

EPS.LIGHT

Technical Information
Illumination with LED modules
02.2026

Description LED modules

LUCOLED BL71

- 5 years warranty
- First 2 years extended warranty
- Lucolense wide beam technology
- High efficacy
- Constant Current Technology
- Narrow white binning



Lucoled Plus BL71 modules offer a high quality and efficient backlit solution for lightboxes with a depth of 120-300 mm.

Using the latest Top-Tier LED technology and high quality patented optics Lucoled Plus BL71 offers industry leading efficacy and coverage. This not only reduces the amount of modules needed for an application, but also the overall power consumption.

In a typical application of 160 mm deep only 4 modules per square meter are used at maximum wire spacing, making installation very fast and less labour intensive. Using only 28 W per square meter also the number of power supplies needed is strongly reduced.

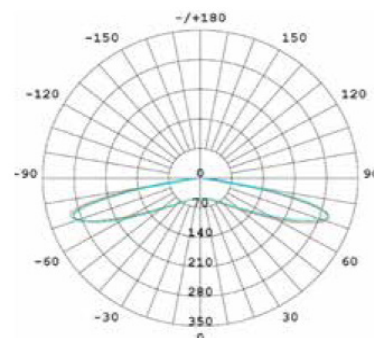
Technical specifications BL71

Use for profile depth 180mm (EPS.LUMI and EPS.RAIL)

- Dimensions 199x90x10mm
- Warranty 5 years (first 2 years extended)
- Beam angle: 1600
- Can be cut between every unit
- UL, CE and RoHS compliant
- Narrow white binning
- Constant Current Technology
- Operating temperature -25~+60C

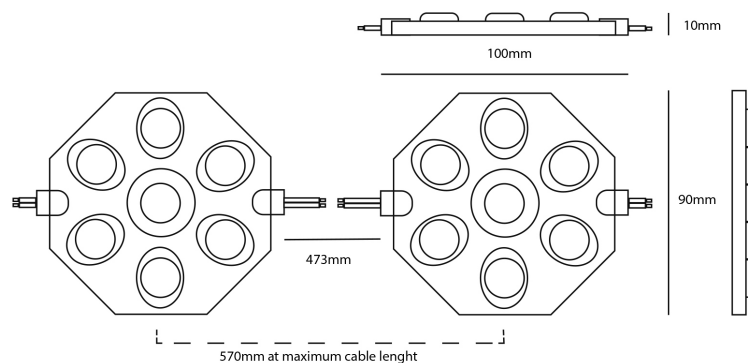


Luminous intensity distribution

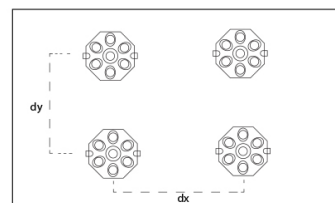


Item no.	LED colour	CT (K)	CRI	Power (W/Mod)	Flux (lm/Mod)	Efficacy (lm/W)	Voltage (DC)	Modules per chain
BL71-W65	white	6500	>70	7.0	850	121	24	10

Dimensions



Lightbox depth (mm)	Space between modules (mm)	Installing density (pcs/m ²)	Surface luminance range (cd/m ²)
dz=120	dx=300, dy=300	9	1250-1350
dz=150	dx=450, dy=400	6	850-950
dz=180	dx=500, dy=500	4	450-550
dz=180	dx=450, dy=400	6	700-800
dz=180	dx=300, dy=300	9	1050-1150
dz=250	dx=500, dy=500	4	350-450



Results may vary depending on face material properties. The data above was obtained using 3mm thick opaque acrylic with a 54% light transmittance. Locoled advises to paint the inside of the box/letters in a matt white colour for achieving an optimal result. Always test before production.

Power supply capacity 24V series

Item	PP2430	PP2460	PPXS24100	PP24150	PP24200
Power Output	30W	60W	100W	150W	200W
BL71 modules / power supply	3	7	13	19	25
Number of chains (maximum 10 modules per chain)	1	1	2	2	3

Description LED modules

LUCOLED PV 44

- 5 years warranty
- First 2 years extended warranty
- Lucolense prismatic angle technology
- Highest efficacy
- Constant Current Technology
- Narrow white binning



Lucoled Premium Value PV44 modules offer a high quality and efficient backlit solution for light-boxes and channel letters between 80 and 140mm deep.

Using the latest high efficient LED technology and high quality optics Lucoled Premium Value series offers industry leading efficacy and coverage. This not only reduces the amount of modules needed for an application, but also the overall power consumption, reducing the total cost of ownership of a project.

Lucoled Premium Value series offers a 2 years extended warranty, making it the optimum choice for your high valued projects and critical installations. Your warranty exposure is reduced to a minimum.

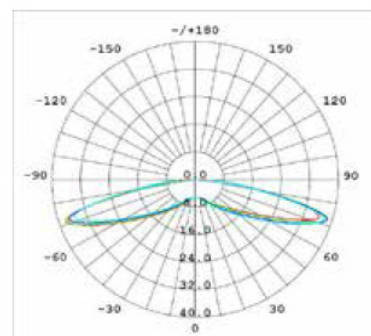
Technical specifications PV44

Use for profile depth 120mm, 15mm und 180mm
(EPS.LUMI, EPS.STOR, EPS.RAIL)

- Dimensions 49x39x7.5mm
- Warranty 5 years (first 2 years extended)
- Beam angle: 1700
- Can be cut between every unit
- EL, CE and RoHS compliant
- Narrow white binning
- Constant Current Technology
- Operating temperature -25~+600C

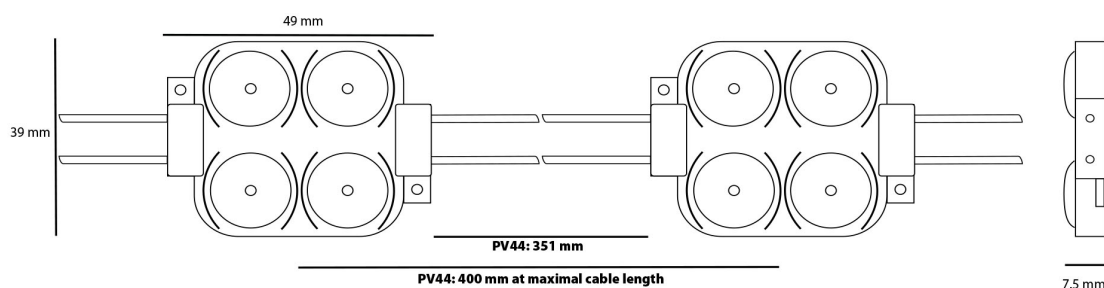


Luminous intensity distribution

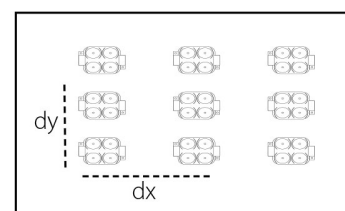


Item no.	LED colour	CT (K)	CRI	Power (W/Mod)	Flux (lm/Mod)	Efficacy (lm/W)	Voltage (DC)	Modules per chain
PV44-W65	white	6500	>75	1.46	224	154	24	55

Dimensions



Lightbox depth (mm)	Space between modules (mm)	Installing density (pcs/m2)	Surface luminance range (cd/m2)
dz=120	dx=325, dy=325	16	3584
dz=150	dx=350, dy=350	9	2016
dz=200	dx=400, dy=400	4	896



Results may vary depending on face material properties. The data above was obtained using 3mm thick opaque acrylic with a 54% light transmittance. Lucoled advises to paint the inside of the box/letters in a matt white colour for achieving an optimal result. Always test before production.

Power supply capacity 24V series

Item	PP2430	VP2460	VP24100	VP24150	VP24240	VP24400
Power Output	30W	60W	100W	150W	240W	400W
PV44 modules / power supply	18	38	63	94	148	246
Maximum 55 modules per chain						

Notes warranty LED modules

For the first 24 months LUCOLED can offer an extended warranty.

Under the extended warranty LUCOLED will reimburse client onsite labour, travel costs and other direct costs required to perform repair or replacement on LUCOLED products. Warranty starts from the date of delivery of the LUCOLED products.

Client needs to submit detailed records, including date of purchase, installation date, location, power supply serial numbers, module batch codes and proof of first flawless operation.

The following conditions apply:

- Product has been installed in accordance with local regulations and LUCOLED installation instructions by LUCOLED trained and certified installers.
- Product is being used for its intended use.
- Defective product needs to be returned to LUCOLED for analysis.
- Pictures of the defective product in installation need to be submitted as part of the claim.
- Prior to any repair LUCOLED becomes financially responsible for, LUCOLED reserves the right to verify that the defect was a result of defective material supplied by LUCOLED and not the result of installation workmanship, acts of God, misuse, abuse or any other reason that is not within the direct control or the responsibility of LUCOLED.
- Prior to any repair LUCOLED becomes financially responsible for, an estimate of repair costs needs to be approved by LUCOLED. LUCOLED reserves the right to engage third parties to carry out the repair. Client agrees to fully cooperate with third parties.
- All labour, travel, equipment costs must be passed on without markup or profit. Original invoices of rental equipment, lodging, etc. need to be submitted as part of the claim.
- The extended warranty is a system warranty and only valid if only LUCOLED components and approved accessories are used. Replacement of LUCOLED components with third party components, i.e. power supplies, will void the extended system warranty.

Description LED modules

LUCOLED XR28

- Most energy efficient LED module on the market: up to 197 lumen per Watt
- Advanced Helios Ultra Flat Beam lens technology
- Constant Current Technology
- Narrow white binning
- 24 Volt for longer module chains
- Sign Life Warranty, 4 years extended labour coverage included



Lucoled Extreme XR modules offer a high quality and the most efficient backlit solution for lightboxes and channel letters between 40 mm and 300 mm deep.

Using the most efficient LED technology available and Helios flat beam optics Lucoled Extreme series offers industry leading efficacy and coverage. This not only reduces the amount of modules needed for an application, but also the overall power consumption, reducing the total cost of ownership of a project.

Lucoled Extreme series offers a 4 years extended warranty as part on the Sign Life Warranty, making it the optimum choice for your high valued projects and critical installations. Your warranty exposure is reduced to a minimum.

Technical specifications XR28

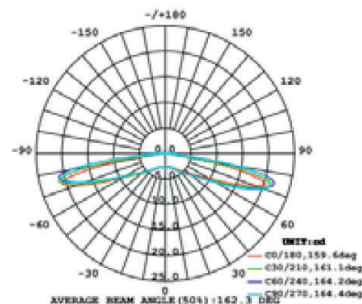
Use for profile depth up to 110mm

(EPS.LUMI, EPS.STOR)

- Dimensions 58x17x8.3 mm
- Sign Life Warranty (first 2 years extended)
- Beam angle: 1750
- Can be cut between every unit
- UL, CE and RoHS compliant
- Narrow white binning, SDMC 3
- 24 V DC Constant Current Technology
- Operating temperature -40°~+60°C

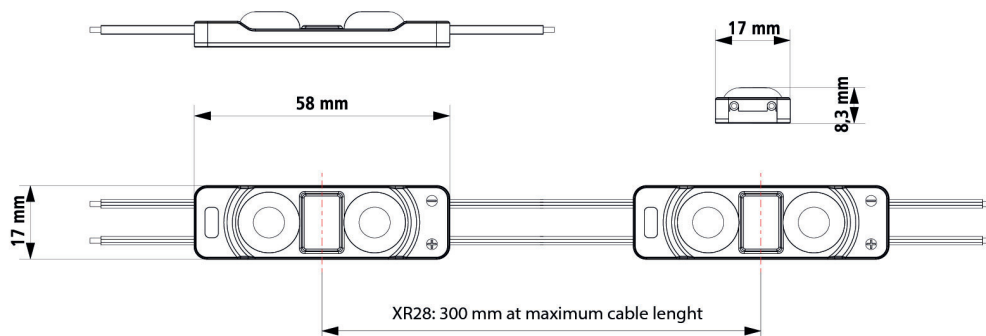


Luminous intensity distribution

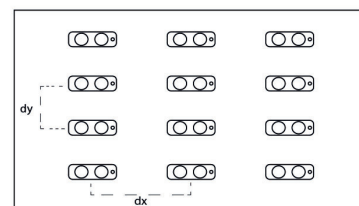


Item no.	LED colour	CT (K)	CRI	Power (W/Mod)	Flux (lm/Mod)	Efficacy (lm/W)	Voltage (DC)	Modules per chain
XR28-W70	white	7000	>74	1.02	187	183	24	45

Dimensions



Lightbox depth (mm)	Space between modules (mm)	Installing density (pcs/m ²)	Surface luminance range (cd/m ²)
dz=100	dx=200, dy=200	25	25.5
dz=120	dx=220, dy=220	20	20.4
dz=140	dx=250, dy=250	16	16.3
dz=180	dx=300, dy=240	14	14.3



Results may vary depending on face material properties. The data above was obtained using 3mm thick opaque acrylic with a 54% light transmittance. Lucoled advises to paint the inside of the box/letters in a matt white colour for achieving an optimal result. Always test before production.

Power supply capacity 24V series

Artikel	VP2430	VP2460	VP24100	VP24150	VP24240
Power Output	30W	60W	100W	150W	240W
XR28 modules / power supply	26	52	88	132	176
Maximum 45 modules per chain					

Notes warranty LED modules

- FLUCOLED XR modules are offered with a lifetime warranty. The warranty begins on the date of the delivery note for the LUCOLED XR modules from EPS to its customer (EPS delivery note date) in conjunction with LUCOLED power supplies. The customer must create, retain and submit detailed documentation, including the date of purchase of the material (dealer invoice), installation date, location, serial number of the power supplies, batch number of the modules and proof of initial fault-free commissioning in order to claim this warranty.

The warranty shall expire if changes are made to the original installation or if the system is removed from the location. Replacement of the textile covering (piping frame/indoor application) is considered normal use and does not void the warranty.

The following conditions apply:

- XR modules have been installed in accordance with local regulations and LUCOLED installation instructions by trained and certified sign makers or electricians.
- XR modules have been used for their intended purpose (illuminated advertising).
- Defective modules must be returned to LUCOLED for analysis at the customer's expense. Images of the defective modules in their installed state must be submitted as part of the complaint.
- Prior to any repair for which LUCOLED is financially responsible, LUCOLED reserves the right to verify whether the defect is attributable to faulty material supplied by LUCOLED and not to faulty installation, force majeure, improper use, misuse or any other reason beyond the direct control or responsibility of LUCOLED.
- Prior to any repair for which LUCOLED is financially responsible, a cost estimate for the repair must be approved by LUCOLED. LUCOLED reserves the right to engage third parties to carry out the repair. The customer undertakes to cooperate fully with such third parties.
- All labour, travel and equipment costs must be charged on without any surcharge or profit. The original invoices for loaned materials, accommodation, etc. must be submitted as part of the application.
- This extended warranty is a system warranty and is only valid if only LUCOLED components and approved accessories are used. The replacement of LUCOLED components with third-party components, e.g. modules or power supplies, will void the Sign-Life warranty.
- The Sign-Life warranty for the system is tied to the initial installation. Reusing components in a new installation or in a new system will void all warranties.

The following rules apply to cost reimbursement:

During the lifetime of the system, LUCOLED will supply identical or equivalent replacement modules free of charge.

During the first 24 months	100% of the actual repair costs under the conditions described above.
For the next 24 months	50% of the actual repair costs under the conditions described above.
For the next 24 months	a maximum amount of €225,00 Euro per incident under the conditions described above.
After 72 months	a maximum amount of €65,00 Euro per incident under the conditions described above.

Technical specifications power supplies

Power supply 24V

- Output Voltage 24V
- Working temperature range -40°C~+65°C
- Input voltage range 100VAC~240VAC
- Input frequency range 50~60Hz
- Protective characteristics Over-Current, Short-Circuit, Over Voltage and Over-Temperature protection
- IP rating IP68
- MTBF ≥70000hrs. MIL-HDBK-217F (25°C)
- Warranty 7 Years, first 2 years extended

Code	Output current	Output power	Input current	Efficiency	Size (lxwxh)	Weight
PP2430	1.25A	30W	0.35A/115V - 0.19A/230V	≥84%	187x41x29mm	0,5kg
PPXS24100	4.2A	100W	0.7A/200-240VAC	≥90%	209x35x20mm	0,32kg

Power supply 24V

- Output Voltage 24V
- Working temperature range -40°C~+55°C
- Input voltage range 100VAC~240VAC
- Input frequency range 50~60Hz
- Protective characteristics Over-Current, Short-Circuit, Over Voltage and Over-Temperature protection
- IP rating IP68
- MTBF 40000hrs. MIL-HDBK-217 (25°C)
- Warranty 7 Years, first 2 years extended

Code	Output current	Output power	Input current	Efficiency	Size (lxwxh)	Weight
VP2460	2.5A	60W	≤0.8A	≥84%	186x40x29mm	0,55kg
VP24100	4.17A	100W	≤1.22A	≥92%	163x68x37mm	0,69kg
VP24150	6.25A	150W	≤1.81A	≥93%	185x68x37mm	0,79kg
VP24240	10A	240W	≤2.93A	≥92%	251x68x37mm	0,98kg
VP24400	16.67A	400W	≤4.87A	≥93%	251x86x42mm	1,66kg



Important:

- *Lucoled recommends loading power supplies up to 90% of their maximum listed capacity.*
- *Select a power supply for your installation loaded at more than 50% of its maximum load to meet Power Factor regulations.*
- *Install with adequate ventilation and not in direct sunlight.*
- *Power supplies to be installed by trained and certified staff.*

Notes warranty Power supplies

LUCOLED power supplies come with a 7 year carry-in warranty.

For the first 24 months LUCOLED can offer an extended warranty.

Under the extended warranty LUCOLED will reimburse client onsite labour, travel costs and other direct costs required to perform repair or replacement on LUCOLED products.

For the next 36 months LUCOLED can offer an extended labour assistance warranty. LUCOLED will reimburse client EUR 65,- as a contribution to labour cost per failed power supply, in addition to a replacement power supply.

Warranty starts from the date of delivery of the LUCOLED power supplies. Client needs to submit detailed records, including date of purchase, installation date, location, power supply serial numbers, module batch codes and proof of first flawless operation.

The following conditions apply:

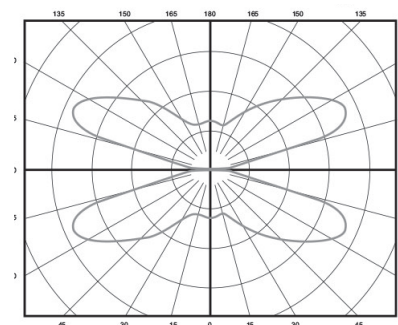
- Product has been installed in accordance with local regulations and LUCOLED installation instructions by LUCOLED trained and certified installers.
- Product is being used for its intended use.
- Defective product needs to be returned to LUCOLED for analysis.
- Pictures of the defective product in installation need to be submitted as part of the claim.
- Prior to any repair LUCOLED becomes financially responsible for, LUCOLED reserves the right to verify that the defect was a result of defective material supplied by LUCOLED and not the result of installation workmanship, acts of God, misuse, abuse or any other reason that is not within the direct control or the responsibility of LUCOLED.
- The extended warranty is a system warranty and only valid if only LUCOLED components and approved accessories are used. Replacement of LUCOLED components with third party components, i.e. power supplies, will void the extended system warranty.

Technical specification SignBOX 3 Slim

Use for flat, double-sided light boxes

- Dimensions: 181x34x8mm
- LED per side: 2
- Modules per meter (feet): 6,6
- Coverage per chain: 305mm
- Operating temperatur: -40~+70C
- Protection class: IP66
- Binning: 3-step MacAdam Ellipse
- Life rating: >60.000 hours
- Power per module: 1,20 W
- Fastening: Clips with mechanical fastener

Light intensity distribution



Item no.	LED colour	CT (K)	Flux (lm/Mod)	Efficacy (lm/W)	Voltage (DC)	Modules per chain
SignBOX 3 Slim	white	6500	182	152	24	60

Connection options*

24 VDC power supplies	Max. SignBOX 3 Slim Modules
30 W power supplies (EU/ROW only)	21
60 W power supplies	43
100 W power supplies	72
150 W power supplies (EU/ROW only)	108
300 W power supplies	3 x 72
Power used per ft (m) in pro m/f in watts	7.9 W / 2.4 W

* Power supplies for damp areas: For information on configuration, see the installation instructions.

Technische Spezifikationen X0H4

Einsatz bei Profiltiefen ab 180mm

- Dimensions 46,5x46,5mm
- Four SMD LEDs with optical lenses and IP65 rated housing
- LED chips are constant current regulated
- Modules are soldered to a 25-pin chain (max. per supply line)
- Operation Voltage 24 V
- Power consumption 2,3 W/Modul
- Beam angle 160°
- Protection class IP65
- CE in accordance with EN 55015
- Operating temperatur -20°~+70°C



Item. no.	LED colour	CT (K)	Flux (lm/Mod)	Efficacy (lm/W)	Voltage (DC)	Modules per chain
X0H4	weiß 4.0	4000	315	136	24	25
X0H4	weiß 7.0	7000	330	144	24	25

Safety and assembly information

- The components on the circuit board should not be subjected to mechanical stress
- The conductors should not be damaged or interrupted
- Only power supplies approved by Chiplite may be used to operate our modules
- Avoid electrostatic charges and discharges
- Maximum number per supply line: 25 modules

*Exceeding the limit values can result in a significant shortening of the service life or destruction of the module.
Subject to technical changes and errors excepted!*

Technical specifications power supplies

Power supplies 24V

The LED converter guarantees a reliable, even supply of current. Each converter has a very narrow design, meaning that there are no bulky transformers to cause shadows in lettering or light boxes.

All ballasts comply with EU directives.

Technical features

- Output voltage 24V
- Operating temperature -20°~+70°C
- Constant voltage LED converter
- Min. IP65
- Built-in PFC
- 5-year warranty

Item no.	Output current	Output line	Size (lxwxh)
15-24150	6.25A	150W	244x71x37,5mm
15-24240	10A	240W	244x71x37,5mm

Results illumination test EPS profiles

Profile	Dimension (mm)	Fabric	Translucence	Modules	Number of modules	Rows	Module s/ Row	Total Lumen	Cd./m ²
EPS.LUMI Main body 120		Toplight	ca. 30%	PV44-W65	16	4	4	3584	ca. 277 cd
		SEEMEE (B1150/B3852)	ca. 17,52%/ 18,95%	PV44-W65	16	4	4	3584	ca. 360 cd

Profile	Dimension (mm)	Fabric	Translucence	Modules	Number of modules	Rows	Module s/ Row	Total Lumen	Cd./m ²
EPS.LUMI Main body 150	1000 x 1000 x 150	Toplight	ca. 30%	PV44-W65	16	4	4	3584	ca. 294 cd

Profil	Dimension (mm)	Fabric	Translucence	Module	Number of modules	Rows	Modules / Row	Total Lumen	Cd./m ²
EPS.LUMI Main body 180	1000 x 1000 x 180	Toplight	ca. 30%	BL71-W65	4	2	2	3400	ca. 370 cd
		SEEMEE (B1150/B3852)	ca. 17,52%/18,95%	BL71-W65	4	2	2	3400	ca. 400 cd

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