

Specifications

LED Module M8H-L Series



Features

- Lumileds Luxeon 3030 2D LED;
- IP68 rated modules;
- Lumen flux: up to 6375lm per module;
- Low maintenance cost with lifetime >54,000hrs (L70);
- Multiple lighting distribution options available;
- Optical lens transmittance up to 93%;
- Multiple modules can easily be connected in series via connector offering;
- 5 years warranty;
- Approvals:



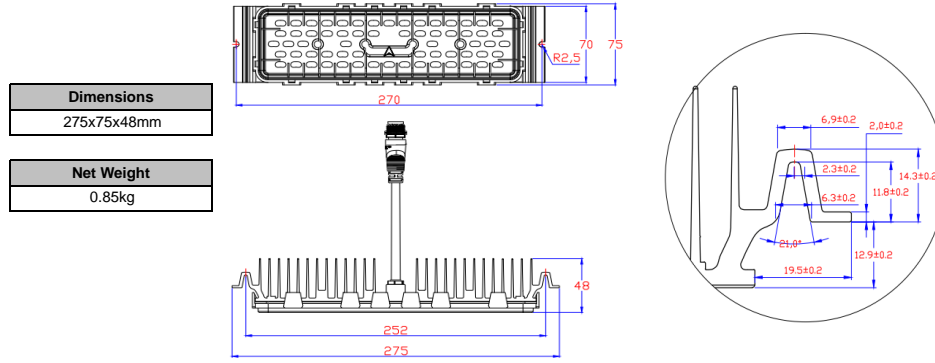
Applications

- Street Lighting
- Tunnel Lighting
- Flood Lighting
- High/Low bay Lighting

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Mechanical Drawings



Tolerance: ±2.0mm, unless otherwise specified.

Performance

Series	Lighting Source	Driving Current	T _c [6]	Nominal CCT	Minimum CRI [3]	Minimum Flux [1][2][3]	Typical Flux [1][2][3]	Typical Efficacy [1][2][3]	Color Consistency	Location of T _c Point
M8H-L	64 x Lumileds Luxeon 3030 2D LEDs	1.4A	41°C	4000K	70	4340lm	4568lm	136lm/W	5 SDCM	On the heat sink of the module, 17mm from the edge and 33mm apart (16.5mm on either side of the centerline of the module). See the picture below:
				5000K		4340lm	4568lm	136lm/W		
				5700K		4340lm	4568lm	136lm/W		
				4000K	80	3830lm	4032lm	120lm/W		
				5000K		3931lm	4138lm	123lm/W		
				5700K		3931lm	4138lm	123lm/W		
		2.1A	52°C	4000K	70	6056lm	6375lm	126lm/W		
				5000K		6056lm	6375lm	126lm/W		
				5700K		6056lm	6375lm	126lm/W		
				3000K	80	5362lm	5644lm	112lm/W		
				4000K		5537lm	5828lm	116lm/W		
				5000K		5537lm	5828lm	116lm/W		
5700K	5537lm	5828lm	116lm/W							

Notes: [1] Flux and efficacy values above are based on steady-state measurements done in 25°C ambient temperature where there is a tolerance of ±3°C on T_c.

[2] Flux data above are based on lens transmittance 93%.

[3] Lumileds LED maintains a tolerance of ±7.5% on luminous flux, and ±2 on CRI.

Item	Minimum	Typical	Maximum
Forward Voltage (@ 1.4A, T _c =41°C) [4][5]	22V	24V	26V
Power Consumption (@ 1.4A, T _c =41°C) [4]	30.8W	33.6W	36.4W

Notes: [4] Voltage and power values are based on calculated LED values @100% driver efficiency.

Use for reference only since temperature and LED driver current have influence on forward voltage and on power consumption.

[5] Lumileds LED maintains a tolerance of ±0.1V on forward voltage measurements.

Current	L70	Maximum T _c [6]
1.4A	>54,000 hrs	103.0°C
2.1A	>54,000 hrs	102.1°C

Current	@1.4A	@2.1A	@Maximum [7] 2.1A
Maximum T _c [6]	103.0°C	102.1°C	102.1°C

Notes: [6] Theoretically calculated T_c value based on maximum T_s 105°C as per warranty.

[7] Maximum actual drive current. Drive current, including current ripple, should not exceed 2.4A.

IP Rating	Storage Temperature	Relative Humidity
IP68	-40~+50°C	10%~90%

Beam Type

For Street Light Applications

Lens Code	M8H-L-T1S (Type I Short)		M8H-L-90D (Beam Angle (FWHM) 100+/-10°)	
	Lens Transmittance	93%	Lens Transmittance	93%
For Modules Parallel with Road				

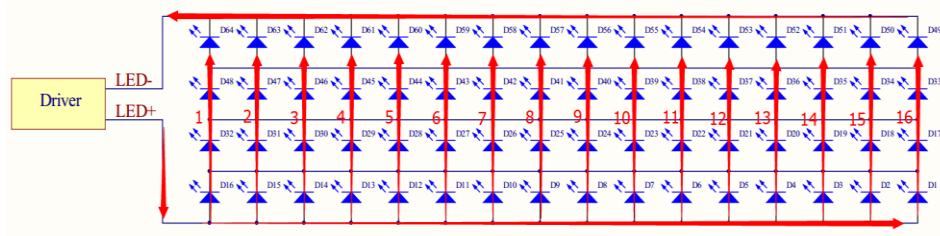
For Flood/ High/ Low Bay Light Applications

Lens Code	M8H-L-25D		M8H-L-40D	
	NEMA Type	3Hx3V	NEMA Type	5Hx5V
Central Symmetry	Beam Angle (FWHM)	25°	Beam Angle (FWHM)	40°
	Lens Transmittance	93%	Lens Transmittance	93%
	M8H-L-60D		M8H-L-LBN	
	NEMA Type	6Hx6V	NEMA Type	7Hx7V
	Beam Angle (FWHM)	60°	Beam Angle (FWHM)	110°
	Lens Transmittance	93%	Lens Transmittance	93%

Note: — C0/180 — C90/270

Installation guide: the arrow on the lens (parallel with C90/270) should be perpendicular to road and directs to road center.

Circuit Diagram






Drivers Recommendation

Driver Description	Inventronics
Driver for 1 module @1.4A	EUC-042S140DS ⁵
Driver for 2 modules @1.4A	EUG-075S280DT ⁴
Driver for 1 module @2.1A	EUG-075S175DT ⁴
Driver for 2 modules @2.1A	EUC-120S210DT ⁵

Note:

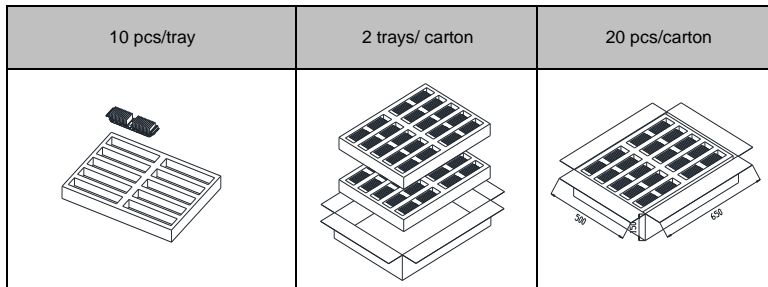
1. Alternative board + driver configurations can be evaluated upon request.
2. Please refer to the driver datasheet for detailed specifications.
3. All drivers feature 0-10V dimming.
4. Driver output current can be adjusted.
5. For outdoor lighting application, this driver should work with a line-earth 10KV SPD.

Waterproof Connectors Recommendation

Picture	Model	Description	Length
	C2A-01M500	IP68 female connector for 1 module	Single female terminal 49.5mm + flying leads 550±50mm
	C2A-S2M500	IP68 female connector for 2 modules in series	Dual female terminal 78.1mm + flying leads 550±50mm
	C2A-01F500	IP68 male connector	Single male terminal 55.7mm + flying leads 550±50mm

Cable Specifications	Withstanding DC Voltage	Withstanding Current	Certification	Working Temperature
2x18 AWG	420Vdc	10A	UL	-40~+80°C

Packaging



Notes:

1. Carton dimensions: 650x600x150mm
2. Gross weight: 19.8kg (Empty package: 2.8kg)

Module Part Number

Example:

M8H **L** **T1S** **L30** **740**
 1 2 3 4 5

1. Module Series	2. Voltage	3. Beam Type	4. LED Type	5. CRI/CCT
M8H - Mid Power LED's	L = 22-26V	T1S = Type I Short 90D = 100±10DEG 25D = 25DEG 40D = 40DEG 60D = 60DEG LBN = Lambertian	L30 = Lumileds Luxeon 3030 2D	740 = 70CRI/4000CCT 750 = 70CRI/5000CCT 757 = 70CRI/5700CCT 830 = 80CRI/3000CCT 840 = 80CRI/4000CCT 850 = 80CRI/5000CCT 857 = 80CRI/5700CCT