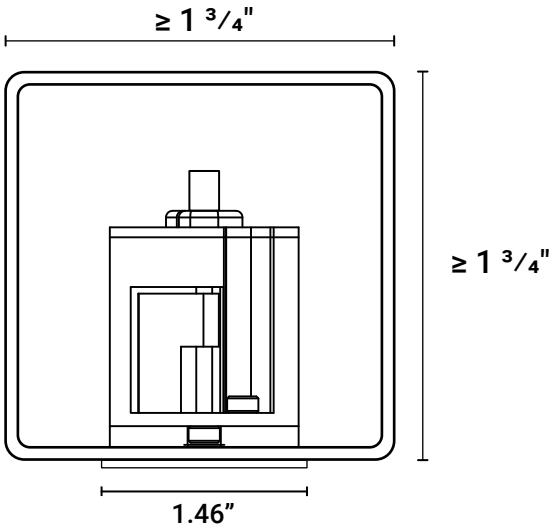
Illuminated Handrail - S33 LED Module

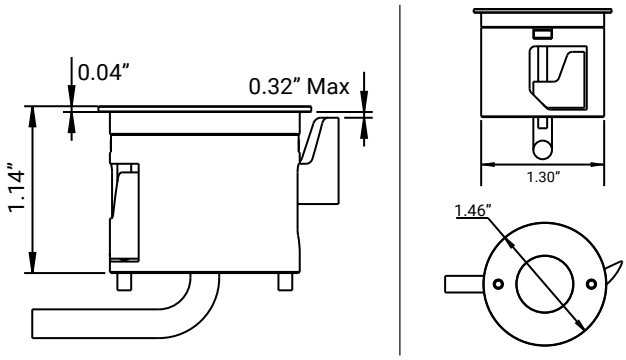
MOD-S33-LED

Square Profile

S33 DOT MODULES



Dimensions



FEATURES

The S33 Dot Modules bring precise, focused illumination to each stair tread, casting a controlled downward beam that improves visibility along the path of travel. Crafted from 316L stainless steel, every module is designed for long-term reliability in tough environments. Retrofitting into square or rectangular handrails is simple. The included 1 ³/₈" carbide-tipped hole saw and drill jig ensure fast, accurate cutting, and a jack screw secures each module firmly from underneath the handrail — no adhesives or external fasteners needed. Compatible with standard square or rectangular handrails of 1 ³/₄" × 1 ³/₄" minimum, with wall thickness between 0.040" and 0.118".

LUMENS	110L / 150L
CCT	27K/30K/35K/40K/RGB
DIMMING	Fixed Output
CRI	90+ CRI
VOLTAGE	24v DC - Constant Voltage
IP RATING	IP 67
BEAM PATTERNS	Asymmetric 45°
WORKING TEMPERATURE	-4° F to 113° F
LIFETIME	50,000 hour LED lifespan

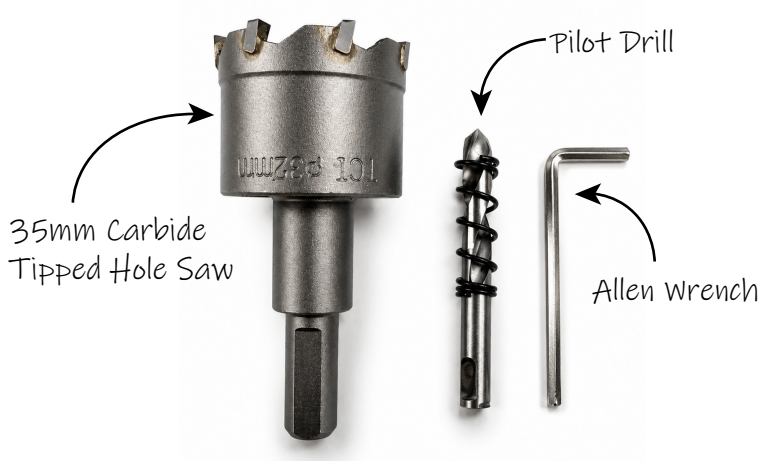
FOR WET LOCATION · Americans with Disabilities Act · DarkSky Approved · c UL us LISTED · 5 YEARS LIMITED WARRANTY

Illuminated Handrail - S33 LED Module

OPTICS
The S33 Dot Modules deliver controlled, downward illumination for stair treads and pathways. An asymmetric beam distribution directs light across the tread surface where it is needed most, while the acrylic optic keeps the output precise and controlled. 90 CRI is standard for accurate color rendering, with RGB and DMX512 control available for dynamic lighting applications.

CONSTRUCTION
Each S33 Dot Module is crafted from 316L stainless steel for long-term durability and corrosion resistance in demanding environments. A double O-ring seal provides IP67 wet-location protection, making the module suitable for outdoor and exposed applications. The compact design integrates cleanly into square or rectangular handrails while maintaining a refined, low-profile appearance.

INSTALLATION
The S33 Dot Modules are designed for fast retrofit installation into square or rectangular handrails. The included 1 ⅜" carbide-tipped hole saw and drill jig allow for accurate cutting, while a jack screw secures each module from underneath the handrail without adhesives or external fasteners. Compatible with square or rectangular handrails measuring at least 1 ¾" × 1 ¾" with 0.040" and 0.118" wall thickness, each module installs into a 1 ⅜" mounting hole. A single 96W driver can power up to 60 modules in one run.



***Drilling Kit Sold Separately**

DRIVERS
Power is provided by means of industry leading constant voltage LED drivers rated for universal power input from 120V to 277V at a frequency of 50-60Hz. Elite drivers produce less than 20% THD, and have a power factor of .90 to 1.00.

LISTINGS
UL Listed for Wet Location

cULus Listed for Wet Location

FCC 15 - EMI/RFI emission per FCC 47CFR part 15 at 120VAC or 277VAC

RoHS - Contains no mercury or lead and RoHS compliant

Photometric testing completed in accordance with IES LM-79 and TM-30 standards

Qualifies for California Title 24 high-efficacy LED compliance

WARRANTY
Five-year warranty for parts and components (labor not included).

MOD-S33-LED					
SERIES	**OPTICS**	**POWER**	**CCT (90 CRI)**	**DRILLING KIT**	**DRIVER**
S33 - S33 Dot Square Profile	**AS45** - Asymmetric 45°	**1.5** - 1.5 Watt	**27K** - 2700K **30K** - 3000K **35K** - 3500K **40K** - 4000K **RGB** - DMX512 RGB	**DK** - Hole Saw + Accessories	**30W** - 30 Watt **60W** - 60 Watt **96W** - 96 Watt

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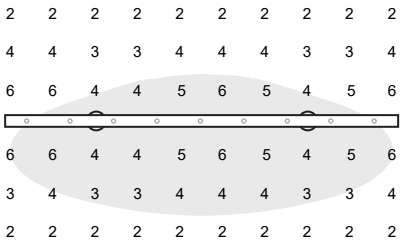
MOD-S33-LED
Square Profile

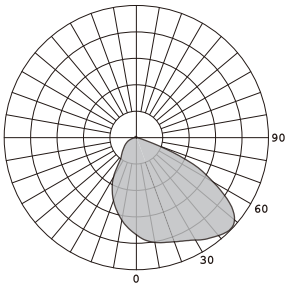
Photometric Data

MOD-S33-LED-S45



Rail Height: 36”
Module Spacing 1.0 ft.

S45

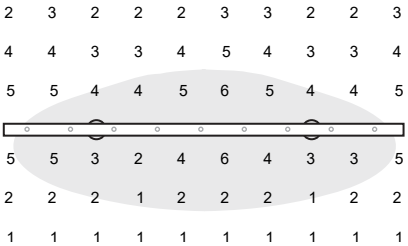


45° Asymmetric

DOT MODULES
4000K | 90 CRI | 24V

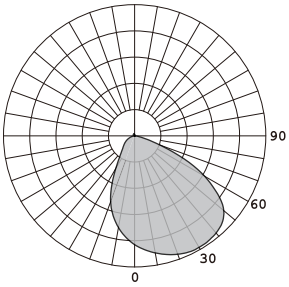
LED MODULE	BEAM ANGLE	LUMENS (lm)	POWER (W)
S33	45°	152	1.5

MOD-S33-LED-S45 RGB



Rail Height: 36”
Module Spacing 1.0 ft.

S45 RGB



45° Asymmetric RGB

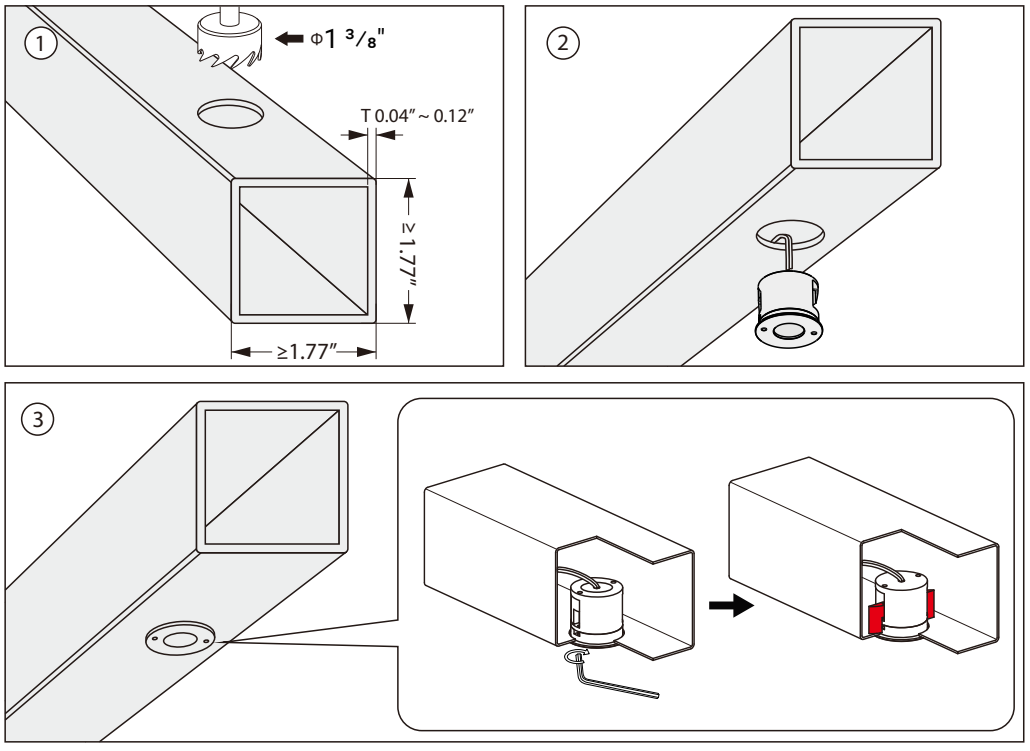
DOT MODULES
RGB | 80 CRI | 24V

LED MODULE	BEAM ANGLE	LUMENS (lm)	POWER (W)
S45	45°	110	1.5

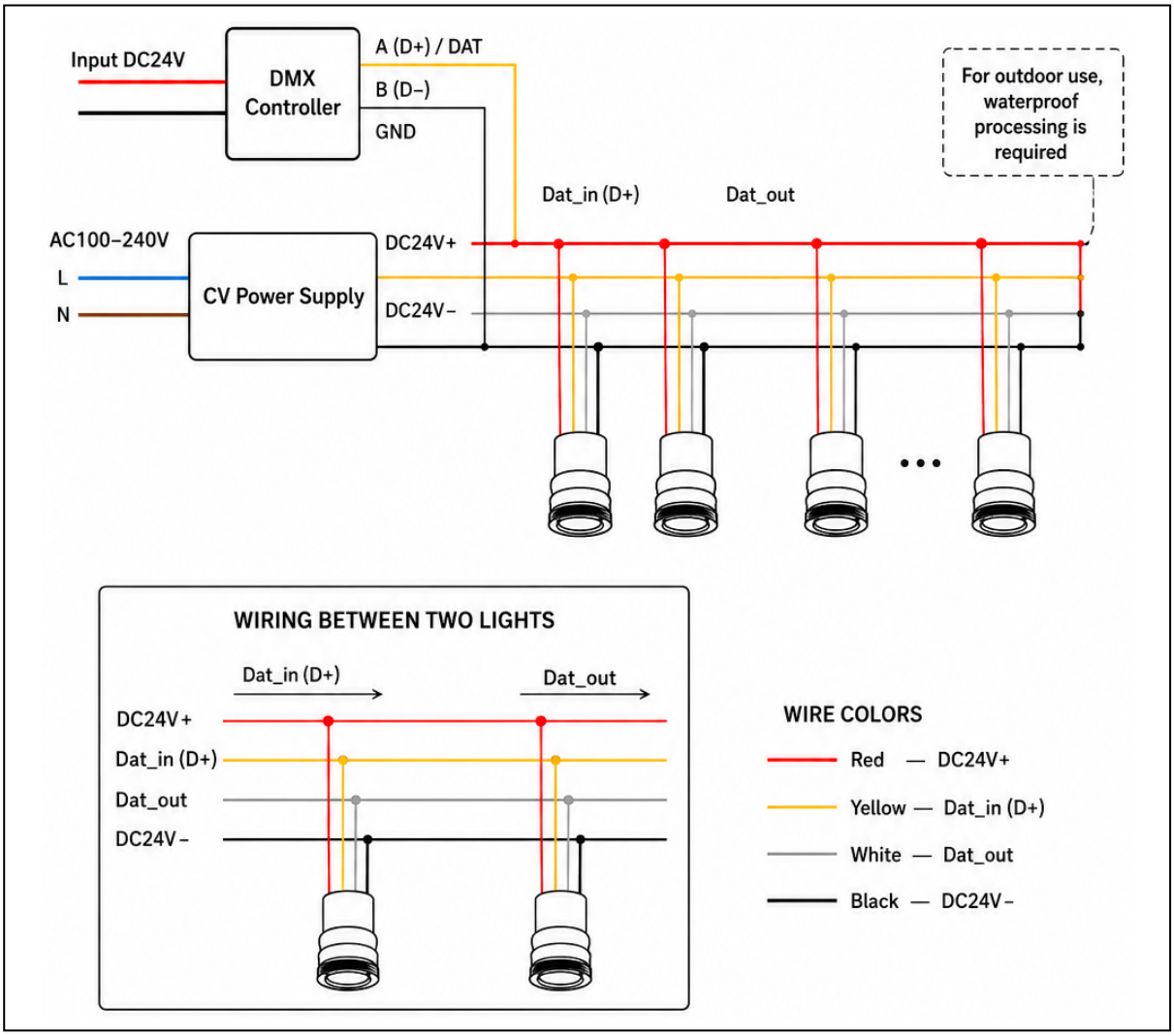
LED Module Installation & Removal:

Instructions

1. Drill a Ø 1 ³⁄₈" hole in the square handrail, confirming the tube size and wall thickness are within the required range.
2. Feed the wire through the opening and insert the module into the handrail.
3. Tighten the internal set screws to lock the module securely in place.
4. Confirm the module is seated flush and properly aligned on the underside of the handrail.



WIRING DIAGRAM FOR DMX WHITE/RGB HANDRAIL LIGHT



NOTES

- This LED handrail light is suitable for all DMX controllers available on the market.
- The signal connection to the controller uses A (D+) / DAT. B (D-) is not used.
- The signal is transmitted via a DMX decoding IC cascade (similar to the SPI protocol).
- The address code is automatically written after power-up. No manual setting is required.
- The signal and power supply include lightning protection and anti-interference design, ensuring high reliability and long service life.
- This handrail light is easy to install in narrow handrail pipes.
- The bus uses three wires (two power wires and one signal wire).
- The distance between two lights should be less than 7 meters.

The maximum one-way distance should not exceed 170 pieces.

RGB / AC to DC (DMX WiFi)

This solution enables the RGBW strip light to function with a DMX512 Dimmable LED Driver AC to DC-DMX WiFi system. It includes the following components:

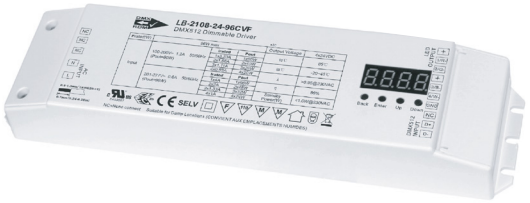
LB-2108-24-96CVF-UL Driver – Powers the RGBW strip light and integrates the DMX decoder, converting the DMX signal to control signals that adjust the color and brightness of the strip light.
Converter – Wired to the LB-2108-24-96CVF-UL Driver, it processes the DMX control signals, ensuring the RGBW strip light operates properly, allowing for smooth adjustments to color and brightness.
DMX-WIFI Wall Controller – Sends the DMX WiFi signal wirelessly to the converter and the LB-2108-24-96CVF-UL Driver, enabling remote control of the RGBW strip light.
LED25W-24 Power Supply – Used in multiple locations: one powers the wall controller by converting 120V AC from the outlet to 24V DC, while another powers the converter, ensuring all components receive the proper voltage.

This configuration ensures seamless, remote control of the RGBW strip light through the DMX512 Dimmable LED Driver AC to DC-DMX WiFi system, providing precise control over the color and brightness of the strip light, while maintaining proper power conversion and signal processing throughout the system.

Power Supply

LB-2108-24-96CVF-UL

Input Voltage	120-277 VAC
LED Channels	4
Frequency Range	50/60Hz
DC Voltage	24V DC
Dimensions	9.6”X2.5”X1.2”



LB-2108-24-96CVF-UL

Converter

LB-2817DMX

Output Signal	DMX512 Signal
Voltage	12-24 VDC
Operating Temperature	0-40°C / 32°F-104°F
Dimensions	7”X1.8”X0.8”

LED25W-24
(Power Supply)

LB-2817DMX

Wall Control

WALL CONTROL

LB-2812Wi

Output Signal	DMX + WiFi Signal
Power Supply	12-24 VDC

LED25W-24 (Power Supply)
(Optional for wall controller)

Control 3 zones.

S33 LED Module