

ENR 230X230

MARINE GRADE ENGINE ROOM LIGHT

Designed for Marine Electrical Instability

IP65 Front Rated | 80V Extended Tolerance | Zero EMI | Integrated Aluminum Driver

Thermal & High Voltage Protection | Custom Sizes & Finishes Available

STEIN TECHNOLOGY



Automatic Thermal Regulation
With Adaptive Power Control



Efficient heat dissipation design
minimizes overheating and
reduces fire risk.



EMI-Free Operation

TECHNICAL SPECS

ELECTRICAL DATA

| | |
|----------------------------|---|
| System Power | 9 Watt |
| Nominal Operating Voltage | 20-30V DC |
| Extended Voltage Tolerance | Up to 80V DC (temporary operation) |
| Energy Efficiency | Up to 98% |
| Dimming | PWM dimmable (compatible with 1-10V and DALI systems via suitable driver) |

OPTICAL PERFORMANCE

| | |
|-----------------------------|------------------------|
| Luminous Flux | 1080 lm |
| Luminous Efficacy | 120 lm/W |
| Color Rendering Index (CRI) | ≥90 |
| Beam Angle | 140° |
| Rated Lifetime | L70 lifetime >100,000h |
| Color Consistency | 3-Step MacAdam Ellipse |

PROTECTION & SAFETY

| | |
|---------------------------------|---|
| Reverse Polarity Protection | Full electronic protection |
| Surge Immunity | IEC transient protection compliant up to 200V (short-duration spikes) |
| Driver Construction | Fully integrated aluminum-housed driver (no external plastic box) |
| Linear Constant Current Driver | No Switching Frequency |
| Flicker | 0% Flicker (No PWM / No High Frequency Modulation) |
| Ingress Protection Architecture | IP65 front exposure / IP64 ceiling cavity protection |

THERMAL MANAGEMENT

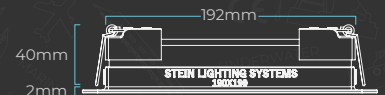
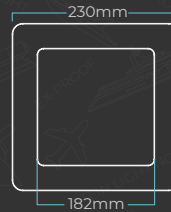
| | |
|---|---|
| Operating Ambient Temperature | -40°C to +60°C |
| Max Case Temperature | 70°C |
| Adaptive Thermal Regulation | Continuous thermal monitoring with dynamic current adjustment |
| Confined-Space Thermal Stability | Stable operation in low-ventilation ceiling cavities. |
| Adaptive Overvoltage Thermal Regulation | Automatic current derating under extended voltage conditions |

LIGHT COLORS



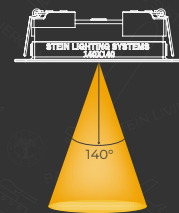
DIMENSIONS

These dimensions can be optionally changed

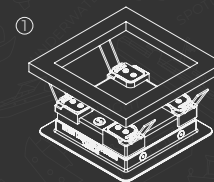


194X194mm

BEAM ANGLE



MOUNTING



• Drill the ceiling panel according to the specified dimensions.

• Fold the product's spring clips backward as shown, then insert the product into place.

FINISHES



Black Plastic Frame (PLA)



White Plastic Frame (PLA)

