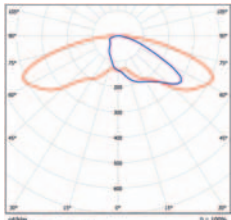
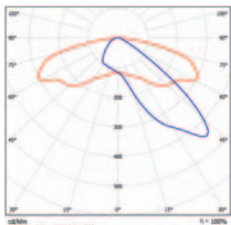


Example optics



Example: S optics



Example: M optics

Eco Module Module

"Eco Module" – an LED innovation that's proving its effectiveness! Brighter streets and plazas. More light for service roads, industrial facilities and pedestrians. Greater efficiency to help meet savings targets and protect the environment.

Areas of application:

- Eco StreetLine serie
- Eco CubeLine serie
- Eco IndustryLine serie

Benefits:

- Luminous flux up to 5,000 lumen
- Interface for time-saving exchange of the module
- Module exchange via plug & play system
- 20-year availability of replacement parts
- Intelligent interface control

ELECTRONICS	
Driver	Electronic, integrated into module
Interface control system	Optionally with night-time dimming, dimming profile, 1-10 Volt or DALI
Mains connection	220–240 V / 50–60 Hz
Protection class	Protection class II
Power factor	≥ 0.95 c
Power consumption	7–40 W (depending on luminous flux)
Surge voltage withstand capability	6 kV
Surge current withstand capability	2.5 kA
LIGHT TECHNOLOGY	
Effective system luminous flux	600 lm / 800 lm / 1,250 lm / 1,700 lm / 2,500 lm / 3,000 lm / 3,500 lm / 4,000 lm / 4,500 lm / 5,000 lm
Color temperature	Optional 3,000 K (warm white) 4,000 K (neutral white) 5,000 K (cold white)
Color rendering index (CRI)	CRI 70
Luminous flux over lifetime	90% after 60,000 hours (in accordance with IES LM80 & TM21), 80% after 100,000 hours
Optics	S, M, C, U, F, P, I, WW or G optics PMMA individual optics

ADDITIONAL DATA	
Dimensions (L x W x H)	460 x 85 x 100 mm
Weight	approx. 1,060 g
Ambient temperature range	from -40 °C to +55 °C
Impact resistance	IK 04 / IK 05 / IK 08
IP Certification (Luminaire)	IP 65
Certification	
Efficiency class	

All performance parameters are based on an ambient temperature of 25°C



Level 1:
The basic solution
 Network interface control.
 2-phase switching
 50 % / 100 %.



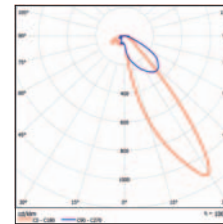
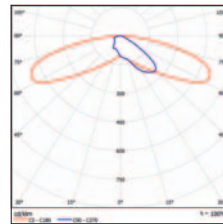
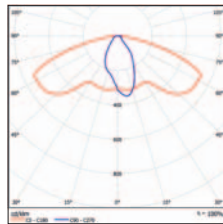
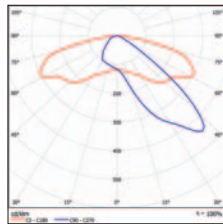
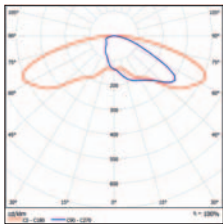
Level 2:
Flexible profile
 Programmable logic control module.
 Step-less autonomous control (Astrodim).



Level 3:
Intelligent control
 Open interface to control the lights (1 – 10 V/DALI).

More flexibility thanks to lighting control:
 A strictly demand-oriented, three-level structured system.
 From autonomous control through to individual control:

Optics for the Eco StreetLine series



S S optics

S lighting class streets

- Particularly wide asymmetrical distribution
- Low light point height (4–6 m)
- Large mast spacing (>35 m)
- Negative light point projection

M M optics

ME lighting class streets

- Wide distribution, but less reach than S optics
- Medium to high light point heights (5–10 m)
- Medium to large mast spacing (25–40 m)
- Slight positive to negative light point projection
- Well suited for lights with forward tilt

C C optics

Streets with projecting light points (mast poles with circular curved brackets)

- For narrow streets and paths with medium to high light points (5–8 m)
- Medium mast spacing (25–35 m)

U U optics

Streets with low lightpoint heights (4–6 m)

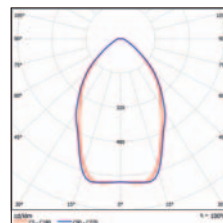
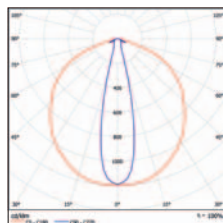
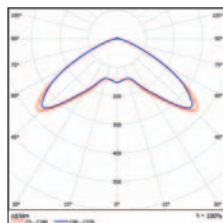
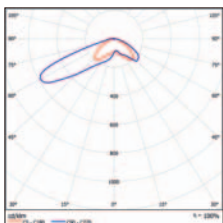
- Large mast spacing (>40 m)
- Wide asymmetrical distribution
- Low light point heights

F F optics

Pedestrian crossings

- Specially for pedestrian crossings
- Standards-compliant in accordance with DIN 67523
- Positive contrast for better recognition of pedestrians
- Light point height (4–8 m)

Optics for the Eco IndustryLine series



P P optics

Parking garages and underground garages

- Rectangular asymmetrical distribution
- Complete illumination of the parking lot
- Reduced glare in the direction of the road lane
- Can be used as emergency lighting

I I optics

Gas station, parking garages and parking decks

- Wide rotationally symmetrical light distribution
- Versatile and universal application
- Can be used as emergency lighting

WW WW optics

Walls, facades and billboards

- Especially narrow emission at one level
- Very homogeneous light

G G optics

Gas stations

- Deep-wide radiating optics