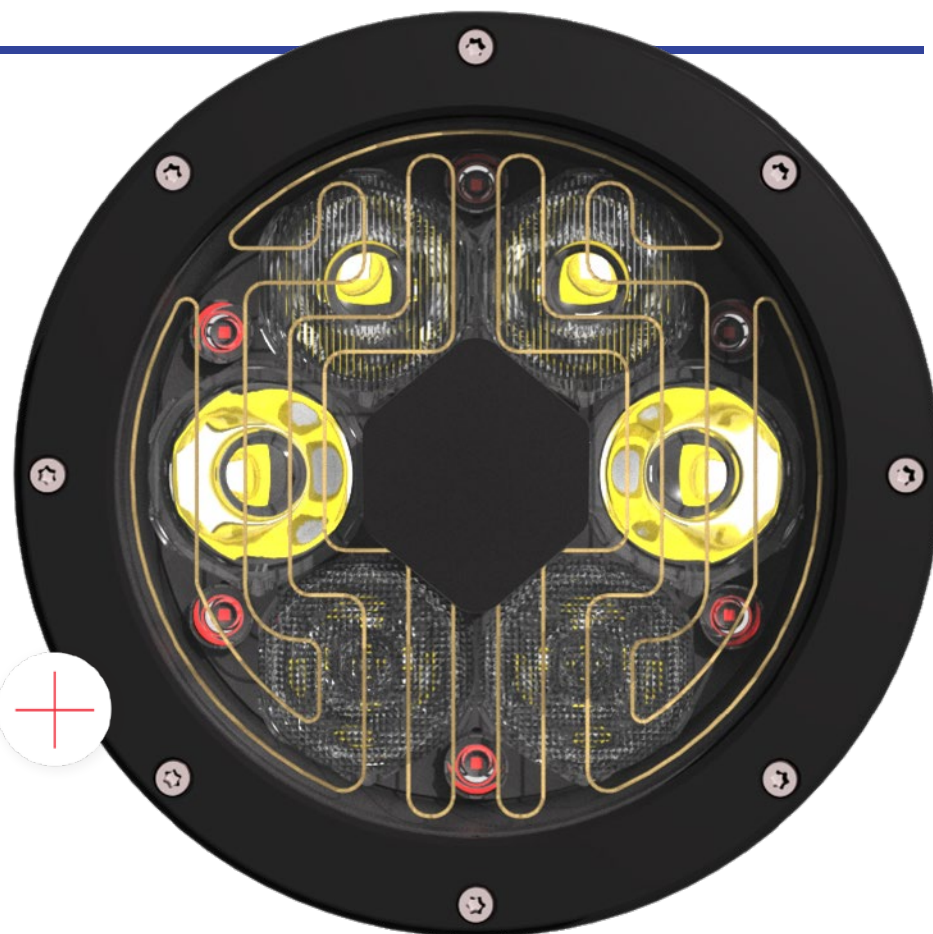


FOR EXTREME  
CONDITIONS  
(-10 °F...+158 °F)



Easy to install—Can be used as a replacement  
for old halogen or incandescent lamps.

# TEKNOWARE MULTIBEAM

## HEADLIGHT AND TAIL LIGHT IN A COMPACT AND EFFICIENT UNIT

Designed specifically for metro applications in the US market, Teknoware Multibeam headlight & tail light combines both headlight and tail light functionality in a single compact and efficient unit. The innovative design enables operators to modernise existing fleets with a reliable, long-lasting lighting solution that fits directly into standard PAR46 assembly collars.

Engineered as a direct replacement for traditional halogen and incandescent lamps, the unit offers easy installation while significantly reducing maintenance requirements. Its robust, shockproof construction, optimised thermal management, and weatherproof design ensure dependable performance in demanding railroad environments.

Advanced self-diagnostic capabilities support proactive maintenance, helping operators maximise fleet availability and reduce lifecycle costs. Manufactured in the USA and compliant with Buy America requirements, Teknoware Multibeam delivers a durable, high-performance solution for modern metro systems.

# TEKNOWARE MULTIBEAM



Light off

Headlight

Tail light



## Compact and efficient

Headlight and tail light modes.

## Reliability

Long service life. Optimised cooling system with a heat sink.

## Easy installation

Designed to fit old PAR46 assembly collars.

## Self diagnostics

Indicates LED faults through diagnostic output.

## Weatherproof

Designed to withstand any weather conditions, UV-resistant front glass.

## Fire protection

NFPA 130, BSS 7239.



INNOVATIVE  
DESIGN



MULTIFUNCTIONAL



SHOCK AND  
VIBRATION PROOF



SELF  
DIAGNOSTICS



DESIGNED  
FOR METROS

## Light intensity specifications

### Headlight according to FMVSS 108 Upper Beam #2 (UB2) according to Table XVIII

Headlight full mode optical axis 50 000 - 75 000cd

All other angles according to FMVSS 108 Upper Beam #2 (UB2) according to Table XVIII

### Taillight according to US Code of Federal Regulations 49 CFR § 221

Taillight optical axis 200 - 300cd

All other angles according to US Code of Federal Regulations 49 CFR § 221

## Product characteristics

|                        |                       | Input voltage           | Voltage, min-max | Features     | Power consumption Headlight mode, max (+/-10%) | Power consumption Tail light mode, max (+/-10%) |
|------------------------|-----------------------|-------------------------|------------------|--------------|------------------------------------------------|-------------------------------------------------|
| Product ID             | TWQ01011              | 24, 37.5, 75 or 110 VDC | 16,8-150 VDC     |              | 16,3 W                                         | 5,6 W                                           |
|                        | TWQ01111              | 24, 37.5, 75 or 110 VDC | 16,8-150 VDC     | Heated glass | 26,3 W                                         | 15,6 W                                          |
| Weight                 | 2,2 lbs               |                         |                  |              |                                                |                                                 |
| Dimensions (H x L x D) | 5,62" x 5,62" x 4,06" |                         |                  |              |                                                |                                                 |
| Connectors             | #6-32 screw terminals |                         |                  |              |                                                |                                                 |
| Lumen maintenance      | >50 000h / L80        |                         |                  |              |                                                |                                                 |

## Material

|        |                                                         |
|--------|---------------------------------------------------------|
| Casing | Cast aluminum, powder painted<br>Color: Black, RAL 9005 |
| Glass  | Tempered glass                                          |

## Environmental conditions for electronics

|                                            |                                                         |
|--------------------------------------------|---------------------------------------------------------|
| Ambient temperature range                  | -10 °F to +158 °F                                       |
| Degrees of protection                      | IP66 according to IEC 60529 (Screw connectors excluded) |
| Requirements for electronic equipment used | According to EN50155                                    |
| Fire protection level                      | NFPA 130, BSS 7239                                      |
| Shocks and vibrations                      | IEC 61373 Cat. 1 Class B                                |

## EMC

|                        |                           |
|------------------------|---------------------------|
| Immunity and emissions | According to EN 50121-3-2 |
|------------------------|---------------------------|

## Product features

- Product is protected against reverse input voltage polarity
- Heated glass is activated at temperatures below ~+41 °F
- Self diagnostics
- Optional dimming function for headlamp ~30% from full mode
- Optional assembly collars also available from Teknoware

## Dimensions (inch)

