

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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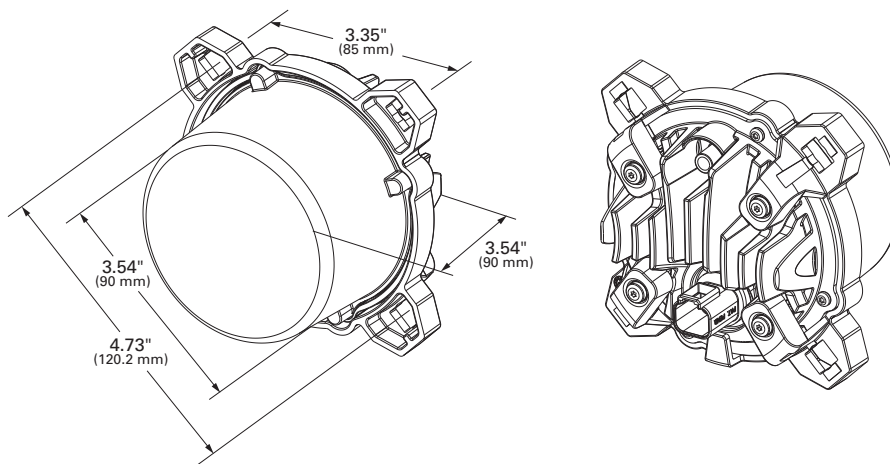
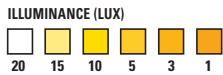
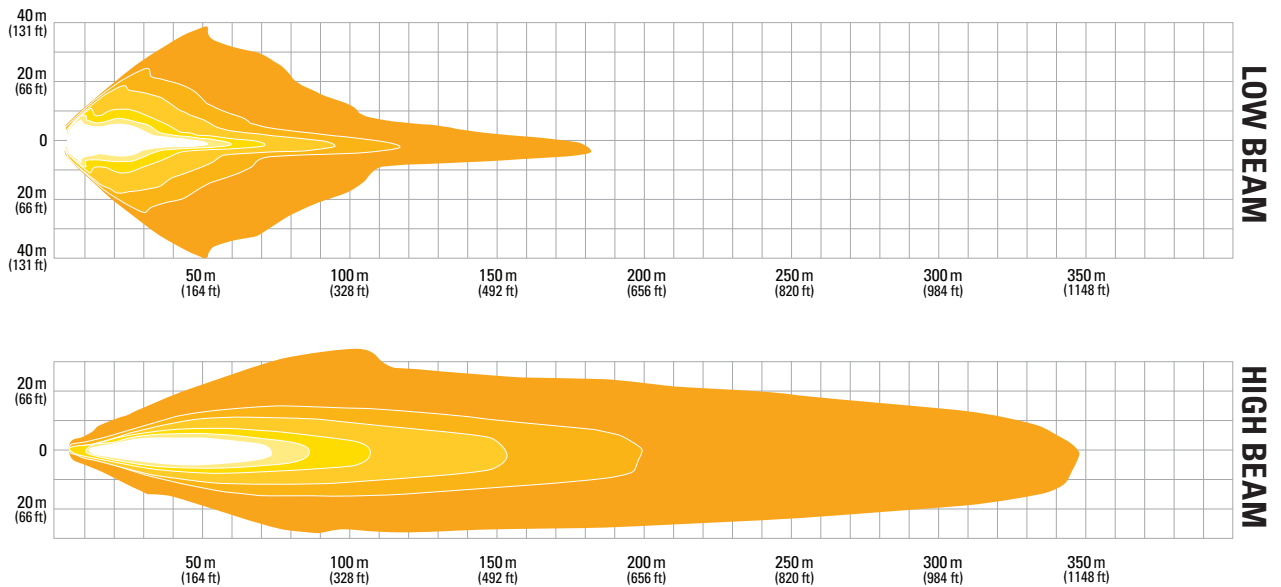


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