

GROTE 90MM LOW AND HIGH BEAM HEADLAMP MODULES



DATA SHEET

FORWARD LIGHTING



Grote's New Generation of 90mm Headlight Modules Provide Industry-Leading Efficiencies

EFFICIENCY

- Patent-pending, bi-optic design utilizes the latest OSRAM high-performance LED technology. Highly efficient reflector and lens optics allow for a smaller lamp profile and lower heat generation.

FLEXIBILITY

- High and low beams meet both US FMVSS (DOT) and European ECE (R149) standards
- Variable voltage range of 9-32 volts allows for use on a wide range of vehicles

SAFETY

- Wide pattern reaches beyond the edges of the road for enhanced safety and visibility

DURABILITY

- 90mm lens is made of hard-coated, high-impact polycarbonate that resists chipping and UV degradation
- Cast-aluminum housing features a seal-integrated connector
- Rated at IP69K, the highest protection level against dust and water intrusion

MOUNTING

- Designed to be a drop-in replacement for standard HID and halogen modules
- Compatible with 2- and 4-point rigid mounting or 3-point mounting using adjustable hardware

DESIGNED AND MANUFACTURED IN THE USA

| PART NUMBER | DESCRIPTION |
|-------------|---------------------------|
| 84581 | HIGH BEAM INDIVIDUAL PACK |
| 84581-3 | HIGH BEAM BULK PACK |
| 84591 | LOW BEAM INDIVIDUAL PACK |
| 84591-3 | LOW BEAM BULK PACK |

PRODUCT SPECIFICATIONS

OPTICS

| | |
|------------------------|-------------------|
| LOW BEAM - CALCULATED | 1250 (RAW) |
| LOW BEAM - CONTINUOUS | 830LM (EFFECTIVE) |
| HIGH BEAM - CALCULATED | 1650 (RAW) |
| HIGH BEAM - CONTINUOUS | 950LM (EFFECTIVE) |
| COLOR TEMPERATURE | 6100 K |

ELECTRONIC CHARACTERISTICS

| | |
|---|----------------------------------|
| INPUT VOLTAGE | 9 - 32V DC |
| LOW BEAM INPUT CURRENT | 1.13A @ 13.8V AND 0.55A @ 28V |
| HIGH BEAM INPUT CURRENT | 1.37A @ 13.8V AND 0.66 @ 28V |
| LOW BEAM POWER CONSUMPTION | 15 WATTS |
| HIGH BEAM POWER CONSUMPTION | 18 WATTS |
| INPUT CONNECTOR | INTEGRATED 2-PIN DT |
| OPERATING TEMPERATURE RANGE | -40°C TO +85°C -40°F TO +185°F |
| REVERSE POLARITY PROTECTION | ✓ |
| OVERHEAT PROTECTION | ✓ |
| ESD, OVERVOLTAGE AND TRANSIENT PROTECTION | ✓ |
| UNDERVOLTAGE LOCKOUT | ✓ |

MECHANICAL CHARACTERISTICS

| | |
|-----------------------------|---|
| WEIGHT | 527G 1.2 LBS |
| HOUSING MATERIALS | DIE-CAST ALUMINUM, BLACK POWDER-COATED FINISH |
| LENS MATERIALS | SCRATCH- AND UV-RESISTANT HARD-COATED POLYCARBONATE |
| IP CODE | IP69K |
| MOUNTING | RECESSED INTO VEHICLE BODY, 2- AND 4-POINT RIGID OR 3-POINT USING ADJUSTMENT HARDWARE |
| MAXIMUM STORAGE TEMPERATURE | -55°C TO +110°C -67°F TO +230°F |

RATINGS AND CERTIFICATIONS

| | |
|-------|--|
| ECE | R10, R149 SYMMETRICAL (R113) |
| FMVSS | LOW BEAM - 108 LB1V HIGH BEAM - 108 UB2 |

FOR MORE
INFORMATION
VISIT **GROTE.COM**

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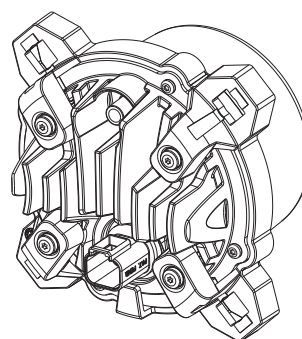
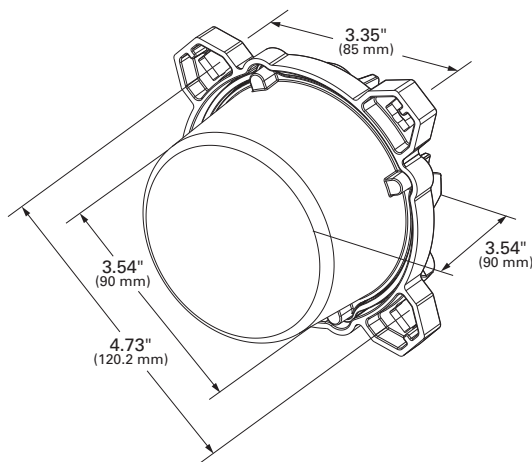
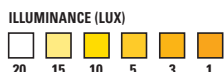
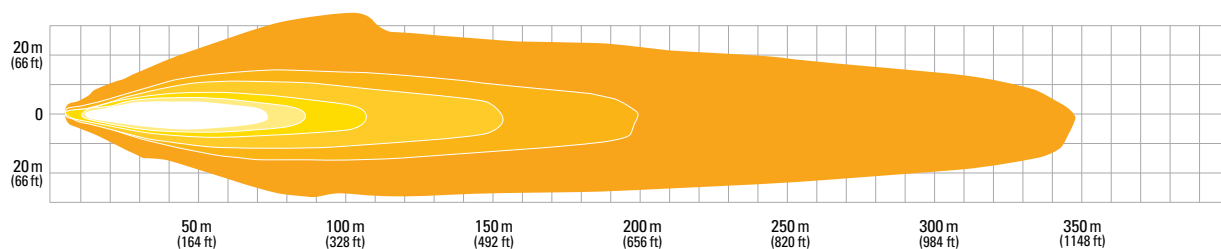
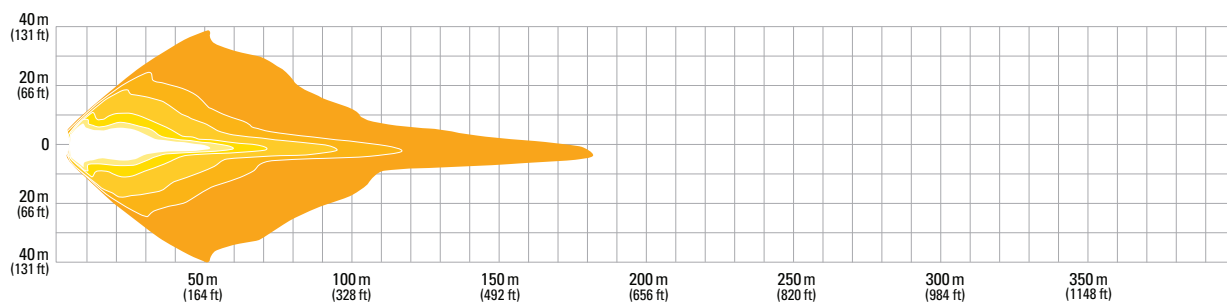


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