

GROTE 90MM COMBINED HIGH & LOW BEAM LED HEADLAMP



DATA SHEET

FORWARD LIGHTING



90mm Combination Headlamp: More Safety and Light on the Streets

FLEXIBILITY

- Three different light patterns available:
R112 | asymmetrical; R113 | symmetrical; SAE | North American approval
- Variable 9–32 voltage range allows for use on a wide range of vehicles
- Low profile lamp allows for installation flexibility

SAFETY

- Brighter than common headlamps, the powerful 650 lumen low beam and 1300 lumen high beam provide enhanced safety and visibility

DURABILITY

- 20,000-hour LED predicted life
- Protects against nearly all weather conditions, rated at IP69K, the highest protection level against dust and water intrusion

MOUNTING

- Easy handling and fast assembly with the four-terminal DT-Connector

DESIGNED AND ENGINEERED IN GERMANY

PART NUMBER	DESCRIPTION
64X01	ASYMMETRICAL LIGHT DISTRIBUTION ECE R149, ECE R112 LEFT-HAND DRIVE
64X11	SYMMETRICAL LIGHT DISTRIBUTION ECE R149, ECE R113
64X21	FMVSS 108 (SAE)

PRODUCT SPECIFICATIONS

OPTICS

LOW BEAM – CALCULATED	2700LM (RAW)
LOW BEAM – CONTINUOUS	650LM (EFFECTIVE)
HIGH BEAM – CALCULATED	5400LM (RAW)
HIGH BEAM – CONTINUOUS	1300LM (EFFECTIVE)
COLOR TEMPERATURE	5700 K

ELECTRONIC CHARACTERISTICS

INPUT VOLTAGE	9 – 32V DC
LOW BEAM INPUT CURRENT	1.6 @ 13.8V AND 0.8A @ 28V
HIGH BEAM INPUT CURRENT	3.2 @ 13.8V AND 1.6A @ 28V
LOW BEAM POWER CONSUMPTION	23 WATTS
HIGH BEAM POWER CONSUMPTION	47 WATTS
INPUT CONNECTOR	INTEGRATED 4-PIN DT
OPERATING TEMPERATURE RANGE	-40°C TO +60°C -40°F TO +140°F
REVERSE POLARITY PROTECTION	✓
OVERHEAT PROTECTION	✓
ESD, OVERVOLTAGE AND TRANSIENT PROTECTION	✓
UNDERVOLTAGE LOCKOUT	✓

MECHANICAL CHARACTERISTICS

WEIGHT	1350 G 2.987 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, R112, R113, R149
FMVSS	LOW BEAM - 108 LB2V HIGH BEAM - 108 UB2

FOR MORE
INFORMATION
VISIT **GROTE.COM**

Grote Industries, Inc. 2600 Lanier Drive, Madison, Indiana U.S.A. 47250-0550
U.S. 800.628.0809 | Europe +49 9422 40331-0 | China +86.21.5774.9633
Canada 800.268.5612 | Mexico +(52) 818262 4412



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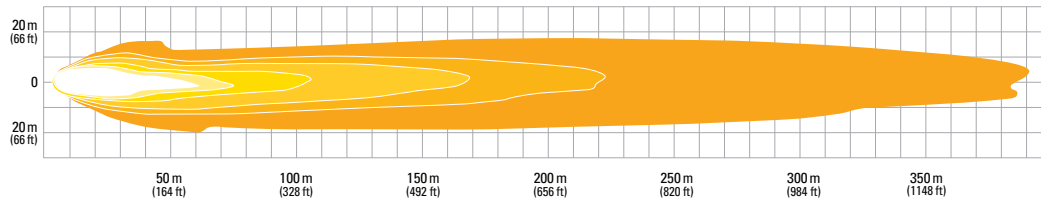


DATA SHEET

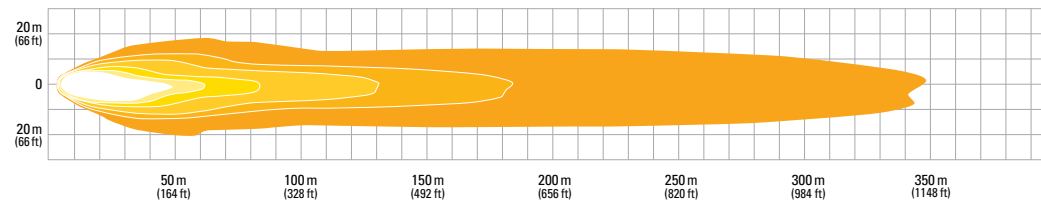
FORWARD LIGHTING

HIGH BEAMS

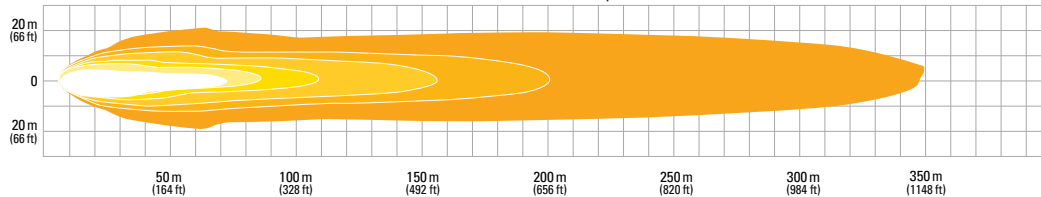
ECE 112 HIGH BEAM LIGHT DISTRIBUTION | 64X01



ECE 113 HIGH BEAM LIGHT DISTRIBUTION | 64X11

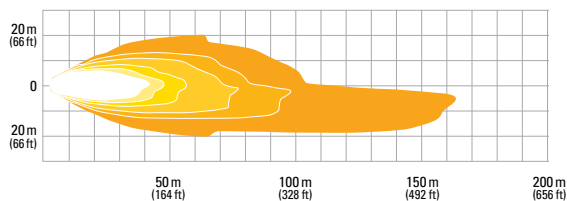


FMVSS 108 (SAE) HIGH BEAM LIGHT DISTRIBUTION | 64X21

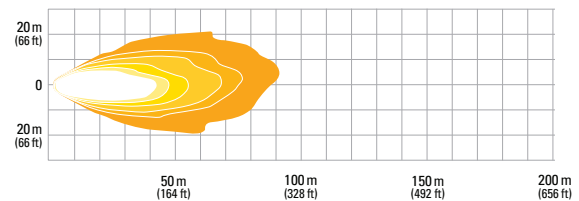


LOW BEAMS

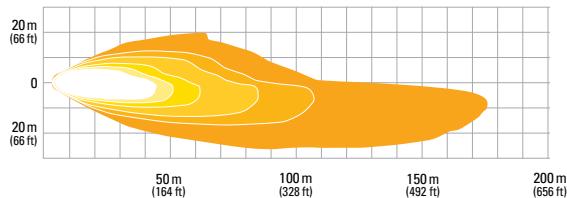
ECE 112 LOW BEAM LIGHT DISTRIBUTION | 64X01



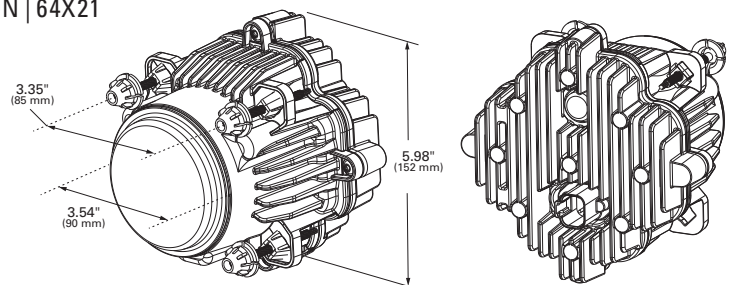
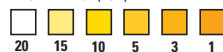
ECE 113 LOW BEAM LIGHT DISTRIBUTION | 64X11



FMVSS 108 (SAE) LOW BEAM LIGHT DISTRIBUTION | 64X21



ILLUMINANCE (LUX)



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