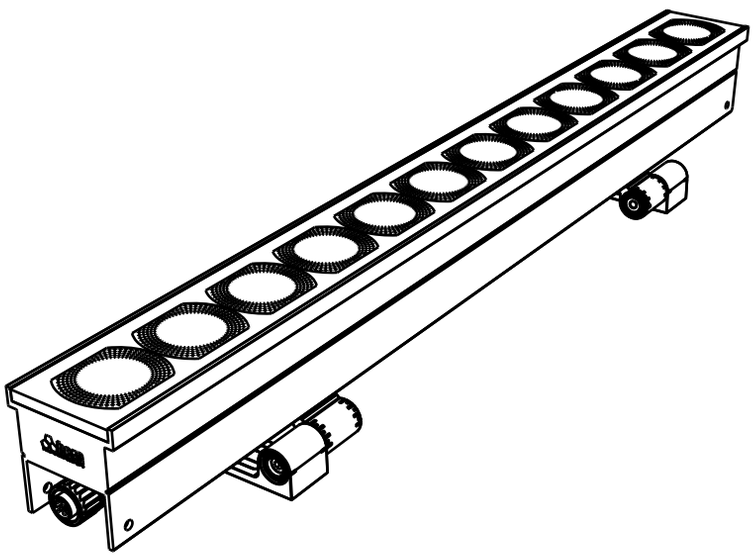
LEOLINE® M6 RGBW SERIES

Specification Sheets

V1.3



Date _____

Company _____

Project _____

Explanation

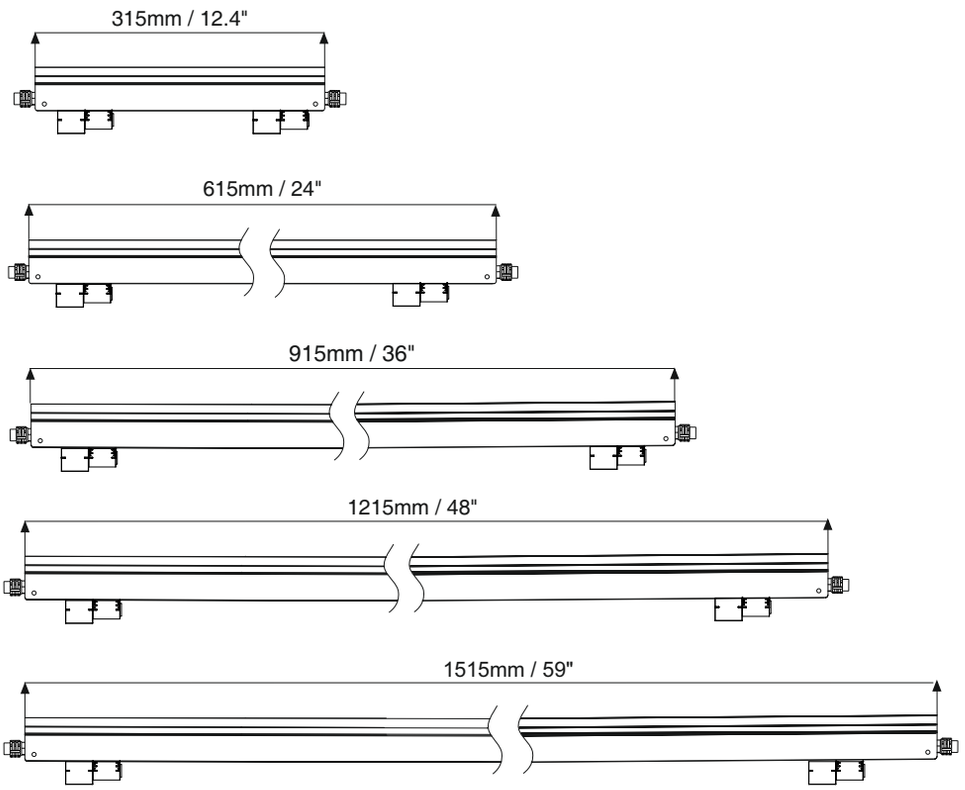
Leoline® M6 RGBW Series is a high-performance and highly durable product range. Despite its high durability, it has a linear, aesthetic and minimal appearance. Leoline® M6RGBW Series is designed specifically for "wall washing" or "wall grazing" applications as a surface-mounted exterior architectural lighting product. Leoline® M6 RGBW Series consists of 6 High Power - 4 in 1 Chip RGBW - LEDs at every 315mm (1ft). Accordingly, Leoline® M6 RGBW Series has higher power, higher lumen value and performance than the other Leoline® S12 RGBW Series, resulting in a powerful light mixture.

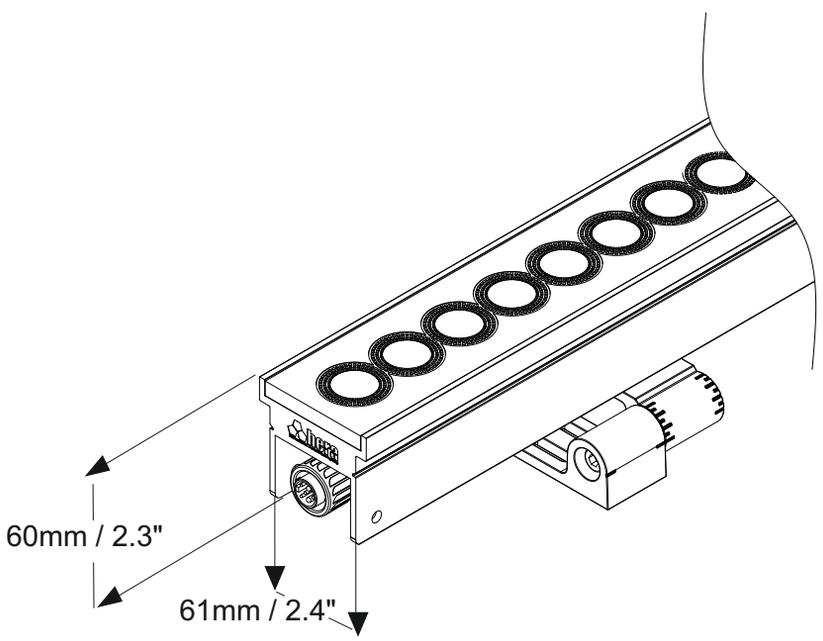
It is available in 315mm (1ft), 615mm (2ft), 915mm (3ft) 1215mm (4ft), 1515mm (5ft) lengths and it provides excellent color mix with 5 different beam angles. Each 315mm (1ft) section can be individually addressed for more detailed colour changing animations. It is produced from a single piece of extruded aluminum and processed meticulously in CNC machines. Thus, Leoline® M6 RGBW Series is produced without the side cover and its durability allows it to work for many years even in the most demanding conditions. Push-lock connectors are used as in/out without any space. Since the connector areas are hidden, no cable is visible when viewed externally in linear use. Leoline® M6 RGBW Series provides easy setup and programming with standard DMX512 and RDM protocols without the need for special or complex communication protocols. The Dynamic Power Boost feature allows light to always show maximum brightness and intensify non-white colors. The mounting bracket is at 10° angle and fixed at the adjusted angle due to a locked thread and does not change direction according to the weather conditions. In addition, it provides a linear and spaceless form when mounting to the floor using the U bracket.

• Leoline® M6 RGBW series provides compatible communication with other fixtures using standard DMX512 and RDM protocols without requiring any other special communication protocol or production ID. They are remotely addressable in group via RDM protocol. This feature allows for easy pixel mapping and addressing after all installations have been completed.
• Leoline® M6 RGBW fixtures enable flexible application using very long starter and jumper cables, since they operate in a 48V DC voltage range.
• The operating characteristics of the fixtures are able to be changed through the DMX Personality, therefore it is possible to change the number of pixels of the products as well. The number of pixels of the fixtures can be changed to be optimized for appearance and scenario variations. For example, each 315mm (1ft) can be 1 pixel, or a single fixture as 1 pixel.
• Through RDM monitoring and software, it is possible to follow and determine: whether the fixtures are working properly, by displaying voltage input and output warnings, serial number, display of regional temperature values and DMX address. The user is informed by e-mail according to incoming data thus, automatic interventions are possible based on received data.
• The Dynamic Power Boost feature allows light to always show maximum brightness and intensify non-white colors.
• Leoline® M6 RGBW fixtures work through Madrix® software and hardware in coordination. Pixel mapping can be made easily by selecting fixtures in Madrix® library.
• Available in 5 different beam angles: 10° / 25° / 35° / 12°+40˚ / 40°+12°. Custom product can be produced in different beam angle according to project requirements.
• Each 315mm (1ft) consists of 6 High Power LEDs (4 in 1 Chip RGBW).
• Due to its special side design, fixtures are mounted side-by-side and no shade is formed between them. Creates a continuous linear view.
• Leoline® M6 RGBW is manufactured in 315mm (1ft), 615mm (2ft), 915mm (3ft), 1215mm (4ft), 1515mm (5ft) for different forms of applications in different lengths.
• Leoline® M6 RGBW fixture is in IP67 class, and it is designed to meet challenging requirements of exterior facade applications with its robust and durable structure.
• Leoline® M6 RGBW is resistant to shock, vibration and other harsh conditions with its aluminum integrated body structure and 6mm thick tempered glass.
• As an optional accessory, Dark Light Louver prevents glare and does not cause dazzling.
• Suitable for using Glare Shield as an option for situations where light sources are not intended to be seen.
• Leoline® M6 RGBW provides power and data transmission via input and output connectors. IP67 push-lock connectors are used via “in/out” without space. There is no need to use extra junction-box via input and output.
• Leoline® M6 RGBW Series is produced in clear anodized coated color as standard. It can be coated in different anodized color upon request.

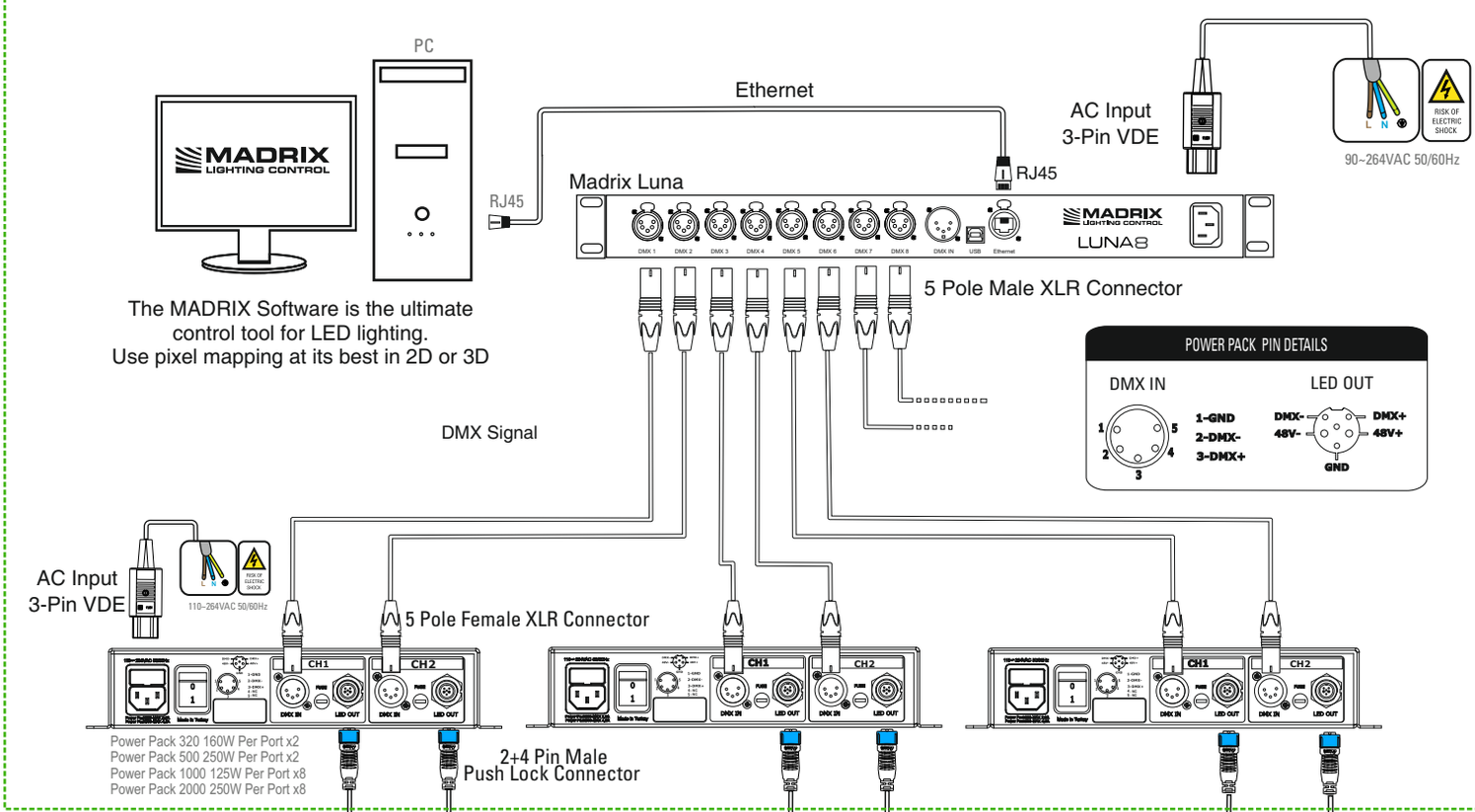
Specifications	315mm(1ft)	615mm(1ft)	915mm(1ft)	1215mm(1ft)	1515mm(1ft)
Output					
Light Source:	6 High Power 4 in 1 Chip RGBW LEDs per foot				
LED Pitch:	50mm				
Lumen Maintenance:	60.000 > hours L70 @ 50° C (full output)				
Color Range:	16.7 Million additive RGB colors, white CCT 6500K				
Ra(CRI):	RGBW Full on 81CRI				
Beam Angle:	10° / 25° / 35° / 12°+40° / 40°+12°				
	**The lens options above are produced as standard. Please contact us for special beam angles.*				
Luminuous Flux:	1040 lm	2079 lm	3119lm	4159 lm	5198 lm
Luminous Intensity:	4909 cd	9819 cd	14728 cd	19638 cd	24547 cd
Efficacy (lm/W):	39,5 lm/W				
	*The values above are measured data in RGBW "Full ON" mode and using a 12˚+40°lens. Please see IES/LTD files and photometric measurements for different lens beam angles.				
	*Photometric performance is measured in compliance with IESNA LM 79-08				
	*The dynamic power-boost feature enables the light to display the maximum brightness at all times and intensify non-white colors.				
Control & Programming					
Pixel Pitch:	Pixel pitch is configurable via RDM, max 1pixel/foot				
Color Resolution:	4 x 14-bit (Gamma correction)				
Auto White:	Algorithms enable auto control of white LED by 3-channel RGB values				
Addressing:	RDM (Group of Remote Addressable Systems)				
Monitoring:	Voltage Monitoring,Temperature Monitoring, Status Monitoring,Power Cycle Monitoring, Lumen-Maintenance Life Monitoring				
PWM Frequency:	1,600Hz flicker free dimming to 0.1%				
DMX Compliance:	USITT DMX512-1990				
RDM Compliance:	ANSI/ESTA E1.20-2010				
Electrical					
Operating Voltage:	48VDC				
Power Consumption:	32,5 W	65 W	99 W	132,5 W	166 W
	110 W/m Maximum at full output, steady state				
Maximum in Chain:	Max 4 meters				
Connections:	Push Lock Type 2+4 Pin Waterproof Connector				
Physical					
Housing:	Extruded Aluminium				
Front Material:	Clear Tempered Glass				
End Cap Material:	Integrated Body				
Installation Brackets:	Die-Cast Zinc 10° Multi-positional, locking hinges				
Hardware:	Stainless Steel				
Gasket:	Silicone				
Surface Finish:	Clear Anodized (standard) or Custom Any Anodized (optional)				
Measurements:					
Weight:	1,5 Kg (3,3lb)	2,7 Kg (5,8lb)	4,3 Kg(9,4lb)	5,6 Kg (12,3)	6,5 Kg (14,3)
Dimensions:	60x61x315mm	60x61x615mm	60x61x915mm	60x61x1215mm	60x61x1515mm
(H x W x D)	2,3x2,4x12,4in	2,3x2,4x24in	2,3x2,4x36in	2,3x2,4x48in	2,3x2,4x59in
Environmental					
Storage Temperature:	-40°C - 85°C - (-40°F - 185°F)				
Start-up Temperature:	-25°C - 50°C - (-13°F - 122°F)				
Operating Temperature:	-40°C - 50°C - (-40°F - 122°F)				
Thermal Protection:	Automatic over temperature protection				
Cooling:	Cooling by free air convection				
Vibration Resistance:	Complies with ANSI C136.31-2010				
Corrosion Resistance:	Complies with ASTM B117				
Ingress Protection Rating:	IP67				
Impact Resistance Rating:	IK09				
Humidity (max.):	0 to 98%, non-condensing				
Certification					
EU Safety:	EN 60598-1, EN 60598-2-5, EN 62471, EN 60529, EN 62262				
EU EMC:	EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11				
US Safety:	UL 1598				
US EMC:	FCC Part 15 Class A				
Warranty:	5-year Limited Warranty				

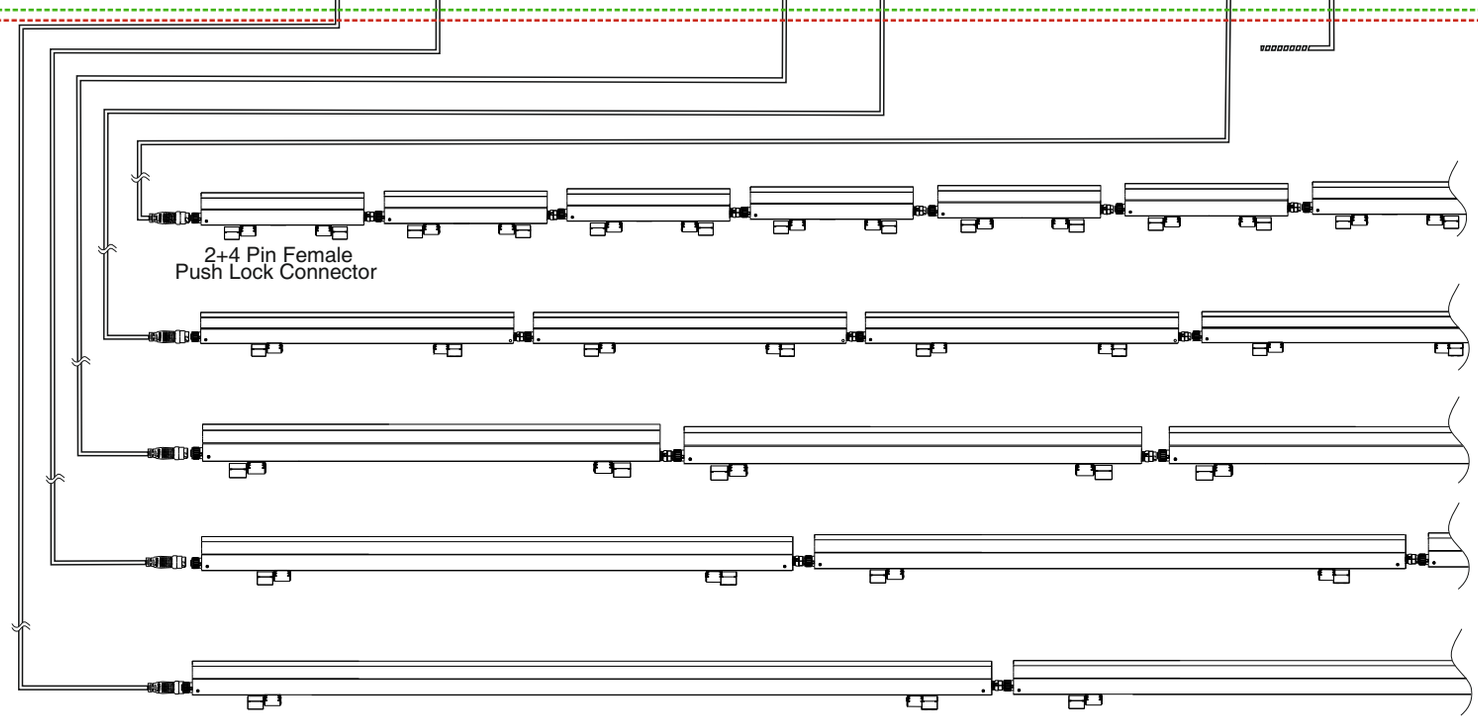
"IEC/TR 62778: Risk Group 2
Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eye.
"The luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 25 m is not expected."


315mm / 12.4"
615mm / 24"
915mm / 36"
1215mm / 48"
1515mm / 59"


60mm / 2.3"
61mm / 2.4"

Indoor Zone





Suggestions to Reach for DMX Control

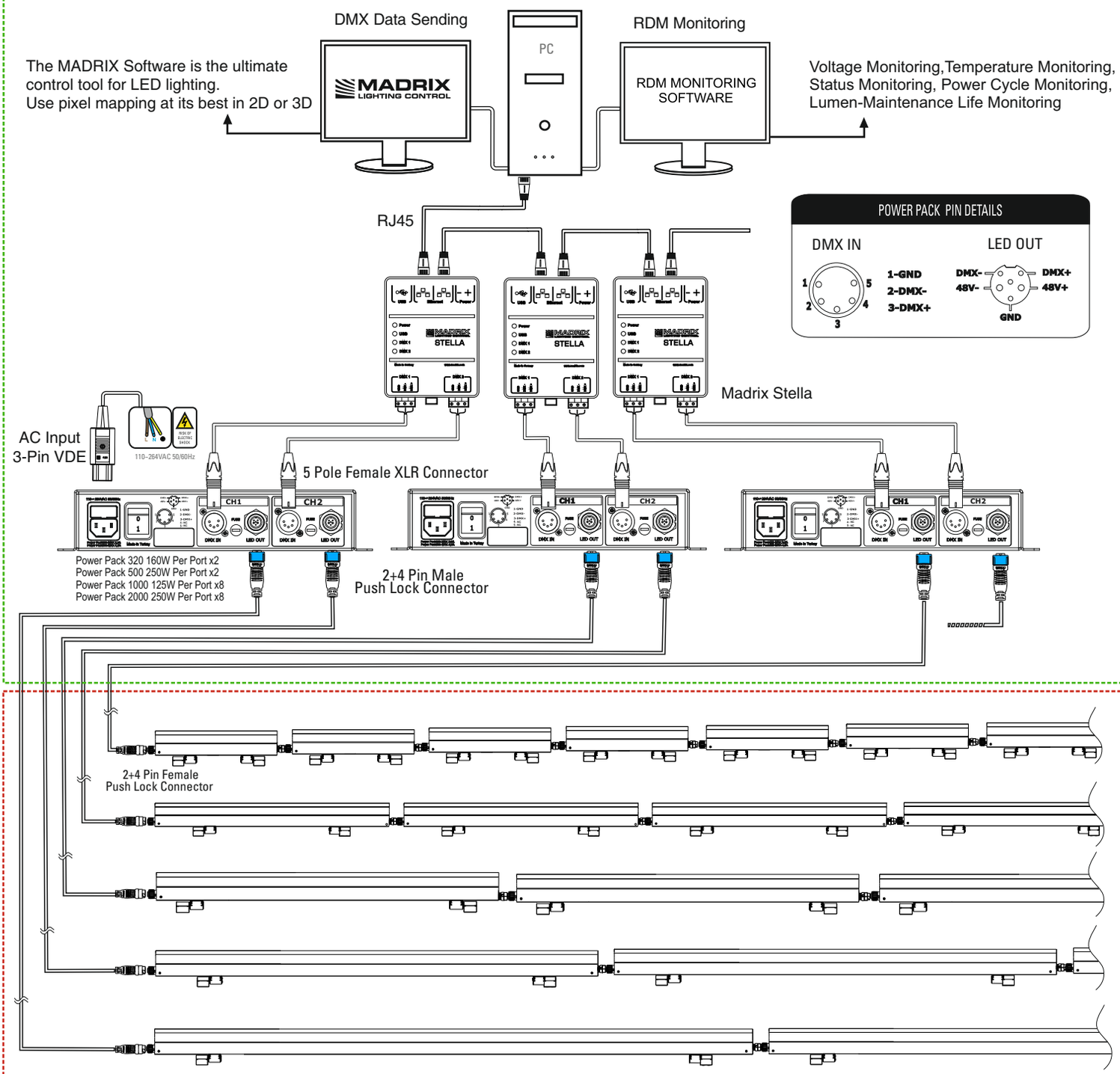
The total cable length should not be more than 3,900 ft (1200m) without buffering.
The total fixture number should not be more than 32 pcs on a single line without buffering.
It is recommended to use only connection cables with a characteristic impedance of 120 ohm, where the DMX + and DMX – data lines are intertwined and there is a ground link as a coaxial screen surrounding the inner cores.
120 Ω terminating resistor should be connected between the DMX + and DMX – output connections on the last fixture.
Do not insert a passive Y-split into the control cabling.
Use a powered DMX splitter/buffer if it is necessary to separate the control link in order to feed fixtures in different locations.
Make sure that the DMX + and DMX - connections do not get crossed at any point.

Notes:

1) Maximum total length of chain (fixtures and leader cable) is 54m.
2) Maximum total length of fixtures in chain is 4m.
3) Maximum total length of leader cable is 50m.

Outdoor Zone

Indoor Zone



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Outdoor Zone

RDM Explanation

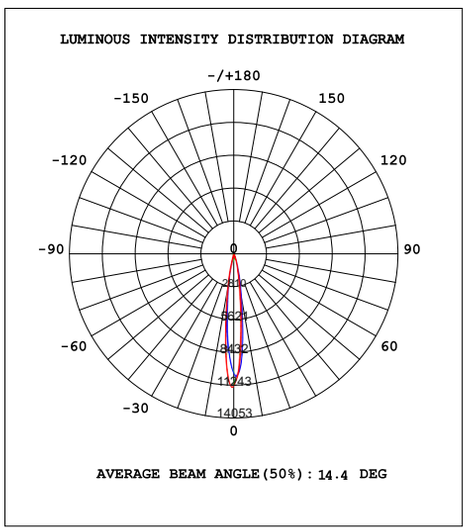
Leoline®M6 RGBW Series complies with the RDM Monitoring Command System. In order to use RDM Monitoring System, a compatible controller is required depending on the installation. Through DMX data connection, it is possible to control or change the fixture's settings, send commands and receive or monitor the fixture's data. The recommended RDM controller and the wiring diagram can be found on page 5. RDM command functions supported by Leoline® M6 RGBW are given in the list below.

Device Management

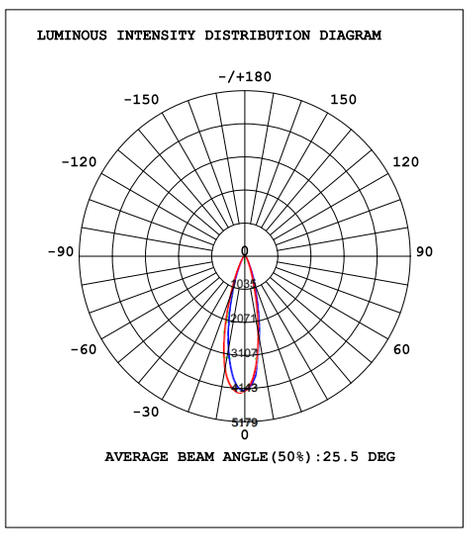
	Get	Set
Device Info	✔	
DMX Start Address	✔	✔
Identify Device	✔	✔
Device Model Description	✔	
Device Label	✔	✔
Software Version Label	✔	
DMX Personality	✔	✔
DMX Personality Description	✔	
Device Hours	✔	
Lamp Hours	✔	
Device Power Cycles	✔	
Status Message	✔	
Queued Message	✔	
Status ID Description	✔	
Supported Parameters	✔	
Parameter Description	✔	
Factory Defaults		✔
Sensor Definition	✔	
Sensor Value	✔	
Record Sensor		✔
Reset Device		✔
Power State	✔	✔
Perform Self Test		✔
Self Test Description	✔	
Language	✔	

** The command names and command functions used on different RDM controllers may vary.*
** Incompatible RDM controllers may cause drawbacks such as partial operation, no-operation, or incorrect fixture information.*
** You can check the recommended RDM controllers on the www.heraled.com website.*

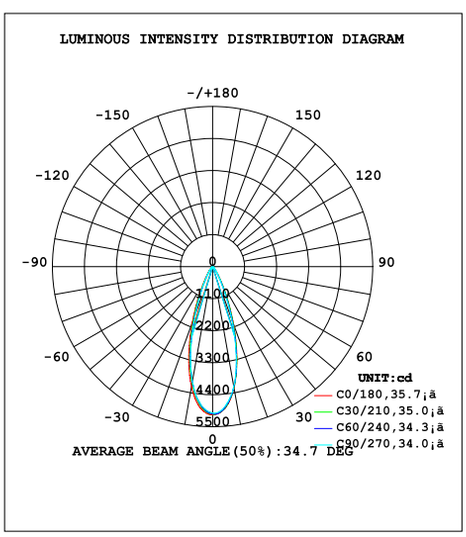
Narrow Beam 10°



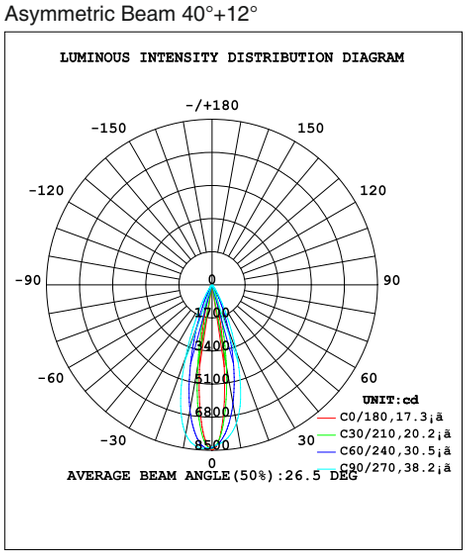
Medium Beam 25°



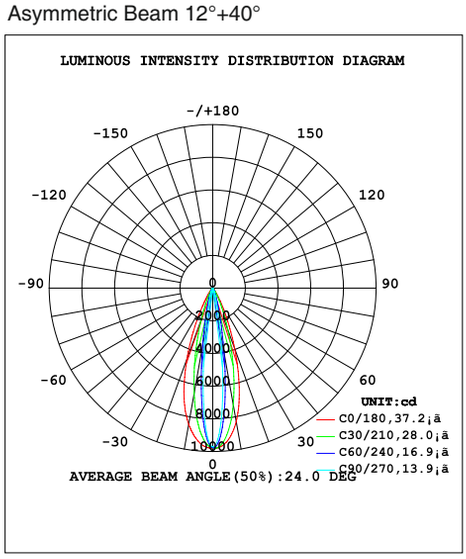
Wide Beam 35°



Asymmetric Beam 40°+12°

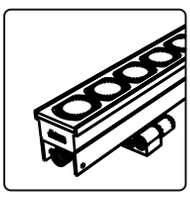


Asymmetric Beam 12°+40°



Please visit www.heraled.com for detailed information and laboratory reports.

Products



P02025101 Leoline® M6 315mm DMX RGBW Surface Mounted Narrow Beam 10°
P02025102 Leoline® M6 315mm DMX RGBW Surface Mounted Medium Beam 25°
P02025103 Leoline® M6 315mm DMX RGBW Surface Mounted Wide Beam 35°
P02025106 Leoline® M6 315mm DMX RGBW Surface Mounted Asymmetric Beam 12+40°
P02025107 Leoline® M6 315mm DMX RGBW Surface Mounted Asymmetric Beam 40+12

P02026101 Leoline® M6 615mm DMX RGBW Surface Mounted Narrow Beam 10°
P02026102 Leoline® M6 615mm DMX RGBW Surface Mounted Medium Beam 25°
P02026103 Leoline® M6 615mm DMX RGBW Surface Mounted Wide Beam 35°
P02026106 Leoline® M6 615mm DMX RGBW Surface Mounted Asymmetric Beam 12+40°
P02026107 Leoline® M6 615mm DMX RGBW Surface Mounted Asymmetric Beam 40+12°

P02027101 Leoline® M6 915mm DMX RGBW Surface Mounted Narrow Beam 10°
P02027102 Leoline® M6 915mm DMX RGBW Surface Mounted Medium Beam 25°
P02027103 Leoline® M6 915mm DMX RGBW Surface Mounted Wide Beam 35°
P02027106 Leoline® M6 915mm DMX RGBW Surface Mounted Asymmetric Beam 12+40°
P02027107 Leoline® M6 915mm DMX RGBW Surface Mounted Asymmetric Beam 40+12°

P02028101 Leoline® M6 1215mm DMX RGBW Surface Mounted Narrow Beam 10°
P02028102 Leoline® M6 1215mm DMX RGBW Surface Mounted Medium Beam 25°
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P02029101 Leoline® M6 1515mm DMX RGBW Surface Mounted Narrow Beam 10°
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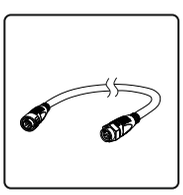
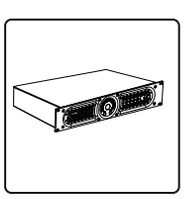
P02029106 Leoline® M6 1515mm DMX RGBW Surface Mounted Asymmetric Beam 12+40°
P02029107 Leoline® M6 1515mm DMX RGBW Surface Mounted Asymmetric Beam 40+12°

Cable



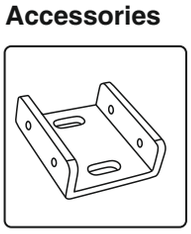
P20202-1 Push Lock Type 2+4 Pin 1M Extension Cable
P20202-2.5 Push Lock Type 2+4 Pin 2.5M Extension Cable
P20202-5 Push Lock Type 2+4 Pin 5M Extension Cable
P20202-7.5 Push Lock Type 2+4 Pin 7.5M Extension Cable
P20202-10 Push Lock Type 2+4 Pin 10M Extension Cable
P20202-15 Push Lock Type 2+4 Pin 15M Extension Cable
P20202-20 Push Lock Type 2+4 Pin 20M Extension Cable
P20202-0.5 Push Lock Type 2+4 Pin 0.5M Extension Cable
P20202-0.75 Push Lock Type 2+4 Pin 0.75M Extension Cable
P20202-1 Push Lock Type 2+4 Pin 1M Extension Cable
P20202-1.5 Push Lock Type 2+4 Pin 1.5M Extension Cable
P20202-2 Push Lock Type 2+4 Pin 2M Extension Cable
P20202-2.5 Push Lock Type 2+4 Pin 2.5M Extension Cable
P20202-3 Push Lock Type 2+4 Pin 3M Extension Cable
P20202-3.5 Push Lock Type 2+4 Pin 3.5M Extension Cable
P20202-4 Push Lock Type 2+4 Pin 4M Extension Cable
P20202-5 Push Lock Type 2+4 Pin 5M Extension Cable
P20202-7.5 Push Lock Type 2+4 Pin 7.5M Extension Cable
P20202-10 Push Lock Type 2+4 Pin 10M Extension Cable
P20202-15 Push Lock Type 2+4 Pin 15M Extension Cable
P20202-20 Push Lock Type 2+4 Pin 20M Extension Cable

Power / Data Supplies

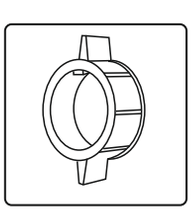


P08002 Power Pack 320 320W 2 Outputs Power Supply
P08003 Power Pack 500 500W 2 Outputs Power Supply
P08004 Power Pack 1000 1000W 8 Outputs Power Supply
P08013 Power Pack 2000 2000W 8 Outputs Power Supply

Accessories



P20063 Leoline® M Series Surface Mounting Equipment



P20203 2+4 Pin Female Plug Cap

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Güllübağlar Mah. Kahramanlar Cad. No 3/1
34906 Pendik / İSTANBUL / TÜRKİYE
T: 0216 307 79 00 (pbx) **F**: 0216 307 79 02

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