

# 027 "HI-LIGHT" SERIES

## HIGH INTEGRITY EMERGENCY LIGHTING



### FEATURES

- High intensity white LED light source
- Self-check battery monitor
- Compact - for retrofit and new build
- In service and fully compliant with the RSSB Ufton Report's mandatory requirements
- BR Cat No. 064/007511

### BENEFITS

- High reliability
- Illuminates when power is lost
- Manufactured to accommodate any carriage specification
- AV/ST 9001 compliant
- EN50155, EN50121 and RIA12 compliant

MARL Part Number	027-997-25-?? (Ask Sales for variations)
Typical Light Output	47 lux at a distance of 2.12m centrally (27 lux absolute minimum based on LED manufacturers rank distribution)
Voltage Input	110Vdc nominal, Un. 77 Vdc minimum, 0.7 Un. 137.5 Vdc maximum, 1.25 Un
Input Current Fast Charge Mode	Nominal 45mA, 5W
Input Current Top-up Charge Mode	Nominal 18mA, 2W
Input Current Maintenance Charge Mode	12mA
Input Current Absolute Maximum	55mA, 6W
Charge Time	< 4 hours
Discharge Time	> 6 hours
Battery Fault Condition if Discharged	< 3 hours when full charge achieved (Top-up charge has been entered)
Temperature rating	0°C to 40°C (Tested to 55°C under discharge conditions)

### DESIGN CONSIDERATIONS

#### Electro-Static Discharge (ESD)

Build up of electro-static discharge occurs in many situations involving people moving and handling products. The range of possible situations is very diverse but voltage levels as high as several thousand volts can and do arise in many individual situations. When an operator charged up to these levels handles a static sensitive device, there is a very probable likelihood that the device will be irreversibly damaged. It is essential that precautions are taken at all stages during manufacture and assembly of these products. Although LEDs were never considered to be static sensitive devices, changes in manufacturing technology and materials used to produce higher intensity products over a large range of the wavelength spectrum

have changed this. MARL has an approved system of ESD control from goods in, through production and into final packing and dispatch. MARL recommend all users of LED based products follow the current BSI guidelines for protection of electronic devices from electrostatic phenomena.

#### Voltage, Current and Temperature

The forward voltage / current value of an LED is dependent upon the ambient temperature of the environment in which it is operated. Therefore, care must be taken to operate the LED at the correct voltage / current values, depending upon the ambient temperature.

MARL should be contacted if the device is to be operated outside the temperature range specified. MARL accept no liability for any product that is operated outside the stated voltage or temperature range.

#### Heat Management

Heatsinking is not necessary if product is used in standard indoor environments where ambient temperatures do not exceed 50°C. Our testing at Ta = 25°C shows LED solder point temperatures stabilising at 68°C. Maximum allowed LED solder point temperature is 105°C.

To order please contact us on +44 (0) 1229 582 430

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