



R50 LS1-C Reflector Series for the Philips Lumileds LUXEON S LED

- Designed for use *only* with the Tyco Electronics Type LS solderless socket (with latch)
- High efficiency
- Available in three beam angles

The R50 LS1-C reflector series has been specifically designed for the Philips Lumileds LUXEON S LED.

The software-optimized, tapered profile, combined with precision beam shaping facets provides a well-defined, uniform illumination spot.

The reflector's high collection efficiency typically captures up to 85% of the total flux emitted from the LED.

The reflector is designed to mount to an available Tyco Electronics Type LS solderless socket.

Typical applications are:

- Retail display lighting
- General illumination
- Interior lighting
- Hospitality Fixtures
- Custom PAR and Downlights



LUXEON S is a trademark of Philips Lumileds, Inc. For technical information about these LEDs please refer to the LUXEON S datasheet or visit www.philipslumileds.com/

TE Solderless LED Socket, Type LS is a trademark of Tyco Electronics (TE Connectivity).

FRAEN CORPORATION

80 Newcrossing Road
Reading, MA 01867
USA
Phone: +1 781.205.5300
Fax: +1 781.942.2426

FRAEN S.r.l.

Via Stelvio, 12
20019 Settimo M. (MI)
Italy
Phone: +39-02-35.456.1
Fax: +39-02-335.456.239

Inquiries: optics@fraen.com
Website: www.fraenomg.com/

Distributed by Future Electronics



Americas: 1-888-LUXEON2

askluxeon@FutureElectronics.com

Europe: 00-0800-44FUTURE

luxeon.europe@FutureElectronics.com

Asia: 1-800-LUMILEDS

lumileds.asia@FutureElectronics.com



General Characteristics

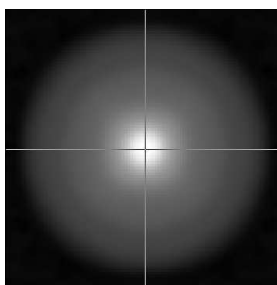
Materials: Black Polycarbonate with vacuum aluminum coating, protected by clear coat lacquer.
 Operating Temperature range: -40deg C / + 100 deg C
 Storage Temperature range: -40deg C / + 100 deg C

Please note that small defects in the reflective coating, flow lines and weld lines on the surfaces of the reflectors are acceptable if the optical performance of the reflector is within the specification described in the section "OPTICAL CHARACTERISTICS"

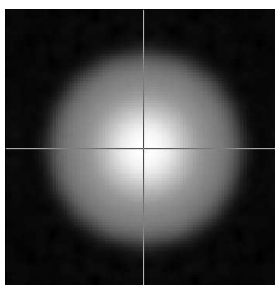
IMPORTANT NOTE – Reflector handling and cleaning:

- **Handling:** Always handle the reflectors by the outside surfaces or flange. Never touch the inside surfaces of the reflector with fingers as finger oils and contamination will absorb or refract light.
- **Cleaning:** Clean reflectors only if necessary. Use only soap and water to clean the surfaces and reflectors. Never expose the reflectors to alcohol, as it will damage the plastic.

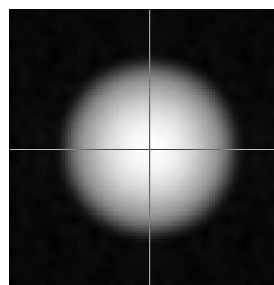
Optical Characteristics:



Narrow Beam*



Medium Beam*



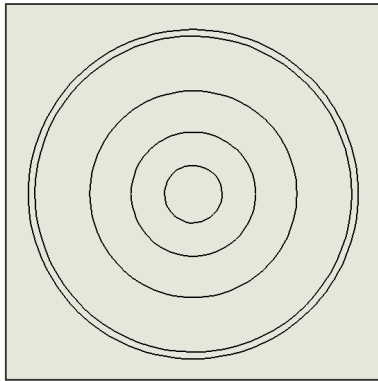
Wide Beam*

| Reflector Information | | Reflector Performance* | | |
|-----------------------|----------------|--------------------------------|--------------------------------|--------------------------|
| Part Number | Reflector Name | On-axis intensity ¹ | Beam Angle (FWHM) ² | Field Angle ³ |
| R50-N1-LS1-C | Narrow | 13.6 cd/lm | 9.7° | 22° |
| R50-M1-LS1-C | Medium | 3.5 cd/lm | 24.6° | 54° |
| R50-W1-LS1-C | Wide | 2.0 cd/lm | 42.3° | 60° |

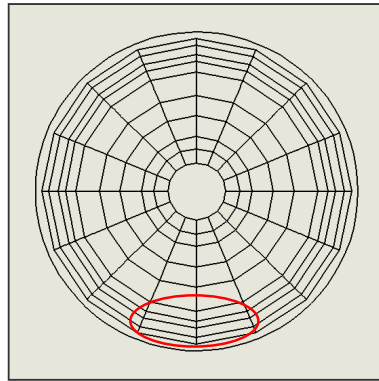
* - Simulated beam appearance and performance

- (1) Luminous intensity depends on the flux binning and tolerances of the LEDs. Please refer to the LED datasheet for more details on flux binning and mechanical tolerances.
- (2) The reported angle is the full angle measured where the luminous intensity is half of the on-axis peak intensity - FWHM.
- (3) The Field Angle is the full angle measured where the luminous intensity is 10% of the on-axis peak intensity.

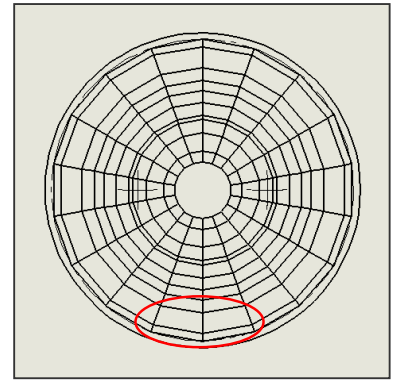
Mechanical Characteristics



Narrow Beam
(No Facets)

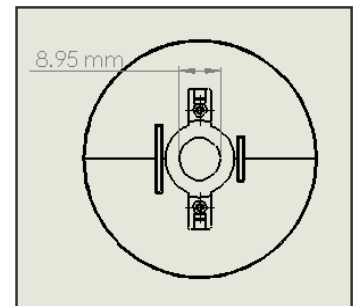
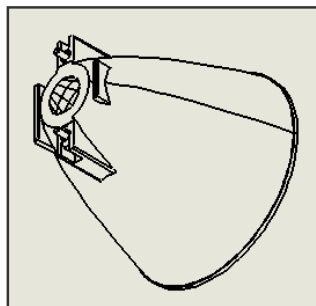
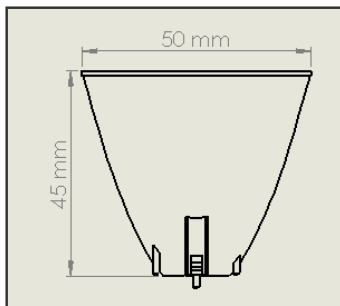


Medium Beam
(Rectangular Facets)

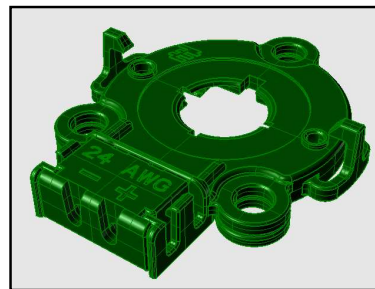
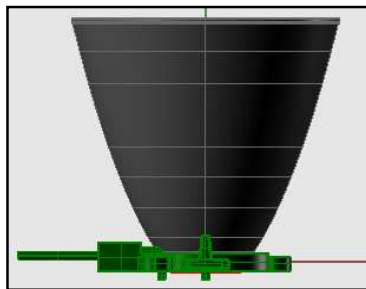


Wide Beam
(Square Facets)

Identifying the reflectors by their front views



R50 LS1-C Reflector: Profile and Dimensions



R50 LS1-C Reflector with TE Type LS socket



Ordering part numbers

R50-__1-LS1-C



Beam angle:
N = Narrow beam
M = Medium beam
W = Wide beam

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Document Revision Record

| Rev | Date | Author | Description |
|-----|-------------|------------|-------------------------------|
| 01 | 03June2011 | J. Gilbert | Initial Release |
| 00P | 17March2011 | J. Gilbert | Initial Release – PRELIMINARY |