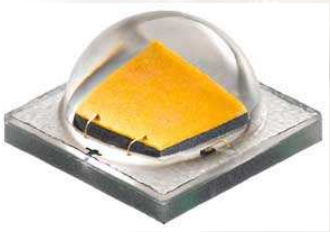
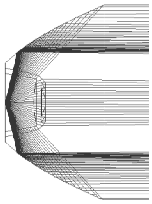
Reflectors for CREE XM-L2



A Unique Optical Concept: Hybrid Reflector

This optical design provides optimization of Fresnel lens, transmittance surfaces and reflective surfaces (silver coating with protective layer).
The reflector system used alone provides for very narrow beam applications and by adding specific windows broader light distributions are achieved.



Reflector

45mm
Or
70mm

Reflector +
Diffuser

Medium (2*15°)
Or
Super Large
(2*30°)

GAGGIONE SAS – 3, Rue de la Rolland – 01460 Montréal la Cluse – France
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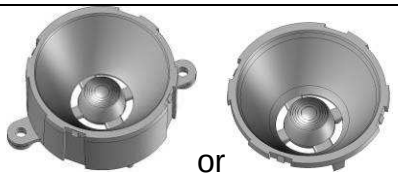
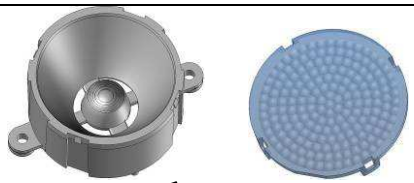
LednLight used with CREE XM-L2

Optical Characteristics, overview table

REFLECTOR Ø45mm	*LED*	*half-angle at 50% (°)*	*half-angle at 10% (°)*	*Efficiency Cd/Lm*	*Fastening*
 or LLR01N	CREE XM-L2	4.6	8.1	21.2	Use M3 screw 
 LLR01N + LLD01N	CREE XM-L2	4.6	8.2	19.7	Use M3 screw
 LLR01N + LLD01M	CREE XM-L2	12.2	20.6	3.7	Use M3 screw
 LLR01N + LLD01S	CREE XM-L2	17.1	40.9	1.4	Use M3 screw

Pictures: screen distance 0.7m

Angle Tolerance +/-10% // Values are subject to change without prior notice.

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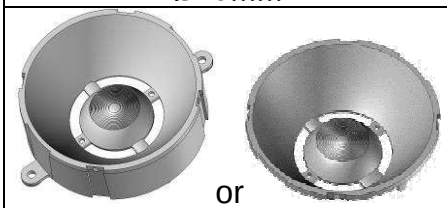
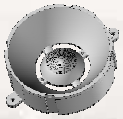
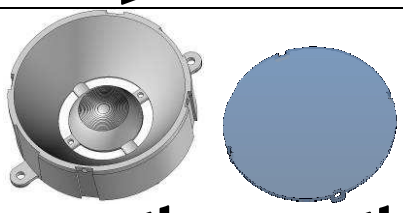
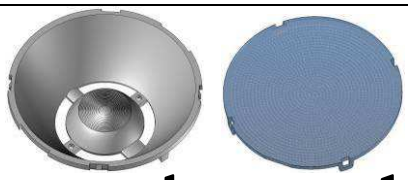
LednLight used with CREE XM-L2

Optical Characteristics, overview table

REFLECTOR Ø70mm	*LED*	*half-angle at 50% (°)*	*half-angle at 10% (°)*	*Efficacity Cd/Lm*	*Fastening*
 or LLR05N	CREE XM-L2	2.9	4.9	33.9	Use M3 screw 
 LLR05N + LLD05N	CREE XM-L2	2.9	5.0	30.5	Use M3 screw
 LLR05N + LLD05M	CREE XM-L2	13.6	25.2	2.8	Use M3 screw
 LLR05N + LLD05S	CREE XM-L2	17.1	40.9	1.4	Use M3 screw

Angle Tolerance +/-10% // Values are subject to change to change without prior notice.

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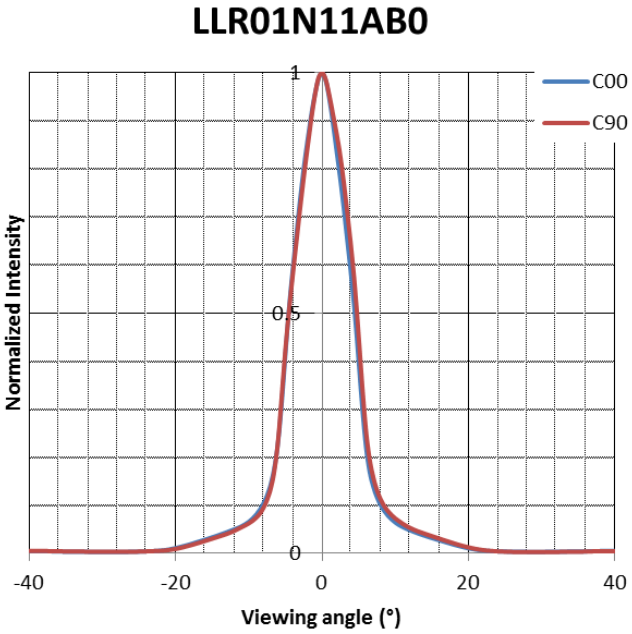
Optical characteristics and intensity distribution
Reflector LLR01N – CREE XM-L2

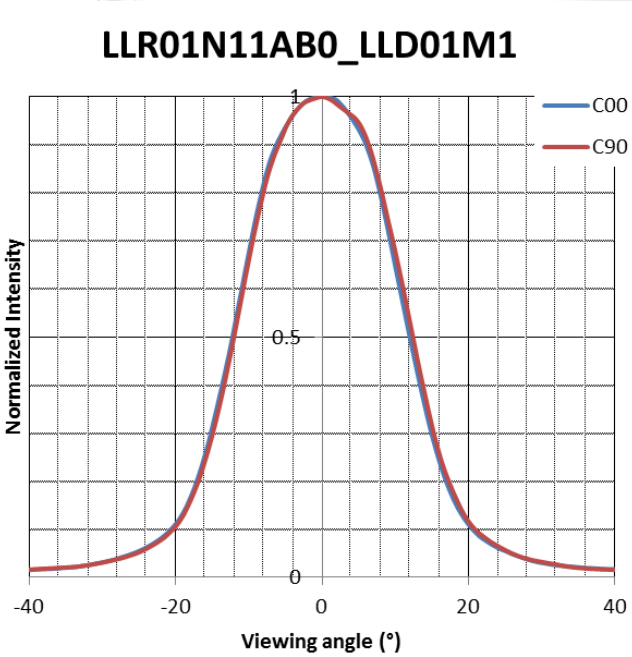
Measurements done with Ledgon 100 photogoniometer



- CREE XM-L2@100mA
- Narrow circular beam
- Efficiency in candelas per lumen : 21.2 cd/lm (19.7cd/lm with Neutral diffuser LLD01N)
- Half-angle at 50% from Imax 4.6°
- Half-angle at 10% from Imax 8.1°
- Available in two fastening options
  Ref LLR01N11AB1 using screw
  Ref LLR01N11AB0 with locating pins

Optical characteristics and intensity distribution
Reflector LLR01N+ LLD01M – CREE XM-L2

Measurements done with Ledgon 100 photogoniometer



- CREE XM-L2@100mA
- Medium circular beam
- Efficiency in candelas per lumen : 3.7cd/lm
- Half-angle at 50% from Imax 12.2°
- Half-angle at 10% from Imax 20.6°
- Available in two fastening options
  Ref LLR01N11AB1 using screw
  Ref LLR01N11AB0 with locating pins

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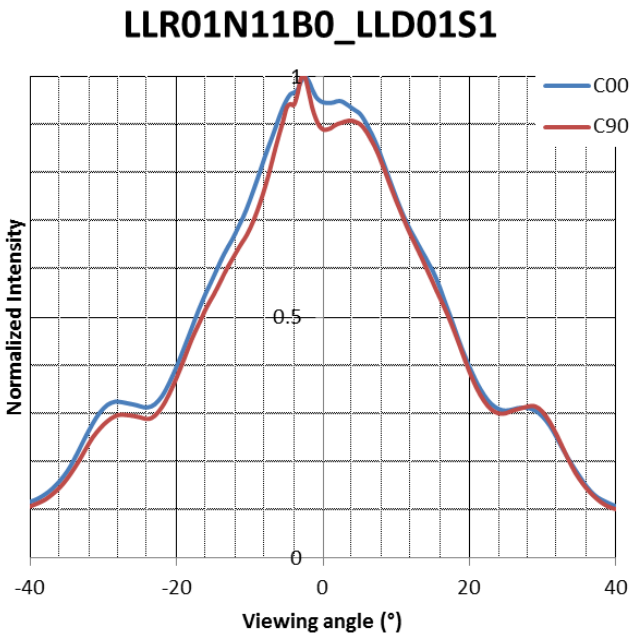
Optical characteristics and intensity distribution
Reflector LLR01N+LLD01S- CREE XM-L2

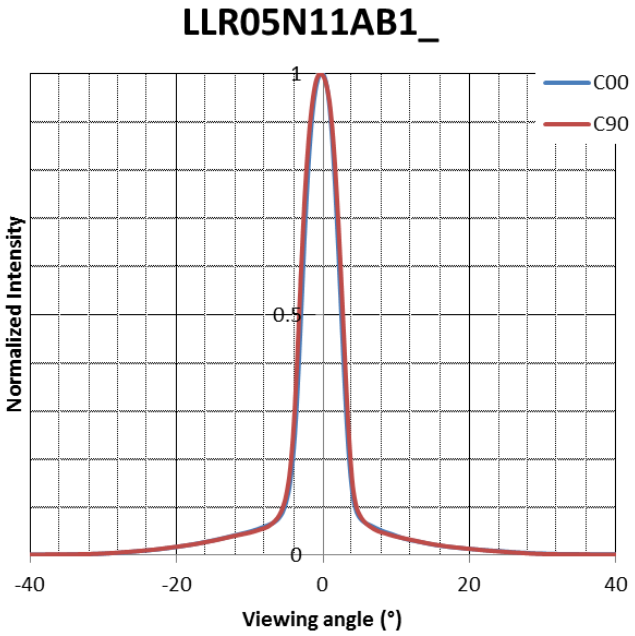
Measurements done with Ledgon 100 photogoniometer



- CREE XM-L2@100mA
- Super wide circular beam
- Efficiency in candelas per lumen : 1.4cd/lm
- Half-angle at 50% from I max 17.1°
- Half-angle at 10% from I max 40.9°
- Available in two fastening options
  Ref LLR01N11AB1 using screw
  Ref LLR01N11AB0 with locating pins

Optical characteristics and intensity distribution
Reflector LLR05N - CREE XM-L2

Measurements done with
Ledgon 100 photogoniometer



- CREE XM-L2@100mA
- Narrow circular beam
- Efficiency in candelas per lumen : 33.9 cd/lm (30.5cd/lm with neutral diffuser LLD05N)
- Half-angle at 50% from Imax 2.9°
- Half-angle at 10% from Imax 4.9°
- Available in two fastening options
  Ref LLR05N11AB1 using M3 screw
  Ref LLR05N11AB0 with locating pins

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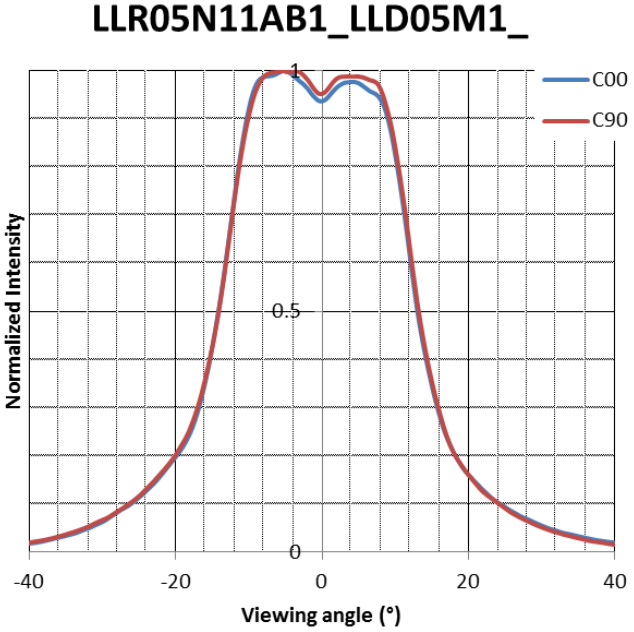
Optical characteristics and intensity distribution
Reflector LLR05N+LLD05M – CREE XM-L2

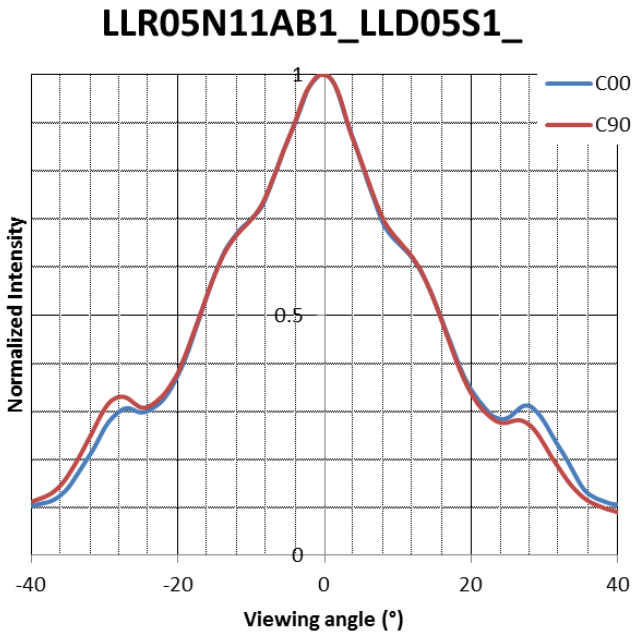
Measurements done with
Ledgon 100 photogoniometer



- CREE XM-L2@100mA
- Medium circular beam
- Efficiency in candelas per lumen : 2.8 cd/lm
- Half-angle at 50% from Imax 13.6°
- Half-angle at 10% from Imax 25.2°
- Available in two fastening options
  Ref LLR05N11AB1 using screw
  Ref LLR05N11AB0 with locating pins

Optical characteristics and intensity distribution
Reflector LLR05N+ LLD05S – CREE XM-L2

Measurements done withLedgon
100 photogoniometer



- CREE XM-L2@100mA
- Super wide circular beam
- Efficiency in candelas per lumen : 1.4 cd/lm
- Half-angle at 50% from Imax 17.1°
- Half-angle at 10% from Imax 40.9°
- Available in two fastening options
  Ref LLR05N11AB1 using screw
  Ref LLR05N11AB0 with locating pins

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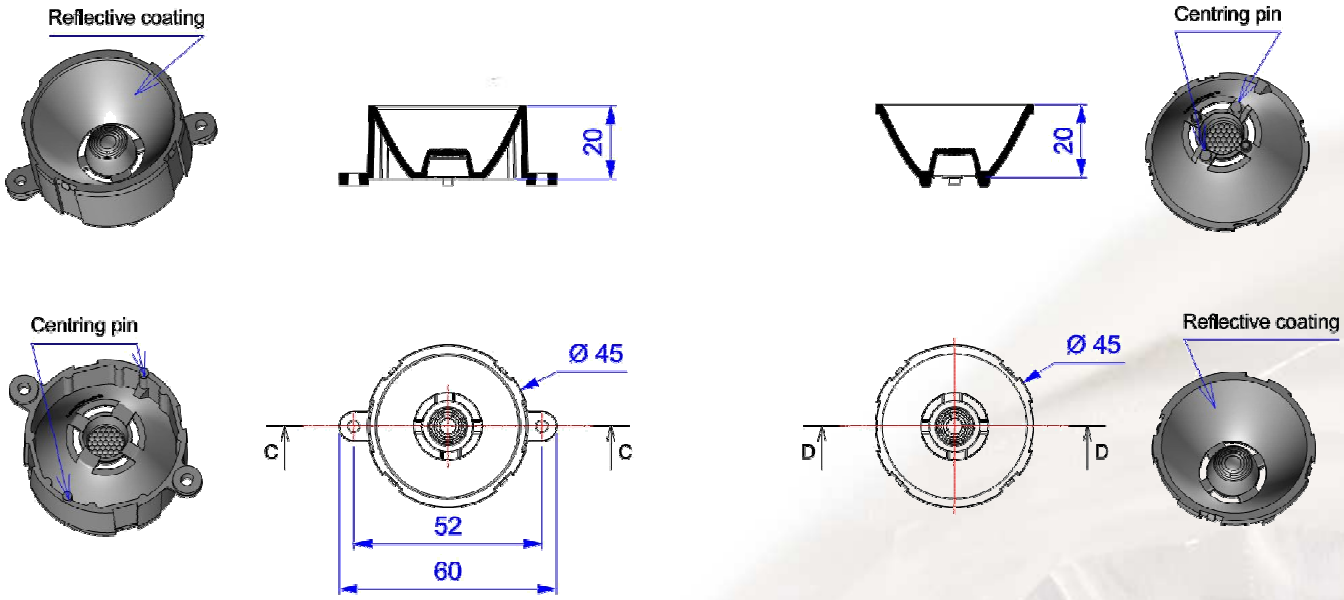
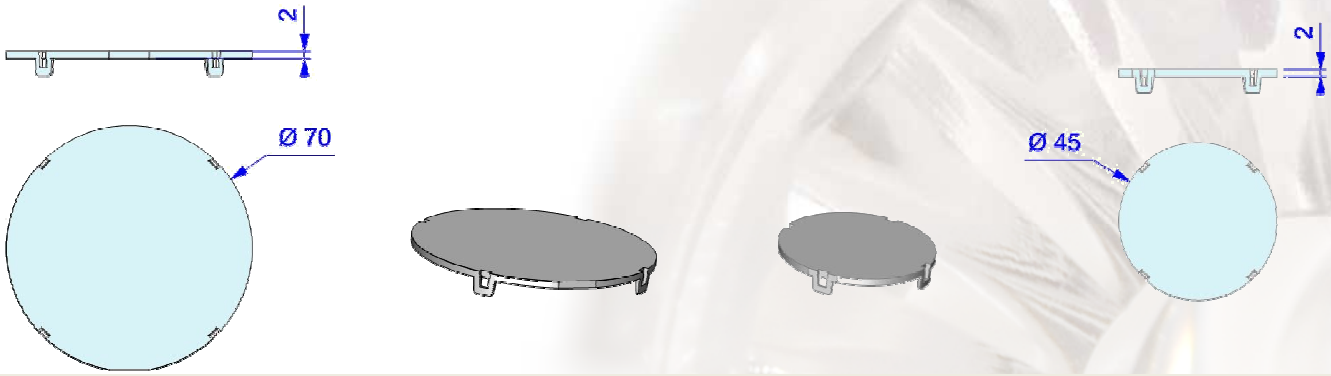
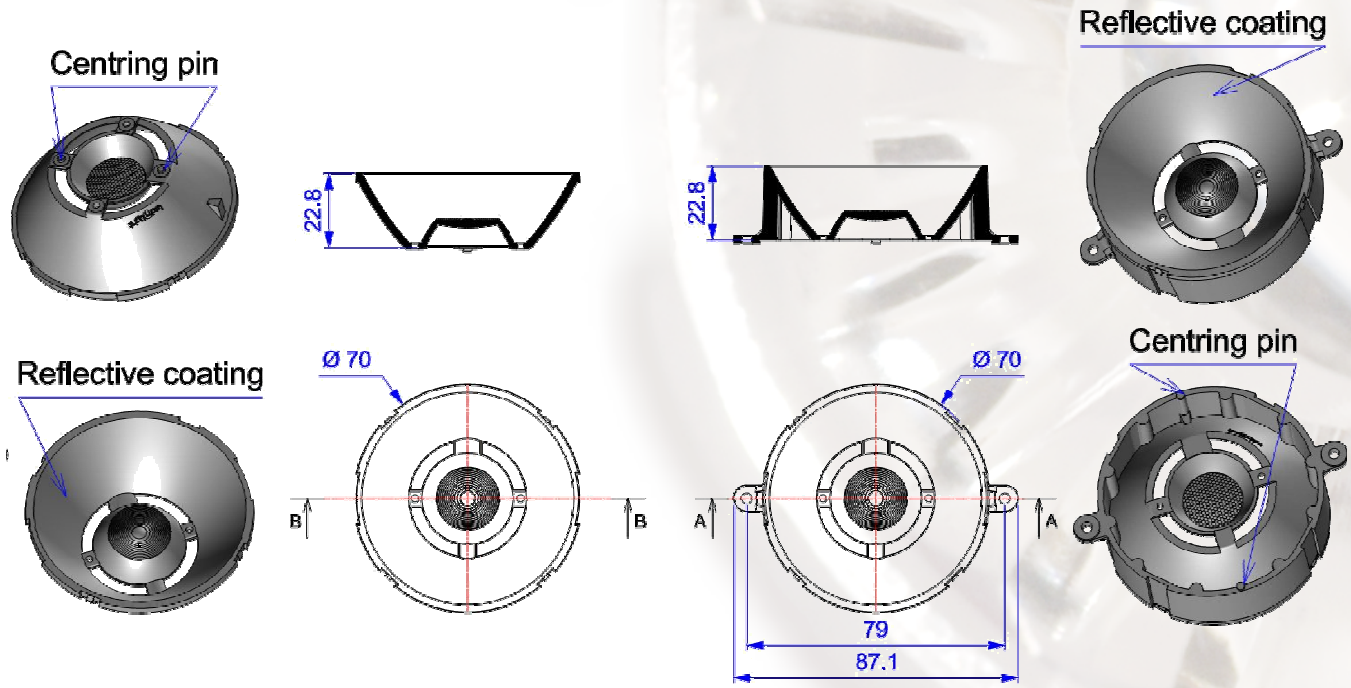
Mechanical characteristics LLR01N (45mm)



Mechanical characteristics LLD05N/M/S and LLD01N/M/S



Mechanical characteristics LLR05N (70mm)



All dimensions are in millimeters, general mechanical tolerance +/-0.15 mm (standard NF T 58 -000 cat. 4, reduced class)

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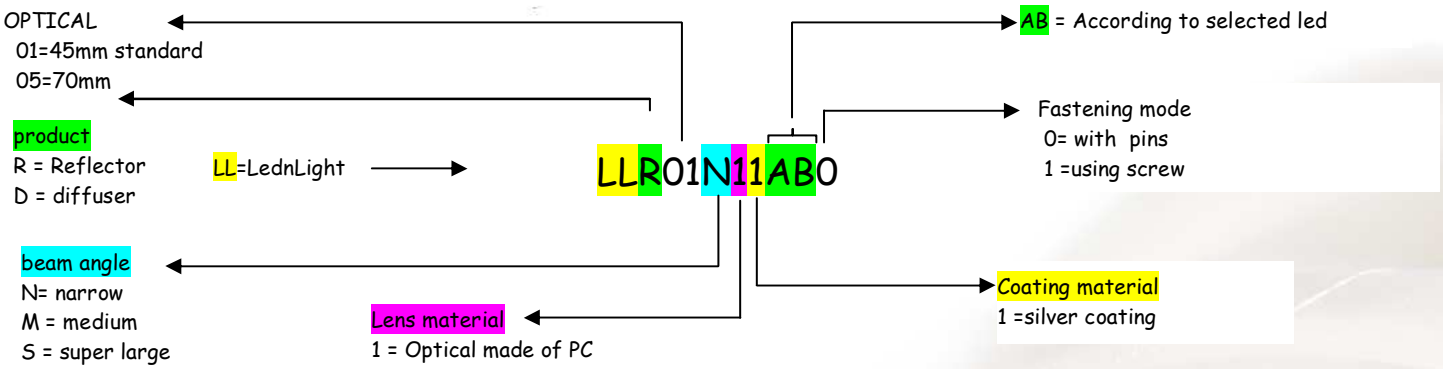
download the appropriate mechanical drawing file on our website

Code form of LednLight reflector products



Ordering code for LednLight reflectors series To be used with CREE XM-L2

Framed Reflector

reflector	Ø 45mm – narrow	Ø 45mm – medium	Ø 45mm –super large	Ø 70mm – narrow	Ø 70mm – medium	Ø 70mm –super large
Reflector	LLR01N11AB1			LLR05N11AB1		
Diffuser	LLD01N1	LLD01M1	LLD01S1	LLD05N1	LLD05M1	LLD05S1

Cone Reflector

reflector	Ø 45mm – narrow	Ø 45mm – medium	Ø 45mm –super large	Ø 70mm – narrow	Ø 70mm – medium	Ø 70mm –super large
Reflector	LLR01N11AB0			LLR05N11AB0		
Diffuser	LLD01N1	LLD01M1	LLD01S1	LLD05N1	LLD05M1	LLD05S1

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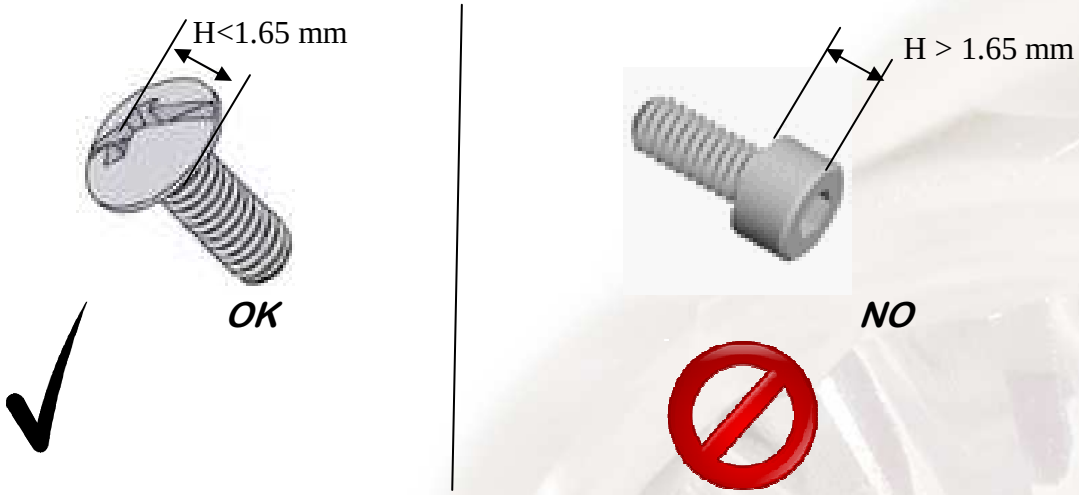
SCREW height size

When fixing the LED, Recommended M3 screw are round head screws ; do not use screws with head height more than 1.65mm



FAQ

Q – Of what material are Lednlight reflectors made of? Where are they manufactured?
A – LednLight reflectors are made of a high purity grade PC, which guarantees a maximum high temperature resistance. All our products are made in France. The coating is made of silver with a protective layer which has very high reflection rate (>95%)

Q – What is Lednlight reflectors light efficiency?
A – Light efficiency depends on the reflector itself, and on the diffusive window as well as on the selected LED. Light efficiency can vary from 80% to 91%.

Q – I would like to use a specific LED which is not mentioned in this datasheet. Is it possible?
A – LednLight reflectors have a versatile design that can work with several LEDs references, allowing the user to choose the LED that best fits his needs. If your LED isn't mentioned in this datasheet, you can contact our engineering team which will give you more information.

Q – Can you provide CAD files of LednLight collimators and reflectors?
A – The optical design is confidential; however simplified CAD files are available. You can download them on our website. IES files are also available.

Q – My project is very specific and Lednlight reflectors performances do not fit completely to my technical requirements.
A – Our engineers can design a custom version of the Lednlight reflector just for you, that will best fit your technical requirements, and at a very competitive price. Please do not hesitate to contact us to discuss your specifications.

Q – I would like to ask you a question which is not in the FAQ. How can I contact you?
A – Please visit our website : http://www.lednlight.com or contact us by phone :
+33 (0) 4 74 76 12 66 or by email : lednlight@gaggione.com