MOLELINE® S12 SC SERIES

Specification Sheets

V1.3

Date _____

Company _____

Project _____

CE FC RoHS compliant IP67 IK09 DMX/RDM RDM MONITORING 100 Hours Testing 5 Year Warranty

Explanation

Moleline® S12SC Series is a highly durable product range with extruded aluminium housing, enclosure and 6mm tempered glass. Despite its high durability, it has a linear, aesthetic and minimal appearance. Moleline® S12SC Series is a high-performance, inground exterior lighting product designed specifically for "wall washing" or "wall grazing" applications. With IP67 protection class and IK09 impact resistance, they can be safely used in ground-recessed applications. Moleline® S12SC Series consists of 12 High Power LEDs in Red, Green, Blue, Amber, Warm White, Natural White, Cool White, at every 356mm. It is available in different versions: 356mm, 656mm, 956mm, 1256mm, 1556mm lengths and 5 different types of beam angles, as standard. Each 356mm section can be individually addressed for more detailed animations. 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. Due to the screw-spring mechanism, the fixture can be easily installed and dismantled with its enclosure. Moleline® S12SC Series provides easy setup and programming with standard DMX512 and RDM protocols without the need for special and complex communication protocols.

• Moleline® S12SC 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.

• Moleline® S12SC 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 356mm 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.

• Moleline® S12SC 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; 15° / 30° / 45° / 60° / 35°+15°. Custom product can be produced in different beam angle according to specific projects.

• Each 356mm consists of 12 High Power LEDs.

• Due to its special side design, fixtures are mounted side-by-side and no shade is formed between them. Creates a continuous linear view.

• Moleline® S12SC is manufactured in 356mm, 656mm, 956mm, 1256mm, 1556mm for different forms of applications in different lengths.

• Moleline® S12SC fixture is in IP67 class, and it is designed to meet challenging requirements of exterior facade applications with its robust and durable structure.

• Moleline® S12SC is resistant to shock, vibration and other harsh conditions with its aluminium integrated body structure, enclosure and 6mm thick tempered glass.

• Moleline® S12SC provides power and data transmission via input and output connectors. IP67 connectors are used by in/out with push-lock connectors without space. There is no need to use extra junction-box via input and output.

• Moleline® S12SC Series is produced in clear anodized coated color as standard. It can be coated in different anodized color upon request.

Specifications	356mm	656mm	915mm	1256mm	1556mm

Output

Light Source:	12 High Power LEDs per foot				
LED Pitch:	25mm				
Lumen Maintenance:	60.000 > hours L70 @ 50° C (full output)				
Color Range:	Red, Green, Blue, Amber, Warm White, Natural White, Cool White				
Ra(CRI):	White product 2200K-5700K > 80CRI / 6500K > 70CRI				
Beam Angle:	15° / 30° / 45° / 60° / 35°+15°				
	The lens options above are produced as standard. Please contact us for special beam angles.				5184 lm
Luminous Flux:	1037 lm	2074 lm	3111lm	4147 lm	
Luminous Intensity:	6797 cd	13594 cd	20391 cd	27188 cd	33985cd
Efficacy (lm/W):	68,4 lm/W				

*The values above are measured data in 3000K Warm White and using a 15° 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

Control & Programming

Pixel Pitch:	Pixel pitch is configurable via RDM, max 1pixel/foot
Color Resolution:	1 x 14-bit (Gamma correction)
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:	Red 38,3W/m, Green 51,7W/m, Blue 50,6W/m, Amber 38,9W/m, Warm White 47,8W/m, Natural White 47,2W/m, Cool White 49,4W/m
	Maximum at full output, steady state
Maximum in Chain:	Max 9-12 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:

	356mm	656mm	915mm	1256mm	1556mm
Weight:	1,8Kg (3,8lb)	3,4Kg (7,4lb)	5,1Kg (11,2lb)	6,7Kg (14,7lb)	8,5Kg (19lb)
Dimensions:	77,5x71,5x356mm	77,5x71,5x656mm	77,5x71,5x956mm	77,5x71,5x1256mm	77,5x71,5x1556mm
(H x W x D)	3x2,8x14in	3x2,8x25,8in	3x2,8x37,6in	3x2,8x49,4in	3x2,8x61,2in

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

Test:

All Hera LED products are assessed by a stringent 100 hour test, above and beyond what they would come across in the real world. This can be seen from our advanced RDM Monitoring System as well, leaving no place for doubt. This strict testing, builds trust, when your reputation is on the line. It is our company's culture and heritage, also our way of securing our worthwhile Customers.
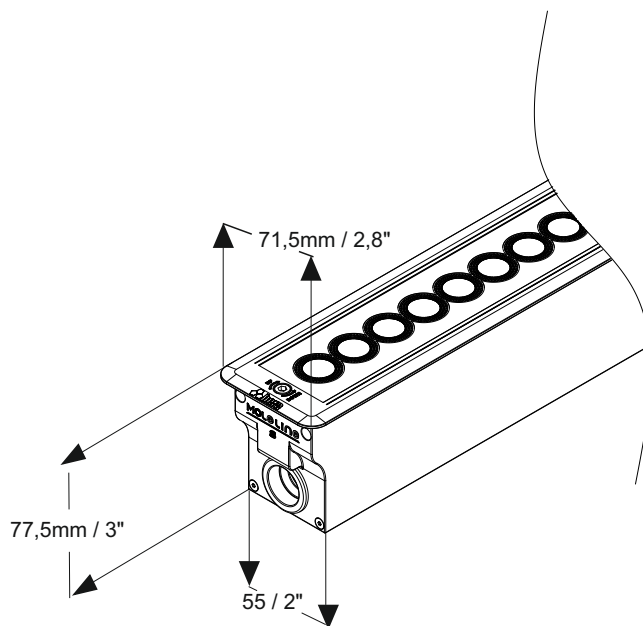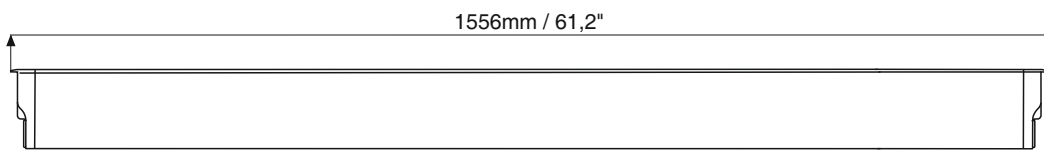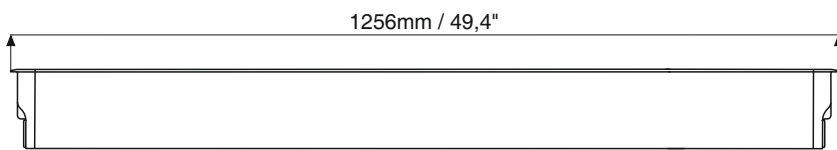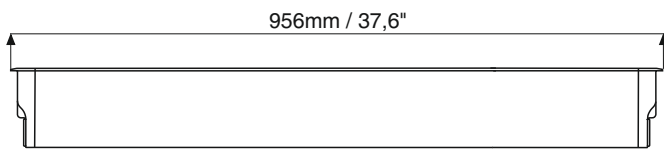
Certification

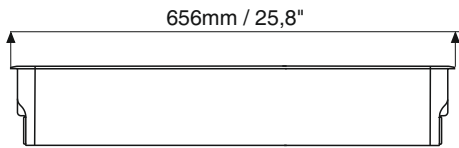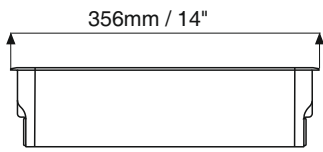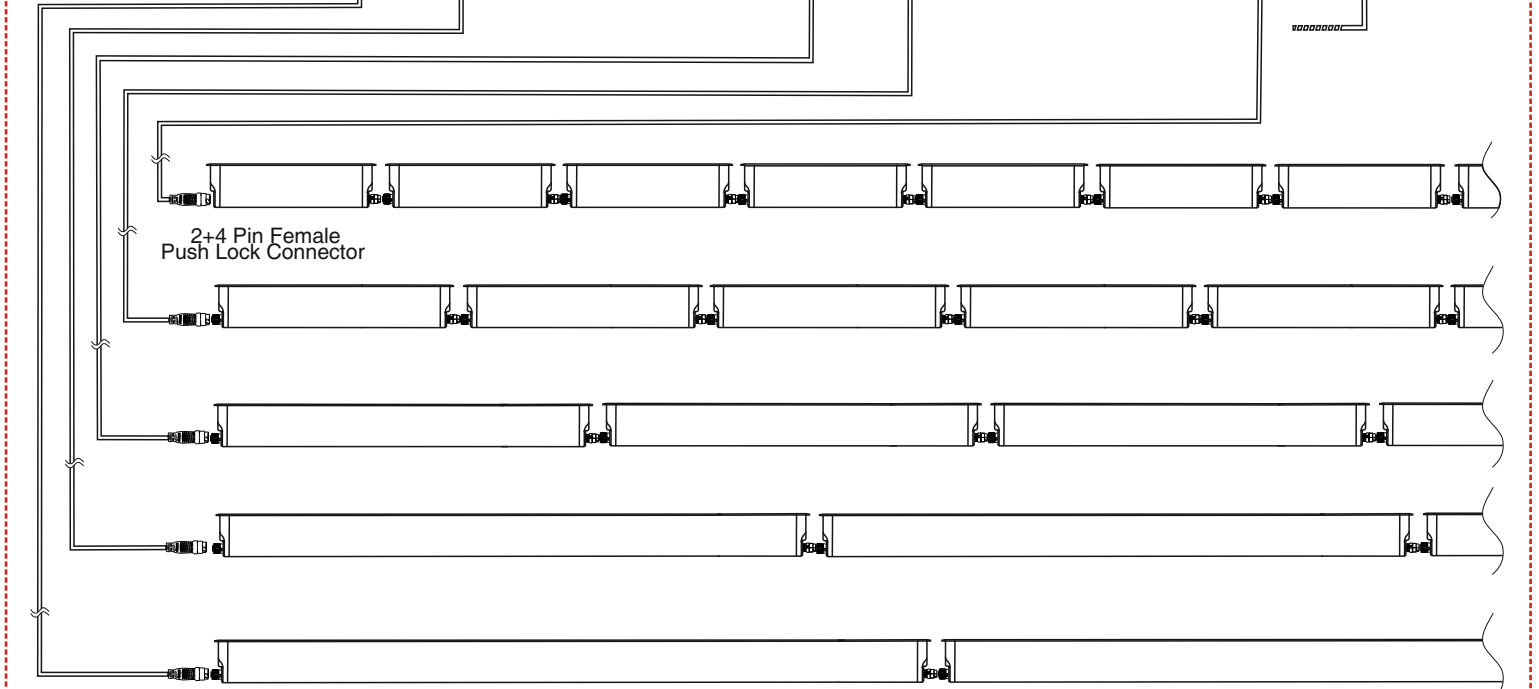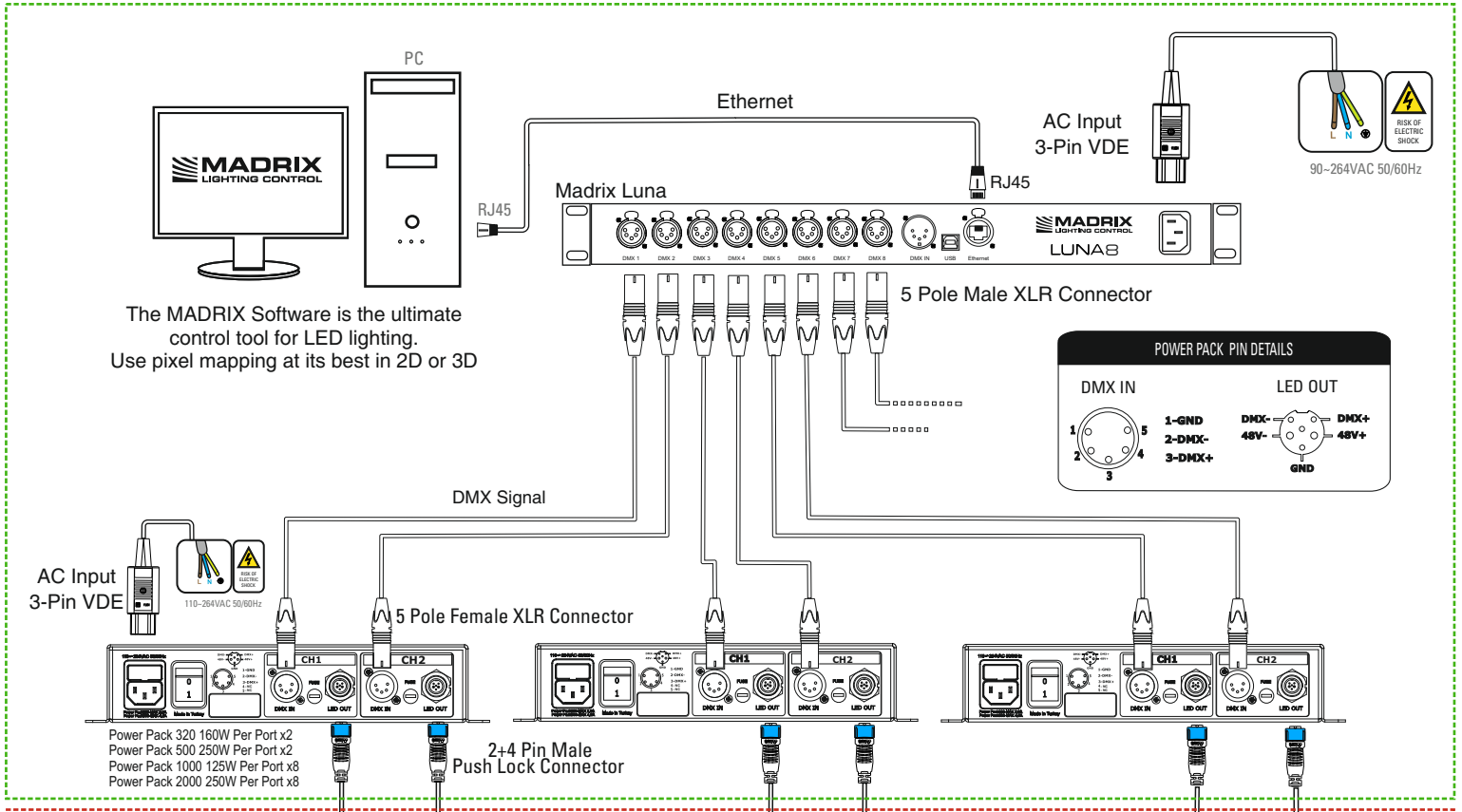|	
EU Safety:	EN 60598-1, EN 60598-2-5, EN 60598-2-13, EN 62471, EN 60529, EN 62262
EU EMC:	EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5,
	EN 61000-4-6, EN 61000-4-8, EN 61000-4-11
US Safety:	UL 1598
US EMC:	FCC Part 15 Class A
Warranty:	5-year 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."
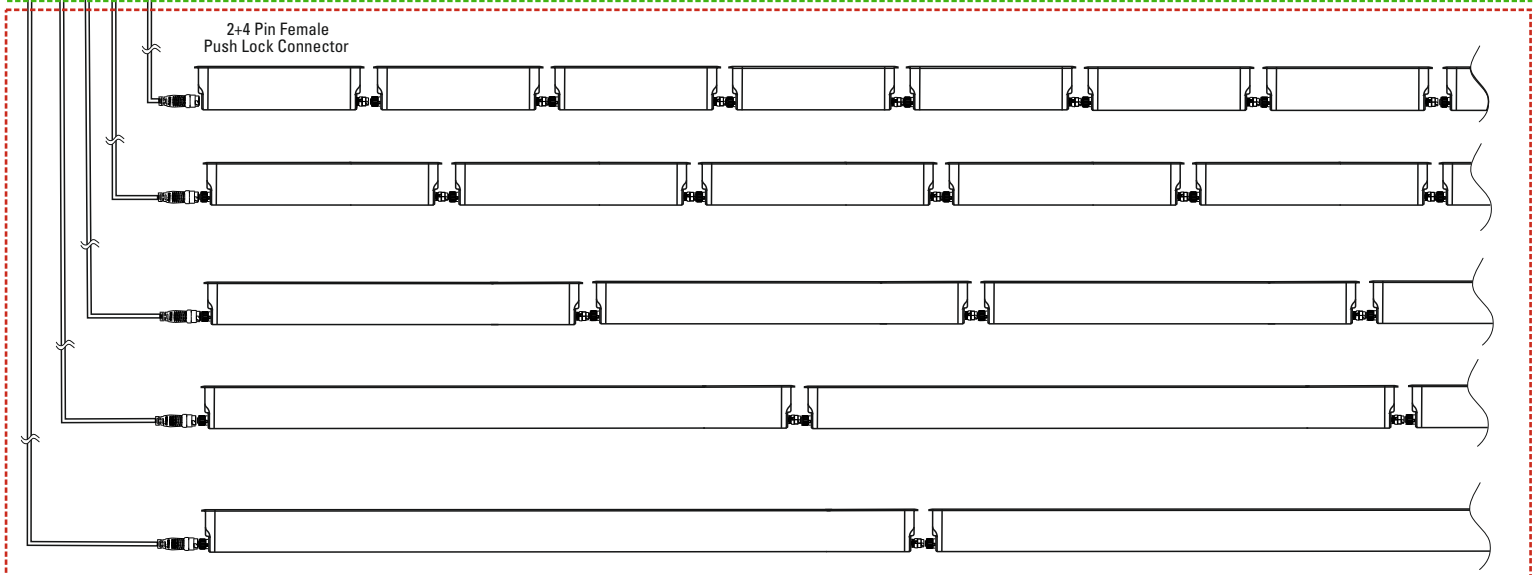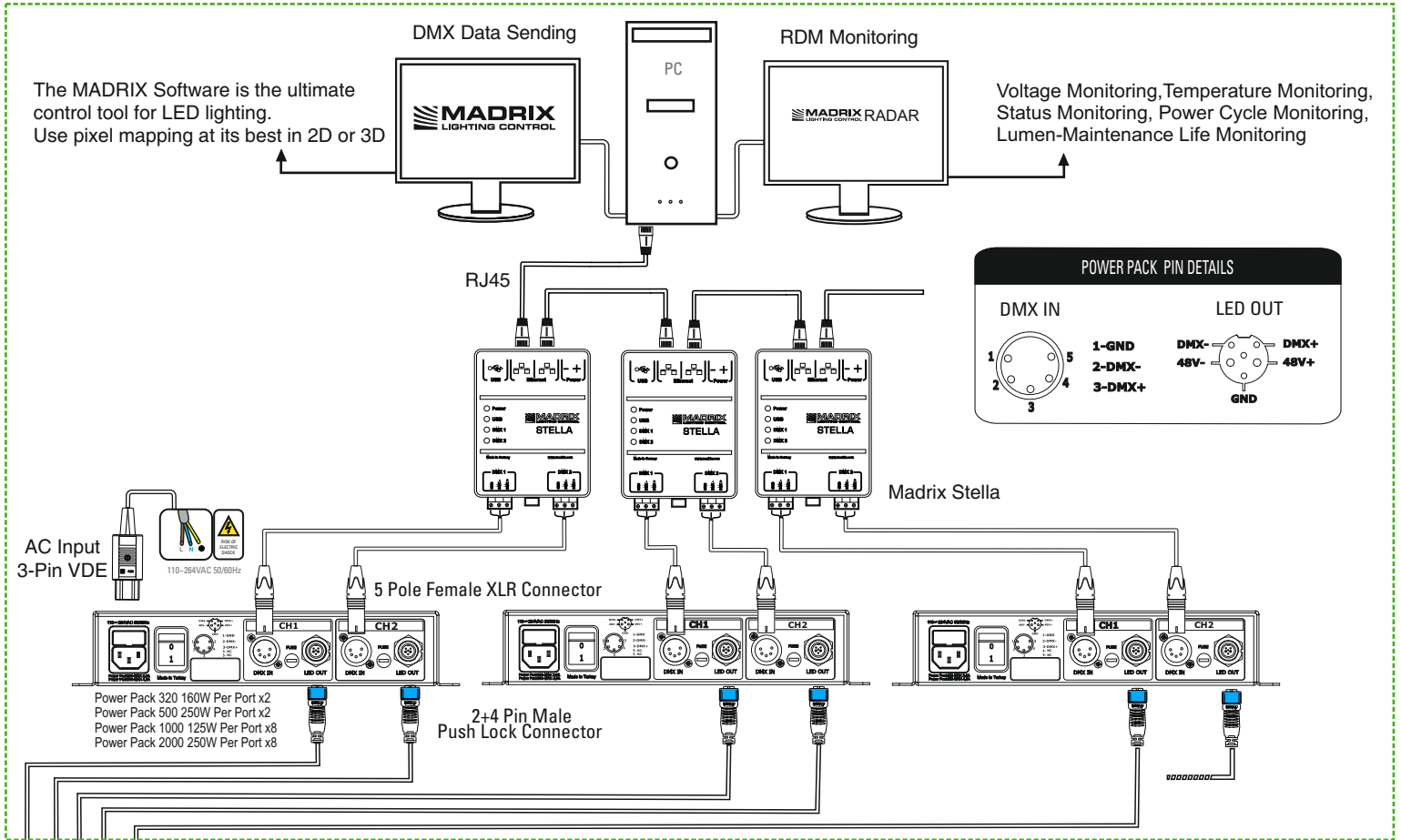
Dimensions

MOLELINE® S12 SC SERIES

Specification Sheets

356mm / 14"

656mm / 25,8"

956mm / 37,6"

1256mm / 49,4"

1556mm / 61,2"

71,5mm / 2,8"

77,5mm / 3"

55 / 2"

www.heraled.com

Indoor Zone

PC

Ethernet

AC Input
3-Pin VDE

RISK OF
ELECTRIC
SHOCK

90~264VAC 50/60Hz

RJ45

Madrix Luna

DMX 1 DMX 2 DMX 3 DMX 4 DMX 5 DMX 6 DMX 7 DMX 8 DMX IN USB Ethernet

LUNA8

The MADRIX Software is the ultimate
control tool for LED lighting.
Use pixel mapping at its best in 2D or 3D

5 Pole Male XLR Connector

RJ45

POWER PACK PIN DETAILS

DMX IN
1-GND
2-DMX-
3-DMX+

LED OUT
DMX-   DMX+
48V-   48V+
GND

DMX Signal

AC Input
3-Pin VDE

RISK OF
ELECTRIC
SHOCK

110~264VAC 50/60Hz

5 Pole Female XLR Connector

CH1   CH2

CH1   CH2

CH1   CH2

DMX IN LED OUT DMX IN LED OUT

DMX IN LED OUT DMX IN LED OUT

DMX IN LED OUT DMX IN LED OUT

Power Pack 320 160W Per Port x2
Power Pack 500 250W Per Port x2
Power Pack 1000 125W Per Port x8
Power Pack 2000 250W Per Port x8

2+4 Pin Male
Push Lock Connector

2+4 Pin Female
Push Lock Connector

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 59m.
2) Maximum total length of fixtures in chain is 9m.
3) Maximum total length of leader cable is 50m.

Outdoor Zone

DMX Data Sending

PC

RDM Monitoring

The MADRIX Software is the ultimate control tool for LED lighting.
Use pixel mapping at its best in 2D or 3D

MADRIX LIGHTING CONTROL

MADRIX RADAR

Voltage Monitoring, Temperature Monitoring, Status Monitoring, Power Cycle Monitoring, Lumen-Maintenance Life Monitoring

RJ45

POWER PACK PIN DETAILS

DMX IN

1-GND
2-DMX-
3-DMX+

LED OUT

DMX- ⊖ DMX+
48V- 48V+
GND

MADRIX STELLA

Madrix Stella

AC Input
3-Pin VDE

L N
RISK OF ELECTRIC SHOCK
110-264VAC 50/60Hz

5 Pole Female XLR Connector

CH1   CH2
DMX IN   LED OUT

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RDM Explanation

Moleline® S12SC 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 Moleline® S12SC Series 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.

Moleline® S12 Warm White
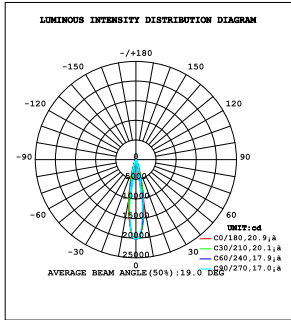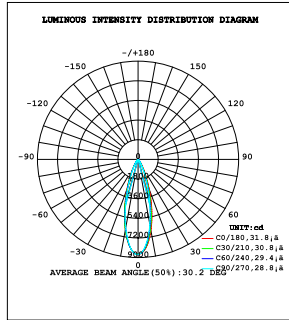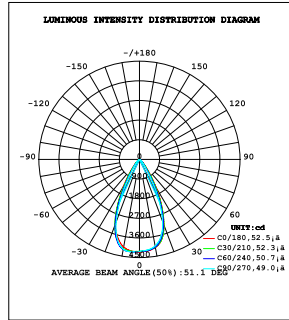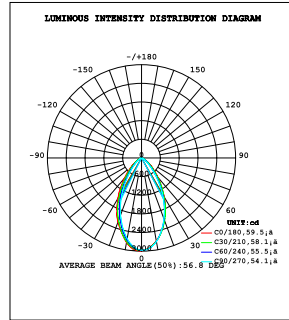
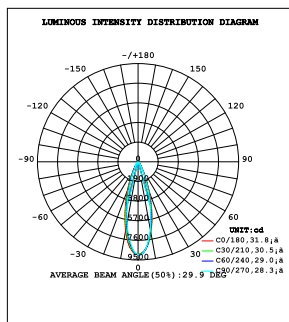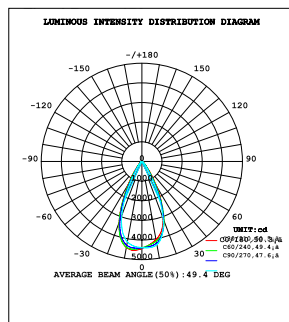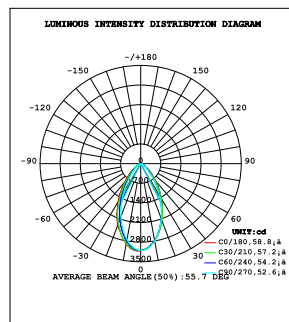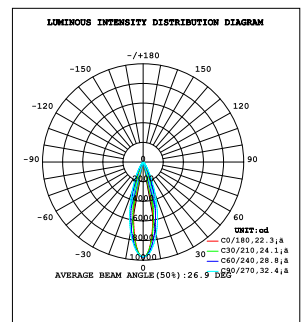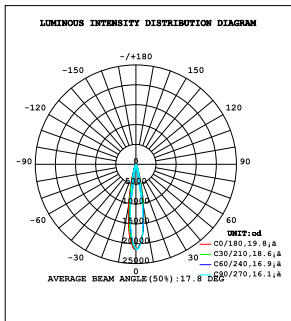| Narrow Beam 15°	Medium Beam 30°	Wide Beam 45°	Very Wide Beam 60°	Asymmetric Beam 35°+15°
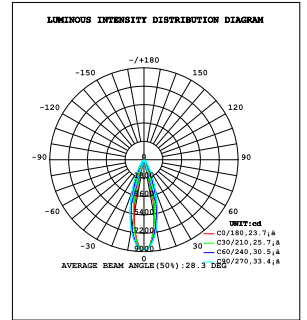
Moleline® S12 Natural White
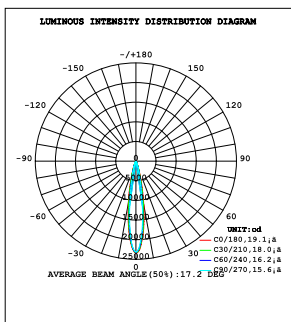
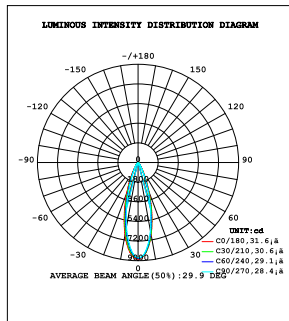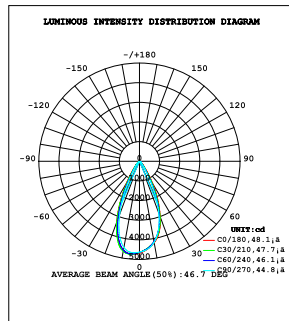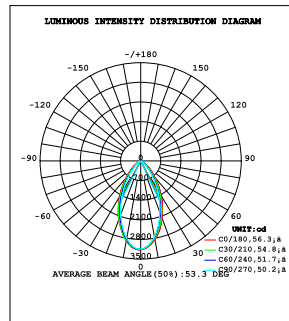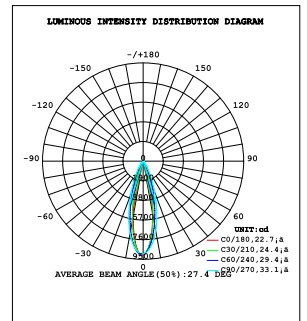| Narrow Beam 15°	Medium Beam 30°	Wide Beam 45°	Very Wide Beam 60°	Asymmetric Beam 35°+15°

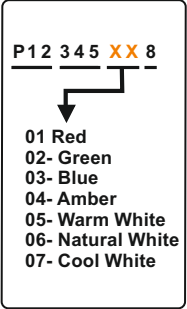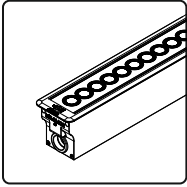## Moleline® S12 Cool White

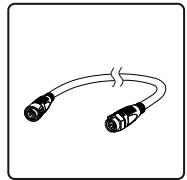| Narrow Beam 15°	Medium Beam 30°	Wide Beam 45°	Very Wide Beam 60°	Asymmetric Beam 35°+15°

Order Codes

Products

P02030XX1 Moleline® S12 356mm DMX SC Inground Narrow Beam 15°
P02030XX2 Moleline® S12 356mm DMX SC Inground Medium Beam 30°
P02030XX3 Moleline® S12 356mm DMX SC Inground Wide Beam 45°
P02030XX4 Moleline® S12 356mm DMX SC Inground Very Wide Beam 60°
P02030XX6 Moleline® S12 356mm DMX SC Inground Asymmetric Beam 35°+15°

P02031XX1 Moleline® S12 656mm DMX SC Inground Narrow Beam 15°
P02031XX2 Moleline® S12 656mm DMX SC Inground Medium Beam 30°
P02031XX3 Moleline® S12 656mm DMX SC Inground Wide Beam 45°
P02031XX4 Moleline® S12 656mm DMX SC Inground Very Wide Beam 60°
P02031XX6 Moleline® S12 656mm DMX SC Inground Asymmetric Beam 35°+15°

P12 345 XX 8

01 Red
02- Green
03- Blue
04- Amber
05- Warm White
06- Natural White
07- Cool White

P02032XX1 Moleline® S12 956mm DMX SC Inground Narrow Beam 15°
P02032XX2 Moleline® S12 956mm DMX SC Inground Medium Beam 30°
P02032XX3 Moleline® S12 956mm DMX SC Inground Wide Beam 45°
P02032XX4 Moleline® S12 956mm DMX SC Inground Very Wide Beam 60°
P02032XX6 Moleline® S12 956mm DMX SC Inground Asymmetric Beam 35°+15°

P02033XX1 Moleline® S12 1256mm DMX SC Inground Narrow Beam 15°
P02033XX2 Moleline® S12 1256mm DMX SC Inground Medium Beam 30°
P02033XX3 Moleline® S12 1256mm DMX SC Inground Wide Beam 45°
P02033XX4 Moleline® S12 1256mm DMX SC Inground Very Wide Beam 60°
P02033XX6 Moleline® S12 1256mm DMX SC Inground Asymmetric Beam 35°+15°

P02034XX1 Moleline® S12 1556mm DMX SC Inground Narrow Beam 15°
P02034XX2 Moleline® S12 1556mm DMX SC Inground Medium Beam 30°
P02034XX3 Moleline® S12 1556mm DMX SC Inground Wide Beam 45°
P02034XX4 Moleline® S12 1556mm DMX SC Inground Very Wide Beam 60°
P02034XX6 Moleline® S12 1556mm DMX SC Inground Asymmetric Beam 35°+15°

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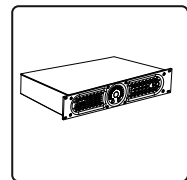
P08002 Power Pack 320 320W 2 Outputs Power Supply
P08003 Power Pack 500 500W 2 Outputs Power Supply
P08004 Power Pack 1000 1000W 8 Outputs Power Supply
P08013 Power Pack 2000 2000W 8 Outputs Power Supply

Accessories
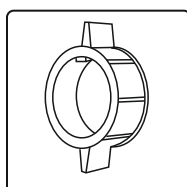
P20203 2+4 Pin Female Plug Cap

**HERA EĞLENCE VE MİMARİ AYDINLATMA
SİSTEMLERİ İÇ VE DIŞ TİCARET A.Ş.**
Güllübağlar Mah. Kahramanlar Cad. No 3/1
34906 Pendik / İSTANBUL / TÜRKİYE
T: 0216 307 79 00 (pbx) **F**: 0216 307 79 02

www.heraled.com   info@heraled.com