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# 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<sup>®</sup> Down Light Module





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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

# Helieon<sup>®</sup> Down Light Module



Retail and display lighting

### **Mechanical Specifications**

#### **Helieon Module**







SIDE VIEW

**Helieon Socket** 



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### **Typical Product Performance**

#### **800 QXRA Series**

Part Number <sup>(1)</sup>	сст	CRI	Beam Angle (FWHM)	Forward Current (mA)	Hot Lumens <sup>(2)</sup> (T <sub>c</sub> 60°C)	Voltage <sup>(3)</sup> (T <sub>c</sub> 60°C) (V)	Nominal Wattage (T <sub>c</sub> 60°C) (W)	Nominal Efficacy (T <sub>c</sub> 60°C) (Im/W)
180081-22x0	3000K	82	24°, 32° and 50°	700	490	11.4	7.9	62
				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 <sup>(1)</sup>	сст	CRI	Beam Angle (FWHM)	Forward Current (mA)	Hot Lumens <sup>(2)</sup> (T <sub>c</sub> 60°C)	Voltage <sup>(3)</sup> (T <sub>c</sub> 60°C) (V)	Nominal Wattage (T <sub>c</sub> 60°C) (W)	Nominal Efficacy (T <sub>c</sub> 60°C) (Im/W)
180081-23x0 30		82	24°, 32° and 50°	700	730	17.2	12.0	61
	3000K			1050	1040	17.9	18.8	56
				1400	1330	18.5	25.8	51
180081-43x0	4100K	80	24°, 32° and 50°	700	840	17.2	12.0	70
				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 = 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).