molex

The remarkably simple solution that provides easy interchangeability, upgradeability and replacement.

The Helieon lighting system is the first plug-and-play, solid state down light module to integrate high-efficiency precision lighting with an easy-to-use socketed solution to accelerate innovation and enable the mass adoption of solid state lighting. Combining unmatched solid state lighting technology from Bridgelux and interconnect technology from Molex, the Helieon lighting system simplifies the process of designing, building, replacing and upgrading luminaires.

Helieon modules enable flexibility in changing the look and feel of the lighting installation with the simplicity of replacing a light bulb. By emulating a traditional lighting socket, the Helieon system delivers an easy and familiar installation experience. Beam angle, color temperature and light output can be easily changed or upgraded with the simple twist of a wrist after installation — without the complexity and expense of removing the luminaire.

Product options are tailored to match light output levels of traditional light sources, delivering between 500 and 1,500 lumens under application conditions in halogen and fluorescent color temperature options. Helieon modules are available with narrow, medium and wide flood beam spread options that enable precision effects for a wide variety of lighting applications.

Features and Benefits

| | Integrated solid state lighting solution for OEM fixture manufacturers, lighting designers and architects | Simplifies the design integration effort and accelerates time to market |
|--|---|--|
| | Multiple product options compatible with a single thermal and electronic driver system design | Enables flexibility to change the lighting experience after installation |
| | Separable socketed plug-and-play solution (socket and module) with a turn-and-click installation process | Enables separation of source and fixture, emulating traditional lighting |
| | Removable clear cover optic to protect light emitting area and reflector | Delivers clean white light without pixilation for precision lighting effects |
| | Uniform high-quality illumination with beam control optics (24, 32 and 50 degree options) | Meets or exceeds global regulatory requirements such as Energy Star, Title 24, Part L and others |
| | High system efficacy enables luminaires with operating efficiencies >50 lm/W | Uniform consistent white light between luminaires in the lighting installation |
| | Color controlled to a single three-step MacAdams ellipse | Streamlines the UL-listing process for the luminaire |
| | UL recognized (File Number E328924) | Enables luminaire manufacturers to design with confidence |
| | Recyclable components, Pb and Mercury free, RoHS compliant | Reduces environmental and disposal issues, delivering a sustainable solution |

Helieon® Down Light Module





Three year limited warranty

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Applications

Down lights
Task and accent lighting
Spot and track lights
Troffers and interior-area lighting
Retail and display lighting
Hospitality lighting
Architectural lighting
Decorative lighting
Museum lighting



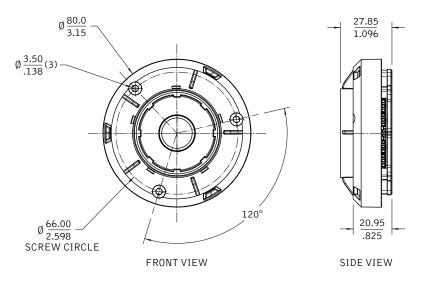
Task and accent lighting



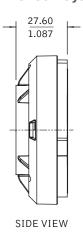
Retail and display lighting

Mechanical Specifications

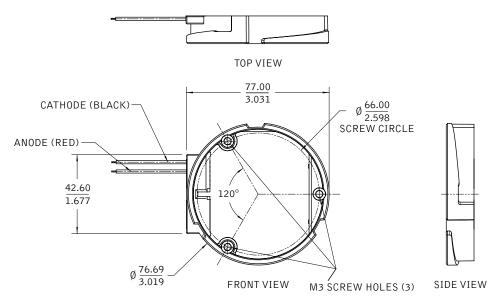
Helieon Module



Mated Helieon System



Helieon Socket





Typical Product Performance

800 QXRA Series

| Part Number ⁽¹⁾ | ССТ | CRI | Beam Angle (FWHM) | Forward Current (mA) | Hot Lumens (2) (T _c 60°C) | Voltage ⁽³⁾ (T _c 60°C) (V) | Nominal Wattage (T _c 60°C) (W) | Nominal Efficacy (T _c 60°C) (Im/W) |
|-------------------------------|-------|-----|----------------------|----------------------------|---|--|---|---|
| | 3000K | 82 | 24°, 32° and 50° | 700 | 490 | 11.4 | 7.9 | 62 |
| 180081-22x0 | | | | 1050 | 710 | 11.9 | 12.4 | 57 |
| | | | | 1400 | 860 | 12.3 | 17.2 | 50 |
| 180081-42x0 | 4100K | 80 | 24°, 32° and 50° | 700 | 550 | 11.4 | 7.9 | 70 |
| | | | | 1050 | 800 | 11.9 | 12.4 | 64 |
| | | | | 1400 | 1020 | 12.3 | 17.2 | 59 |

1200 QXRA Series

| Part Number (1) | ССТ | CRI | Beam Angle (FWHM) | Forward Current (mA) | Hot Lumens (2) (T _c 60°C) | Voltage ⁽³⁾ (T _c 60°C) (V) | Nominal Wattage (T _c 60°C) (W) | Nominal Efficacy (T _c 60°C) (Im/W) |
|--------------------|-------|-----|----------------------|----------------------------|---|--|---|---|
| | | 82 | 24°, 32° and 50° | 700 | 730 | 17.2 | 12.0 | 61 |
| 180081-23x0 | 3000K | | | 1050 | 1040 | 17.9 | 18.8 | 56 |
| | | | | 1400 | 1330 | 18.5 | 25.8 | 51 |
| | 4100K | 80 | 24°, 32° and 50° | 700 | 840 | 17.2 | 12.0 | 70 |
| 180081-43x0 | | | | 1050 | 1200 | 17.9 | 18.8 | 64 |
| | | | | 1400 | 1530 | 18.5 | 25.8 | 59 |

The Helieon Sustainable Light Module is available in 24° narrow flood, 32° medium flood and 50° wide flood viewing angle options. See Note 1 below for part number designation for beam angle options.

NOTES:

1. $x = \text{beam angle } (2=24^\circ, 3=32^\circ, 5=50^\circ)$ 2. Lumen range is within $\pm 10\%$ of the nominal value 3. Voltage range is within $\pm 10\%$ of the nominal value

Environmental Compliance

Molex is committed to providing environmentally friendly products to the solid state lighting market. The Helieon system is compliant to the European Union directives on the restriction of hazardous substances in electronic equipment, namely the RoHS directive. The following restricted materials will not be intentionally added to the Helieon system: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).