction pad SH 55 for removing the pane must be ordered separately.

Type	□L	H	A1	A2	X	Y
scala-AG/380	380	63	260	315	45	157
scala-AG/450	450	63	410	410	40	206
scala-AG/615	615	63	570	570	0	288

scala-AG/615

3600lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	20,5
UGR long.	20,5

3000

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
scala-AG/380	LED 2800lm 840	25	ED	594 3154 18...	...0	...5	3,1
	LED 2800lm 840	25	DALI	594 3156 68...	...0	...5	3,1
scala-AG/450	LED 3900lm 840	41	ED	594 2324 18...	...0	...5	3,8
	LED 3900lm 840	41	DALI	594 2326 68...	...0	...5	3,8
scala-AG/615	LED 3600lm 840	25	ED	594 1114 18...	...0	...5	6,5
	LED 3600lm 840	25	DALI	594 1116 68...	...0	...5	6,5
	LED 5700lm 840	40	ED	594 1214 18...	...0	...5	6,5
	LED 5700lm 840	40	DALI	594 1216 68...	...0	...5	6,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Suction pad	SH 55	Suction pad for scala-AG pane	903 0055 100	0,1

Modul III
Modul I

linar image II-AMP

IP20 3000 UGR 19

Housing
Aluminium profile, natural anodized. Corners with mitred cut.
Suitable for ceiling- and wall-mounting.

Lighting technology -AMP
Direct distribution.
Microprismatic panel with conical glare elimination.
Variant linar image II Q- and R/5400 for VDU workstations 65°<3000cd/m²,
UGR ≤ 19 according to DIN EN 12464-1.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	L	B	H	A1	A2	X	Y
linar image II Q-AMP/2700lm	425	425	85	310	310	0	160
linar image II Q-AMP/4400lm	520	520	85	400	400	0	210
linar image II Q-AMP/5400lm	683	683	85	560	560	0	290
linar image II R-AMP/5400lm	1225	412	85	1100	290	0	155

linar image II Q-AMP

5700lm 840

η_{LB} 100 %

UGR 19

3000

Direct	100 %
Indirect	0 %
UGR lat.	18,9
UGR long.	18,9

linar image II Q-AMP

linar image II R-AMP

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
linar image II Q-AMP	LED 2700lm 840	25	ED	510 1014 195		3,9
	LED 2700lm 840	25	DALI	510 1016 695		3,9
	LED 4400lm 840	41	ED	510 7094 195		4,7
	LED 4400lm 840	41	DALI	510 7096 695		4,7
	LED 5700lm 840	40	ED	510 2024 195		7,5
	LED 5700lm 840	40	DALI	510 2026 695		7,5
linar image II R-AMP	LED 5700lm 840	40	ED	510 3024 195		9,1
	LED 5700lm 840	40	DALI	510 3026 695		9,1

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

linar image II-AG

IP20

Housing
Aluminium profile, natural anodized. Corners with mitred cut.
Suitable for ceiling- and wall-mounting.

Lighting technology -AG
Direct distribution.
Homogeneous illumination by satinised special acrylic panel, with high transmission.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	L	B	H	A1	A2	X	Y
linar image II Q-AG/2200lm	425	425	85	310	310	0	160
linar image II Q-AG/3600lm	520	520	85	400	400	0	210
linar image II Q-AG/4200lm	683	683	85	560	560	0	290
linar image II R-AG/4200lm	1225	412	85	1100	290	0	155

linar image II Q-AG

4500lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	21,6
UGR long.	21,6

linar image II Q-AG

linar image II R-AG

linar image II Q-AG/2200lm

linar image II Q-AG/3200lm

linar image II R-AG/4000lm

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
linar image II Q-AG	LED 2200lm 840	21	ED	510 1014 185		3,9
	LED 2200lm 840	21	DALI	510 1016 685		3,9
	LED 3600lm 840	41	ED	510 7094 185		4,7
	LED 3600lm 840	41	DALI	510 7096 685		4,7
	LED 4500lm 840	40	ED	510 2024 185		7,5
	LED 4500lm 840	40	DALI	510 2026 685		7,5
linar image II R-AG	LED 4500lm 840	40	ED	510 3024 185		9,1
	LED 4500lm 840	40	DALI	510 3026 685		9,1

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

FRANKISE

PENDANT LUMINAIRES

Pendant luminaires

ciros-HG/ciros-HIG + ciros-SAE P. 166

ciros-HG/ciros-HIG + ciros-TRE P. 168

ciros-HG/ciros-HIG + ciros-RPE P. 170

serio-HIOS P. 180

serio-HIG P. 184

serio-HIMP P. 188

epic R-HF P. 204

epic Q-HF P. 208

rail-HGI P. 224

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ciros-HMP/ciros-HIMP + ciros-SAE P. 174

ciros-HMP/ciros-HIMP + ciros-TRE P. 176

ciros-HMP/ciros-HIMP + ciros-RPE P. 178

serio Q-HIG P. 192

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fino-HK P. 216

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Pendant luminaires

Pendant luminaires from other chapters

Surface mounted luminaires

clip-on-OB P. 92

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Glass luminaires

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puck-H P. 440

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galant-pro-GPAKPC P. 128

micro-AFA P. 136

dyski-H P. 448

ciros

Housing

Round aluminium profile in
diameters of ∅400, 600, 900 and 1200.

ciros-HIG/1200

Lighting technology

ciros-HIMP/ciros-HMP

multilayer
microprismatic

3000 UGR 19

ciros-HIG/ciros-HG

white-opal satinised

NEW

Housing colours

Textured paint

- traffic white
- white aluminium
- deep black

Distribution

ciros

Suspension variants

With our ciros-pendant luminaires you can choose between three suspension variants.

Three-point-suspension

☐ ciros-SAE

■ ciros-H/1200

Triangle-suspension

☐ ciros-TRE

wa

■

not available
for diameter 1200

Rod suspension

☐ ciros-RPE

wa

■

not available
for diameter 1200

□ ciros-H/900 | wa ciros-H/600 | ■ ciros-H/400

ciros-HG/-HIG + ciros-SAE

IP20

Housing
Round aluminium profile, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -HG (ciros/400)
Direct distribution.
Homogenous illumination by satinised special acrylic pane with high transmission. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.

Lighting technology -HIG (ciros/600/900/1200)
Direct/indirect distribution.
Homogenous illumination by satinised special acrylic pane with high transmission. Indirect ratio by separate LED's with satinised special acrylic pane.
Variant ET separately switchable, DALI separately dimmable.
Rated life time = L80 B10 50.000h. Light colour: 4000K. Optional: 3000K.
Tunable white on request.

Suspension (ciros-SAE)
Three point suspension, free height adjustment between 200 and 2000mm for ciros/400, ciros/600, ciros/900 and ciros/1200. Translucent connection cord, 5x0,75mm², 2000mm. Ceiling canopy plastic, white.
Suspension must be ordered separately.

Type	D	H	T	A1	A2	A3
ciros/400	365	69	100	80	40	139
ciros/600	600	69	100	145	72,5	251
ciros/900	880	69	100	220	110	381
ciros/1200	1160	69	100	310	155	537

ciros-SAE

ciros/400-HG

2700lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,1
UGR long.	24,1

ciros/900-HIG

18200lm 840

η_{LB}	100 %
Direct	79 %
Indirect	21 %
UGR lat.	22,0
UGR long.	22,0

ciros-SAE Three-point-suspension must be ordered separately.

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HG/400	LED 2700lm 840	23	ED	568 4144 18...	wa ...6	...0	...4	3,3
ciros-HG/400	LED 2700lm 840	23	DALI	568 4146 68...	wa ...6	...0	...4	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HIG/600	LED 8200lm 840	66	ED	567 6144 18...	wa ...6	...0	...4	8,2
ciros-HIG/600	LED 8200lm 840	66	DALI	567 6146 68...	wa ...6	...0	...4	8,2
ciros-HIG/900	LED 18200lm 840	128	ED	567 9144 18...	wa ...6	...0	...4	15,2
ciros-HIG/900	LED 18200lm 840	128	DALI	567 9146 68...	wa ...6	...0	...4	15,2
ciros-HIG/1200	LED 31900lm 840	223	ED	567 1144 18...	wa ...6	...0	...4	27,9
ciros-HIG/1200	LED 31900lm 840	223	DALI	567 1146 68...	wa ...6	...0	...4	27,9

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Suspension	Type	Description	for ciros400/600/900/1200	Colour	kg
Three point suspension	ciros-SAE 5 pol.	Three point suspension incl. ceiling canopy and connection cord 5 pol.	567 0057 100		0,36

▶ Control modules see chapter control page 456.

ciros-HIG/900 + ciros-TRE

ciros-HG/-HIG + ciros-TRE

IP20

Housing
Round aluminium profile, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -HG (ciros/400)
Direct distribution.
Homogenous illumination by satinised special acrylic pane with high transmission. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.

Lighting technology -HIG (ciros/600/900)
Direct/indirect distribution.
Homogenous illumination by satinised special acrylic pane with high transmission. Indirect ratio by separate LED's with satinised special acrylic pane.
Variant ET separately switchable, DALI separately dimmable.
Rated life time = L80 B10 50.000h. Light colour: 4000K. Optional: 3000K.
Tunable white on request.

Suspension (ciros-TRE)
Triangle suspension, free height adjustment between 300 and 2000mm for ciros/400, ciros/600, ciros/900. Ceiling canopy 130mm x 45mm made of aluminium, texture painted white-aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).
Secondary safty wire (except for ciros/400). Translucent connection cord, incl. 5x0,75mm², 2000mm. Suspension must be ordered separately.

white aluminium WA

traffic white

deep black

Type	D	H	T	A1	A2
ciros/400	365	69	100	100	100
ciros/600	600	69	100	100	100
ciros/900	880	69	100	100	100

ciros-TRE

Top view canopy

ciros/400-HG

2700lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,1
UGR long.	24,1

ciros/900-HIG

18200lm 840

η_{LB}	100 %
Direct	79 %
Indirect	21 %
UGR lat.	22,0
UGR long.	22,0

ciros-TRE Triangle-suspension must be ordered separately.

not available
for diameter 1200

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HG/400	LED 2700lm 840	23	ED	568 4144 18...	wa ...6	☐ ...0	■ ...4	3,3
ciros-HG/400	LED 2700lm 840	23	DALI	568 4146 68...	wa ...6	☐ ...0	■ ...4	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HIG/600	LED 8200lm 840	66	ED	567 6144 18...	wa ...6	☐ ...0	■ ...4	8,2
ciros-HIG/600	LED 8200lm 840	66	DALI	567 6146 68...	wa ...6	☐ ...0	■ ...4	8,2
ciros-HIG/900	LED 18200lm 840	128	ED	567 9144 18...	wa ...6	☐ ...0	■ ...4	15,2
ciros-HIG/900	LED 18200lm 840	128	DALI	567 9146 68...	wa ...6	☐ ...0	■ ...4	15,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Suspension	Type	Description	Diameter	Item-number	Colour	Colour	Colour	kg
Triangle-suspension	ciros-TRE 5 pol.	Triangle suspension incl. ceiling canopy, connection cord 5 pol. and safty wire (except for ciros/400)	for ciros/400	567 4357 10...	wa ...6	☐ ...0	■ ...4	0,55
			for ciros/600	567 6357 10...	wa ...6	☐ ...0	■ ...4	0,65
			for ciros/900	567 9357 10...	wa ...6	☐ ...0	■ ...4	0,65

▶ Control modules see chapter control page 456.

ciros-HIG/900 + ciros-RPE

ciros-HG/-HIG + ciros-RPE

IP20

Housing
Round aluminium profile, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -HG (ciros/400)
Direct distribution.
Homogenous illumination by satinised special acrylic pane with high transmission. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.

Lighting technology -HIG (ciros/600/900)
Direct/indirect distribution.
Homogenous illumination by satinised special acrylic pane with high transmission. Indirect ratio by separate LED's with satinised special acrylic pane.
Variant ET separately switchable, DALI separately dimmable.
Rated life time = L80 B10 50.000h. Light colour: 4000K. Optional: 3000K.
Tunable white on request.

Suspension (ciros-RPE)
Rod suspension for ciros/400, ciros/600 and ciros/900. Length 300-1500mm, rod can be shortened on site. Oscilating rod support in canopy, max. deflection 45°. Ceiling canopy 130mm x 45mm made of aluminium, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). For horizontal ceilings. Safety wire rod integrated (except for ciros/400). Suspension must be ordered separately.

Type	D	H	T	A1	A2
ciros/400	365	69	100	100	100
ciros/600	600	69	100	100	100
ciros/900	880	69	100	100	100

ciros-RPE

Top view canopy

ciros/400-HG

2700lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,1
UGR long.	24,1

ciros/900-HIG

18200lm 840

η_{LB}	100 %
Direct	79 %
Indirect	21 %
UGR lat.	22,0
UGR long.	22,0

ciros-RPE Rod suspension must be ordered separately.

not available
for diameter 1200

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HG/400	LED 2700lm 840	23	ED	568 4144 18...	wa ...6	☐ ...0	■ ...4	3,3
ciros-HG/400	LED 2700lm 840	23	DALI	568 4146 68...	wa ...6	☐ ...0	■ ...4	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HIG/600	LED 8200lm 840	66	ED	567 6144 18...	wa ...6	☐ ...0	■ ...4	8,2
ciros-HIG/600	LED 8200lm 840	66	DALI	567 6146 68...	wa ...6	☐ ...0	■ ...4	8,2
ciros-HIG/900	LED 18200lm 840	128	ED	567 9144 18...	wa ...6	☐ ...0	■ ...4	15,2
ciros-HIG/900	LED 18200lm 840	128	DALI	567 9146 68...	wa ...6	☐ ...0	■ ...4	15,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Suspension	Type	Description	Diameter	Item-number	Colour	Colour	Colour	kg
Rod suspension	ciros-RPE 5 pol.	Rod suspension incl.	for ciros/400	567 4957 10...	wa ...6	☐ ...0	■ ...4	1,5
		ceiling canopy, connecting cord 5 pol.	for ciros/600	567 6957 10...	wa ...6	☐ ...0	■ ...4	1,6
		and safty wire (except for ciros/400)	for ciros/900	567 9957 10...	wa ...6	☐ ...0	■ ...4	2,2

▶ Control modules see chapter control page 456.

ciros-HMP/-HIMP + ciros-SAE

IP20 3000 UGR 19

Housing
Round aluminium profile, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -HMP (ciros/400)
Direct distribution.
Light distribution via microprismatic panel with conical glare elimination in multilayer techology. For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.

Lighting technology -HIMP (ciros/600/900/1200)
Direct/indirect distribution.
Light distribution via microprismatic panel with conical glare elimination in multilayer techology. For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Indirect ratio by separate LED's with satinised special acrylic pane. Variant ET separately switchable, DALI separately dimmable.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Tunable white on request.

Suspension (ciros-SAE)
Three point suspension, free height adjustment between 200 and 2000mm for ciros/400, ciros/600, ciros/900 und ciros/1200. Translucent connection cord, 5x0,75mm², 2000mm. Ceiling canopy plastic, white.
Suspension must be ordered separately.

Type	D	H	T	A1	A2	A3
ciros/400	365	69	100	80	40	139
ciros/600	600	69	100	145	72,5	251
ciros/900	880	69	100	220	110	381
ciros/1200	1160	69	100	310	155	537

ciros-SAE

ciros/400-HMP

1300lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	19,0
UGR long.	19,0

UGR 19

3000

ciros/900-HIMP

11100lm 840

η_{LB}	100 %
Direct	77 %
Indirect	23 %
UGR lat.	17,3
UGR long.	17,3

UGR 19

3000

ciros-SAE Three-point-suspension must be ordered separately.

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HMP/400	LED 1300lm 840	9	ED	568 4044 15...	wa ...6	...0	...4	3,3
ciros-HMP/400	LED 1300lm 840	9	DALI	568 4046 65...	wa ...6	...0	...4	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HIMP/600	LED 4900lm 840	37	ED	567 6044 15...	wa ...6	...0	...4	8,2
ciros-HIMP/600	LED 4900lm 840	37	DALI	567 6046 65...	wa ...6	...0	...4	8,2
ciros-HIMP/900	LED 11100lm 840	79	ED	567 9044 15...	wa ...6	...0	...4	15,2
ciros-HIMP/900	LED 11100lm 840	79	DALI	567 9046 65...	wa ...6	...0	...4	15,2
ciros-HIMP/1200	LED 18600lm 840	131	ED	567 1044 15...	wa ...6	...0	...4	27,9
ciros-HIMP/1200	LED 18600lm 840	131	DALI	567 1046 65...	wa ...6	...0	...4	27,9

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Suspension	Type	Description	for ciros400/600/900/1200	Colour	kg
Three point suspension	ciros-SAE 5 pol.	Three point suspension incl. ceiling canopy and connection cord 5 pol.	567 0057 100		0,36

▶ Control modules see chapter control page 456.

ciros-HIMP/900 + ciros-TRE

ciros-HMP/-HIMP + ciros-TRE

IP20 3000 UGR 19

Housing
Round aluminium profile, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -HMP (ciros/400)
Direct distribution.
Light distribution via microprismatic panel with conical glare elimination in multilayer techology. For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.

Lighting technology -HIMP (ciros/600/900)
Direct/indirect distribution.
Light distribution via microprismatic panel with conical glare elimination in multilayer techology. For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Indirect ratio by separate LED's with satinised special acrylic pane. Variant ET separately switchable, DALI separately dimmable.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Tunable white on request.

Suspension (ciros-TRE)
Triangle suspension, free height adjustment between 300 and 2000mm for ciros/400, ciros/600, ciros/900. Ceiling canopy 130mm x 45mm made of aluminium, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).
Secondary safty wire (except for ciros/400). Translucent connection cord, 5x0,75mm², 2000mm. Suspension must be ordered separately.

Type	D	H	T	A1	A2
ciros/400	365	69	100	100	100
ciros/600	600	69	100	100	100
ciros/900	880	69	100	100	100

ciros-TRE

Top view canopy

ciros/400-HMP
1300lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	19,0
UGR long.	19,0

UGR 19
3000

ciros/900-HIMP
11100lm 840

η_{LB}	100 %
Direct	77 %
Indirect	23 %
UGR lat.	17,3
UGR long.	17,3

UGR 19
3000

ciros-TRE Triangle-suspension must be ordered separately.

not available
for diameter 1200

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HMP/400	LED 1300lm 840	9	ED	568 4044 15...	wa ...6	☐ ...0	■ ...4	3,3
ciros-HMP/400	LED 1300lm 840	9	DALI	568 4046 65...	wa ...6	☐ ...0	■ ...4	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HIMP/600	LED 4900lm 840	37	ED	567 6044 15...	wa ...6	☐ ...0	■ ...4	8,2
ciros-HIMP/600	LED 4900lm 840	37	DALI	567 6046 65...	wa ...6	☐ ...0	■ ...4	8,2
ciros-HIMP/900	LED 11100lm 840	79	ED	567 9044 15...	wa ...6	☐ ...0	■ ...4	15,2
ciros-HIMP/900	LED 11100lm 840	79	DALI	567 9046 65...	wa ...6	☐ ...0	■ ...4	15,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Suspension	Type	Description	Diameter	Item-number	Colour	Colour	Colour	kg
Triangle-suspension	ciros-TRE 5 pol.	Triangle suspension incl. ceiling canopy, connection cord 5 pol. and safty wire (except for ciros/400)	for ciros/400	567 4357 10...	wa ...6	☐ ...0	■ ...4	0,55
			for ciros/600	567 6357 10...	wa ...6	☐ ...0	■ ...4	0,65
			for ciros/900	567 9357 10...	wa ...6	☐ ...0	■ ...4	0,65

▶ Control modules see chapter control page 456.

ciros-HIMP/900 + ciros-RPE

ciros-HMP/-HIMP + ciros-RPE

IP20 3000 UGR 19

Housing
Round aluminium profile, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -HMP (ciros/400)
Direct distribution.
Light distribution via microprismatic panel with conical glare elimination in multilayer techology. For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.

Lighting technology -HIMP (ciros/600/900)
Direct/indirect distribution.
Light distribution via microprismatic panel with conical glare elimination in multilayer techology. For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Indirect ratio by separate LED's with satinised special acrylic pane. Variant ET separately switchable, DALI separately dimmable.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Tunable white on request.

Suspension (ciros-RPE)
Rod suspension for ciros/400, ciros/600 and ciros/900. Length 300-1500mm, rod can be shortened on site. Oscilating rod support in canopy, max. deflection 45°. Ceiling canopy 130mm x 45mm made of aluminium, texture painted white aluminium (similar to RAL 9006), traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). For horizontal ceilings. Safety wire rod integrated (except for ciros/400). Suspension must be ordered separately.

Type	D	H	T	A1	A2
ciros/400	365	69	100	100	100
ciros/600	600	69	100	100	100
ciros/900	880	69	100	100	100

ciros-RPE

Top view canopy

ciros/400-HMP
1300lm 840

ciros/900-HIMP
11100lm 840

ciros-RPE Rod suspension must be ordered separately.

not available
for diameter 1200

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HMP/400	LED 1300lm 840	9	ED	568 4044 15...	wa ...6	☐ ...0	■ ...4	3,3
ciros-HMP/400	LED 1300lm 840	9	DALI	568 4046 65...	wa ...6	☐ ...0	■ ...4	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
ciros-HIMP/600	LED 4900lm 840	37	ED	567 6044 15...	wa ...6	☐ ...0	■ ...4	8,2
ciros-HIMP/600	LED 4900lm 840	37	DALI	567 6046 65...	wa ...6	☐ ...0	■ ...4	8,2
ciros-HIMP/900	LED 11100lm 840	79	ED	567 9044 15...	wa ...6	☐ ...0	■ ...4	15,2
ciros-HIMP/900	LED 11100lm 840	79	DALI	567 9046 65...	wa ...6	☐ ...0	■ ...4	15,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Suspension	Type	Description	Diameter	Item-number	Colour	Colour	Colour	kg
Rod suspension	ciros-RPE 5 pol.	Rod suspension incl.	for ciros/400	567 4957 10...	wa ...6	☐ ...0	■ ...4	1,5
		ceiling canopy, connecting cord 5 pol.	for ciros/600	567 6957 10...	wa ...6	☐ ...0	■ ...4	1,6
		and safty wire (except for ciros/400)	for ciros/900	567 9957 10...	wa ...6	☐ ...0	■ ...4	2,2

▶ Control modules see chapter control page 456.

serio-HIOS

IP20 3000 UGR 19

Housing
Aluminium profile, natural anodised. Face ends sheet steel, painted white aluminium. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology -HIOS
Direct/indirect distribution, DALI variant separately dimmable.
Direct distribution via integrated micro-cell grid.
Indirect distribution via white-opal, satin-finished acrylic diffusor.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Single wire suspension with quick-adjust coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

natural anodised

traffic white

deep black

Type	L	B	H	A1	P_{min}	P_{max}
serio-HIOS/1100	1127	61	106	1025	150	2000
serio-HIOS/1700	1687	61	106	1585	150	2000
serio-HIOS/2200	2247	61	106	2145	150	2000
serio-HIOS/2800	2807	61	106	2705	150	2000

serio-HIOS/1700

6200lm 840

Type	LED Specification	P_{sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HIOS/1100	LED 4200lm 840	32	ED	547 4144 10...	...0	...1	...4	4,8
	LED 4200lm 840	32	DALI	547 4146 60...	...0	...1	...4	48
serio-HIOS/1700	LED 6200lm 840	47	ED	547 6144 10...	...0	...1	...4	6,6
	LED 6200lm 840	47	DALI	547 6146 60...	...0	...1	...4	6,6
serio-HIOS/2200	LED 8400lm 840	63	ED	547 8144 10...	...0	...1	...4	8,4
	LED 8400lm 840	63	DALI	547 8146 60...	...0	...1	...4	8,4
serio-HIOS/2800	LED 10500lm 840	79	ED	547 0144 10...	...0	...1	...4	10,3
	LED 10500lm 840	79	DALI	547 0146 60...	...0	...1	...4	10,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	...5	...4	0,6

▶ More Control modules see chapter control page 456.

serio-HIG

IP20

Housing
Aluminium profile, natural anodised. Face ends sheet steel, painted white aluminium. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology -HIG
Direct/indirect distribution, DALI variant separately dimmable.
Direct- and indirect distribution via white-opal, satin-finished acrylic diffusor.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Single wire suspension with quick-adjust coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

Type	L	B	H	A1	P_{min}	P_{max}
serio-HIG/1100	1127	61	106	1025	150	2000
serio-HIG/1400	1407	61	106	1305	150	2000
serio-HIG/2200	2247	61	106	2145	150	2000
serio-HIG/2800	2807	61	106	2705	150	2000

serio-HIG/1400

7900lm 840

η_{LB}	100 %
Direct	64 %
Indirect	36 %
UGR lat.	22,1
UGR long.	23,3

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HIG/1100	LED 6200lm 840	55	ED	543 4144 18...	...0	...1	...4	4,3
	LED 6200lm 840	55	DALI	543 4146 68...	...0	...1	...4	4,7
serio-HIG/1400	LED 7900lm 840	70	ED	543 5144 18...	...0	...1	...4	5,2
	LED 7900lm 840	70	DALI	543 5146 68...	...0	...1	...4	5,2
serio-HIG/2200	LED 12500lm 840	110	ED	543 8144 18...	...0	...1	...4	8,4
	LED 12500lm 840	110	DALI	543 8146 68...	...0	...1	...4	8,8
serio-HIG/2800	LED 15800lm 840	139	ED	543 0144 18...	...0	...1	...4	10,2
	LED 15800lm 840	139	DALI	543 0146 68...	...0	...1	...4	10,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

serio-HIMP

IP20 3000 UGR 19

Housing
Aluminium profile, natural anodised. Face ends sheet steel, painted white aluminium. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology -HIMP
Direct/indirect distribution, DALI variant separately dimmable.
Direct distribution via microprismatic panel with conical glare elimination.
Indirect distribution via white-opal, satin-finished acrylic diffusor.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Single wire suspension with quick-adjust coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

natural anodised

traffic white

deep black

Type	L	B	H	A1	P_{min}	P_{max}
serio-HIMP/1100	1127	61	106	1025	150	2000
serio-HIMP/1400	1407	61	106	1305	150	2000
serio-HIMP/2200	2247	61	106	2145	150	2000
serio-HIMP/2800	2807	61	106	2705	150	2000

serio-HIMP/1400

4300lm 840

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HIMP/1100	LED 3400lm 840	29	ED	543 4144 15...	...0	...1	...4	4,6
	LED 3400lm 840	29	DALI	543 4146 65...	...0	...1	...4	4,6
serio-HIMP/1400	LED 4300lm 840	37	ED	543 5144 15...	...0	...1	...4	5,3
	LED 4300lm 840	37	DALI	543 5146 65...	...0	...1	...4	5,3
serio-HIMP/2200	LED 6800lm 840	59	ED	543 8144 15...	...0	...1	...4	9
	LED 6800lm 840	59	DALI	543 8146 65...	...0	...1	...4	9
serio-HIMP/2800	LED 8600lm 840	74	ED	543 0144 15...	...0	...1	...4	10,7
	LED 8600lm 840	74	DALI	543 0146 65...	...0	...1	...4	10,7

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	...5	...4	0,6

▶ More Control modules see chapter control page 456.

serio Q-HIG

IP20

Housing
Aluminium profile in square design, natural anodised, completely assembled. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology -HIG
Direct/indirect distribution, DALI variant separately dimmable.
Direct- and indirect distribution via white-opal, satin-finished acrylic diffusor.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Four wire suspensions with rapid coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

natural anodised

traffic white

deep black

Type	□ L	H	A1	P_{min}	P_{max}
serio Q 1200-HIG	1220	106	1160	150	2000

serio Q 1200-HIG

25000lm 840

η_{LB}	100 %
Direct	64 %
Indirect	36 %
UGR lat.	21,8
UGR long.	23,0

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio Q 1200-HIG	LED 25000lm 840	220	ED	544 4144 18...	...0	...1	...4	19
	LED 25000lm 840	220	DALI	544 4146 68...	...0	...1	...4	19,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

burgbad

linar-HOTBI

IP20 3000 UGR 19

Housing
Aluminium profile with rectangular design, face ends with mitred cut, natural anodised.

Lighting technology -HOTBI
Direct/indirect distribution.
Direct distribution via LED single lens optics, indirect distribution via clear pane.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Y-wire suspension with or without electrical connection, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

Type	L	B	H	A1	P_{min}	P_{max}
linar-HOTBI	1526	140	63	1492	150	2000

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
linar-HOTBI	LED 8400lm 840	66	ED	519 2034 200		7,5
	LED 8400lm 840	66	DALI	519 2036 200		7,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

micado Q-HI

IP20

Housing
Aluminium profile, natural anodised, with surrounding shadow joint, completely assembled.

Lighting technology Q-HI
Direct/indirect distribution.
Unique light play thanks to unordered structuring of LED lines.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Tast dim
Can be dimmed using commercially available push buttons, 230V.

Suspension
Four wire suspension with rapid coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

Type	□ L	H	A1	P_{min}	P_{max}
micado Q-HI	1200	71	1166	150	2000

micado Q 1200-HI

16800lm 840

η_{LB}	100 %
Direct	85 %
Indirect	15 %
UGR lat.	22,0
UGR long.	22,1

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
micado Q 1200-HI	LED 16800lm 840	103	ED	402 0044 105		9,4
	LED 16800lm 840	103	DALI	402 0046 605		9,4
	LED 16800lm 840	103	Tast dim	402 0046 505		9,4

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

AWT

epic R-HF

IP20

Housing
Round aluminium profile, natural anodised.
Surrounding shadow joint between housing and flat inserted film frame.
Minimal dirt ingress via sealing lip between frame and housing.

Lighting technology -HF
Direct distribution.
Aluminium profile set flush in the housing with translucent film for a homogenous illumination appearance.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension R
Three wire suspension for epic 950 and 1280 with rapid coupling, free height adjustment between 150 and 2000 mm. Four wire suspension for epic 1560.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).
Extraction tool for releasing film frame must be ordered separately.

Type	D	H	A1	P_{min}	P_{max}
epic R 950	954	178	757	150	2000
epic R 1280	1284	184	1043	150	2000
epic R 1560	1564	184	1060	150	2000

epic R 1280-HF

15200lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	21,3
UGR long.	21,3

epic R 950/epic R 1280

epic R 1560

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
epic R 950-173-HF	LED 7800lm 840	111	ED	629 0954 154		20
	LED 7800lm 840	111	DALI	629 0956 154		20
epic R 1280-173-HF	LED 15200lm 840	218	ED	629 1284 154		34,9
	LED 15200lm 840	218	DALI	629 1286 154		34,9
epic R 1560-173-HF	LED 22000lm 840	314	ED	629 1564 154		46,5
	LED 22000lm 840	314	DALI	629 1566 154		46,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6
Film frame extractor tool (Set)	epic R	Film frame extractor for epic R	630 0000 110				0,1

▶ More Control modules see chapter control page 456.

WORLD CONFERENCE
CENTER BONN
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epic Q-HF

IP20

Housing
Aluminium profile, natural anodised. Surrounding shadow joint between housing and flat inserted film frame. Minimal dirt ingress via sealing lip between frame and housing.

Lighting technology -HF
Direct distribution.
Aluminium profile set flush in the housing with translucent film for a homogenous illumination appearance.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension Q
Four wire suspension with rapid coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).
Extraction tool for releasing film frame must be ordered separately.

Type	□ L	H	A1	P_{min}	P_{max}
epic Q 600	604	96	550	150	2000
epic Q 900	904	96	850	150	2000
epic Q 1200	1212	103	1150	150	2000
epic Q 1500	1504	103	1450	150	2000

epic Q 900-HF

10700lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	21,3
UGR long.	21,3

Type	LED Specification	P_{sys}(W)	Driver	Item-number	Colour	kg
epic Q 600-88-HF	LED 4800lm 840	47	ED	628 0604 164		10,7
	LED 4800lm 840	47	DALI	628 0606 164		10,7
epic Q 900-88-HF	LED 10700lm 840	105	ED	628 0904 164		19
	LED 10700lm 840	105	DALI	628 0906 164		19
epic Q 1200-88-HF	LED 18400lm 840	189	ED	628 1204 164		34
	LED 18400lm 840	189	DALI	628 1206 164		34
epic Q 1500-88-HF	LED 28800lm 840	296	ED	628 1504 164		42,5
	LED 28800lm 840	296	DALI	628 1506 164		42,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6
Film frame extractor tool (Set)	epic Q	Film frame extractor for epic Q	630 0000 110				0,1

▶ More Control modules see chapter control page 456.

fino-HMP

IP20

Housing
Aluminium profile, natural anodised. Face ends sheet steel, painted white aluminium. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -HMP
Direct distribution.
Transparent polycarbonate extruded profile with inserted micro-prismatic diffuser and white reflectors.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Y-wire suspension with rapid coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

natural anodised

traffic white

deep black

Type	L	B	H	A1	P_{min}	P_{max}
fino-HMP/1100	1143	72	92	1099	150	2000
fino-HMP/1400	1424	72	92	1380	150	2000
fino-HMP/2200	2272	72	92	2228	150	2000
fino-HMP/2800	2834	72	92	2790	150	2000

fino-HMP/1400

3600lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	19,9
UGR long.	21,7

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-HMP/1100	LED 2900lm 840	23	ED	535 4144 150		4,2
	LED 2900lm 840	23	DALI	535 4146 650		4,2
fino-HMP/1400	LED 3600lm 840	29	ED	535 5144 150		5,2
	LED 3600lm 840	29	DALI	535 5146 650		5,2
fino-HMP/2200	LED 5800lm 840	47	ED	535 8144 150		8,4
	LED 5800lm 840	47	DALI	535 8146 650		8,4
fino-HMP/2800	LED 7200lm 840	59	ED	535 0144 150		10,4
	LED 7200lm 840	59	DALI	535 0146 650		10,4

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

fino-HK

IP20

Housing
Aluminium profile, natural anodised. Face ends sheet steel, painted white aluminium. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology -HK
Direct distribution.
White-opal satin-finished polycarbonate extruded profile with white reflectors.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Y-wire suspension with rapid coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

natural anodised

traffic white

deep black

Type	L	B	H	A1	P_{min}	P_{max}
fino-HK/1100	1143	72	92	1099	150	2000
fino-HK/1400	1424	72	92	1380	150	2000
fino-HK/2200	2272	72	92	2228	150	2000
fino-HK/2800	2834	72	92	2790	150	2000

fino-HK/1400

3100lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	25,3
UGR long.	25,3

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-HK/1100	LED 2500lm 840	24	ED	535 4144 180		4
	LED 2500lm 840	24	DALI	535 4146 680		4
fino-HK/1400	LED 3100lm 840	29	ED	535 5144 180		5
	LED 3100lm 840	29	DALI	535 5146 680		5
fino-HK/2200	LED 5000lm 840	47	ED	535 8144 180		8
	LED 5000lm 840	47	DALI	535 8146 680		8
fino-HK/2800	LED 6300lm 840	59	ED	535 0144 180		10
	LED 6300lm 840	59	DALI	535 0146 680		10

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

fino Q-HK

IP20

Housing
Aluminium profile in square design, natural anodised, completely assembled. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).

Lighting technology Q-HK
Direct distribution.
Continuous homogeneous illumination via white-opal satin-finished polycarbonate extruded profile with white reflectors.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Four wire suspension with rapid coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

natural anodised

traffic white

deep black

Type	□ L	H	A1	P_{min}	P_{max}
fino Q 1200-HK	1212	92	1140	150	2000

fino Q 1200-HK

10000lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	25,0
UGR long.	25,1

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino Q 1200-HK	LED 10000lm 840	94	ED	545 4144 180		14,2
	LED 10000lm 840	94	DALI	545 4146 680		14,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

rail-HGI

IP20

Housing
Side parts aluminium profile, natural anodised. Face ends and top of the housing sheet steel, painted white aluminium.

Lighting technology -HGI
Direct/indirect distribution.
White-opal satin-finished polycarbonate extruded profile.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Y-wire suspension with rapid coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

Type	L	B	H	A1	A2	P_{min}	P_{max}
rail-HGI/1100	1131	62	71	1107		150	2000
rail-HGI/1400	1431	62	71	1407		150	2000
rail-HGI/2200	2258	62	71	2234	1117	150	2000
rail-HGI/2800	2858	62	71	2834	1417	150	2000

rail-HGI/1400

4100lm 840

η_{LB}	100 %
Direct	77 %
Indirect	23 %
UGR lat.	23,7
UGR long.	23,4

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
rail-HGI/1100	LED 3500lm 840	39	ED	671 0044 185		4,2
	LED 3500lm 840	39	DALI	671 0046 685		4,2
rail-HGI/1400	LED 4200lm 840	46	ED	671 0054 185		5
	LED 4200lm 840	46	DALI	671 0056 685		5
rail-HGI/2200	LED 7100lm 840	77	ED	671 0084 185		7,8
	LED 7100lm 840	77	DALI	671 0086 685		7,8
rail-HGI/2800	LED 8400lm 840	93	ED	671 0104 185		9,5
	LED 8400lm 840	93	DALI	671 0106 685		9,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

Universität Bamberg
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Bitte nehmen Sie kein Essen und keine Coffee-to-go-Becher mit.

LG

rail-HXI

IP20 3000 UGR 19

Housing
Side parts aluminium profile, natural anodised. Face ends and top of the housing sheet steel, painted white aluminium.

Lighting technology -HXI
Direct/indirect distribution.
Parabolic aluminium louvre, semi-specular anodised.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
Y-wire suspension with rapid coupling, free height adjustment between 150 and 2000mm.

Miscellaneous
Translucent connection cable pre-mounted.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

Type	L	B	H	A1	A2	P_{min}	P_{max}
rail-HXI/1100	1131	62	71	1107		150	2000
rail-HXI/1400	1431	62	71	1407		150	2000
rail-HXI/2200	2258	62	71	2234	1117	150	2000
rail-HXI/2800	2858	62	71	2834	1417	150	2000

rail-HXI/1400

4800lm 840

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
rail-HXI/1100	LED 4000lm 840	36	ED	671 0044 165		4,2
	LED 4000lm 840	36	DALI	671 0046 665		4,2
rail-HXI/1400	LED 4800lm 840	43	ED	671 0054 165		5
	LED 4800lm 840	43	DALI	671 0056 665		5
rail-HXI/2200	LED 8000lm 840	71	ED	671 0084 165		7,8
	LED 8000lm 840	71	DALI	671 0086 665		7,8
rail-HXI/2800	LED 9600lm 840	85	ED	671 0104 165		9,5
	LED 9600lm 840	85	DALI	671 0106 665		9,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

rason-RSHIMP

IP20 3000 UGR 19

Housing
Ultra-flat luminaire housing, aluminium profile, natural anodised, visible construction height 30mm; with continuous longitudinal groove, rounded towards the bottom of the luminaire.

Lighting technology -RSHIMP
Direct/indirect distribution.
Direct ratio by means of a microprismatic panel with conical glare elimination; homogeneous light emission through lateral LED light coupling and fitted aluminium reflector in a highly reflective white coating. With micro-perforation at upper side of the housing for a moderate ceiling illumination.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

HCL DALI DT8
Luminaire in tunable white technology for Human Centric Lighting.
927/warm white (2700K) - 965/daylight white (6500K) continuously adjustable. Suitable controls for tunable white technology on request.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1. Rated life time = L80 B10 50.000h.

Suspension
Y-wire suspension with rapid coupling, free height adjustment between 160 and 1900mm.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

Type	L	B	H	A1	A2	P_{min}	P_{max}
rason-RSHIMP/1200	1199	330	30	700		160	1900
rason-RSHIMP/1500	1480	330	30	863		160	1900
rason-RSHIMP/2900	2884	330	30	2266	1133	160	1900

rason-RSHIMP/1200

4900lm 840

rason-RSHIMP/1500

4700lm 927-965

rason-RSHIMP/2900

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
rason-RSHIMP/1200	LED 4900lm 840	44	ED	422 1014 175		6,3
	LED 4900lm 840	44	DALI	422 1016 675		6,3
	LED 3700lm 927-965	45	DALI DT8	422 4016 975		7,6
rason-RSHIMP/1500	LED 6300lm 840	55	ED	425 1024 175		7,8
	LED 6300lm 840	55	DALI	425 1026 675		7,8
	LED 4700lm 927-965	55	DALI DT8	425 4026 975		9,1
rason-RSHIMP/2900	LED 12600lm 840	110	ED	426 1054 175		15,0
	LED 12600lm 840	110	DALI	426 1056 675		15,0

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

SA-PS-Flex

SA-PS-Flex

SA-PS-Flex

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

rason-RSHIG

IP20

Housing
Ultra-flat luminaire housing, aluminium profile, natural anodised, visible construction height 30mm; with continuous longitudinal groove, rounded towards the bottom of the luminaire.

Lighting technology -RSHIG
Direct/indirect distribution.
Direct ratio by means of a satinised special acrylic panel, with high transmission and homogeneous light emission through lateral LED light coupling and fitted aluminium reflector in a highly reflective white coating.
With micro-perforation at upper side of the housing for a moderate ceiling illumination. Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

HCL DALI DT8
Luminaire in tunable white technology for Human Centric Lighting.
927/warm white (2700K) - 965/daylight white (6500K) continuously adjustable. Suitable controls for tunable white technology on request.
Rated life time = L80 B10 50.000h.

Suspension
Y-wire suspension with rapid coupling, free height adjustment between 160 and 1900mm.

Accessories
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling a maximum of 32 DALI luminaires.
Operation via free app and other system components (see page 456).

Type	L	B	H	A1	A2	P_{min}	P_{max}
rason-RSHIG/1200	1199	330	30	700		160	1900
rason-RSHIG/1500	1480	330	30	863		160	1900
rason-RSHIG/2900	2884	330	30	2266	1133	160	1900

rason-RSHIG/1200

4900lm 840

η_{LB}	100 %
Direct	84 %
Indirect	16 %
UGR lat.	20,1
UGR long	20,0

rason-RSHIG/1500

3700lm 927-965

η_{LB}	100 %
Direct	84 %
Indirect	16 %
UGR lat.	19,2
UGR long	19,1

HCL

rason-RSHIG/2900

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
rason-RSHIG/1200	LED 4900lm 840	44	ED	422 1014 115		6,3
	LED 4900lm 840	44	DALI	422 1016 615		6,3
	LED 3700lm 927-965	45	DALI DT8	422 4016 915		7,6
rason-RSHIG/1500	LED 6300lm 840	55	ED	425 1024 115		7,8
	LED 6300lm 840	55	DALI	425 1026 615		7,8
	LED 4700lm 927-965	55	DALI DT8	425 4026 915		9,1
rason-RSHIG/2900	LED 12700lm 840	110	ED	426 1054 115		15,0
	LED 12700lm 840	110	DALI	426 1056 615		15,0

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

SA-PS-Flex

SA-PS-Flex

SA-PS-Flex

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

▶ More Control modules see chapter control page 456.

A-B
C-D
HOME

PHASE-TRACKS AND LUMINAIRES

3-phase-track + DALI

DPSN P. 244

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Phase-track-luminaires

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swivelling; narrow-wide light distribution

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swivelling; asymmetrical distribution

clip-TT-OB P. 256
wide light distribution

clip-TT-OTB P. 260
narrow-wide light distribution

clip-TT-OG P. 264
diffus light distribution

emphara-EMTT P. 268

spotty-SYTT P. 272

DPSN phase-track

IP20 CE

3-phase track + DALI
Extruded aluminium profile natural anodized, traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).
Track can be shortened to any length by using suitable accessories.
7-pin track, 3x 16A/N/PE + DALI.

Accessories - P. 246

natural anodized

traffic white

deep black

Type	Details	Item-number	Colour	Colour	Colour	kg
DPSN-1000	3x 16A + DALI, L=1000mm	324 4100 10...	...5	...0	...4	1,1
DPSN-2000	3x 16A + DALI, L=2000mm	324 4200 10...	...5	...0	...4	2,1
DPSN-3000	3x 16A + DALI, L=3000mm	324 4300 10...	...5	...0	...4	3,4
DPSN-4000	3x 16A + DALI, L=4000mm	324 4400 10...	...5	...0	...4	4,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

DPSN phase track

Accessoires
for 3-phase track + DALI for building various structures.
All power supplies and connectors 7-pin; prepared for DALI wiring.
Mounting material for ceiling or grid ceiling and pendant mounting.
Adapter for connecting various luminaires to the DPSN track.
DPSN LBW for adjusting the length of the copper conductor after shortening the track on site.

LC-canopies

LC-canopy SA-PS-FLEX
Bluetooth 4.0 canopy SA-PS-Flex 10x for pendant phase-tracks with integrated Casambi module and power supply for controlling max. 32 DALI luminaires. Different presets e.g. DT6 or DT8 selectable. Operation via free app and other system components such as switches or pushbutton couplers.

LC-canopy DPSN-PS-FLEX
Bluetooth 4.0 canopy with power rail adapter DPSN-PS-Flex 10x with integrated Casambi module and power supply to control max. 32 DALI luminaires. Different presets e.g. DT6 or DT8 selectable. Operation via free app and other system components such as switches or pushbutton couplers.

DPSN ESL/ESR

DPSN ESM

DPSN KE

DPSN KM

DPSN KF

DPSN KTIR/KTIL

DPSN KWI/KWA

DPSN KX

DPSN AET

DPSN ADA

DPSN EK

DPSN TSB

DPSN DH

DPSN CS

DPSN AK

DPSN DB

DPSN SV

DPSN LBW

SA-PS-Flex

SA-PS-Flex

SA-PS-Flex

DPSN-PS-Flex

DPSN-PS-Flex

DPSN-PS-Flex

DPSN connection scheme top view

Accessories	Type	Material	Details	Item-number	Colour	Colour	Colour	kg
Feed in	DPSN ESL	PA	Feed in for DPSN, left	324 4002 10...	☐ ...0		■ ...4	0,1
	DPSN ESR	PA	Feed in for DPSN, right	324 4001 10...	☐ ...0		■ ...4	0,1
Feed in center	DPSN ESM	PA	Feed in for DPSN, center	324 4003 10...	☐ ...0		■ ...4	0,19
Rail connector	DPSN KE	PA	Rail connector for DPSN, electrical	324 4004 10...	☐ ...0		■ ...4	0,05
Rail connector	DPSN KM	PA	Rail connector for DPSN, mechanical	324 4005 10...	☐ ...0		■ ...4	0,05
Rail connector multiflex	DPSN KF	PA	Multiflex connector for DPSN, 0°-360°; horizontal and vertical	324 4006 10...	☐ ...0		■ ...4	0,24
T-rail connector right	DPSN KTIR	Mix	Rail connector for DPSN, right inside	324 4015 10...	☐ ...0		■ ...4	0,29
T-rail connector left	DPSN KTIL	Mix	Rail connector for DPSN, left inside	324 4018 10...	☐ ...0		■ ...4	0,29
Angle connector right	DPSN KWI	Mix	Angle connector for DPSN, right inside	324 4014 10...	☐ ...0		■ ...4	0,19
Angle connector left	DPSN KWA	Mix	Angle connector for DPSN, left outside	324 4017 10...	☐ ...0		■ ...4	0,19
Cross connector	DPSN KX	Mix	Cross connector for DPSN	324 4019 10...	☐ ...0		■ ...4	0,38
Adapter	DPSN AET	PC	DPSN-ED-adapter	324 4023 10...	☐ ...0		■ ...4	0,04
	DPSN ADA	PC	DPSN-DALI-Adapter	324 4022 10...	☐ ...0		■ ...4	0,04
End cap	DPSN EK	PA	End cap for DPSN	324 4007 10...	☐ ...0		■ ...4	0,01
Mounting 24mm t-rail	DPSN TSB	Mix	24mm t-rail mounting for DPSN	324 4020 100				0,01
Hook to attach deco elements	DPSN DH	Mix	Deco hook for DPSN	324 4021 10...	☐ ...0	sg ...5		0,01
Wire suspension (set)	DPSN CS	Mix	Wire suspension set 5200mm	324 4009 115				0,04
Suspension clamp	DPSN AK	Al	Suspension clamp for DPSN	324 4011 105				0,02
Ceiling mounting	DPSN DB	Al	Ceiling mounting for DPSN	324 4008 105				0,02
Rail connector	DPSN SV	Al	Stabilisation connector for DPSN	324 4012 105				0,03
Cutting tool	DPSN LBW		for adjusting the length of the copper conductors	324 4010 100				0,1

LC-canopies

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	☐ ...1	wa ...5	■ ...4	0,6
LC-canopy	DPSN-PS-FLEX	DPSN-PS-FLEX 10x, for DPSN-phase-track	324 4500 10...	☐ ...1	wa ...5	■ ...4	0,6

▶ More Control modules see chapter control Page 456.

clip

clip-OTB

for VDU workplaces!

narrow-wide
distribution

3000 UGR 19

The narrow-wide single lens optic convinces with it`s first class lighting technology.

UGR < 19, light density 65° < 3.000cd/m².

4 lighting technologies for your applications

-OB

Lens optic
wide distribution

-OTB

Lens optic
narrow-wide distribution

-OG

Lens optic
diffuse

-OA

Lens optic
asymmetrical

clip-TTS

NEW

perfect shop illumination

housing can be swiveled up to 60°

clip-TTS-OTB

IP20 3000 UGR 19

Housing
Sheet steel, powder-coated traffic white (similar to RAL 9016), painted white aluminium (similar to RAL 9006) or deep black (similar to RAL 9005). Further RAL-colours on request. Perfect vertical illumination thanks to housing which can be swiveled up to 60°.

Lighting technology -OTB
Direct narrow-wide light distribution.
Translucent lens optics made of acrylic with additional lateral transmission.
For VDU workstations 65°<3000cd/m² according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour 830 available on request.

Miscellaneous
Electrical connection via 3-phase + DALI track adaption type DPSN (dimmable) or universal adaption for ED (switchable).

Accessories
Tool clip-TT ERW to unlock luminaire from phase-track must be ordered separately.

Type	L	B	H
clip-TTS/900	915	55	40
clip-TTS/1200	1220	55	40
clip-TTS/1500	1525	55	40

clip-TTS-OTB/1500

6100lm 840

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
clip-TTS-OTB/900	LED 3300lm 840	20	ED	773 3344 10...	☐ ...0	wa ...6	■ ...4	1,6
	LED 3300lm 840	20	DALI	773 3346 60...	☐ ...0	wa ...6	■ ...4	1,6
clip-TTS-OTB/1200	LED 4400lm 840	27	ED	773 3444 10...	☐ ...0	wa ...6	■ ...4	2,2
	LED 4400lm 840	27	DALI	773 3446 60...	☐ ...0	wa ...6	■ ...4	2,2
clip-TTS-OTB/1500	LED 5500lm 840	33	ED	773 3544 10...	☐ ...0	wa ...6	■ ...4	2,8
	LED 5500lm 840	33	DALI	773 3546 60...	☐ ...0	wa ...6	■ ...4	2,8

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Unlocking tool	clip-TT ERW	Unlocking tool to release luminaire	722 9000 100	0,2

clip-TTS-OA

IP20

Housing
Sheet steel, powder-coated traffic white (similar to RAL 9016), painted white aluminium (similar to RAL 9006) or deep black (similar to RAL 9005). Further RAL-colours on request. Perfect vertical illumination thanks to housing which can be swiveled up to 60°.

Lighting technology -OA
Direct asymmetrical distribution.
Translucent lens optics made of acrylic with additional lateral transmission.
Rated life time = L80 B10 50.000h.
Light colour 830 available on request.

Miscellaneous
Electrical connection via 3-phase + DALI track adaption type DPSN (dimmable) or universal adaption for ED (switchable).

Accessories
Tool clip-TT ERW to unlock luminaire from phase-track must be ordered separately.

Type	L	B	H
clip-TTS/900	915	55	40
clip-TTS/1200	1220	55	40
clip-TTS/1500	1525	55	40

clip-TTS-OA/1500

6000lm 840

η_{LB}	100 %
Direct	98 %
Indirect	2 %
UGR lat.	17,1
UGR long.	20,4

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
clip-TTS-OA/900	LED 3300lm 840	20	ED	773 5344 10...	☐ ...0	wa ...6	■ ...4	1,6
	LED 3300lm 840	20	DALI	773 5346 60...	☐ ...0	wa ...6	■ ...4	1,6
clip-TTS-OA/1200	LED4400lm 840	27	ED	773 5444 10...	☐ ...0	wa ...6	■ ...4	2,2
	LED 4400lm 840	27	DALI	773 5446 60...	☐ ...0	wa ...6	■ ...4	2,2
clip-TTS-OA/1500	LED 5500lm 840	33	ED	773 5544 10...	☐ ...0	wa ...6	■ ...4	2,8
	LED 5500lm 840	33	DALI	773 5546 60...	☐ ...0	wa ...6	■ ...4	2,8

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Unlocking tool	clip-TT ERW	Unlocking tool to release luminaire	722 9000 100	0,2

clip-TT-OB

IP20

Housing
Sheet steel, powder-coated traffic white (similar to RAL 9016), painted white aluminium (similar to 9006) or deep black (similar to RAL 9005).
Further RAL-colours on request.

Lighting technology -OB
Direct wide light distribution.
Translucent lens optics made of acrylic with additional lateral transmission.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via 3-phase + DALI track adaption type DPSN (dimmable) or universal adaption for ED (switchable).

Accessories
Tool clip-TT ERW to release luminaire from track must be ordered separately.

Type	L	B	H
clip-TT/1200	1220	55	40
clip-TT/1500	1525	55	40
clip-TT/1800	1830	55	40

clip-TT-OB/1500

5500lm 840

η_{LB}	100 %
Direct	98 %
Indirect	2 %
UGR lat.	19,7
UGR long.	20,1

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
clip-TT-OB/1200	LED 4400lm 840	27	ED	772 1444 10...	☐ ...0	wa ...6	■ ...4	2,1
	LED 4400lm 840	27	DALI	772 1446 60...	☐ ...0	wa ...6	■ ...4	2,1
clip-TT-OB/1500	LED 5500lm 840	33	ED	772 1544 10...	☐ ...0	wa ...6	■ ...4	2,8
	LED 5500lm 840	33	DALI	772 1546 60...	☐ ...0	wa ...6	■ ...4	2,8
clip-TT-OB/1800	LED 6600lm 840	40	ED	772 1644 10...	☐ ...0	wa ...6	■ ...4	3,3
	LED 6600lm 840	40	DALI	772 1646 60...	☐ ...0	wa ...6	■ ...4	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Unlocking tool	clip-TT ERW	Unlocking tool to release luminaire	722 9000 100	0,2

LOVE
BAKER
jeu € 8,00€

clip-TT-OTB

IP20 3000 UGR 19

Housing
Sheet steel, powder-coated traffic white (similar to RAL 9016), painted white aluminium (similar to 9006) or deep black (similar to RAL 9005).
Further RAL-colours on request.

Lighting technology -OTB
Direct narrow-wide light distribution.
Translucent lens optics made of acrylic with additional lateral transmission.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 100.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via 3-phase + DALI track adaption type DPSN (dimmable) or universal adaption for ED (switchable).

Accessories
Tool clip-TT ERW to release luminaire from track must be ordered separately.

Type	L	B	H
clip-TT/1200	1220	55	40
clip-TT/1500	1525	55	40
clip-TT/1800	1830	55	40

clip-TT-OTB/1500

5500lm 840

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
clip-TT-OTB/1200	LED 4400lm 840	27	ED	772 3444 10...	☐ ...0	wa ...6	■ ...4	2,1
	LED 4400lm 840	27	DALI	772 3446 60...	☐ ...0	wa ...6	■ ...4	2,1
clip-TT-OTB/1500	LED 5500lm 840	33	ED	772 3544 10...	☐ ...0	wa ...6	■ ...4	2,8
	LED 5500lm 840	33	DALI	772 3546 60...	☐ ...0	wa ...6	■ ...4	2,8
clip-TT-OTB/1800	LED 6600lm 840	40	ED	772 3644 10...	☐ ...0	wa ...6	■ ...4	3,3
	LED 6600lm 840	40	DALI	772 3646 60...	☐ ...0	wa ...6	■ ...4	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Unlocking tool	clip-TT ERW	Unlocking tool to release luminaire	722 9000 100	0,2

clip-TT-OG

IP20

Housing
Sheet steel, powder-coated traffic white (similar to RAL 9016), painted white aluminium (similar to 9006) or deep black (similar to RAL 9005).
Further RAL-colours on request.

Lighting technology -OG
Direct diffuse light distribution.
Ice-finish Individual Lens Optic made of acrylic with lateral beam.
Rated life time = L80 B10 100.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via 3-phase + DALI track adaption type DPSN (dimmable) or universal adaption for ED (switchable).

Accessories
Tool clip-TT ERW to release luminaire from track must be ordered separately.

Type	L	B	H
clip-TT/1200	1220	55	40
clip-TT/1500	1525	55	40
clip-TT/1800	1830	55	40

clip-TT-OG/1500

5700lm 840

η_{LB}	100 %
Direct	90 %
Indirect	10 %
UGR lat.	25,5
UGR long.	24,8

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
clip-TT-OG/1200	LED 4100lm 840	27	ED	772 7444 10...	☐ ...0	wa ...6	■ ...4	2,1
	LED 4100lm 840	27	DALI	772 7446 60...	☐ ...0	wa ...6	■ ...4	2,1
clip-TT-OG/1500	LED 5200lm 840	33	ED	772 7544 10...	☐ ...0	wa ...6	■ ...4	2,8
	LED 5200lm 840	33	DALI	772 7546 60...	☐ ...0	wa ...6	■ ...4	2,8
clip-TT-OG/1800	LED 6200lm 840	40	ED	772 7644 10...	☐ ...0	wa ...6	■ ...4	3,3
	LED 6200lm 840	40	DALI	772 7646 60...	☐ ...0	wa ...6	■ ...4	3,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Unlocking tool	clip-TT ERW	Unlocking tool to release luminaire	722 9000 100	0,2

VIEW

emphara-EMTT

IP20

Housing
Phase-track spotlight, can be turned 350° and swiveled 90°.
Compact spotlight unit made of die-cast aluminium with driver integrated into hinged arm. Painted traffic white, silvergrey or black.

Lighting technology -EMTT
Direct narrow distribution.
Highly specular faceted reflector made of efficient MIRO-SILVER aluminium with reflection coefficient of 99.8%; beam angle 30°; clear safety glass;
Rated life time = L80 B10 50.000h.
Light colour: 4000K or 3000K. Other light colours on request.

Miscellaneous
Integrated electronic LED driver; connection via universal 3-phase-track adapter, or for dimmable luminaires via 3-phase DALI adapter for DPSN.

Accessories
Replacement reflector 40° highly specular faceted or 60° matt segmented must be ordered separately.

Type	L	H	H2	D
emphara-EMTT	180	145	254	110

emphara-EMTT

3000lm 840 30°

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	16,6
UGR long.	16,6

Type	LED Specification	P_{Sys}(W)	α	Driver	Item-number	Colour	Colour	Colour	kg
emphara-EMTT/110	LED 2900lm 830	25	30°	ED	351 1014 13...	☐...0	sg...5	■...4	1,2
	LED 2900lm 830	25	30°	DALI	351 1016 63...	☐...0	sg...5	■...4	1,2
	LED 3900lm 830	30	30°	ED	351 2014 13...	☐...0	sg...5	■...4	1,2
	LED 3900lm 830	30	30°	DALI	351 2016 63...	☐...0	sg...5	■...4	1,2
	LED 3000lm 840	25	30°	ED	351 1024 13...	☐...0	sg...5	■...4	1,2
	LED 3000lm 840	25	30°	DALI	351 1026 63...	☐...0	sg...5	■...4	1,2
	LED 4100lm 840	36	30°	ED	351 2024 13...	☐...0	sg...5	■...4	1,2
	LED 4100lm 840	36	30°	DALI	351 2026 63...	☐...0	sg...5	■...4	1,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Replacement reflector	40°/D=110	beam angle 40°, highly specular faceted	350 4014 140	0,1
	60°/D=110	beam angle 60°, matt segmented	350 0004 160	0,1

spotty-SYTT

IP20

Housing
Phase-track spotlight, can be turned 350° and swiveled 90°.
Increased CRI90. Compact spotlight unit made of die-cast aluminium with thermal separated technology housing.
Painted traffic white, silvergrey or black.

Lighting technology -SYTT
Direct narrow light distribution.
Light distribution using matt segmented reflector made of highly efficient MIRO-SILVER aluminium with reflection coefficient of 99.8%; Beam angle 36°; clear safety glass;
Rated life time = L80 B50 50.000h.
Light colour: 4000K or 3000K. Other light colours on request.

Miscellaneous
Integrated electronic LED driver; connection via universal 3-phase-track adapter, or for dimmable luminaires via 3-phase DALI adapter for DPSN.

Type	L	H	H2	D
spotty-SYTT	201	114	182	75

spotty-SYTT

2700lm 940 36°

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	15,8
UGR long.	15,8

Type	LED Specification	P_{Sys}(W)	α	Driver	Item-number	Colour	Colour	Colour	kg
spotty-SYTT	LED 2600lm 930	24	36°	ED	359 1014 13...	☐ ...0	sg ...5	■ ...4	0,9
	LED 2600lm 930	24	36°	DALI	359 1016 63...	☐ ...0	sg ...5	■ ...4	0,9
	LED 2700lm 940	24	36°	ED	359 1024 13...	☐ ...0	sg ...5	■ ...4	0,9
	LED 2700lm 940	24	36°	DALI	359 1026 63...	☐ ...0	sg ...5	■ ...4	0,9

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

LIGHTING SYSTEMS

serio

serio pendant system P.284

PROFILE UNITS

serio-HIT LB P. 290
Profile incl. LED-unit

serio-HITOS P. 292
Profile incl. integrated micro-cell grid

serio-HITES P. 294
Profile incl. integrated built-in spotlights

LIGHTING TECHNOLOGY

serio-G
Endless-Diffusor

CORNERPROFILE

serio-HITL/-HITR 90° LB P. 304
Corner profile 90° incl. LED-unit

serio-HITL/-HITR 135° LB P. 306
Corner profile 135° incl. LED-unit

serio-HITBL/-HITBR 90° LB P. 308
Corner profile 90° incl. LED-unit

serio wall system P.310

PROFILE UNITS

serio-WITFA LB P. 312
Profile incl. LED-unit

LIGHTING TECHNOLOGY

serio-G
Endless-Diffusor

INDEX

serio-HITS P. 296
Profile incl. spotlights

serio-HITD P. 298
Profile incl.DPSN-phase-track

emphara-EMTT P. 300
Spotlights for DPSN-phase-track

spotty-SYTT P. 302
Spotlights for DPSN-phase-track

fino

fino recessed system P.314

PROFILE UNITS

fino-ET LB P. 318
Profile incl. LED-unit

fino-ETL/L / -ETL/R LB P. 320
Corner profile 90° incl. LED-unit

fino surface mounted system P.328

PROFILE UNITS

fino-AT LB P. 332
Profile incl. LED-unit

fino-ATL/L / -ATL/R LB P. 334
Corner profile 90° incl. LED-unit

fino pendant system P.342

PROFILE UNITS

fino-HT LB P. 346
Profile incl. LED-unit

fino-HTL/L / -HTL/R LB P. 348
Corner profile 90° incl. LED-unit

INDEX

LIGHTING TECHNOLOGY

fino-K P. 322
white-opal Diffusor

fino-MP P. 324
microprismatic Diffusor

LIGHTING TECHNOLOGY

fino-K P. 336
white-opal Diffusor

fino-MP P. 338
microprismatic Diffusor

LIGHTING TECHNOLOGY

fino-K P. 350
white-opal Diffusor

fino-MP P. 352
microprismatic Diffusor

Controlable pendant system components

serio pendant system P. 284

PROFILE UNITS

serio-HIT LB P. 290
Profile incl. LED-unit

serio-HITOS P. 292
Profile incl. integrated micro-cell grid

serio-HITES P. 294
Profile incl. integrated built-in spotlights

PROFILE UNITS

serio-HITS P. 296
Profile incl. spotlights

serio-HITD P. 298
Profile incl.DPSN-phase-track

CORNERPROFILE

serio-HITL/-HITR 90° LB P. 304
Corner profile 90° incl. LED-unit

serio-HITL/-HITR 135° LB P. 306
Corner profile 135° incl. LED-unit

serio-HITBL/-HITBR 90° LB P. 308
Corner profile 90° incl. LED-unit

fino pendant system P.342

PROFILE UNITS

fino-HT LB P. 346
Profile incl. LED-unit

fino-HTL/L / -HTL/R LB P. 348
Corner profile 90° incl. LED-unit

LC-canopy SA-PS-Flex for serio-H... + fino-H...

Our DALI pendant system luminaires are Casambi Ready.
With our LC canopy it is possible to control pendant lights wireless via app. A conventional control with a switch is always possible too.

LC-canopy SA-PS-FLEX
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling max. 32 DALI luminaires. Different profiles e.g. DT6 or DT8 selectable. Operation via free app and other system components such as switches or pushbutton couplers, see page 456.

Top view of canopy mounting plate

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	☐ ...5	wa ...1	■ ...4	0,1

▶ More Control modules see chapter control Page 456.

BAUR

serio PENDANT SYSTEM

Configurator

Complex lighting structures
just in a few steps - give it a try!

On our website www.lichtwerk.de you will find a configuration tool for our serio lighting system.With this, structures can be designed and changed quick and easy.
You will also receive a compilation of informations based on your configuration, such as system combination, catalog prices, tender texts, dxf-files, etc.

Take a look and be surprised by the possibilities that serio offers.

serio pendant system

PROFILE UNITS

serio-HIT LB P. 290
Profile incl. LED-unit

serio-HITOS P. 292
Profile incl. integrated micro-cell grid

serio-HITES P. 294
Profile incl. integrated built-in spotlights

LIGHTING TECHNOLOGY

serio-G
Endless-Diffusor

CORNER PROFILE

serio-HITL/-HITR 90° LB P. 304
Corner profile 90° incl. LED-unit

serio-HITL/-HITR 135° LB P. 306
Corner profile 135° incl. LED-unit

serio-HITBL/-HITBR 90° LB P. 308
Corner profile 90° incl. LED-unit

ACCESSORIES

serio-HITE A/E
For open lighting system designs

serio-HITE A/E
For open lighting system designs: face ends incl. suspension, connection cable and ceiling canopy

Example lighting structures:

INDEX

serio-HITS P. 296
Profile incl. spotlights

serio-HITD P. 298
Profile incl.DPSN-phase-track

emphara-EMTT P. 300
Spotlights for DPSN-phase-track

spotty-SYTT P. 302
Spotlights for DPSN-phase-track

serio-AL
For closed lighting system designs

serio-AL
For closed lighting system designs: cennection cable and ceiling canopy

Example lighting structures:

serio-HIT...LB

IP20

System luminaire for endless diffusor serio-G.

Housing
Aluminium profile, natural anodised, traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology
Direct/indirect distribution, DALI variant separately dimmable.
Constant indirect share via white-opal, satin-finished acrylic diffusor throughout all system components.
Direct share via white-opal, satin-finished acrylic endless diffusor serio-G.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Suspension
For system profile serio-HIT LB one wire suspension is in scope of delivery.

Accessories
Endless diffusor serio-G for direct share must be ordered separately according to total system length. For open lighting system designs one face-end set serio-HITE A/E, for closed lighting system designs one connection cable serio-AL must be ordered separately.

Type	L	B	H	A1	Pmin	Pmax
serio-HIT/0800 LB	845	61	106	845	150	2000
serio-HIT/1100 LB	1125	61	106	1125	150	2000
serio-HIT/1400 LB	1405	61	106	1405	150	2000
serio-HIT/2200 LB	2245	61	106	2245	150	2000
serio-HIT/2800 LB	2805	61	106	2805	150	2000
serio-HITE A/E LB	1	61	106		150	2000

serio-HIT/1400 + serio-G
7900lm 840

η_{LB}	100 %
Direct	64 %
Indirect	36 %
UGR lat.	22,1
UGR long.	23,2

serio-HIT LB

serio-HITE A/E LB

LC-canopies
see Page 283

Corner profile
see Page 304

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HIT/0800 LB	LED 2400lm 840	20	ED	543 3044 10...	...5	...1	...4	3
	LED 4600lm 840	41	ED	543 3144 10...	...5	...1	...4	3
	LED 4600lm 840	41	DALI	543 3146 60...	...5	...1	...4	3
serio-HIT/1100 LB	LED 3200lm 840	26	ED	543 4044 10...	...5	...1	...4	4,1
	LED 6200lm 840	55	ED	543 4144 10...	...5	...1	...4	4,1
	LED 6200lm 840	55	DALI	543 4146 60...	...5	...1	...4	4,1
serio-HIT/1400 LB	LED 4100lm 840	34	ED	543 5044 10...	...5	...1	...4	5,3
	LED 7900lm 840	70	ED	543 5144 10...	...5	...1	...4	5,3
	LED 7900lm 840	70	DALI	543 5146 60...	...5	...1	...4	5,3
serio-HIT/2200 LB	LED 6400lm 840	52	ED	543 8044 10...	...5	...1	...4	8
	LED 12500lm 840	110	ED	543 8144 10...	...5	...1	...4	8
	LED 12500lm 840	110	DALI	543 8146 60...	...5	...1	...4	8
serio-HIT/2800 LB	LED 8200lm 840	67	ED	543 0044 10...	...5	...1	...4	10
	LED 15800lm 840	139	ED	543 0144 10...	...5	...1	...4	10
	LED 15800lm 840	139	DALI	543 0146 60...	...5	...1	...4	10

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	Colour	kg
Endless diffusor	serio-G/06000 diffusor	Acrylic endless diffusor 6m	543 0600 180	tz			0,7
	serio-G/10000 diffusor	Acrylic endless diffusor 10m	543 1000 180	tz			1,1
	serio-G/20000 diffusor	Acrylic endless diffusor 20m	543 2000 180	tz			2,2
Face-end set	serio-HITE A/E LB Set 3x0,75	2x face ends, 1x suspension 1x connection cable 3 pol. incl. ceiling canopy	543 0137 10...	wa ...5	...1	...4	0,4
	serio-HITE A/E LB Set 5x0,75	2x face ends, 1x suspension 1x connection cable 5 pol. incl. ceiling canopy	543 0157 10...	wa ...5	...1	...4	0,5
Connection cable	serio-AL 3x0,75	Connection cable 3 pol. incl. ceiling canopy	543 0037 105				0,2
	serio-AL 5x0,75	Connection cable 5 pol. incl. ceiling canopy	543 0057 105				0,3

serio-HITOS...LB

IP20 3000 UGR 19 CE

System luminaire with integrated micro-cell grid.

Housing
Aluminium profile, natural anodised. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology -HITOS
Direct/indirect distribution, DALI variant separately dimmable.
Constant indirect share via white-opal, satin-finished acrylic diffusor throughout all system components.
Direct share via integrated micro cell grid.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Suspension
For system profile serio-HITOS LB one wire suspension is in scope of delivery.
Free height adjustment between 150 and 2000mm.

Accessories
For open lighting system designs one face-end set serio-HITE A/E, for closed lighting system designs one connection cable serio-AL must be ordered separately.

Type	L	B	H	A1	P_{min}	P_{max}
serio-HITOS/1100	1125	61	106	1125	150	2000
serio-HITOS/1700	1685	61	106	1685	150	2000
serio-HITOS/2200	2245	61	106	2245	150	2000
serio-HITOS/2800	2805	61	106	2805	150	2000
serio-HITE A/E LB	1	61	106		150	2000

serio-HITOS/1700

6200lm 840

serio-HITOS LB

serio-HITE A/E LB

LC-canopies
see Page 283

Corner profile
see Page 304

Type	LED Specification	P_{sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HITOS/1100 LB	LED 2600lm 840	18	ED	547 4044 17...	...5	...1	...4	4,8
	LED 4200lm 840	32	ED	547 4144 17...	...5	...1	...4	4,8
	LED 4200lm 840	32	DALI	547 4146 67...	...5	...1	...4	4,8
serio-HITOS/1700 LB	LED 3800lm 840	26	ED	547 6044 17...	...5	...1	...4	6,7
	LED 6200lm 840	47	ED	547 6144 17...	...5	...1	...4	6,7
	LED 6200lm 840	47	DALI	547 6146 67...	...5	...1	...4	6,7
serio-HITOS/2200 LB	LED 5000lm 840	35	ED	547 8044 17...	...5	...1	...4	8,6
	LED 8400lm 840	63	ED	547 8144 17...	...5	...1	...4	8,6
	LED 8400lm 840	63	DALI	547 8146 67...	...5	...1	...4	8,6
serio-HITOS/2800 LB	LED 6300lm 840	44	ED	547 0044 17...	...5	...1	...4	10,5
	LED 10500lm 840	79	ED	547 0144 17...	...5	...1	...4	10,5
	LED 10500lm 840	79	DALI	547 0146 67...	...5	...1	...4	10,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	Colour	kg
Face-end set	serio-HITE A/E LB Set 3x0,75	2x face ends, 1x suspension 1x connection cable 3 pol. incl. ceiling canopy	543 0137 10...	wa ...5	...1	...4	0,4
	serio-HITE A/E LB Set 5x0,75	2x face ends, 1x suspension 1x connection cable 5 pol. incl. ceiling canopy	543 0157 10...	wa ...5	...1	...4	0,5
Connection cable	serio-AL 3x0,75	Connection cable 3 pol. incl. ceiling canopy	543 0037 105				0,2
	serio-AL 5x0,75	Connection cable 5 pol. incl. ceiling canopy	543 0057 105				0,3

serio-HITES...LB

IP20 UGR 19

System luminaire with integrated built-in spotlights.

Housing
Aluminium profile, natural anodised. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).
Other housing colours on request.

Lighting technology -HITES
Direct/indirect distribution, DALI variant separately dimmable.
Constant indirect share via white-opal, satin-finished acrylic diffusor thoughout all system components.
Direct share via integrated built-in spotlights; beam angle 25°. UGR ≤ 19.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Suspension
For system profile serio-HITES LB one wire suspension is in scope of delivery. Free height adjustment between 150 and 2000mm.

Accessories
For open lighting system designs one face-end set serio-HITE A/E, for closed lighting system designs one connection cable serio-AL must be ordered separately.

nautral anodised

traffic white

deep black

Type	L	B	H	A1	Pmin	Pmax
serio-HITES/1100 LB	1125	61	106	1125	150	2000
serio-HITES/1700 LB	1685	61	106	1685	150	2000
serio-HITE A/E LB	1	61	106		150	2000

serio-HITES/1100

2600lm 840

η_{LB}	100 %
Direct	47 %
Indirect	53 %
UGR lat.	< 10,0
UGR long.	< 10,0

UGR 19

serio-HITES LB

serio-HITE A/E LB

serio-HITES/1100 LB

serio-HITES/1700 LB

LC-canopies
see Page 283

Corner profile
see Page 304

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HITES/1100 LB	LED 2600lm 840	24	ED	543 4044 17...	...5	...1	...4	5,1
	LED 3600lm 840	34	ED	543 4144 17...	...5	...1	...4	5,1
	LED 3600lm 840	34	DALI	543 4146 67...	...5	...1	...4	5,1
serio-HITES/1700 LB	LED 3700lm 840	36	ED	543 6044 17...	...5	...1	...4	7,6
	LED 5300lm 840	50	ED	543 6144 17...	...5	...1	...4	7,6
	LED 5300lm 840	50	DALI	543 6146 67...	...5	...1	...4	7,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	Colour	kg
Face-end set	serio-HITE A/E LB Set 3x0,75	2x face ends, 1x suspension 1x connection cable 3 pol. incl. ceiling canopy	543 0137 10...	wa ...5	...1	...4	0,4
	serio-HITE A/E LB Set 5x0,75	2x face ends, 1x suspension 1x connection cable 5 pol. incl. ceiling canopy	543 0157 10...	wa ...5	...1	...4	0,5
Connection cable	serio-AL 3x0,75	Connection cable 3 pol. incl. ceiling canopy	543 0037 105				0,2
	serio-AL 5x0,75	Connection cable 5 pol. incl. ceiling canopy	543 0057 105				0,3

serio-HITS...LB

IP20

System luminaire with three integrated surface mounted spotlights.

Housing
Aluminium profile incl. LED-unit for indirect share, natural anodised. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request. Three integrated surface mounted spotlights at the bottom of the housing.

Lighting technology -HITS
Direct/indirect distribution, DALI variant separately dimmable.
Constant indirect share via white-opal, satin-finished acrylic diffusor throughout all system components.
Direct share via three integrated surface mounted spotlights; beam angle 40°.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Suspension
For system profile serio-HITS LB one wire suspension is in scope of delivery.
Free height adjustment between 150 and 2000mm.

Accessories
For open lighting system designs one face-end set serio-HITE A/E LB, for closed lighting system designs one connection cable serio-AL must be ordered separately.

nautral anodised

traffic white

deep black

Type	L	B	H	A1	Pmin	Pmax
serio-HITS/0800 LB	845	61	190	845	150	2000
serio-HITE A/E LB	1	61	190		150	2000

serio-HITS/0800

2500lm 840

η_{LB}	100 %
Direct	46 %
Indirect	54 %
UGR lat.	< 10,0
UGR long.	< 10,0

serio-HITS LB

serio-HITE A/E LB

LC-canopies
see Page 283

Corner profile
see Page 304

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HITS/0800 LB	LED 2500lm 840	24	ED	543 3044 14...	...5	...1	...4	4,0
	LED 3300lm 840	31	ED	543 3144 14...	...5	...1	...4	4,0
	LED 3300lm 840	31	DALI	543 3146 64..	...5	...1	...4	4,0

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	Colour	kg
Face-end set	serio-HITE A/E LB Set 3x0,75	2x face ends, 1x suspension 1x connection cable 3 pol. incl. ceiling canopy	543 0137 10...	wa ...5	...1	...4	0,4
	serio-HITE A/E LB Set 5x0,75	2x face ends, 1x suspension 1x connection cable 5 pol. incl. ceiling canopy	543 0157 10...	wa ...5	...1	...4	0,5
Connection cable	serio-AL 3x0,75	Connection cable 3 pol. incl. ceiling canopy	543 0037 105				0,2
	serio-AL 5x0,75	Connection cable 5 pol. incl. ceiling canopy	543 0057 105				0,3

serio-HITD...LB

IP20

System luminaire with integrated
DPSN-3-phase-track + DALI.

Housing
Aluminium profile incl. LED-unit for indirect share, natural anodised, traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request. The integrated 3-phase-track + DALI is able to carry emphara or spotty series spotlights. Other standard track lights can also be mounted. 7-pole phase track, 3x 10A/N/PE + DALI. 5 poles usable.

Lighting technology
Indirect distribution.
Constant indirect share via white-opal, satin-finished acrylic diffusor throughout all system components.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Suspension
For system profile serio-HITD LB one wire suspension is in scope of delivery.

Accessories
For open lighting system designs the face-end set serio-HITE A/E LB, for closed lighting system designs the connection cable serio-AL must be ordered separately.

Type	L	B	H	A1	Pmin	Pmax
serio-HITD/0800 LB	845	61	106	845	150	2000
serio-HITD/1100 LB	1125	61	106	1125	150	2000
serio-HITD/1400 LB	1405	61	106	1405	150	2000
serio-HITE A/E LB	1	61	106		150	2000

serio-HITD/1400

2800lm 840

η_{LB}	100 %
Direct	0 %
Indirect	100 %

serio-HITD LB

serio-HITE A/E LB

LC-canopies
see Page 283

Corner profile
see Page 304

Type	Usable DPSN space	max. number emphara	max. number spotty	max. load
serio-HITD/0800 LB	540mm	2	2	6,8
serio-HITD/1100 LB	820mm	3	3	5,4
serio-HITD/1400 LB	1100mm	3	4	4,0

▶ Don`t exceed max. load!

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HITD/0800 LB	LED 900lm 840	7	ED	543 3044 13...	...5	...1	...4	4,2
	LED 1600lm 840	14	ED	543 3144 13...	...5	...1	...4	4,2
	LED 1600lm 840	14	DALI	543 3146 63...	...5	...1	...4	4,2
serio-HITD/1100 LB	LED 1200lm 840	9	ED	543 4044 13...	...5	...1	...4	5,6
	LED 2200lm 840	18	ED	543 4144 13...	...5	...1	...4	5,6
	LED 2200lm 840	18	DALI	543 4146 63..	...5	...1	...4	5,6
serio-HITD/1400 LB	LED 1500lm 840	11	ED	543 5044 13...	...5	...1	...4	7,0
	LED 2800lm 840	23	ED	543 5144 13...	...5	...1	...4	7,0
	LED 2800lm 840	23	DALI	543 5146 63..	...5	...1	...4	7,0

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	Colour	kg
Face-end set	serio-HITE A/E LB Set 3x0,75	2x face ends, 1x suspension 1x connection cable 3 pol. incl. ceiling canopy	543 0137 10...	wa ...0	...1	...4	0,4
	serio-HITE A/E LB Set 5x0,75	2x face ends, 1x suspension 1x connection cable 5 pol. incl. ceiling canopy	543 0157 10...	wa ...0	...1	...4	0,5
Connection cable	serio-AL 3x0,75	Connection cable 3 pol. incl. ceiling canopy	543 0037 105				0,2
	serio-AL 5x0,75	Connection cable 5 pol. incl. ceiling canopy	543 0057 105				0,3

serio-HITD LB + emphara-EMTT

emphara-EMTT

IP20

Housing
Phase-track spotlight, can be turned 350° and swiveled 90°.
Compact spotlight unit made of die-cast aluminium with driver integrated into hinged arm. Painted silver grey, traffic white or black.

Lighting technology -EMTT
Direkt narrow distribution.
Highly specular faceted reflector made of efficient MIRO-SILVER aluminium with reflection coefficient of 99.8%; beam angle 30°; clear safety glass;
Rated life time = L80 B10 50.000h.
Light colour: 4000K or 3000K. Other light colours on request.

Miscellaneous
Integrated electronic LED driver; connection via universal 3-phase-track adapter, or for dimmable luminaires via 3-phase DALI adapter for DPSN.

Accessories
Replacement reflector 40° highly specular faceted or 60° matt segmented must be ordered separately.

Type	L	H	H2	D
emphara-EMTT	180	145	254	110

emphara-EMTT

3000lm 840 30°

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	16,6
UGR long.	16,6

Type	LED Specification	α	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
emphara-EMTT/110	LED 2900lm 830	30°	25	ED	351 1014 13...	sg ...5	☐ ...0	■ ...4	1,2
	LED 2900lm 830	30°	25	DALI	351 1016 63...	sg ...5	☐ ...0	■ ...4	1,2
	LED 3900lm 830	30°	36	ED	351 2014 13..	sg ...5	☐ ...0	■ ...4	1,2
	LED 3900lm 830	30°	36	DALI	351 2016 63..	sg ...5	☐ ...0	■ ...4	1,2
	LED 3000lm 840	30°	25	ED	351 1024 13...	sg ...5	☐ ...0	■ ...4	1,2
	LED 3000lm 840	30°	25	DALI	351 1026 63..	sg ...5	☐ ...0	■ ...4	1,2
	LED 4100lm 840	30°	36	ED	351 2024 13..	sg ...5	☐ ...0	■ ...4	1,2
	LED 4100lm 840	30°	36	DALI	351 2026 63..	sg ...5	☐ ...0	■ ...4	1,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Replacement reflector	40°/D=110	Beam angle 40°, highly specular faceted	350 4014 140	■	0,1
	60°/D=110	Beam angle 60°, matt segmented	350 0004 160	■	0,1

serio-HITD LB + spotty-SYTT

spotty-SYTT

IP20

Housing
Phase-track spotlight, can be turned 350° and swiveled 90°.
Increased CRI90. Compact spotlight unit made of die-cast aluminium with thermal separated technology housing. Painted silver grey, traffic white or black.

Lighting technology -SYTT
Direct narrow light distribution.
Light distribution using matt segmented reflector made of highly efficient MIRO-SILVER aluminium with reflection coefficient of 99.8%; Beam angle 36°; clear safety glass;
Rated life time = L80 B50 50.000h.
Light colour: 4000K or 3000K. Other light colours on request.

Miscellaneous
Integrated electronic LED driver; connection via universal 3-phase-track adapter, or for dimmable luminaires via 3-phase DALI adapter for DPSN.

Type	L	H	H2	D
spotty-SYTT	201	114	182	75

spotty-SYTT

2700lm 940 36°

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	15,8
UGR long.	15,8

Type	LED Specification	P_{Sys}(W)	α	Driver	Item-number	Colour	Colour	Colour	kg
spotty-SYTT	LED 2600lm 930	24	36°	ED	359 1014 13...	sg ...5	☐ ...0	■ ...4	0,9
	LED 2600lm 930	24	36°	DALI	359 1016 63...	sg ...5	☐ ...0	■ ...4	0,9
	LED 2700lm 940	24	36°	ED	359 1024 13...	sg ...5	☐ ...0	■ ...4	0,9
	LED 2700lm 940	24	36°	DALI	359 1026 63...	sg ...5	☐ ...0	■ ...4	0,9

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

serio-HITL 90° LB + serio-G

serio-HITL/-HITR 90°...LB

IP20

System luminaire 90° for endless diffusor serio-G.
-HITL (left corner) / -HITR (right corner)

Housing
Aluminium profile formed as 90°-angle, natural anodised, traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology
Direct/indirect distribution, DALI Variant separately dimmable.
Constant indirect share via white-opal, satin-finished acrylic diffusor throughout all system components.
Direct share via white-opal, satin-finished acrylic endless diffusor serio-G.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Suspension
For system profile serio-HITL LB or serio-HITR LB two wire suspensions are in scope of delivery.

Accessories
Endless diffusor serio-G for direct share must be ordered separately according to total system length. For open lighting system designs the face-end set serio-HITE A/E LB, or closed lighting system designs the connection cable serio-AL must be ordered separately.

Type	L	B	H	A1	Pmin	Pmax
serio-HITL /0600 LB	615	61	106	585	150	2000
serio-HITR /0600 LB	615	61	106	585	150	2000
serio-HITE A/E LB	1	61	106		150	2000

serio-HITL/0600 90° + serio-G

6200lm 840

η_{LB}	100 %
Direct	64 %
Indirect	36 %
UGR lat.	16,5
UGR long.	16,5

serio-HITL LB

serio-HITR LB

serio-HITE A/E LB

Special angle on request.

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HITL/0600 90°LB	LED 3200lm 840	26	ED	543 4044 12...	...5	...1	...4	4,3
	LED 6200lm 840	55	ED	543 4144 12...	...5	...1	...4	4,3
	LED 6200lm 840	55	DALI	543 4146 62...	...5	...1	...4	4,3
serio-HITR/0600 90°LB	LED 3200lm 840	26	ED	543 4044 11...	...5	...1	...4	4,3
	LED 6200lm 840	55	ED	543 4144 11...	...5	...1	...4	4,3
	LED 6200lm 840	55	DALI	543 4146 61...	...5	...1	...4	4,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	Colour	kg
Endless diffusor	serio-G/06000 diffusor	Acrylic endless diffusor 6m	543 0600 180	tz			0,7
	serio-G/10000 diffusor	Acrylic endless diffusor 10m	543 1000 180	tz			1,1
	serio-G/20000 diffusor	Acrylic endless diffusor 20m	543 2000 180	tz			2,2
Face-end set	serio-HITE A/E LB Set 3x0,75	2x face ends, 1x suspension 1x connection cable 3 pol. incl. ceiling canopy	543 0137 10...	wa ...5	...1	...4	0,4
	serio-HITE A/E LB Set 5x0,75	2x face ends, 1x suspension 1x connection cable 5 pol. incl. ceiling canopy	543 0157 10...	wa ...5	...1	...4	0,5
Connection cable	serio-AL 3x0,75	Connection cable 3 pol. incl. ceiling canopy	543 0037 105				0,2
	serio-AL 5x0,75	Connection cable 5 pol. incl. ceiling canopy	543 0057 105				0,3

serio-HITL/-HITR 135°...LB

IP20

System luminaire 135° for endless diffusor serio-G.
-HITL (left corner) / -HITR (right corner)

Housing
Aluminium profile formed as 135°-angle, natural anodised. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).
Other housing colours on request.

Lighting technology
Direct/indirect distribution, DALI Variant separately dimmable.
Constant indirect share via white-opal, satin-finished acrylic diffusor throughout all system components.
Direct share via white-opal, satin-finished acrylic endless diffusor serio-G.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Suspension
For system profile serio-HITL LB or serio-HITR LB two wire suspensions are in scope of delivery. Free height adjustment between 150 and 2000mm.

Accessories
Endless diffusor serio-G for direct share must be ordered separately according to total system length. For open lighting system designs the face-end set serio-HITE A/E LB, for closed lighting system designs the connection cable serio-AL must be ordered separately.

nautral anodised

traffic white

deep black

Type	L	B	H	A1	Pmin	Pmax
serio-HITL /0600 135° LB	585	61	106	570	150	2000
serio-HITR /0600 135° LB	585	61	106	570	150	2000
serio-HITE A/E LB	1	61	106		150	2000

serio-HITL/0600 135°+ serio-G
6200lm 840

η_{LB}	100 %
Direct	64 %
Indirect	36 %
UGR lat.	15,9
UGR long.	16,5

serio-HITL 135° LB

serio-HITR 135° LB

serio-HITE A/E LB

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HITL/0600 135° LB	LED 3200lm 840	26	ED	546 4044 12...	...5	...1	...4	4,3
	LED 6200lm 840	55	ED	546 4144 12...	...5	...1	...4	4,3
	LED 6200lm 840	55	DALI	546 4146 62...	...5	...1	...4	4,3
serio-HITR/0600 135° LB	LED 3200lm 840	26	ED	546 4044 11...	...5	...1	...4	4,3
	LED 6200lm 840	55	ED	546 4144 11...	...5	...1	...4	4,3
	LED 6200lm 840	55	DALI	546 4146 61...	...5	...1	...4	4,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	Colour	kg
Endless diffusor	serio-G/06000 diffusor	Acrylic endless diffusor 6m	543 0600 180	tz			0,7
	serio-G/10000 diffusor	Acrylic endless diffusor 10m	543 1000 180	tz			1,1
	serio-G/20000 diffusor	Acrylic endless diffusor 20m	543 2000 180	tz			2,2
Face-end set	serio-HITE A/E LB Set 3x0,75	2x face ends, 1x suspension 1x connection cable 3 pol. incl. ceiling canopy	543 0137 10...	wa ...5	...1	...4	0,4
	serio-HITE A/E LB Set 5x0,75	2x face ends, 1x suspension 1x connection cable 5 pol. incl. ceiling canopy	543 0157 10...	wa ...5	...1	...4	0,5
Connection cable	serio-AL 3x0,75	Connection cable 3 pol. incl. ceiling canopy	543 0037 105				0,2
	serio-AL 5x0,75	Connection cable 5 pol. incl. ceiling canopy	543 0057 105				0,3

serio-HITBL/-HITBR 90°...LB

IP20

System luminaire 90° -HITBL (left corner) / -HITBR (right corner).

Housing
Aluminium profile formed as 90°-angle, natural anodised. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).
Other housing colours on request.

Lichttechnik -HITB
Indirect distribution only.
Constant indirect share via white-opal, satin-finished acrylic diffusor throughout all system components.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Suspension
For system profile serio-HITBL LB or serio-HITBR LB one wire suspension is in scope of delivery. Free height adjustment between 150 and 2000mm.

Accessories
For open lighting system designs the face-end set serio-HITE A/E LB, for closed lighting system designs the connection cable serio-AL must be ordered separately.

natural anodised

traffic white

deep black

Type	L	B	H	Pmin	Pmax
serio-HITBL /0300 LB	335	61	106	150	2000
serio-HITBR /0300 LB	335	61	106	150	2000
serio-HITE A/E LB	1	61	106	150	2000

serio-HITBL/0300 90°

1100lm 840

η_{LB}	100 %
Direct	0 %
Indirect	100 %

serio-HITBL 90° LB

serio-HITBR 90° LB

serio-HITE A/E LB

Special angle on request.

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-HITBL/0300 90° LB	LED 600lm 840	5	ED	547 2044 12...	...5	...1	...4	2,4
	LED 1100lm 840	9	ED	547 2144 12...	...5	...1	...4	2,4
	LED 1100lm 840	9	DALI	547 2146 62...	...5	...1	...4	2,4
serio-HITBR/0300 90° LB	LED 600lm 840	5	ED	547 2044 11...	...5	...1	...4	2,4
	LED 1100lm 840	9	ED	547 2144 11...	...5	...1	...4	2,4
	LED 1100lm 840	9	DALI	547 2146 61...	...5	...1	...4	2,4

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	Colour	kg
Face-end set	serio-HITE A/E LB Set 3x0,75	2x face ends, 1x suspension 1x connection cable 3 pol. incl. ceiling canopy	543 0137 10...	wa ...5	...1	...4	0,4
	serio-HITE A/E LB Set 5x0,75	2x face ends, 1x suspension 1x connection cable 5 pol. incl. ceiling canopy	543 0157 10...	wa ...5	...1	...4	0,5
Connection cable	serio-AL 3x0,75	Connection cable 3 pol. incl. ceiling canopy	543 0037 105				0,2
	serio-AL 5x0,75	Connection cable 5 pol. incl. ceiling canopy	543 0057 105				0,3

serio WALL SYSTEM

serio-WITFA...LB

IP20

Housing
Aluminium profile, natural anodised. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).
Other housing colours on request.

Lighting technology -WITFA
Direct/indirect distribution, DALI variant separately dimmable.
Direct asymmetric light distribution via Fresnel lens made from acrylic.
Indirect share via white-opal, satin-finished endless diffusor serio-G.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology; with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². 5-pole through wiring plug-in system 10A. Mounting system to compensate uneven surfaces (1-15mm).

Accessories
Face ends serio-WITE A/E LB and endless diffusor serio-G for indirect share, must be ordered separately according to total system length.

Type	L	B	T	H	A1	A2	X	Y
serio-WITFA/0800 LB	845	61	86	106	610	235	46	72
serio-WITFA/1100 LB	1125	61	86	106	890	235	46	72
serio-WITFA/1400 LB	1405	61	86	106	1170	235	46	72
serio-WITFA/2200 LB	2245	61	86	106	2010	235	46	72
serio-WITFA/2800 LB	2805	61	86	106	2570	235	46	72
serio-WITE A/E LB	1	61		106				

serio-WITFA/1400

8100lm 840

η_{LB}	100 %
Direct	45 %
Indirect	55 %
UGR lat.	22,3
UGR long.	20,3

serio-WITFA LB

serio-WITE A/E LB

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-WITFA/0800 LB	LED 2400lm 840	19	ED	443 3044 10...	...5	...1	...4	4,3
	LED 4700lm 840	40	ED	443 3144 10...	...5	...1	...4	4,3
	LED 4700lm 840	40	DALI	443 3146 60...	...5	...1	...4	4,3
serio-WITFA/1100 LB	LED 3300lm 840	26	ED	443 4044 10...	...5	...1	...4	5,8
	LED 6300lm 840	54	ED	443 4144 10...	...5	...1	...4	5,8
	LED 6300lm 840	54	DALI	443 4146 60...	...5	...1	...4	5,8
serio-WITFA/1400 LB	LED 4200lm 840	33	ED	443 5044 10...	...5	...1	...4	7
	LED 8100lm 840	69	ED	443 5144 10...	...5	...1	...4	7
	LED 8100lm 840	69	DALI	443 5146 60...	...5	...1	...4	7
serio-WITFA/2200 LB	LED 6500lm 840	51	ED	443 8044 10...	...5	...1	...4	11,4
	LED 12600lm 840	108	ED	443 8144 10...	...5	...1	...4	11,4
	LED 12600lm 840	108	DALI	443 8146 60...	...5	...1	...4	11,4
serio-WITFA/2800 LB	LED 8400lm 840	66	ED	443 0044 10...	...5	...1	...4	13,5
	LED 16200lm 840	139	ED	443 0144 10...	...5	...1	...4	13,5
	LED 16200lm 840	139	DALI	443 0146 60...	...5	...1	...4	13,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	Colour	Colour	kg
Endless diffusor	serio-G/06000 diffusor	Acrylic endless diffusor 6m	543 0600 180	tz			0,7
	serio-G/10000 diffusor	Acrylic endless diffusor 10m	543 1000 180	tz			1,1
	serio-G/20000 diffusor	Acrylic endless diffusor 20m	543 2000 180	tz			2,2
Face-end set	serio-WITE A/E LB	2x face ends	443 0107 10...	wa ...5	...1	...4	0,2

fino RECESSED SYSTEM

fino recessed system

ACCESSORIES

fino-ETB
Recessed mounting bracket

fino-ETS
Wire suspension

fino-ETE A/E
Face-end set

PROFILE UNITS

fino-ET LB P. 318
Straight profile incl. LED-unit

fino-ETL (L/R) LB P. 320
Corner profile 90° incl. LED-unit

LIGHTING TECHNOLOGY

fino-K LB P. 322
Straight diffusor, white-opal frosted

fino-KC LB P. 322
Corner diffusor, white-opal frosted

fino-MP LB P. 324
Straight diffusor, microprismatic

fino-MPC LB P. 324
Corner diffusor, microprismatic

1
1
2
3

4
5
4

6
7
6

8
9
8

fino-ET...LB

IP20

Recessed system luminaire.

Housing
Aluminium profile, natural anodised, with white reflectors, for cut-out ceilings.
Fixing via swivel bracket or wire suspension. Other housing colours on request.

Lighting technology
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Accessories
Face-end set fino-ETE (K/MP) must be ordered separately.
One mounting kit fino-ETB or fino-ETS per /1100 resp. /1400, two mounting kits.
fino-ETB or fino-ETS per /2200 resp. /2800 must be ordered separately.

Type	Ceiling	L	B	H	H_{ETB}	SL	SB	e_{ETB}	DS
fino-ET/0800 LB		848	86	96	130	848	77	135	11-30
fino-ET/1100 LB		1129	86	96	130	1129	77	135	11-30
fino-ET/1400 LB		1410	86	96	130	1410	77	135	11-30
fino-ET/2200 LB		2258	86	96	130	2258	77	135	11-30
fino-ET/2800 LB		2820	86	96	130	2820	77	135	11-30
fino-ETE A/E		24	86	93		19	77		

fino-ETE A/E

fino-ET 1100/1400 LB

fino-ET 2200/2800 LB

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-ET/0800 LB	LED 1000lm 840	11	ED	135 3044 105		2,4
	LED 1000lm 840	11	DALI	135 3046 605		2,4
	LED 1900lm 840	18	ED	135 3144 105		2,4
	LED 1900lm 840	18	DALI	135 3146 605		2,4
fino-ET/1100 LB	LED 1400lm 840	14	ED	135 4044 105		3,3
	LED 1400lm 840	14	DALI	135 4046 605		3,3
	LED 2500lm 840	24	ED	135 4144 105		3,3
	LED 2500lm 840	24	DALI	135 4146 605		3,3
fino-ET/1400 LB	LED 1700lm 840	16	ED	135 5044 105		4,2
	LED 1700lm 840	16	DALI	135 5046 605		4,2
	LED 3100lm 840	29	ED	135 5144 105		4,2
	LED 3100lm 840	29	DALI	135 5146 605		4,2
fino-ET/2200 LB	LED 2800lm 840	28	ED	135 8044 105		6,6
	LED 2800lm 840	28	DALI	135 8046 605		6,6
	LED 5000lm 840	47	ED	135 8144 105		6,6
	LED 5000lm 840	47	DALI	135 8146 605		6,6
fino-ET/2800 LB	LED 3500lm 840	33	ED	135 0044 105		8,4
	LED 3500lm 840	33	DALI	135 0046 605		8,4
	LED 6300lm 840	59	ED	135 0144 105		8,4
	LED 6300lm 840	59	DALI	135 0146 605		8,4

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

fino-ETE A/E

fino-ETB

fino-ETS

Accessories	Type	Details	Item-number	Colour	kg
Face-end	fino-ETE A/E (K/MP) set/pair	2x face-end for diffusor K and MP	135 0110 105	wa	0,2
Swivel bracket	fino-ETB set/pair	Swivel bracket for fino-ET	135 0002 105		0,3
Wire suspension	fino-ETS set/pair	d=1mm, l=2000mm	135 0080 105		0,1

fino-ETL/L/-ETL/R 90°...LB

IP20

Recessed system luminaire 90° -ETL/L (left corner) / -ETL/R (right corner).

Housing
Aluminium profile formed as 90° angle, natural anodised, with white reflectors, for cut-out ceilings. Fixing via swivel bracket or wire suspension. Other housing colours on request.

Lighting technology
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Accessories
Face-end set fino-ETE (K/MP) must be ordered separately.
For fino-ETL LB one mounting kit fino-ETB or fino-ETS must be ordered separately.

Type	Ceiling	L	B	H	H_{ETB}	SL	SB	e_{ETB}	DS
fino-ETL /600 (L/R) LB		619	86	96	130	614x77	614x77	135	11-30
fino-ETE A/E		24	86	93		19	77		

fino-ETL/L LB

fino-ETL/R LB

fino-ETE A/E

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-ETL/L0600 LB	LED 1400lm 840	14	ED	135 4044 125		3,5
	LED 1400lm 840	14	DALI	135 4046 625		3,5
	LED 2500lm 840	24	ED	135 4144 125		3,5
	LED 2500lm 840	24	DALI	135 4146 625		3,5
fino-ETL/R0600 LB	LED 1400lm 840	14	ED	135 4044 115		3,5
	LED 1400lm 840	14	DALI	135 4046 615		3,5
	LED 2500lm 840	24	ED	135 4144 115		3,5
	LED 2500lm 840	24	DALI	135 4146 615		3,5

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Face-end	fino-ETE A/E (K/MP) set/pair	2x face-end for diffusor K and MP	135 0110 105	wa	0,2
Swivel bracket	fino-ETB set/pair	Swivel bracket for fino-ET	135 0002 105		0,3
Wire suspension	fino-ETS set/pair	d=1mm, l=2000mm	135 0080 105		0,1

fino-ET LB + fino-K LB

Diffusor K/KC

IP20

-K for staight luminaires.
-KC (set) mitre cut for illuminated corners.

Lighting technology -K/-KC
Flush with ceiling, white-opal frosted, extruded profile made from polycarbonate; self-engaging.

Accessories
Suction pad SH 55 for removing the diffusor must be ordered separately.

fino-K LB

fino-KC LB

Type	L	B	H
fino-K/0800 LB	848	56	16
fino-K/1100 LB	1129	56	16
fino-K/1400 LB	1410	56	16
fino-K/2200 LB	2258	56	16
fino-K/2800 LB	2820	56	16

fino-K LB

fino-ET/1400 + fino-K

3000lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,7
UGR long.	24,7

Type	L	B	H
fino-KC/0600 LB	604	56	16

fino-KC LB

Diffusor	Detail	Type	Item-number	Colour	kg
Diffusor -K LB Straight unit	fino-K LB for fino-ET LB	fino-K/0800 LB	135 0800 180	tz	0,2
		fino-K/1100 LB	135 1100 180	tz	0,2
		fino-K/1400 LB	135 1400 180	tz	0,3
		fino-K/2200 LB	135 2200 180	tz	0,4
		fino-K/2800 LB	135 2800 180	tz	0,5
Diffusor -KC LB Corner unit	fino-KC LB for fino-ETL/L LB + fino-ETL/R LB	fino-KC/0600 LB	135 0600 180	tz	0,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Suction pad	SH 55	Suction pad for fino diffusor	903 0055 100	■	0,1

Diffusor MP/MPC

IP20

-MP for straight luminaires.
-MPC (set) mitre cut for illuminated corners.

Lighting technology -MP/-MPC
Translucent polycarbonate extruded profile, flush with ceiling, with inserted microprismatic diffusor; self-engaging.

Accessories
Suction pad SH 55 for removing the diffusor must be ordered separately.

Type	L	B	H
fino-MP/0800 LB	848	56	16
fino-MP/1100 LB	1129	56	16
fino-MP/1400 LB	1410	56	16
fino-MP/2200 LB	2258	56	16
fino-MP/2800 LB	2820	56	16

fino-MP LB

fino-ET/1400 + fino-MP

3500lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	19,7
UGR long.	21,5

Type	L	B	H
fino-MPC/0600 LB	604	56	16

fino-MPC LB

Diffusor	Detail	Type	Item-number	Colour	kg
Diffusor -MP LB Straight unit	fino-MP LB for fino-ET LB	fino-MP/0800 LB	135 0800 150	tz	0,3
		fino-MP/1100 LB	135 1100 150	tz	0,3
		fino-MP/1400 LB	135 1400 150	tz	0,4
		fino-MP/2200 LB	135 2200 150	tz	0,6
		fino-MP/2800 LB	135 2800 150	tz	0,8
Diffusor -MPC LB Corner unit	fino-MPC LB for fino-ETL/R LB + fino-ETL/L LB	fino-MPC/0600 LB	135 0600 150	tz	0,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Suction pad	SH 55	Suction pad for fino diffusor	903 0055 100	■	0,1

fino SURFACE MOUNTED SYSTEM

fino surface mounted system

ACCESSORIES

fino-ATE A/E
Face-end set

PROFILE UNITS

fino-AT LB P. 332
Straight profile incl. LED-unit

fino-ATL (L/R) LB P. 334
Corner profile 90° incl. LED-unit

LIGHTING TECHNOLOGY

fino-K LB P. 336
Straight diffusor, white-opal frosted

fino-KC LB P. 336
Corner diffusor, white-opal frosted

fino-MP LB P. 338
Straight diffusor, microprismatic

fino-MPC LB P. 338
Corner diffusor, microprismatic

2
3
2
1

4
5
4

6
7
6

fino-AT...LB

IP20

Surface mounted system luminaire.

Housing
Aluminium profile, natural anodised with white reflector and separate mounting rail. Also available in traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Accessories
Face-end set fino-ATE (K/MP) and three- or five-pole connection terminal fino-ALK must be ordered separately.

Type	L	B	H	A1	A2
fino-AT/0800 LB	848	72	102	570	280
fino-AT/1100 LB	1129	72	102	850	280
fino-AT/1400 LB	1410	72	102	1130	280
fino-AT/2200 LB	2258	72	102	850	280
fino-AT/2800 LB	2820	72	102	1130	280
fino-ATE A/E	13	72	93		

fino-ATE A/E

fino-AT 1100/1400 LB

fino-AT 2200/2800 LB

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-AT/0800 LB	LED 1000lm 840	11	ED	435 3044 105		3,0
	LED 1000lm 840	11	DALI	435 3046 605		3,0
	LED 1900lm 840	18	ED	435 3144 105		3,0
	LED 1900lm 840	18	DALI	435 3146 605		3,0
fino-AT/1100 LB	LED 1400lm 840	14	ED	435 4044 105		4,0
	LED 1400lm 840	14	DALI	435 4046 605		4,0
	LED 2500lm 840	24	ED	435 4144 105		4,0
	LED 2500lm 840	24	DALI	435 4146 605		4,0
fino-AT/1400 LB	LED 1700lm 840	16	ED	435 5044 105		5,1
	LED 1700lm 840	16	DALI	435 5046 605		5,1
	LED 3100lm 840	29	ED	435 5144 105		5,1
	LED 3100lm 840	29	DALI	435 5146 605		5,1
fino-AT/2200 LB	LED 2800lm 840	28	ED	435 8044 105		8,0
	LED 2800lm 840	28	DALI	435 8046 605		8,0
	LED 5000lm 840	47	ED	435 8144 105		8,0
	LED 5000lm 840	47	DALI	435 8146 605		8,0
fino-AT/2800 LB	LED 3500lm 840	33	ED	435 0044 105		10,2
	LED 3500lm 840	33	DALI	435 0046 605		10,2
	LED 6300lm 840	59	ED	435 0144 105		10,2
	LED 6300lm 840	59	DALI	435 0146 605		10,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Face-end	fino-ATE A/E set/pair	2x face-end for diffusor K and MP	435 0110 105	wa	0,3
Connection terminal	fino-ALK 3x0,75mm²	3-pol. connection terminal 3x0,75mm²	435 0037 105		0,1
	fino-ALK 5x0,75mm²	5-pol. connection terminal 5x0,75mm²	435 0057 105		0,1

fino-ATL/L/-ATL/R 90°...LB

IP20

System luminaire 90° -ATL/L (left corner) / -ATL/R (right corner).

Housing
Aluminium profile formed as 90° angle, natural anodised with white reflector and separate mounting rail. Also available in traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Accessories
Face-end set fino-ATE and three- or five-pole connection terminal fino-ALK must be ordered separately.

Type	L	B	H	A1
fino-ATL /600 (L/R) LB	612	72	102	436
fino-ATE A/E	13	72	93	

fino-ATL/L LB

fino-ATL/R LB

fino-ATE A/E

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-ATL/L0600 LB	LED 1400lm 840	14	ED	435 4044 125		4,2
	LED 1400lm 840	14	DALI	435 4046 625		4,2
	LED 2500lm 840	24	ED	435 4144 125		4,2
	LED 2500lm 840	24	DALI	435 4146 625		4,2
fino-ATL/R0600 LB	LED 1400lm 840	14	ED	435 4044 115		4,2
	LED 1400lm 840	14	DALI	435 4046 615		4,2
	LED 2500lm 840	24	ED	435 4144 115		4,2
	LED 2500lm 840	24	DALI	435 4146 615		4,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Face-end	fino-ATE A/E set/pair	2x face-end for diffusor K and MP	435 0110 105	wa	0,3
Connection terminal	fino-ALK 3x0,75mm²	3-pol. connection terminal 3x0,75mm²	435 0037 105		0,1
	fino-ALK 5x0,75mm²	5-pol. connection terminal 5x0,75mm²	435 0057 105		0,1

fino-AT LB + fino-K LB

Diffusor K/KC

IP20

-K for straight luminaires.
-KC (set) mitre cut for illuminated corners.

Lighting technology -K/-KC
Flush with ceiling, white-opal frosted, extruded profile made from polycarbonate; self-engaging.

Accessories
Suction pad SH 55 for removing the diffusor must be ordered separately.

fino-K LB

fino-KC LB

Type	L	B	H
fino-K/0800 LB	848	56	16
fino-K/1100 LB	1129	56	16
fino-K/1400 LB	1410	56	16
fino-K/2200 LB	2258	56	16
fino-K/2800 LB	2820	56	16

fino-K LB

fino-AT/1400 + fino-K

3000lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,7
UGR long.	24,7

Type	L	B	H
fino-KC/0600 LB	604	56	16

fino-KC LB

Diffusor	Detail	Type	Item-number	Colour	kg
Diffusor -K LB Straight unit	fino-K LB for fino-ET LB	fino-K/0800 LB	135 0800 180	tz	0,2
		fino-K/1100 LB	135 1100 180	tz	0,2
		fino-K/1400 LB	135 1400 180	tz	0,3
		fino-K/2200 LB	135 2200 180	tz	0,4
		fino-K/2800 LB	135 2800 180	tz	0,5
Diffusor -KC LB Corner unit	fino-KC LB for fino-ETL/L LB + fino-ETL/R LB	fino-KC/0600 LB	135 0600 180	tz	0,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Suction pad	SH 55	Suction pad for fino diffusor	903 0055 100	■	0,1

fino-AT LB + fino-MP LB

Diffusor MP/MPC

IP20

-MP for straight luminaires.
-MPC (set) mitre cut for illuminated corners.

Lighting technology -MP/-MPC
Translucent polycarbonate extruded profile, flush with ceiling, with inserted microprismatic diffusor; self-engaging.

Accessories
Suction pad SH 55 for removing the diffusor must be ordered separately.

fino-MP LB

fino-MPC LB

Type	L	B	H
fino-MP/0800 LB	848	56	16
fino-MP/1100 LB	1129	56	16
fino-MP/1400 LB	1410	56	16
fino-MP/2200 LB	2258	56	16
fino-MP/2800 LB	2820	56	16

fino-MP LB

fino-AT/1400 + fino-MP

3500lm 840

Type	L	B	H
fino-MPC/0600 LB	604	56	16

fino-MPC LB

Diffusor	Detail	Type	Item-number	Colour	kg
Diffusor -MP LB Straight unit	fino-MP LB for fino-ET LB	fino-MP/0800 LB	135 0800 150	tz	0,3
		fino-MP/1100 LB	135 1100 150	tz	0,3
		fino-MP/1400 LB	135 1400 150	tz	0,4
		fino-MP/2200 LB	135 2200 150	tz	0,6
		fino-MP/2800 LB	135 2800 150	tz	0,8
Diffusor -MPC LB Corner unit	fino-MPC LB for fino-ETL/R LB + fino-ETL/L LB	fino-MPC/0600 LB	135 0600 150	tz	0,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Suction pad	SH 55	Suction pad for fino diffusor	903 0055 100	■	0,1

fino PENDANT SYSTEM

fino pendant system

ACCESSORIES

1

fino-SAY
Wire suspension incl. connector

2

fino-HTE A/E
Face-end set

PROFILE UNITS

3

fino-HT LB P. 346
Straight profile incl. LED-unit

4

fino-HTL (L/R) LB P. 348
Corner profile 90° incl. LED-unit

LIGHTING TECHNOLOGY

5

fino-K LB P. 350
Straight diffusor, white-opal frosted

6

fino-KC LB P. 350
Corner diffusor, white-opal frosted

7

fino-MP LB P. 352
Straight diffusor, microprismatic

8

fino-MPC LB P. 352
Corner diffusor, microprismatic

2
1
1
3
3
4

5
5
6
7
7
8

fino-HT...LB

IP20

Pendant system luminaire.

Housing
Extruded aluminium profile, natural anodised with white reflectors. Also available in traffic white (similar to RAL 9016) or deep black (similar to RAL 9005).
Other housing colours on request.

Lighting technology
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
For face-end set fino-HTE A/E as well as for corner profile fino-HTL LB one suspension-kit is included in delivery. For each additional joint, the wire suspension incl. connector fino-SAY must be ordered separately.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Accessories
Face-end set fino-HTE A/E, wire suspension fino-SAY and three- or five-pole connection cable fino-AL must be ordered separately.

Type	L	B	H	A1	Pmin	Pmax
fino-HT/0800 LB	848	72	92	848	150	2000
fino-HT/1100 LB	1129	72	92	1129	150	2000
fino-HT/1400 LB	1410	72	92	1410	150	2000
fino-HT/2200 LB	2258	72	92	2258	150	2000
fino-HT/2800 LB	2820	72	92	2820	150	2000
fino-HTE A/E	13	72	93		150	2000

fino-HTE A/E

fino-HT 1100/1400 LB

fino-HT 2200/2800 LB

LC-canopies
see Page 283

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-HT/0800 LB	LED 1000lm 840	11	ED	535 3044 105		3,0
	LED 1000lm 840	11	DALI	535 3046 605		3,0
	LED 1900lm 840	18	ED	535 3144 105		3,0
	LED 1900lm 840	18	DALI	535 3146 605		3,0
fino-HT/1100 LB	LED 1400lm 840	14	ED	535 4044 105		3,5
	LED 1400lm 840	14	DALI	535 4046 605		3,5
	LED 2500lm 840	24	ED	535 4144 105		3,5
	LED 2500lm 840	24	DALI	535 4146 605		3,5
fino-HT/1400 LB	LED 1700lm 840	16	ED	535 5044 105		4,3
	LED 1700lm 840	16	DALI	535 5046 605		4,3
	LED 3100lm 840	29	ED	535 5144 105		4,3
	LED 3100lm 840	29	DALI	535 5146 605		4,3
fino-HT/2200 LB	LED 2800lm 840	28	ED	535 8044 105		7,0
	LED 2800lm 840	28	DALI	535 8046 605		7,0
	LED 5000lm 840	47	ED	535 8144 105		7,0
	LED 5000lm 840	47	DALI	535 8146 605		7,0
fino-HT/2800 LB	LED 3500lm 840	33	ED	535 0044 105		8,6
	LED 3500lm 840	33	DALI	535 0046 605		8,6
	LED 6300lm 840	59	ED	535 0144 105		8,6
	LED 6300lm 840	59	DALI	535 0146 605		8,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Face-end	fino-HTE A/E (K/MP) set/pair	2x face-end for diffusor K and MP	535 0110 105	wa	0,4
Wire suspension	fino-SAY	Wire suspension for fino-HT incl. connector, 2000mm	535 0000 105		0,1
Connection cable	fino-AL 3x0,75mm²	3-pol. connection cable with ceiling canopy	535 0037 105		0,1
	fino-AL 5x0,75mm²	5-pol. connection cable with ceiling canopy	535 0057 105		0,2

fino-HTL/L/-HTL/R 90°...LB

IP20

System luminaire 90° -HTL/L (left corner) / -HTL/R (right corner).

Housing
Aluminium profile formed as 90° angle, natural anodised with white reflectors. Also available in traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Suspension
For face-end set fino-HTE A/E as well as for corner profile fino-HTL LB one suspension-kit is included in delivery. For each additional joint, the wire suspension incl. connector fino-SAY must be ordered separately.

Miscellaneous
Electrical connection via five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm². Through wiring plug-in system 10A.

Accessories
Face-end set fino-HTE A/E and three- or five-pole connection cable fino-AL must be ordered separately.

natural anodised

traffic white

deep black

Type	L	B	H	A1	Pmin	Pmax
fino-HTL /600 (L/R) LB	612	72	92	576	150	2000
fino-HTE A/E	13	72	93		150	2000

fino-HTL/L LB

fino-HTL/R LB

fino-HTE A/E

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
fino-HTL/L0600 LB	LED 1400lm 840	14	ED	535 4044 125		3,7
	LED 1400lm 840	14	DALI	535 4046 625		3,7
	LED 2500lm 840	24	ED	535 4144 125		3,7
	LED 2500lm 840	24	DALI	535 4146 625		3,7
fino-HTL/R0600 LB	LED 1400lm 840	14	ED	535 4044 115		3,7
	LED 1400lm 840	14	DALI	535 4046 615		3,7
	LED 2500lm 840	24	ED	535 4144 115		3,7
	LED 2500lm 840	24	DALI	535 4146 615		3,7

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Face-end	fino-HTE A/E (K/MP) set/pair	2x face-end for diffusor K and MP	535 0110 105	wa	0,4
Wire suspension	fino-SAY	Wire suspension for fino-HT incl. connector 2000mm	535 0000 105		0,1
Connection cable	fino-AL 3x0,75mm²	3-pol. connection cable with ceiling canopy	535 0037 105		0,1
	fino-AL 5x0,75mm²	5-pol. connection cable with ceiling canopy	535 0057 105		0,2

Diffusor K/KC

IP20

-K for straight luminaires.
-KC (set) mitre cut for illuminated corners.

Lighting technology -K/-KC
Flush with ceiling, white-opal frosted, extruded profile made from polycarbonate; self-engaging.

Accessories
Suction pad SH 55 for removing the diffusor must be ordered separately.

Type	L	B	H
fino-K/0800 LB	848	56	16
fino-K/1100 LB	1129	56	16
fino-K/1400 LB	1410	56	16
fino-K/2200 LB	2258	56	16
fino-K/2800 LB	2820	56	16

fino-K LB

fino-HT/1400 + fino-K

3000lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	24,7
UGR long.	24,7

Type	L	B	H
fino-KC/0600 LB	604	56	16

fino-KC LB

Diffusor	Detail	Type	Item-number	Colour	kg
Diffusor -K LB Straight unit	fino-K LB for fino-ET LB	fino-K/0800 LB	135 0800 180	tz	0,2
		fino-K/1100 LB	135 1100 180	tz	0,2
		fino-K/1400 LB	135 1400 180	tz	0,3
		fino-K/2200 LB	135 2200 180	tz	0,4
		fino-K/2800 LB	135 2800 180	tz	0,5
Diffusor -KC LB Corner unit	fino-KC LB for fino-ETL/L LB + fino-ETL/R LB	fino-KC/0600 LB	135 0600 180	tz	0,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Suction pad	SH 55	Suction pad for fino diffusor	903 0055 100	■	0,1

Diffusor MP/MPC

IP20

-MP for straight luminaires.
-MPC (set) mitre cut for illuminated corners.

Lighting technology -MP/-MPC
Translucent polycarbonate extruded profile, flush with ceiling, with inserted microprismatic diffusor; self-engaging.

Accessories
Suction pad SH 55 for removing the diffusor must be ordered separately.

Type	L	B	H
fino-MP/0800 LB	848	56	16
fino-MP/1100 LB	1129	56	16
fino-MP/1400 LB	1410	56	16
fino-MP/2200 LB	2258	56	16
fino-MP/2800 LB	2820	56	16

fino-MP LB

fino-AT/1400 + fino-MP

3500lm 840

Type	L	B	H
fino-MPC/0600 LB	604	56	16

fino-MPC LB

Diffusor	Detail	Type	Item-number	Colour	kg
Diffusor -MP LB Straight unit	fino-MP LB for fino-ET LB	fino-MP/0800 LB	135 0800 150	tz	0,3
		fino-MP/1100 LB	135 1100 150	tz	0,3
		fino-MP/1400 LB	135 1400 150	tz	0,4
		fino-MP/2200 LB	135 2200 150	tz	0,6
		fino-MP/2800 LB	135 2800 150	tz	0,8
Diffusor -MPC LB Corner unit	fino-MPC LB for fino-ETL/R LB + fino-ETL/L LB	fino-MPC/0600 LB	135 0600 150	tz	0,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	Colour	kg
Suction pad	SH 55	Suction pad for fino diffusor	903 0055 100	■	0,1

SRAM

MSM
MTB PR
MTB PR

DOWNLIGHTS

Downlights

rotara-ROET/144 P. 370

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bota 195-BESB P. 360

bota 195-BESSB P. 362

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Downlights
from other chapters

Recessed luminaires

lopia R-EG P. 24

lopia Q-EG P. 32

bota 195-BESB

IP20 1000 UGR 19 IK02 0,20 J 0,20 Nm

Housing
Housing made of sheet steel with cover ring made of pressure-cast aluminium painted traffic white (similar to RAL 9016) or grit grey (similar to RAL 7032). With mounting springs for installation without tools, suitable for ceiling thickness 10-25mm.

Lighting technology -BESB
Direct wide distribution.
Light distribution using specular individually anodised reflector made of ultra-pure aluminium. Toolless reflector assembly via snap in spring system.
For VDU workstations according to DIN EN 12464-1, 65°<1000cd/m².
Glare rating UGR ≤ 19 according to DIN EN 12464-1 by variant 1200lm and 1800lm.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
External supply unit wired with luminaire ready for operation. Electrical connection via three-pole or for dimmable luminaires five-pole terminal with plug-in contact.

Type	LED Specification	Ceiling	DxH	KL	KB	KH	SD	e min.	DS min./ max.
bota-BESB 195	LED 1300		246 x 113	167	146	48	229	165	10-25
	LED 1900		246 x 113	167	146	48	229	165	10-25
	LED 2900		246 x 117	167	146	48	229	165	10-25

bota-BESB 195

1900lm 840

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
bota-BESB 195	LED 1300lm 840	10	ED	879 0314 12...	...0	gr ...5	0,7
	LED 1900lm 840	16	ED	879 0334 12...	...0	gr ...5	0,8
	LED 1900lm 840	16	DALI	879 0336 62...	...0	gr ...5	0,8
	LED 2900lm 840	23	ED	879 0354 12...	...0	gr ...5	1,0
	LED 2900lm 840	23	DALI	879 0356 62...	...0	gr ...5	1,0

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

bota 195-BESSB

IP54 IK02 0,20 J 0,20 Nm

Housing
Housing made of sheet steel with cover ring made of pressure-cast aluminium painted traffic white (similar to RAL 9016) or grit grey (similar to RAL 7032). With translucent cover made of safety glass IP54. Including mounting springs for installation without tools, suitable for ceiling thickness 10-25mm.

Lighting technology -BESSB
Direct wide distribution.
Light distribution via micro-structured, individually anodised reflector of ultra-pure aluminium. Toolless reflector assembly via snap in spring system.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
External supply unit wired with luminaire ready for operation. Electrical connection via three-pole or for dimmable luminaires five-pole terminal with plug-in contact.

Type	LED Specification	Ceiling	DxH	KL	KB	KH	SD	e min.	DS min./ max.
bota-BESSB 195	LED 1100		246 x 113	167	146	48	229	165	10-25
	LED 1700		246 x 113	167	146	48	229	165	10-25
	LED 2500		246 x 117	167	146	48	229	165	10-25

bota-BESSB 195

1700lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	22,0
UGR long.	22,0

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	kg
bota-BESSB 195	LED 1100lm 840	10	ED	879 1314 12...	...0	gr ...5	0,9
	LED 1700lm 840	16	ED	879 1334 12...	...0	gr ...5	1,0
	LED 1700lm 840	16	DALI	879 1336 62...	...0	gr ...5	1,0
	LED 2500lm 840	23	ED	879 1354 12...	...0	gr ...5	1,3
	LED 2500lm 840	23	DALI	879 1356 62...	...0	gr ...5	1,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

vico-ESO

IP44

Housing
Housing made of pressure-cast aluminium, painted traffic white (similar to RAL 9016). Aluminium heat sink for effective passive cooling and recessed opal diffuser panel to break up the ceiling appearance. With fixing springs for installation without tools, suitable for ceiling thickness of 10mm-20mm.

Lighting technology -ESO
Direct wide distribution.
Light distribution via satined opal diffuser.
Rated life time = L80 B10 50.000h.
Light colour: 4000K or 3000K. Other light colours on request.

Miscellaneous
External driver, wired with luminaire ready for operation.
Electrical connection via 0,7m long connection line, 2x0,75mm^2
or for dimmable luminaires 2x0,5mm^2 + 2x0,75mm^2.

Type	Ceiling	DxH	KL	KB	KH	e min.	SD	DS min./max.
vico-ESO/140		140 x 45	240	30	21	95	125	10-20
vico-ESO/190		190 x 59	240	30	21	110	175	10-20
vico-ESO/230		230 x 59	240	30	21	110	215	10-20

vico-ESO/230

3000lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	26,6
UGR long.	26,6

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
vico-ESO/140	LED 1500lm 830	16	ED	379 1114 140		0,6
	LED 1500lm 830	16	DALI	379 1116 640		0,6
	LED 1500lm 840	16	ED	379 1104 140		0,6
	LED 1500lm 840	16	DALI	379 1106 640		0,6
vico-ESO/190	LED 2000lm 830	21	ED	379 2114 140		0,9
	LED 2000lm 830	21	DALI	379 2116 640		0,9
	LED 2000lm 840	21	ED	379 2104 140		0,9
	LED 2000lm 840	21	DALI	379 2106 640		0,9
vico-ESO/230	LED 3000lm 830	31	ED	379 3114 140		1,2
	LED 3000lm 830	31	DALI	379 3116 640		1,2
	LED 3000lm 840	31	ED	379 3104 140		1,2
	LED 3000lm 840	31	DALI	379 3106 640		1,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Accessories	Type	Details	Item-number	kg
Mounting reinforcing	vico-ESO 140	Insert for mineral fibre ceilings for vico-ESO 140; 625x625	379 1000 000	1,2
	vico-ESO/6 140	Insert for mineral fibre ceilings for vico-ESO/6 140; 600x600	379 1600 000	1,2
	vico-ESO 190	Insert for mineral fibre ceilings for vico-ESO 190; 625x625	379 2000 000	1,2
	vico-ESO/6 190	Insert for mineral fibre ceilings for vico-ESO/6 190; 600x600	379 2600 000	1,2
	vico-ESO 230	Insert for mineral fibre ceilings for vico-ESO 230; 625x625	379 3000 000	1,2
	vico-ESO/6 230	Insert for mineral fibre ceilings for vico-ESO/6 230; 600x600	379 3600 000	1,2

LG

LG
HLU

rotara-ROET/144

IP20 3000 UGR 19

Housing
Housing made of pressure-cast aluminium, heat sink for effective passive cooling; powder-coated; round body. Reflector unit gimbal-mounted, with fixing springs for installation without tools, suitable for ceiling thickness 10mm-20mm.

Lighting technology -ROET
Direct narrow distribution.
Light distribution via matt segmented reflector made of highly-efficient MIRO-SILVER aluminium with an reflection ratio of 99,8%;
beam angle 30°; clear safety glass.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K or 3000K. Other light colours on request.

Miscellaneous
External driver, wired with luminaire ready for operation.
Electrical connection via 0,7m long connection line, 2x0,75mm^2
or for dimmable luminaires 2x0,5mm^2 + 2x0,75mm^2.

Accessories
Replacement reflector 40°, highly specular faceted must be ordered separately.

Type	Ceiling	DxH	KL	KB	KH	e	SD	DS min./max.
ROET/144	H	138x94	115	53	23	140	120	10-20

rotara-ROET/144

2600lm 840

Type	LED Specification	α	P_{Sys}(W)	Driver	Item-number	Colour	kg
rotara-ROET/144	LED 2500lm 830	30°	23	ED	337 0034 130		0,4
	LED 2500lm 830	30°	23	DALI	337 0036 630		0,4
	LED 2600lm 840	30°	23	ED	337 0044 130		0,4
	LED 2600lm 840	30°	23	DALI	337 0046 630		0,4

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Replacement reflector 40°

Accessories	Type	Details	Item-number	Colour	kg
Replacement reflector	RO/144-LED 40°	Beam angle 40°, for ROE./144	321 4014 140		0,1

Silhouette®

Frankfurter Zeitung

rotara-ROET/160

IP20 1000 UGR 19

Housing
Housing made of pressure-cast aluminium, heat sink for effective passive cooling; powder-coated; round body. Reflector unit gimbal-mounted, with fixing springs for installation without tools, suitable for ceiling thickness 10mm-20mm.

Lighting technology -ROET
Direct narrow distribution.
Light distribution via highly specular faceted reflector made of highly-efficient MIRO-SILVER aluminium with an reflection ratio of 99,8%; beam angle 30°; clear safety glass.
For VDU workstations 65°<1000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K or 3000K. Other light colours on request.

Miscellaneous
External driver, wired with luminaire ready for operation.
Electrical connection via 0,7m long connection line, 2x0,75mm^2 or for dimmable luminaires 2x0,5mm^2 + 2x0,75mm^2.

Accessories
Replacement reflector 60°, matt segmented must be ordered separately.

Type	Ceiling	DxH	KL	KB	KH	e	SD	DS min./max.
ROET/160	H	182x119	170	45	35	160	170	10-20

rotara-ROET/160

4300lm 840

Type	LED Specification	α	P_{Sys}(W)	Driver	Item-number	Colour	kg
rotara-ROET/160	LED 4100lm 830	30°	36	ED	337 0054 130		1,7
	LED 4100lm 830	30°	36	DALI	337 0056 630		1,7
	LED 4300lm 840	30°	36	ED	337 0064 130		1,7
	LED 4300lm 840	30°	36	DALI	337 0066 630		1,7

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Replacement reflector 60°

Accessories		Type	Item-number	Colour	kg
Replacement reflector	RO/160-LED 60°	Beam angle 60°, for ROE./160	321 5014 140		0,1

NOKIA City Shop
Essige

Öle
Flaschenweine

rotara-ROEQT/144

IP20 3000 UGR 19

Housing
Housing made of pressure-cast aluminium, heat sink for effective passive cooling; powder-coated; square body. Reflector unit gimbal-mounted, with fixing springs for installation without tools, suitable for ceiling thickness 10mm-20mm.

Lighting technology -ROEQT
Direct narrow distribution.
Light distribution via matt segmented reflector made of highly-efficient MIRO-SILVER aluminium with an reflection ratio of 99,8%;
beam angle 30°; clear safety glass.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K or 3000K. Other light colours on request.

Miscellaneous
External driver, wired with luminaire ready for operation.
Electrical connection via 0,7m long connection line, 2x0,75mm^2
or on dimmable luminaires 2x0,5mm^2 + 2x0,75mm^2.

Accessories
Replacement reflector 40°, highly specular faceted must be ordered separately.

Type	Ceiling	LxBxH	KL	KB	KH	e	SLxSB	DS min./max.
ROEQT/144	H	151x151x94	115	53	23	140	135x135	10-20

rotara-ROEQT/144

2600lm 840

Type	LED Specification	α	P_{Sys}(W)	Driver	Item-number	Colour	kg
rotara-ROEQT/144	LED 2500lm 830	30°	23	ED	338 0034 130		0,4
	LED 2500lm 830	30°	23	DALI	338 0036 630		0,4
	LED 2600lm 840	30°	23	ED	338 0044 130		0,4
	LED 2600lm 840	30°	23	DALI	338 0046 630		0,4

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Replacement reflector 40°

Accessories	Type	Details	Item-number	Colour	kg
Replacement reflector	RO/144-LED 40°	Beam angle 40°, for ROE./144	321 4014 140		0,1

rotara-ROEQT/160

IP20 1000 UGR 19

Housing
Housing made of pressure-cast aluminium, heat sink for effective passive cooling; powder-coated; square body. Reflector unit gimbal-mounted, with fixing springs for installation without tools, suitable for ceiling thickness 10mm-20mm.

Lighting technology -ROEQT
Direct narrow distribution.
Light distribution via highly specular faceted reflector made of highly-efficient MIRO-SILVER aluminium with an reflection ratio of 99,8%; beam angle 30°; clear safety glass.
For VDU workstations 65°<1000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K or 3000K. Other light colours on request.

Miscellaneous
External driver, wired with luminaire ready for operation.
Electrical connection via 0,7m long connection line, 2x0,75mm^2
or on dimmable luminaires 2x0,5mm^2 + 2x0,75mm^2.

Accessories
Replacement reflector 60°, matt segmented must be ordered separately.

Type	Ceiling	LxBxH	KL	KB	KH	e	SLxSB	DS min./max.
ROEQT/160		175x175x119	170	45	35	160	155x160	10-20

rotara-ROEQT/160

4300lm 840

η_{LB}	100 %
Direct	100 %
Indirect	0 %
UGR lat.	15,5
UGR long.	15,5

Type	LED Specification	α	P_{Sys}(W)	Driver	Item-number	Colour	kg
rotara-ROEQT/160	LED 4100lm 830	30°	36	ED	338 0054 130		1,7
	LED 4100lm 830	30°	36	DALI	338 0056 630		1,7
	LED 4300lm 840	30°	36	ED	338 0064 130		1,7
	LED 4300lm 840	30°	36	DALI	338 0066 630		1,7

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Replacement reflector 60°

Accessories		Type	Item-number	Colour	kg
Replacement reflector	RO/160-LED 60°	Beam angle 60°, for ROE./160	321 5014 140		0,1

WALL- AND STANDING LUMINAIRES

Wall- and standing luminaires

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dyski-A P. 444

serio-WIFA

IP20

Housing
Aluminium profile, natural anodised. Face ends sheet steel, painted white aluminium. Also available in textured paint traffic white (similar to RAL 9016) or deep black (similar to RAL 9005). Other housing colours on request.

Lighting technology -WIFA
Direct/indirect distribution, DALI variant separately dimmable.
Direct asymmetric light distribution via Fresnel lens made from acrylic.
Indirect share via white-opal, satin-finished acrylic profile.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via 3-pole, for dimmable luminaires 5-pole connection terminal with plug-in contacts; with integrated protective earth conductor connection and release button, suitable for rigid and flexible conductors up to 2.5mm².

Type	L	B	T	H	A1	X	Y
serio-WIFA/0500	567	61	86	106	330	238	72
serio-WIFA/0800	847	61	86	106	610	0	72
serio-WIFA/1100	1127	61	86	106	890	0	72
serio-WIFA/1400	1407	61	86	106	1170	0	72
serio-WIFA/2200	2247	61	86	106	2010	0	72
serio-WIFA/2800	2807	61	86	106	2570	0	72

serio-WIFA/1400

8100lm 840

η_{LB}	100 %
Direct	44 %
Indirect	56 %
UGR lat.	22,3
UGR long.	20,3

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	Colour	Colour	kg
serio-WIFA/0500	LED 3200lm 840	27	ED	443 2144 18...	...0	...1	...4	3,0
	LED 3200lm 840	27	DALI	443 2146 68...	...0	...1	...4	3,0
serio-WIFA/0800	LED 4700lm 840	41	ED	443 3144 18...	...0	...1	...4	4,2
	LED 4700lm 840	41	DALI	443 3146 68...	...0	...1	...4	4,2
serio-WIFA/1100	LED 6300lm 840	54	ED	443 4144 18...	...0	...1	...4	5,7
	LED 6300lm 840	54	DALI	443 4146 68...	...0	...1	...4	5,7
serio-WIFA/1400	LED 8100lm 840	69	ED	443 5144 18...	...0	...1	...4	6,9
	LED 8100lm 840	69	DALI	443 5146 68...	...0	...1	...4	6,9
serio-WIFA/2200	LED 12600lm 840	108	ED	443 8144 18...	...0	...1	...4	11,3
	LED 12600lm 840	108	DALI	443 8146 68...	...0	...1	...4	11,3
serio-WIFA/2800	LED 16200lm 840	139	ED	443 0144 18...	...0	...1	...4	13,0
	LED 16200lm 840	139	DALI	443 0146 68...	...0	...1	...4	13,0

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

rason-RSWIG

IP20

Housing
Ultra-flat luminaire housing, aluminium profile, natural anodised, visible construction height 30mm; with continuous longitudinal groove, rounded towards the front of the luminaire.
Suitable for wall- and ceiling-mounting.

Lighting technology -RSWIG
Direct/indirect distribution.
Homogeneous illumination by satinised special acrylic panel, with high transmission; homogeneous light emission through lateral LED light coupling and fitted aluminium reflector in a highly reflective white coating, with micro-perforation for a moderate wall illumination.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	L	B	H	A1	X	Y
rason-RSWIG/355	355	330	42	265	0	0
rason-RSWIG/635	635	330	42	548	0	0

rason-RSWIG/635

2600lm 840

η_{LB}	100 %
Direct	84 %
Indirect	16 %
UGR lat.	20,4
UGR long.	20,3

rason-RSWIG/355

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
rason-RSWIG/355	LED 1300lm 840	12	ED	460 1034 115		2,4
rason-RSWIG/635	LED 2600lm 840	24	ED	461 1044 115		4,2
	LED 2600lm 840	24	DALI	461 1046 615		4,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

rason-RSIMP

IP20 3000 UGR 19

Housing
Standing luminaire with ultra-flat head. Luminaire head and column made of an extruded aluminium profile, natural anodized. Black switch. Stable, sand-cast base coloured black. Base coloured white aluminium available on request.

Lighting technology -RSSIMP
Direct/indirect light distribution.
Direct ratio glare control via PMMA microprism pane. Indirect ratio via special acrylic pane.
For VDU workstations 65°<3000cd/m², UGR ≤ 19 according to DIN EN 12464-1.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K. Other light colours on request.

Tast dim
Direct and indirect ratio dimmable separately via integrated push button, 230V.

DALI M5S5
Luminaire master unit equipped with controller LC-OM DALIeco and sensor LC-OM DALIeco LS/PD LI for daylight and presence-dependent control. Direct and indirect ratio dimmable separately via integrated push button.

Miscellaneous
2,85m connection cable, black, with safety plug.

Accessories
Infrared remote control LC-OM Master Remote Kit for commissioning and infrared remote control LC-OM User Remote for operating the DALI M5S5 luminaire. Light control systems must be ordered separately.

Type	H	FL	FB	FH	KL	KB	KH
rason-RSSIMP	1950	490	380	18	680	330	30

rason-RSSIMP

15700lm 840

UGR 19

3000

η_{LB}	100 %
Direct	13 %
Indirect	87 %
UGR lat.	10,0
UGR long.	10,0

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
rason-RSSIMP	LED 15700lm 840	103	ED	471 1304 175		18,4
	LED 15700lm 840	103	Tast dim	471 1306 575		18,4
	LED 15700lm 840	103	DALI M5S5	471 1308 175		18,4

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

LC-OM Master Remote

LC-OM User Remote

Accessories	Type	Details	Item-number	Colour	kg
Light Control	LC-OM Master Remote PC Kit	Remote control IR for commissioning the DALIeco (M5S5) light control system	850 1041 100	■	0,11
	LC-OM User Remote	Remote control IR for the operation of the DALIeco (M5S5) light control system	850 1042 100	□	0,11

Light furniture

Light furniture

light qube P. 404

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light seat P. 408

light bench P. 412

light qube

IP65

Housing
Base part with clamping mechanism made of galvanised or stainless steel. Inner mounting plate for taking up the electrical components made of stainless steel. Cover made of massive frosted acrylic glass with welded edges. Suitable for use in public space.

Lighting technology
Modular LED with wide distributing lens optics for homogeneous appearance.
Rated life time = L70 B50 50.000h.

Miscellaneous
Electrical connection via 5-pole plugin connection terminal; with integrated earth conductor connection and unlocking button, suitable for rigid and flexible cables up to 2.5mm². Protected by internal weatherproof junction box.

Type	L	B	H	A1	A2	X	Y
light qube	500	300	720	300	160	185	0

light qube

900lm 840

η_{LB}	100 %
Direct	61 %
Indirect	39 %
UGR lat.	11,3
UGR long.	12,6

Type	Version	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
light qube	galvanized	LED 900lm 840	18	ED	844 0014 100	☐	28,4
	stainless steel V2A	LED 900lm 840	18	ED	844 0014 120	☐	28,4

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

light seat

IP65

Housing
Base part with clamping mechanism made of galvanised or stainless steel. Inner mounting plate for taking up the electrical components made of stainless steel. Cover made of massive frosted acrylic glass with welded edges. Suitable for use in public space.

Lighting technology
Modular LED with wide distributing lens optics for homogeneous appearance.
Rated life time = L70 B50 50.000h.

Lighting technology RGBW
Modular RGBW LED with wide distributing lens optics for homogeneous appearance. Electronic driver with 4 separate DALI channels.
Rated life time = L70 B50 50.000h.

Miscellaneous
Electrical connection via 5-pole plugin connection terminal; with integrated earth conductor connection and unlocking button, suitable for rigid and flexible cables up to 2.5mm². Protected by internal weatherproof junction box.

Type	□ L	H	A1	A2	X	Y
light seat	500	500	260	396	172	-128

Type	Version	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
light seat	galvanized	LED 1400lm 840	24	ED	847 0014 100	☐	36,6
	stainless steel V2A	LED 1400lm 840	24	ED	847 0014 120	☐	36,6
light seat RGBW	galvanized	LED RGBW	31	DALI	847 0026 600	☐	36,6
	stainless steel V2A	LED RGBW	31	DALI	847 0026 620	☐	36,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

WIEHLER·WASSER·WELT

EISSPO
Eingang

light bench

IP65

Housing
Base part with clamping mechanism made of galvanised or stainless steel. Inner mounting plate for taking up the electrical components made of stainless steel. Cover made of massive frosted acrylic glass with welded edges. Suitable for use in public space.

Lighting technology
Modular LED with wide distributing lens optics for homogeneous appearance.
Rated life time = L70 B50 50.000h.

Lighting technology RGBW
Modular RGBW LED with wide distributing lens optics for homogeneous appearance. Electronic driver with 4 separate DALI channels.
Rated life time = L70 B50 50.000h.

Miscellaneous
Electrical connection via 5-pole plugin connection terminal; with integrated earth conductor connection and unlocking button, suitable for rigid and flexible cables up to 2.5mm². Protected by internal weatherproof junction box.

Type	L	B	H	A1	A2	X	Y
light bench	1700	500	500	366	396	770	-130

light bench

2100lm 840

η_{LB}	100 %
Direct	61 %
Indirect	39 %
UGR lat.	10,9
UGR long.	12,6

Type	Version	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
light bench	galvanized	LED 2100lm 840	37	ED	848 0014 100	☐	86,2
	stainless steel V2A	LED 2100lm 840	37	ED	848 0014 120	☐	86,2
light bench RGBW	galvanized	LED RGBW	53	DALI	848 0026 600	☐	86,2
	stainless steel V2A	LED RGBW	53	DALI	848 0026 620	☐	86,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

Glass luminaires

Glass luminaires

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puck-A P. 436

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puck-H P. 440

dyski-H P. 448

syrma-W

IP20

Wall luminaire
made of mouth-blown, triple-layer frosted opal glass.
Open glass with minimal wall fixing.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.
Also available as frosted acrylic glass version upon request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	L	B	H
syrma-W/300	300	150	75
syrma-W/500	500	150	75

syrma-W/300

1300lm 840

η_{LB}	100 %
Direct	82 %
Indirect	18 %
UGR lat.	21,6
UGR long.	23,2

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
syrma-W/300	LED 1300lm 840	14	ED	592 3844 100	☐	1,9
	LED 1300lm 840	14	DALI	592 3846 600	☐	1,9
syrma-W/500	LED 2600lm 840	28	ED	592 5844 100	☐	2,4
	LED 2600lm 840	28	DALI	592 5846 600	☐	2,4

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

LAVATER

syrma-HB

IP20

Pendant luminaire
made of mouth-blown, triple-layer frosted opal glass.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.
Also available as frosted acrylic glass version upon request.

Suspension
Self-supporting white cable. Ceiling canopy painted white.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	H	D	P
syrma-HB/320	320	150	2000
syrma-HB/500	500	150	2000
syrma-HB/620	620	150	2000
syrma-HB/800	800	220	2000

syrma-HB/500

3400lm 840

η_{LB}	100 %
Direct	49 %
Indirect	51 %
UGR lat.	19,0
UGR long.	19,0

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
syrma-HB/320	LED 1600lm 840	11	ED	589 3844 100	☐	2,8
	LED 1600lm 840	11	DALI	589 3846 600	☐	2,8
syrma-HB/500	LED 3400lm 840	22	ED	589 5844 100	☐	3,8
	LED 3400lm 840	22	DALI	589 5846 600	☐	3,8
syrma-HB/620	LED 5000lm 840	34	ED	589 6844 100	☐	6,1
	LED 5000lm 840	34	DALI	589 6846 600	☐	6,1
syrma-HB/800	LED 11500lm 840	96	ED	589 8844 100	☐	8,3
	LED 11500lm 840	96	DALI	589 8846 600	☐	8,3

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

corona-A

IP20

Surface mounted luminaire
made of mouth-blown, triple-layer frosted opal glass.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.
Also available as plastic PE version upon request.
Suitable for ceiling- or for wall-mounting.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	H	H2	D
corona-A/415	80	20	415
corona-A/500	90	20	500
corona-A/600	100	20	600

corona-A/500

4500lm 840

η_{LB}	100 %
Direct	77 %
Indirect	23 %
UGR lat.	20,4
UGR long.	20,4

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
corona-A/415	LED 3600lm 840	34	ED	559 4844 100	☐	4,9
	LED 3600lm 840	34	DALI	559 4846 600	☐	4,9
corona-A/500	LED 4500lm 840	39	ED	559 5844 100	☐	7,0
	LED 4500lm 840	39	DALI	559 5846 600	☐	7,0
corona-A/600	LED 5100lm 840	44	ED	559 6844 100	☐	8,2
	LED 5100lm 840	44	DALI	559 6846 600	☐	8,2

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

corona-H

IP20

Pendant luminaire
made of mouth-blown, triple-layer frosted opal glass.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.
Also available as plastic PE version upon request.

Suspension
Ceiling canopy structure-coated metallic grey.
Steel wire suspension with rapid coupling, free height adjustment from 1000 to 2000mm.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	H	D	Pmin/Pmax
corona-H/415	80	415	1000-2000
corona-H/500	80	500	1000-2000
corona-H/600	100	600	1000-2000

corona-H/500

4500lm 840

η_{LB}	100 %
Direct	77 %
Indirect	23 %
UGR lat.	20,4
UGR long.	20,4

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
corona-H/415	LED 3600lm 840	34	ED	558 4844 100	☐	5,1
	LED 3600lm 840	34	DALI	558 4846 600	☐	5,1
corona-H/500	LED 4500lm 840	39	ED	558 5844 100	☐	7,3
	LED 4500lm 840	39	DALI	558 5846 600	☐	7,3
corona-H/600	LED 5100lm 840	44	ED	558 6844 100	☐	9,8
	LED 5100lm 840	44	DALI	558 6846 600	☐	9,8

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

puck-A

IP20

Surface mounted luminaire
made of mouth-blown, triple-layer frosted opal glass.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.
Suitable for ceiling- or for wall-mounting.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	H	H2	D
puck-A/415	80	20	415
puck-A/500	90	20	500
puck-A/600	100	20	600

puck-A/500

4600lm 840

η_{LB}	100 %
Direct	77 %
Indirect	23 %
UGR lat.	20,3
UGR long.	20,3

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
puck-A/415	LED 3600lm 840	34	ED	552 4844 100	☐	5,1
	LED 3600lm 840	34	DALI	552 4846 600	☐	5,1
puck-A/500	LED 4600lm 840	40	ED	552 5844 100	☐	7,8
	LED 4600lm 840	40	DALI	552 5846 600	☐	7,8
puck-A/600	LED 5200lm 840	44	ED	552 6844 100	☐	9,7
	LED 5200lm 840	44	DALI	552 6846 600	☐	9,7

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

puck-H

IP20

Pendant luminaire
made of mouth-blown, triple-layer frosted opal glass.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.

Suspension
Ceiling canopy structure-coated metallic grey.
Steel wire suspension with rapid coupling, free height adjustment from 1000 to 2000mm.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	H	D	Pmin/Pmax
puck-H/415	80	415	1000-2000
puck-H/500	90	500	1000-2000
puck-H/600	100	600	1000-2000

puck-H/500

4700lm 840

η_{LB}	100 %
Direct	77 %
Indirect	23 %
UGR lat.	20,3
UGR long.	20,3

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
puck-H/415	LED 3600lm 840	34	ED	553 4844 100	☐	5,3
	LED 3600lm 840	34	DALI	553 4846 600	☐	5,3
puck-H/500	LED 4700lm 840	40	ED	553 5844 100	☐	8,2
	LED 4700lm 840	40	DALI	553 5846 600	☐	8,2
puck-H/600	LED 5200lm 840	44	ED	553 6844 100	☐	10,8
	LED 5200lm 840	44	DALI	553 6846 600	☐	10,8

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

dyski-A

IP20

Surface mounted luminaire
made of mouth-blown, triple-layer frosted opal glass.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.
Suitable for ceiling- or for wall-mounting.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	H	H2	D
dyski-A/550	76	20	550

dyski-A/550

3100lm 840

η_{LB}	100 %
Direct	74 %
Indirect	26 %
UGR lat.	17,6
UGR long.	17,6

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
dyski-A/550	LED 3100lm 840	34	ED	565 5844 100	☐	6,0
	LED 3100lm 840	34	DALI	565 5846 600	☐	6,0

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

dyski-H

IP20

Pendant luminaire
made of mouth-blown, triple-layer frosted opal glass.
Rated life time = L80 B10 50.000h.
Light colour: 4000K. Optional: 3000K.

Suspension
Steel tube painted white. Ceiling canopy painted white.
Also available as chromed version upon request.

Miscellaneous
Electrical connection via three-pole or for dimmable luminaires, five-pole feed-in and connection terminal with plug-in technology, with integrated protective earth connection and unlocking button, suitable for rigid and flexible cables up to 2,5mm².

Type	H	D	P
dyski-H/550	86	550	1000

dyski-H/550

3100lm 840

η_{LB}	100 %
Direct	74 %
Indirect	26 %
UGR lat.	17,6
UGR long.	17,6

Type	LED Specification	P_{Sys}(W)	Driver	Item-number	Colour	kg
dyski-H/550	LED 3100lm 840	34	ED	566 5844 100	☐	6,6
	LED 3100lm 840	34	DALI	566 5846 600	☐	6,6

▶ Please refer to the current data for LED luminaires at www.lichtwerk.de

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Gruppe
Ratssaal
Bearbeiten
Alle Leuchten
Leuchten in der Nähe
Szene
2L
2M
2R
3L
4M
5M
4R
3R
4L
Leuchten
Galerie
Szenen
Mehr

Intuitive light management system

Almost all of our DALI lights can be equipped with a control module that enables wireless control and networking with the help of a smartphone or tablet. Setting up is very easy and intuitive thanks to bluetooth and an app. The lights can be operated either classically with a switch or by a smart device. Even from anywhere in the world if you want to!

We would be happy to support you in choosing the right components for your project.

CASAMBI

With the Casambi components integrated in our luminaires, you have the total control over your lighting system. From switching or dimming to complex light scenes, everything can be implemented in the simplest possible way.

APP

The free Casambi app is the central administration of your lighting. Simply set up your lighting using the app.

Switch

Define which luminaires or luminaire groups are assigned to which switch for a classical manual control.

Light colour/HCL

RGBW or tunable white lights can also be addressed and controlled by Casambi. Thus, an intuitive automated control for Human Centric Lighting is no problem.

Luminaire groups

Using Casambi, lights can be controlled individually in different groups or as a whole. This makes your lighting more flexible than ever.

Scenes

A wide variety of lighting moods can be implemented in light scenes. These scenes can be recalled by the push of a button or automatically.

Timer

The timer function can be used to time-control your lighting installation.

Almost all of our DALI lights are Casambi Ready.
With our LC canopy it is possible to control pendant lights wireless via app or classical by using a manual push button.
Recessed and surface-mounted DALI luminaires can be equipped on request.

LC-canopies for pendant luminaires

LC-canopy SA-PS-FLEX
Bluetooth 4.0 canopy SA-PS-Flex 10x with integrated Casambi module and power supply for controlling max. 32 DALI luminaires. Different presets e.g. DT6 or DT8 selectable. Operation via free app and other system components such as switches or pushbutton couplers.

Top view of canopy mounting plate

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	SA-PS-FLEX	SA-PS-FLEX 10x; 2000mm	910 1120 10...	...1	wa ...5	...4	0,6

LC-canopies for phase-track-luminaires

LC-canopy DPSN-PS-FLEX
Bluetooth 4.0 canopy with phase track adapter DPSN-PS-Flex 10x with integrated Casambi module and power supply to control max. 32 DALI luminaires. Different presets e.g. DT6 or DT8 selectable. Operation via free app and other system components such as switches or pushbutton couplers.

System components	Type	Details	Item-Nr.	Colour	Colour	Colour	kg
LC-canopy	DPSN-PS-FLEX	DPSN-PS-FLEX 10x, for DPSN-phase-track	324 4500 10...	...1	wa ...5	...4	0,6

LC-Wall push button

Single push button LC-KW FLEX BT PB 2W
Bluetooth wireless push button, with two switching points, white. One rocker, battery-free, with frame, wall mounting possible, compatible with all Casambi modules.

Double push button LC-KW FLEX BT PB 4W
Bluetooth wireless button, with four switching points, white. Two rockers, battery-free, with frame, wall mounting possible, compatible with all Casambi modules.

System components	Type	Details	Item-Nr.	Colour	kg
Wall push button	LC-KW FLEX BT PB 2W	Bluetooth, 2-channel, 1 rocker, battery-free, with frame	850 1020 11...	☐ ...0	0,05
	LC-KW FLEX BT PB 4W	Bluetooth, 4-channel, 2 rockers, battery-free, with frame	850 1020 10...	☐ ...0	0,05

LC-Push button coupler

Bluetooth push button coupler
Four button inputs, for switch box installation, for connecting seperate push buttons, 230V 50Hz mains supply required, compatible with all Casambi modules.

System components	Type	Details	Item-Nr.	kg
Push button coupler	LC-LW FLEX10 PBU 4	Bluetooth push button coupler, switch box installation, 4-channel 230V 50Hz	850 1020 120	0,05

LC-sensor

LC-sensor LC-LW FLEX10 5DP 38rc
Recessed motion and daylight sensor, white. Including bezels to optimize sensor detection area. Setting via APP, 230V 50Hz power supply required, compatible with all Casambi modules.

Optional housing
LC-LW FLEX10 5DP 38rc Box
for surface mounting.

System components	Type	Details	Item-Nr.	Colour	kg
Sensor	LC-LW FLEX10 5DP 38rc	Bluetooth recessed sensor including bezels	840 0000 51...	☐ ...0	0,1
Surface mounted housing	LC-LW FLEX10 5DP 38rc Box	Housing for surface mounting (without sensor)	840 0000 52...	☐ ...0	0,1

Lighting technology basic concepts

Basic terms	Unit	Symbol	Definition	
1. Luminous flux	Lumen (lm)	Φ	The total quantity of light emitted from the light source.	
2. Luminous intensity	Candela (cd)	$I = \frac{\Phi}{\Omega}$	The luminous intensity I evaluates the light radiated in a definite direction. It depends on the luminous flux Φ in this direction and on the radiated solid angle Ω.	
3. Illuminance	Lux (lx)	$E = \frac{\Phi}{A}$	The illuminance E is the luminous flux Φ, on a defined surface A.	
4. Luminance	Candela pro m² (cd/m²)	$L = \frac{\Phi}{A \cdot \cos \varepsilon}$	The luminance is the luminous intensity per m² of visible surface. The luminance L of an illuminated surface is the measure for the luminosity perceived.	
5. Bulb light output	Lumen pro Watt (lm/W)	$\eta = \frac{\Phi}{P}$	The bulb light output is the luminous flux of a light source related to its electrical power consumption	
6. Luminaire light output	Lumen pro Watt (lm/W)	$\eta = \frac{\Phi}{P}$	The luminaire light output is the net light flux of a luminaire relative to its power consumption, including the operating equipment.	

Degrees of protection

IP degrees of protection according to the first reference number

Ref-No.	Short description	Short details which foreign bodies cannot ingress the housing
0	Unprotected	No special protection
1	Protected against the ingress of foreign solid bodies with a diameter greater than 50 mm	Great body surface, e.g. a hand (however no protection against intentional contact), foreign solid bodes
2	Protected against the ingress of foreign solid bodies with a diameter greater than 12 mm	Finger or similar up to 80 mm length; foreign solid bodes greater than 12 mm diameter
3	Protected against the ingress of foreign solid bodies with a diameter greater than 2.5 mm	Tools, wires etc. with a diameter or a thickness greater than 2.5 mm; foreign solid bodes greater than 2.5 mm diameter
4	Protected against the ingress of foreign solid bodies with a diameter greater than 1 mm	Wires or strips thicker than 1 mm; foreign solid bodes greater than 1 mm diameter
5	Dustproof	Ingress of dust is not completely prevented, however, dust must not penetrate in such quantities that a proper operation of the device is impaired
6	Dust tight	No penentration of dust

IP degrees of protection according to the second reference number

Ref-No.	Short description	Details of protective measures through the housing
0	Unprotected	No special protection
1	Protected against dripping water	Dripping water (vertically falling drops) shall have no harmful effects
2	Protected against dripping water up to 15°	Vertically falling drops shall have no detrimental effect, if the housing is inclined up to 15 ° from its original operation position
3	Protected against spraying water	Water falling as a spray at an angle of up to 60° from the vertical shall have no detrimental effect against the vertical position
4	Protected against splashing water	Water splashed against the housing from any direction shall have no detrimental effect
5	Protected against water jets	Water projected by a nozzle against the housing from any direction shall have no detrimental effect
6	Protected against heavy seas	Water from heavy seas or water jet under high pressure shall not penetrate the housing in harmful quantities
7	Protected against the effects of immersion	Ingress of water in harmful quantities shall not be possible when the housing is immersed in water under defined conditions with regard to pressure and time
8	Protected against immersion	The devise is suitable for permanent immersion in water; the conditions are to be indicated by the manufacturer Note: In general, this signifies that the device is completely sealed. However, this may signify with specific devices that water penetrates but has no detrimental effects.

Test symbols and protection classes

Test symbols

Test symbols and protection classes

All lichtwerk luminaires are manufactured according to approved technical standards and 100% electrically tested. The luminaires are designed as standard for 230 V, 50 Hz and an ambient temperature of 25° C, and satisfy European norms and directives in relation to safety, electromagnetic compatibility and energy efficiency.

Test symbols	Description
	The -symbol is the European safety symbol for luminaires. The test regulations are determined by the European standard DIN EN 6598. The -symbol is issued in combination with the identification number of a European test center (VDE = 10). This documents that the luminaires have been built and tested „in conformity with the standards" as per the Low-voltage Directive 2006/95/ EG.
F	All luminaires meet the -conditions. In the event of faulty luminaire the fastening surfaces will not be hotter than 180° C. They may be mounted on inflammable building materials as described in DIN 4102 with an ignition point of at least 200°C (e.g. wood). Observe the installation instructions in order to avoid incorrect installation.
F	Identification for thermally insulated ceilings. Luminaires may be directly covered with insulating material.
D	EN 60598-2-24 requires that luminaires with the -symbol and at least with degree of protection IP 50 must be installed in areas where dust and/or fibers pose a fire hazard. Observe the installation instructions when installing.
M	Luminaires with the -symbol are intended for surface-mounted and recessed installation in furniture. They have been designed so that inflammable materials as defined in VDE 0710 section 14 cannot be ignited in the event of a faulty luminaire. Observe the installation instructions in order to avoid incorrect installation.
M M	Luminaires with the -symbol are intended for surface-mounted and recessed installation in furniture. They are constructed so that in the case of luminaire failure, materials with inflammability characteristics not recognised by VDE 0710 section 14 cannotbe ignited. Observe the installation instructions in order to avoid incorrect installation.
650°C 850°C	Luminaires with this symbol correspond to EN 60598-1 standard conditions for the temperature specified by this symbol. Testing is carried out according to IEC 60695-11-5 (needle-flame test) or IEC 60695-2-10 (glow-wire flammability index).
IK... ...J ...Nm	The IK-Impact resistance degree describes the resistance of the housings of electric operating equipment to mechanical loads, particularly impact. The IK-classes correspond to a respective minimum impact energy in Joules, that the housing must be able to withstand. The given value in Nm/J corresponds to the mechanical resistence.
CE	The CE -marking is performed by the manufacturer at his own responsibility. The manufacturer declares confirmity with the respective EC or EU directives. Conformity in accordance with the „Low-voltage Directive" and the „EMC directive" (interference immunity, emitted interference) is the precondition for the CE -marking of the products.
1000 1500 3000	With this symbol, the suitability of luminaires for computer workstations according to DIN EN 12464-1 is specified. The degree number means that the luminance in all luminaires planes beyond that angle does not exceed certain limitation values. Depending on screen quality and screen visualisation, the norm specifies different limitation values.
	Generally, the luminaires are suitable to be used in companies of the food and beverage industry certified according to IFS version 6 and /or BRC Global Standard Food version 6.
UGR 19	The luminaires meet the limit value <= 19 in accordance with the unified glare rating method UGR. This rating is based on conditions in the so-called standard room with lines of vision crosswise and lengthwise to the luminaire.

Protection classes

Protection classes	Description
	Luminaires with the indoor symbol are only suitable and approved for the use in buildings.
	Luminaires of protection class I must be connected to a protective conductor.

Protection classes	Description
	Luminaires of protection class II are double insulated and therefore a PE terminal is not authorized.
III	Luminaires of protection class III are intended for operation at safety extra low voltage < 50V (effective)

Quality criteria for good light

Lighting Requirements

The function of the interior illumination is to provide human beings with an environment which contributes to their mental and physical well-being and prevents accidents. Moreover, it should influence the mental state of the human being with the aim of achieving a higher degree of performance, combating premature fatigue and reducing errors.

To fullfill these conditions ideally, several quality criteria have to be taken into account at the design stage:

- Lighting level
- Luminance distribution
- Glare limitation
- Directionality of light and modelling
- Light colour and light rendering

Lighting level/Lighting illuminance

The lighting level is primarily defined by the level of illuminance. This in turn is dependent upon the visual task, and is oriented to the difficulty of recognising specific contrast and detail as well as the speed at which these must be perceived. The EN 12464 standard defines the required illuminance levels for various types of rooms and activities. Maintenance values specified for the illuminance levels are mean values for the workzones of the rooms in the specific working planes. Independent of the age and condition of the lighting system, the mean illuminance level must not fall below the specified value. For all lighting systems, illuminance levels decrease with increasing age of the lamps and because of the collection of dust. In addition, the reflecting peripheral surfaces of the room also usually darken with age or become dusty. The lighting system must therefore be planned according to a light loss factor that considers all influences and that was calculated for the intended lighting equipment, the spacial environment and the maintenance plan to be defined.

Glare suppression

Glare limitation

Direct glare is caused by excessive luminance in the field of view. It diminishes visual acuity (physiological glare) and may seriously lessen the sense of well-being (psychological glare). Methods of glare evaluation for indoor luminaires evaluate the limitation of luminance within the critical beam angle. As a standard evaluation system the UGR (Unified Glare Rating) method was introduced in Europe as the DIN EN 12464-1 standard. Standard spreadsheets could be used for a rough evaluation.
The given values correspond to the conditions in the so called standard room.

Reflected glare is caused by disturbing reflections upon blank surfaces. According to the physical law ‚angle of incidence = angle of reflection', reflections occurring would lie precisely in the field of view of the person working there. Matt work surfaces help significantly in solving the problem of reflected glare. Reflected glare leads to similar disturbances as direct glare, and impairs mainly contrasts, which are required for disturbance-free seeing. The lighting of computer screen workspaces requires especially careful planning, because strong reflections on the screens often make work impossible.

Reflected glare is caused by disturbing reflections on bright surfaces.

The reflective properties of the screen surfaces, the screen polarity and its curvature in combination with shining surfaces in the room are the decisive factors of influence for the assimilation of information via screens. Disturbing reflections can be lessened with anti-reflection measures for the screen surface. The suitability of luminaires is specified in DIN EN 12464-1. Depending on screen quality and screen polarity, the luminance values of luminaires and shiny surfaces reflected on the screens must not exceed the specified limitation values for mean luminance. Depending on these screen classes and the screen polarity, the luminance values of luminaires and shiny surfaces reflected on the screens must not exceed the specified limitation values for mean luminance. These limitation values are considered for luminaires above an emission angle of 65° all round.

„High state"-luminance of the screen	Screens with high luminance L > 200 cd/m²	Screens with mean luminance L ≤ 200 cd/m²
Case A Positive polarity and usual requirements with regard to colour and details of the presented information e.g. as available in offices, etc.	≤ 3000 cd/m²	≤ 1500 cd/m²
Fall B Negative polarity and/or higher requirements with regard to colour and details of the presented information e.g. as available in case of CAD, colour verification etc.	≤ 1500 cd/m²	≤ 1000 cd/m²
Note „High state"-luminance of the screen (see EN ISO 9241-302) describes the maximum luminance of the white area of the screen. Manufacturers of screens indicate that value.		

LED - light emitting diode

Light source LED

The LED technology offered by lichtwerk is a sure winner thanks to its high levels of efficiency and low energy consumption. Efficiency here includes low maintenance expense, ruggedness, and a long service life.
Effective temperature management in luminaire construction with LED is important when it comes to meeting all expectations. It ensures the performance characteristics are met and the luminaire has the promised service life.
An effective and passive cooling is the consequence in technical terms. An optimal light control system affects lighting wellbeing, as well as energy efficiency. You are sure to expect high-quality light technology in all our LED luminaires.
As an energy-efficiency option for traditional lighting systems, our LED luminaires also always need to meet basic quality demands on light wellbeing. We also performed solid work here too. We have selected specific lumen packages, optimal colour rendition and various colour temperatures for our lichtwerk luminaires. Another quality characteristic is our uniformly stable colour locus.
Energy efficiency and service life are not always the crucial factors in LED lighting. LED technology gets further plus points when the lighting system also needs quick and frequent switching the dimmability e.g. in plants with control systems, long maintenance intervals or special toughness requirements. lichtwerk LED luminaires ensure you can realise sophisticated lighting concepts and provide perfect illumination for your projects. Our photometric data are created by us with great care. Due to the high dynamics in the LED and LED-driver field, however, the electrical and photometric data indicated by our suppliers come with a tolerance of typically ±10%.
Therefore, this tolerance also applies to our figures and is indicated by our suppliers on their data sheets. These data sheets can be provided upon request.

LED benefits

- Lower power consumption
- Long service life
- Unlimited switching capability
- Full light right away
- Continuously dimmable
- No IR and UV radiation
- High impact- and vibration strength
- Small dimensions
- Mercury free

Binning

Depending on production tolerances of LED, these may vary in their light quantity and colour temperature. However, to achieve a constant light quality with the same level of brightness and light colour, LED are sorted by their values. LED with identical or similar parameters end up in the same bin. The narrower the tolerances, the higher the quality of the ‚binnings".

The following terms are often used in connection with binning:

Colour consistency – same light colour from lamp to lamp
Colour locus constancy – the light colour does not drift due to ageing or when the luminaires are dimmed

Luminous flux and light yield

Thanks to the rapid development of LED in recent years, they are also able to provide the relatively high quantities of light for general lighting in the technical light area. The amount of light - or Luminous flux (unit: Lumens) - denotes the total amount of light power emitted by a bulb or luminaire. When the Luminous flux in an LED only relates to the LED module (or an LED spot), this is called the gross luminous flux. This information is dependent on the different operating parameters and is defined by the LED manufacturer. If the module is built into a luminaire, the luminous flux will change due to a change in the operating conditions (such as temperature). Losses also come about as a result of technical light measures carried out on the luminaire (e.g. glare reduction), which means that a reduced luminous flux actually exits the luminaire. This is called the net luminous flux.
According to the definition, the light yield denotes the ratio of the emitted luminous flux to the electrical supply and is given in Lumens per Watt. A distinction must be made between gross and net here. For the gross light yield, the yield luminous flux of the module is used, whereby the electrical connecting line can be calculated with or without the operating device. In planning programs such as e.g. Relux however, the net light yield is calculated - this is called the luminaire light yield. This is based on the net luminous flux and the system performance of LED and driver. An identifying characteristic in terms of the net figure is data about the operating efficiency of the LED luminaire at precisely 100%. In light technology, this is called absolute photometry.
In the meantime the market has come to prefer net values, in particular, when comparing different types of LED luminaires. Knowledge of gross and net is essential to avoid comparing apples with oranges.

Luminous flux and light colour

In contrast to the colour mix comprising red/green/blue, the efficiency of most white-emitting LED is based on the LED chip initially producing blue radiation. This blue light is deflected by a luminescent layer which is e.g. constructed from yellow phosphorus. According to the principle of luminescence conversion, white light is then produced from blue and yellow.
If wanting to produce a warmer light colour, the admixture of light needs additional red components in the luminescent layer. However, these components work less effectively. This is the reason why the LED luminaires of the same type and rating have a lower luminous flux for a warm white light colour compared to variants with a higher colour temperature.

Origin of the light colour in an LED

Service life

LED used in the technical light area usually have a service life of 50,000 hours and above. This makes the LED one of the longest-lasting lighting mediums available today - without question. In practice, this means a considerable reduction in maintenance costs. Service life information is supplemented by values about degradation and mortality. An important factor influencing both the Luminous flux and the service life is temperature. If there is too much heat, this has a negative effect on the luminous flux and service life.This means effective thermal management with efficient heat dissipation is especially important for LED luminaires.

For detailed explanations refering to service life of LED please see Page 464.

Light management

Light management components further increase the energy efficiency of lighting systems. Even basic presence indicator switches improve the efficiency of such systems at relatively little expense. Since frequent switching of the LED does not result in a reduction of the service life, this lighting medium is ideal for such applications.

In addition, the LED immediately starts at 100 % light and no follow-up times need be configured.
Daylight-dependent rules with or without a presence function can be realised. Compared to legacy systems with conventional luminaires and magnetic pre-switching, the savings potential of energy costs can reach up to 85%.

Thermal management

The LED light is free of infrared radiation. This makes the LED ideal for illuminating sensitive objects, such as in museums or shops. A high proportion of heat arises directly in the LED chip during light generation.This is due to high power density on a small surface. This heat will need to be dissipated since the luminous flux falls at high temperatures and the service life decreases. Construction of the luminaire with appropriate heat dissipation measures is thus very important in ensuring that the operating temperature of the LED is optimal.

Saving potential indoor lighting

Service life analysis for LED

L-value

LED lose their luminosity over time.
This decline can occur in different ways. The light itself may simply become darker, individual LED or even entire LED modules or sections may fail.

The L-value describes this decline as an average value calculated for all LED in use. It states the percentage of luminous flux that can still be expected after expiration of the stated service life.

B-value

The B-value serves as additional information to the L-value. It describes the percentage of LED that are lower than the L-value stated as an average after expiration of the specified service life.

If no B-value is stated, a value of B_{50} is assumed. This predicts that 50% of used LED will exhibit a higher and 50% will exhibit a lower decline in luminous flux than the stated L-value after expiration of the stated service life.

L + B-value Combination makes the difference

The L-value with its stated service life and the B-value must always be considered in combination with one another.

The following diagram shows a typical graph for the decline of an LED over time:

This LED can be described with different statements using the characteristics values cited above:

Point 1 of this graph would be indicated with L_{80} 50,000h:
This means that the luminous flux would decrease by 20% on average after 50.000h.

The statement L_{70} 80,000h would, however, also be correct (see table point 2):
This means that the luminous flux would decrease by 30% on average after 80.000h.

LED luminaires by lichtwerk

It is important to know that these are calculated forecast models due to the rapid innovation cycles in the LED sector and that these values are based on data provided by LED manufacturers. As a manufacturer of luminaires, we provide these prognostic values for the service lives of our products based on this data and our own measurements, for example of the temperature (TP) of the luminaire when installed.

Using this measurement and design measures undertaken by us, for example in regard to proper heat dissipation of the installed LED, we are able to claim a very good service life prognosis of L_{80} 50,000h B_{10} for the majority of our products.

Thanks to our own laboratory measurements, we are also able to cite service life values for increased ambient temperatures, for example. Please ask us if your application is subject to such requirements.

A typical table of values for an LED module that is representative of the modules used in our luminaires is presented here as an example.
The influence of temperature on the service life analysis is clearly apparent:

		Statements L+B-value					
	L	70		80		90	
	B	10	50	10	50	10	50
Temperature	[mA]	Service life [h]					
Tp = 50°C	225	50.000	50.000	41.000	50.000	22.000	28.000
Tp = 65°C	225	50.000	50.000	35.000	50.000	18.000	24.000
Tp = 75°C	225	49.000	50.000	32.000	43.000	16.000	21.000

Chemical substance

Chemical substance	Polyester	Acrylic glass (PMMA)	Polycarbonate (Housing PC)
Acetone	not resistant	not resistant	not resistant
Aliphat. hydrocarbons	partially resistant	partially resistant	resistant
Alcohol up to 30%	resistant	resistant	resistant
Alcohol concentrated	partially resistant	not resistant	not resistant
Amoniac 25 %	not resistant	resistant	not resistant
Accumulatore acid	resistant	resistant	resistant
Aniline	not resistant	not resistant	not resistant
Aromat. hydrocarbons	partially resistant	not resistant	not resistant
Ether	partially resistant	not resistant	not resistant
Ethyl acetate	not resistant	not resistant	not resistant
Benzine	resistant	resistant	resistant
Benzole	not resistant	not resistant	not resistant
Beer	resistant	resistant	resistant
Blood	resistant	resistant	resistant
Bromine acid	not resistant	not resistant	not resistant
Chloroform	not resistant	not resistant	not resistant
Chlorophenol	not resistant	not resistant	not resistant
Diesel oil, crude oil	resistant	resistant	partially resistant
Dioxane	resistant	not resistant	not resistant
Acetic acid up to 5 %	resistant	partially resistant	resistant
Acetic acid up to 30 %	resistant	not resistant	partially resistant
Glycerine	resistant	resistant	partially resistant
Glycol	resistant	resistant	resistant
Glysantine	resistant	resistant	resistant
Carbon dioxide	resistant	resistant	resistant
Carbon monoxide	resistant	resistant	resistant
Lime water	resistant	resistant	partially resistant
Saline	resistant	resistant	resistant
Ketone	not resistant	not resistant	not resistant
Lysol	not resistant	not resistant	not resistant
Sea water	resistant	resistant	resistant
Methylene chloride	not resistant	not resistant	not resistant
Methyl alcohol	not resistant	not resistant	not resistant
Metal salts and their watery solutions	resistant	resistant	resistant
Sodium hydroxide 2 %	partially resistant	resistant	not resistant
Sodium hydroxide 10 %	not resistant	resistant	not resistant
Petroleum ether	resistant	resistant	partially resistant
Pyridine	not resistant	not resistant	not resistant
Phenol	not resistant	not resistant	not resistant
Nitric acid up to 10 %	resistant	resistant	resistant
Nitric acid 10 - 20 %	partially resistant	partially resistant	partially resistant
Nitric acid over 20 %	not resistant	not resistant	not resistant
Hydrochloric acid up to 20 %	resistant	resistant	resistant
Hydrochloric acid over 20 %	resistant	resistant	partially resistant
Sulfuric acid up to 50 %	resistant	resistant	resistant
Sulfuric acid up to 70 %	resistant	partially resistant	partially resistant
Sulfuric acid over 70 %	not resistant	not resistant	not resistant
Solfurous acid up to 5 %	partially resistant	partially resistant	not resistant
Hydrogen sulphide	resistant	resistant	resistant
Soapsuds	resistant	resistant	resistant
Soda	resistant	resistant	resistant
Synth. suds	resistant	resistant	partially resistant
Oil of turpentine	resistant	partially resistant	partially resistant
Carbon tetrachloride	resistant	not resistant	not resistant
Water up to 60° C	resistant	resistant	resistant
Hydrogene peroxide up to 40 %	not resistant	not resistant	partially resistant
Hydrogene peroxide over 40 %	not resistant	partially resistant	partially resistant
Xylene	not resistant	not resistant	not resistant

Light for Living

Importance of Daylight for people

The life of most living beings on the planet Earth has been determined by the day-night cycle for millions of years. The biological clock is deeply rooted in our subconscious. Even if humans were already able to create artificial light with fire 300,000 years ago, it did not become possible turning night into day with the distribution of electricity at the end of the 19th century. This period of time is far too short to be reflected in human genes.
Witnessing these facts, it becomes apparent how straining our way of living must be for us - mainly in enclosed rooms - with only little or even no daylight. It is assumed that at least 20% to 30% of the people working in industrial countries suffer from recurring sleep disorders. The body's inner cock gets out of step.
With today's technologies and knowledge it is possible to compensate for this handicap of static light in our surroundings. The lack of natural daylight can be compensated for by convergence of the artificial light to the course of daylight. Thus, the human biological clock will be synchronised again.

Biological Clock

Life on Earth is also determined by the alternation of day and night. Many types of cells from species have developed some type of inner clock in the course of evolution. The brain synchronises this clock with the environment. Light is the pulse generator for this process.

Artificial Light

Consequences of the use of artificial light

The year 1879 is the start of the era of electric lighting. Thomas Alva Edison files a patent for his light bulb. This modern invention has radically changed our lives. Now men were able to extend their day, change their rhythm of time or turn the night into day. Artificial light was introduced in manufacturing plants and it became possible to also work without daylight. Initial approaches for light planning developed, when it became obvious that good light does not only depend on the illumination level.

As well as the illumination level, other criteria are in the focus of today's state-of-the-art light planning, such as harmonic distribution of brightness, limitation of glare effects, light colour, colour rendering, light direction and shade. If all these points, known as quality characteristics of lighting, are met a „good" lighting system will certainly be achieved. So far so good. But why not make something good better?

New Approach

The classic quality characteristics are lacking one approach: dynamics. The level of illumination is designed for a specific minimum value according to standard; this so-called target value is kept constant for light control. The light colour is specified in the planning phase and is not subject to any change during operation.

However, people are conditioned differently, people live with and by changes, also in matters of light. During evolution, homo sapiens started around 300,000 years ago to adapt to the cycle of natural sunlight. Daylight is characterised by different levels of light and different light colours. No wonder that people also orient themselves to such parameters of the light and are clocked by them in their rhythm of life.

Chemical Messengers

It was not clear for a long time how these light stimuli are exactly processed. It was known that the so-called cones in the eye are responsible for colour vision and the rods for mesopic vision. A third receptor, the ganglion cells, was discovered in the year 2002. However, these light-sensitive cells are not used for vision but regulate biological processes in the body when in contact with light. The retinal ganglion cells are directly connected to a specific area of the brain for this purpose. The body's rhythms are clocked from this central control point - the „Master Clock". It controls the production of hormones and the activation of enzymes. Increasing exposure to light thus ensures, that the production of the sleep hormone melatonin is suppressed. Instead, serotonin is released, which has a mood-enhancing and motivating effect.
The task expands for light planning which is geared to the biological rhythm of men. The objective must be to create a lighting solution beyond the standard quality characteristics for illumination. It is not only a matter of meeting applicable standards. Light, and therefore also good illumination, can do more. Good light does not only illuminate, but has a biological effect.

Retinal Ganglion Cells

Photoreceptors in the retina of the eye. These cells are sensitive to light, however, they are not used for vision. Instead, they assume a role for the synchronisation of the internal clock of the person.

Biologically effective Light

Light which is characterised by dynamics with regard to luminance, light colour and direction of arrival. This light is able to initiate biological processes for living creatures.

For the artificial illumination, a simulation of daylight means starting in the morning with warm-white light. Derived from sunrise, this light has more red content in the spectrum and thus has a relatively low colour temperature of e.g. 2700 Kelvin. A gradual transition to daylight-white light colour (e.g. 6500 Kelvin) is performed in the course of the day. The now increased blue portion in the spectrum results in an activating effect which stimulates the concentration. This change of the light colour at noontime should also involve an increase in the level of illumination to exceed a specific threshold value for the biological effectiveness of the light.

As the eye is adapted to the natural environment and thus at noontime to the light of the sky, this should also be taken into consideration for the selection of luminaires and light distribution. The most sensitive ganglion cells are mainly distributed in the rear and lower part of the eye. Large-surface luminaires or luminous ceilings are better suited than point light sources to reach as many of these receptors in the eye as possible.

In the later afternoon and evening, the dynamic process of the morning hours will be reversed, e.g. the level of illumination will be gradually reduced and the colour temperature changes to warm-white light.
Using simulation of daylight, artificial light can assume a biologically effective function. This makes sense as people are spending more and more time in enclosed rooms. Modern dynamic light concepts will replace the static light solutions. The focus is on the person and the increase of his/her well-being.

Circadian Rhythm

The term is derived from Latin (circa = around, dies = day) for a cyclic biological process with a period of approx. 24 hours.

HCL Human Centric Lightning

The characteristics of the HCL illumination consider more than just vision. The focus is on the person. Human Centric Lighting stimulates the well-being and supports stable health of the person.

HCL

Human Centric Lighting - Simulation of Daylight

The focus is on the person, also regarding to illumination. A contemporary lighting system must be able to enhance the well-being of the person more than ever before. Knowing that the human organism has been and will be characterised by daylight, the objective must be integrating the positive aspects of daylight into modern light planning. It was not without reason, that the issue of daylight was included in the revision of the European standard EN 12464-1 „Illumination for workplaces in interior rooms". But what should be done, if sufficient daylight is not available? In this case, artificial light can assume specific daylight functions and provides „the right light at the right time". Based on the natural light, the artificial light is given a dynamic structure in the course of the day. Thereby, the changes in the level of illumination and in the light colour are of particular importance. Such lighting is able to support the circadian rhythm of the person. Our cells and organs and thus the body's functions are linked to this rhythm, with the human body clock being the pulse generator. It controls sleep and waking phases, but also heart beat, blood pressure and mood. This cyclic process is also characterised by the fact that all biochemical functions have individual high and low points in the course of the day. The circadian rhythm is regularly synchronised with the outside world whereby humans are primarily influenced by the brightness of the day and the darkness of the night.

Actual project - Maria Ward school

The Maria-Ward-School, located in the middle of Bamberg old town, was extended. The new Construction is convincing with its modern, energy efficient an environment friendly design.

To fit always the right illumination the hall is equipped with recessed LED luminaires "Iopia Q". The fixtures obtain with their tunable-white-technology always the right mood. They are capable of a color temperature bandwidth from 3000K to 6500K. Starting at warm white through neutral white to cool white. This gives the responsible the opportunity to choose the right light colour needed for each individual event.

The smaller type of the luminaire "Iopia Q 330-EG" was also used in the hallways, staircases and locker rooms. The luminaire family connects the different areas with its unified visual appearance. Through its homogeneous appearance it significantly contributes to a harmonic room atmosphere.

Products:
Iopia Q LED
Building owner:
Erzbischöfliches Ordinariat, Bamberg
Architect:
PECK.DAAM Architekten GmbH, München
Architekturbüro Dietz, Bamberg
Planing:
Ingenieurbüro Förner, Memmelsdorf
Installation:
Elektro Kramer, Burgebrach

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GTC - Sales and delivery conditions

1. General
1.1 These conditions of sale apply exclusively to companies, legal persons under public law or public-law special assets in the sense of § 310 paragraph 1 BGB (German Civil Code). The following conditions of sale apply exclusively for all offers and contracts regarding the delivery of goods by lichtwerk GmbH. They also apply for all future transactions with the Orderer when dealing with legal transactions of the related kind. The Orderer recognises the conditions as binding for him for all of the business relations. Modifications and amendments must be in written form. Conflicting or deviatingterms and conditions of the Orderer are not terms of the contract, even if we do not expressly object to them. This will only be content of the respective contract in cases where we expressly approve the conflicting or deviating terms and conditions in writing.
1.2 We reserve our own rights of ownership, copyright and other intellectual property rights for all cost estimates, drawings and documents that are handed over to the Orderer during the contract negotiations. They may only be disclosed to third parties with our prior written permission. If an order is not issued, all transferred documents shall be returned immediately at our request. The Orderer does not have the right to use, retain or disseminate these documents.

2. Conclusion of the contract and scope of services
2.1 Our offers are not-binding and without obligation. In terms of the nature and scope of delivery, they will first be binding upon our written order confirmation. If an order is to be regarded as an offer according to § 145 BGB, we can accept this within two weeks by sending an order confirmation.
2.2 Verbal agreements, in particular supplementary agreements and commitments made by our employees, require our written confirmation to be effective.
2.3 For the delivery, we reserve the right to deviations of goods compared to the documents belonging to the offers, such as catalogues, illustrations, descriptions, drawings as well as weight and dimension information, provided they are commercial and reasonable for the Orderer and in particular do not impair quality and function.

3. Prices, deliveries and terms of payment
3.1 Prices and delivery
3.1.1 The prices are calculated in Euro exclusive of the legal VAT, which is invoiced separately according to the valid rate. The prices are calculated according to the prices valid at date of contract conclusion; if the delivery is made more than 4 months after contract conclusion, the prices valid at date of delivery can be invoiced.
3.1.2 Principally, prices shall be ex works excluding VAT, packaging, freight costs and insurance.
3.1.3 For a net order value of €1,500.00 or more, we deliver to the delivery location free of charge within Germany, whereby we provide the goods at the delivery location ready for unloading. Starting at € 750.00, we charge half of the transportation charges for a delivery location within Germany. For a net order value below € 250.00, we charge an additional small-volume surcharge of €25.00.
3.2 Terms of payment
3.2.1 Our invoices are to be paid within 30 days from the date of the invoice. For payment within eight days from the invoice date, we grant a 2 % discount. A payment is considered effected if we are able to access the funds. In the case of payment by cheque, payment is only considered effected when the cheque is redeemed by us.
3.2.2 The acceptance of cheques shall only be accepted on account of performance.
3.2.3 The Orderer's right of retention, as far as it is not based on the same contractual relationship, and the offsetting with contested or not legally determined claims is excluded.
3.2.4 If the Orderer is in default of payment as a whole or a part, he is bound - notwithstanding all other rights of the supplier - to pay from that point of time on default interests to the amount of 8 % annually above the base lending rate.
3.2.5 If the Orderer ceases payments or if bancruptcy is filed or mature checks or bills of exchange are not redeemed, all claims made by the supplier are immediately due.

4. Delivery times and acceptance obligations
4.1 The delivery period begins with the date of written agreement about the order between Orderer and supplier.
4.2 Hindrances beyond our responsibility, in particular acts of God, war, insurrection, strikes, transport disruptions, business disruptions, lack of material, official orders and other inevitable events that delay the delivery in whole or in part automatically lengthen the delivery period by the duration of such conditions. In such cases the parties have the right to withdraw from the contract in whole or in part.
4.3 In the event of a delayed delivery for which we are responsible, the Orderer can only assert his rights arising from the delay if the grace period he granted us has passed without result. If the Orderer proves in this case that he has incurred damages caused by the delay, he can claim a delay compensation for each completed week of the delay in the amount of 0.5% for the entire duration of the delay, but not to exceed 5% of the value of the goods not delivered on time. The right of the Orderer for exercising the right of withdrawal shall remain unaffected. Further-reaching claims shall only apply in cases of intend or gross negligence where liability is mandatory.
4.4 We are entitled to make reasonable installment deliveries.
4.5 If the Orderer causes a delay of dispatch or delivery of the goods or if the Orderer is otherwise in default in accepting the delivery of goods or should the Orderer intentionally violate other obligations to co-operate, we then have the right to claim compensation for any incurred damages in this respect, including any possible additional expenditure. Rights remain reserved for more extensive claims. Insofar as such aforesaid conditions apply, the risk of accidental loss or accidental detoriation of the purchased gods passes over to the Orderer at the precise point of time in which he is in default of acceptance or payment.

5. Dispatch, transfer of risk, returns
5.1 The risk is passed on to the Orderer when the goods leave the factory or a warehouse. Shipping takes place uninsured at the Orderer's risk. This also applies even if free delivery is agreed and also for deliveries by our transport staff. If the shipment is delayed as a result of circumstances for which the Orderer is responsible, the risk is transferred with our notification of readiness for shipment. If the shipment is delayed at the Orderer's request or at the fault of the Orderer, then we will store the goods at the Orderer's expense. The Orderer is required to check without delay whether the goods have been damaged during transportation and to immediately inform the carrier and deliverer of any damage or loss. Shipping takes place on behalf of the Orderer.
5.2 If the supplier has no statutory obligation to accept returned goods, the Orderer may only return goods with our express written consent and provided that they are undamaged and returned in the original packaging. 30% of the invoiced amount will be deducted from the credit note to cover processing costs. All reprocessing, freight, insurance and packaging costs are charged to the Orderer. Principally, it is not possible to return custom-made products.

6. Retention of Title
6.1 The goods remain our property until the fulfilment of all our entitled claims against the Orderer (goods subject to retention of title), even if the individual goods have been paid for. A pledge or chattel mortgage of the reserved goods is not permissible.
6.2 In the case of the permissible resale of the reserved goods within the ordinary course of business, the Orderer assigns us already now, until payment of all our claims, as collateral for its future claims towards his customers resulting of such resale without requiring any specific further explanations. This assignment also covers balance claims resulting from existing current account relationships or at their termination of the Orderer with his customers. If the reserved goods are sold together with other goods without agreeing upon an individual price for the reserved goods, the Orderer assigns us the priority over the other claims for such part of the total price claimed which corresponds to the value invoiced by us. Until revoked, the Orderer is authorized to collect the assigned demands from the resale, he is not entitled to dispose of them otherwise, e.g. by assignment. Upon our request, the Orderer must inform his customer about the assignment and to furnish us the necessary documents for the assertion of his rights towards the customer, e.g. to deliver invoices and to provide the required details.
6.3 If the purchasor does not meet all or a part of his payment obligations within 10 days after due date, if he does not cash due checks or if an application for insolvency is filed, we have the right to withdraw from the contract and to require the return of the goods. The purchasor is obliged to procure us with the possession of the goods. The Orderer grants us or any of our authorized representatives the access to all business premises during business hours. We are entitled to use the reserved goods with the diligence of a prudent businessman and to satisfy ourselves with the offsetting of open claims with their proceeds.
6.4 As long as the ownership has not been transferred, the Orderer is to inform us in writing immediately if the supplied item is seized or is exposed to other interventions by third parties. If the third party is unable to indemnify us for the costs of legal or out-of-court costs of a claim according to par. 771 ZPO (German Code of Civil Procedure), the Orderer is liable for our amount outstanding.

7. Warranty
7.1 We are liable for the defects of the goods (in the first instance under the exclusion of the Orderer's rights to back out of the contract or to reduce the purchase price) through rectification of the defect or replacement delivery at our choice. The Orderer shall grant us a reasonable time period to provide the rectification. If the supplementary performance does not work, the Orderer may basically according to his choice demand a cut of the compensation (decrease) or a cancellation of the contract. The improvement is considered failed after the second unsuccessful attempt, provided further improvement attempts are not appropriate due to the subject matter of the contract and are not reasonable to the Orderer. In case of a minor breach of contract, especially minor defects, the Orderer, however, does not have a right of cancellation.
7.2 Warranty rights of the Orderer require that the Orderer's obligations to make inspection and give notice of defects according to par. 377 HGB (German Commercial Code) have been properly fulfilled.
7.3 The Orderer must notify us concerning obvious defects within a period of 10 days after receipt of goods, otherwise the assertion of the warranty claim is excluded. Non-obvious defects must be claimed immediately when they are discovered or determined, otherwise they are deemed to be approved. For all presuppositions for claims he full burden of proof forlies with the Orderer, especially for the deficit itself, for the time period of the determination of the defect, and for the timeliness of the notice of defect.
7.4 If the Orderer, due to a deficiency in title or a material defect after failed subsequent performance, chooses to cancel the contract, he shall not be entitled to additional claims for damages due to the defect.
7.5 The warranty period amounts to one year from date of delivery of our goods to the Orderer.
7.6 The warranty obligation is void if the goods have suffered from improper handling or storage or if improper changes were made to them without the supplier's approval. We are not liable for subsequent changes to the lights, their internal circuitry, equipment or the lamps.
7.7 The condition of the goods only the product description of the manufacturer applies as agreed upon. Additional public statements or advertisements of the manufacturer do not represent a contractual statement on the nature of the goods.
7.8 In the event that the article of sale cannot be used by the Orderer as stipulated in the contract of sale as a result of negligent violation of collateral contractual duties, especially with regard to operating and maintenance instructions, we shall also be liable in accordance with paragraph 7.6.
In case of consulting we can only be held responsible if special payment was agreed in writing.
7.9 Claims made by the Customer against the Supplier for installation and disassembly costs, unless they serve to detect errors, costs of disposal and costs for hoisting devices and scaffolding shall be excluded. The Customer shall bear the costs of the necessary recommissioning, software reinstallations or software updates. Where the Supplier meets its cost absorption obligation pursuant to Article 478 of the German Civil Code with respect to other expenses necessary for supplementary performance, the Supplier shall be entitled to pay such expenses by means of a credit note for goods. A right to compensation for damages to the goods themselves shall be excluded. This does not apply, as far as compelling liability is given in cases of intent, gross negligence, lack of guaranteed product properties or the Product Liability Act.

8. Limitation on Liability
8.1 As far as it is not expressly stipulated otherwise in these conditions, the claims against us, our legal representatives and any person employed by us in the performance of our obligation and any vicarious agent resulting from damages, including consequential damages, which occur to the Orderer or a third party, in particular such damages resulting from fault at contract conclusion, culpable breach of an obligation and negligent and impermissible actions are excluded.
8.2 The aforesaid limitations of liability shall not affect the Orderer's product liability claims. In addition, we are liable for loss of life, physical injury and damage to health (regardless of existing limitation of liability according to the statutory provisions) that are caused by a negligent or wilful breach of duty on our part, our legal representatives or our assistants. We are liable under statutory provisions for damages that are not covered by clause 1 and that are based on fraudulent intent by us, our legal representatives or our assistants.
8.3 The Orderer's claim for damages for defect becomes time-barred after one year from date of delivery of the goods to the Orderer. This shall not apply if we can be accused of malice. In these cases, the statutory provisions apply.

9. Applicable law, place of jurisdiction
For these business relationships and all legal relationships between us and the Orderer, - including export contracts - the governing law of the Federal Republic of Germany applies exclusively. The application of the UN jurisdiction, concerning sales and purchase procedure, is excluded. If legally permissible, the place of jurisdiction for all disputes directly or indirectly resulting from a contractual relationship is, by our choosing, either Haßfurt or the court responsible for the Orderer's registered office. The place of fulfilment for deliveries and payments is also Hassfurt. If individual conditions of the contract including these GTC are partially ineffective or will be, the validity of the other conditions are not affected by it. The whole or partial ineffective condition should be replaced by conditions, whose economic purpose comes as close as possible to the ineffective one.

Koenigsberg, July 2018

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