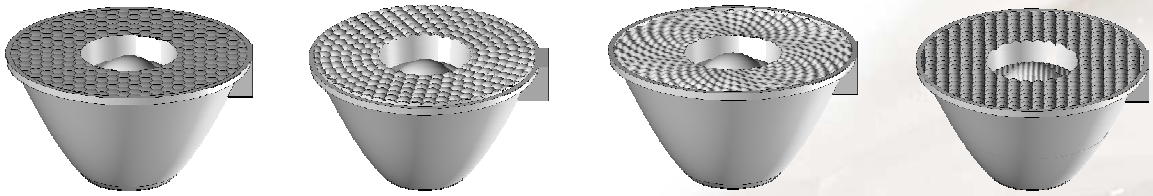
LLC49N – LLC49M – LLC49W – LLC49E



Secondary optics to be used with

XML RGBW

DATASHEET

Lednlight, a high performance LED collimator series, for all your high power LEDs lighting applications

Benefits of the Lednlight product range :

- Innovative and unique design, which allows you to use most existing LEDs references
- Homogeneous light distribution, resulting from software optimization and quality polymer

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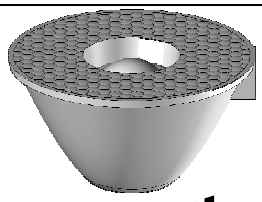
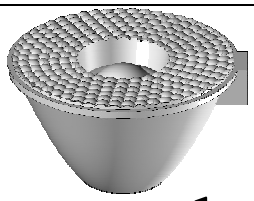
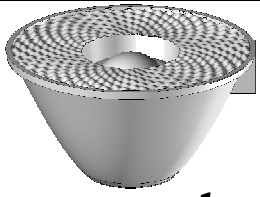
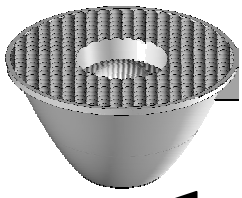
LednLight used with CREE XML_RGBW

Optical Characteristics, overview table

Collimator	*LED*	*half-angle at 50% (°)*	*half-angle at 10% (°)*	*Efficacity Cd/Lm*	*Holder & options*
 LLC49N EXTREME NARROW	CREE XML_RGBW	5.4	8.9	21.9	Holder LLH09SPB00
 LLC49M MEDIUM >BEAM	CREE XML_RGBW	11.5	22.8	3.6	Holder LLH09SPB00
 LLC49W WIDE >BEAM	CREE XML_RGBW	16.7	28.7	2.1	Holder LLH09SPB00
 LLC49E ELLIPTICAL >BEAM	CREE XML_RGBW	5.3v/19.6h	10.3v/ 30.2h	5.7	Holder LLH09SPB00

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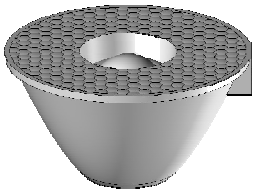
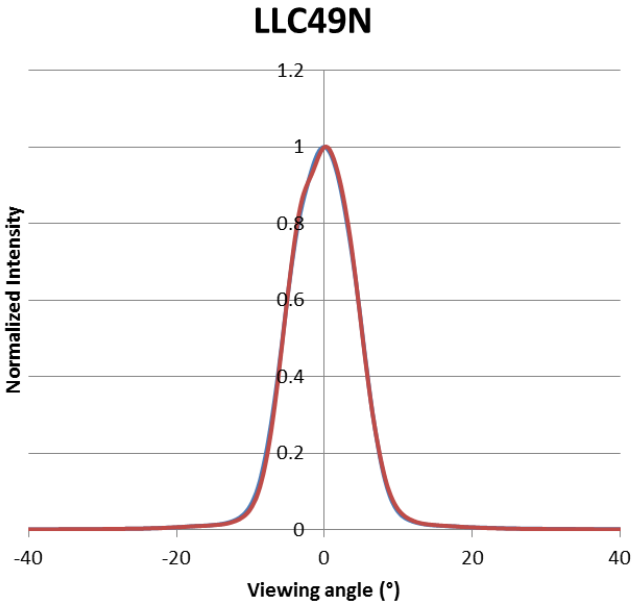
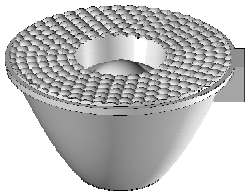


Optical characteristics and intensity distribution
Collimator LLC49N – CREE XML_RGBW

Measurements done with
Ledgon 100 photogoniometer

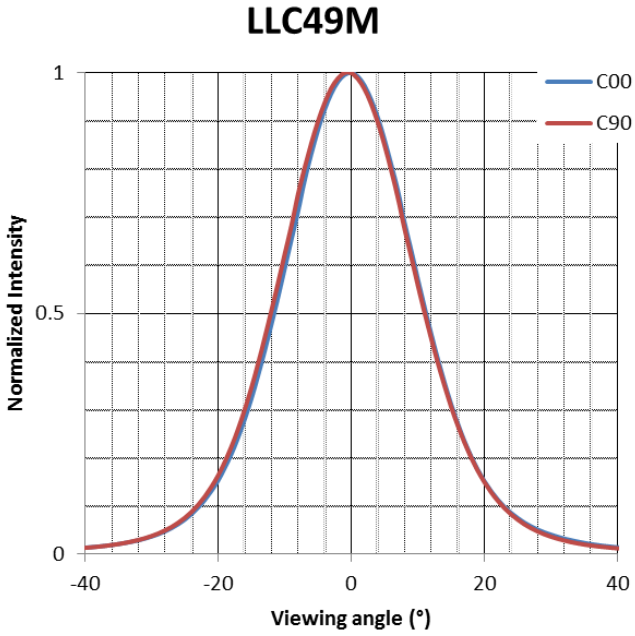


- CREE XML_RGBW @350mA
- Narrow circular beam
- Efficiency in candelas per lumen : 21.9 cd/lm
- Half-angle at 50% from maximum 5.4°
- Half-angle at 10% from maximum 8.9°
- Available with 45mm holder LLH09SPB00

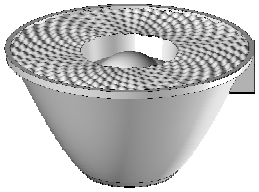


Optical characteristics and intensity distribution
Collimator LLC49M – CREE XML_RGBW

Measurements done with
Ledgon 100 photogoniometer

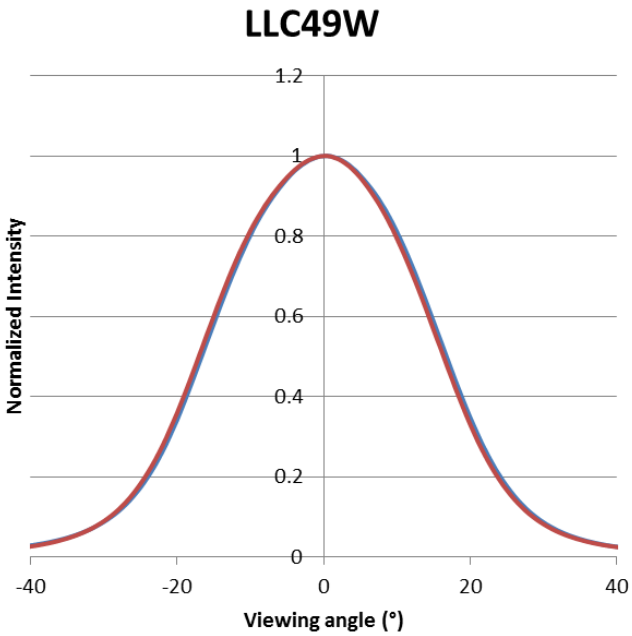


- CREE XML_RGBW @350mA
- Medium circular beam
- Efficiency in candelas per lumen : 3.6 cd/lm
- Half-angle at 50% from maximum 11.5°
- Half-angle at 10% from maximum 22.8°
- Available with 45mm holder LLH09SPB00

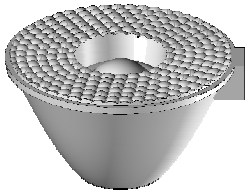


Optical characteristics and intensity distribution
Collimator LLC49W – CREE XML_RGBW

Measurements done with
Ledgon 100 photogoniometer

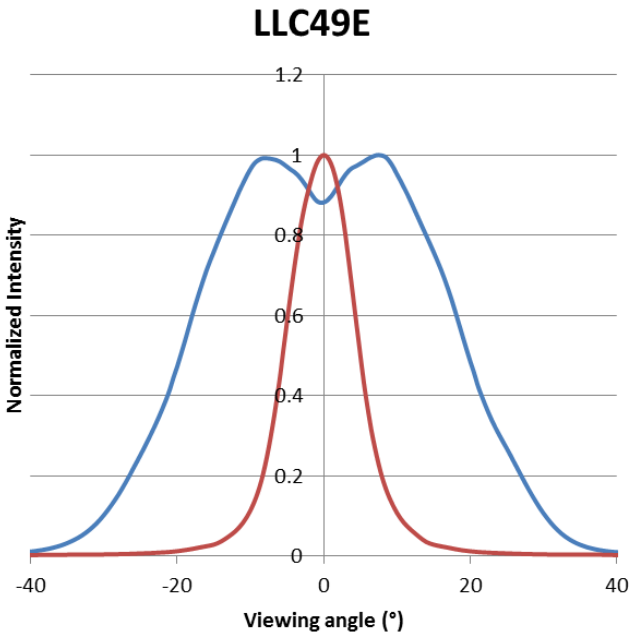


- CREE XML_RGBW @350mA
- Wide circular beam
- Efficiency in candelas per lumen : 2.1 cd/lm
- Half-angle at 50% from maximum 16.7°
- Half-angle at 10% from maximum 28.7°
- Available with 45mm holder LLH09SPB00



Optical characteristics and intensity distribution
Collimator LLC49E – CREE XML_RGBW

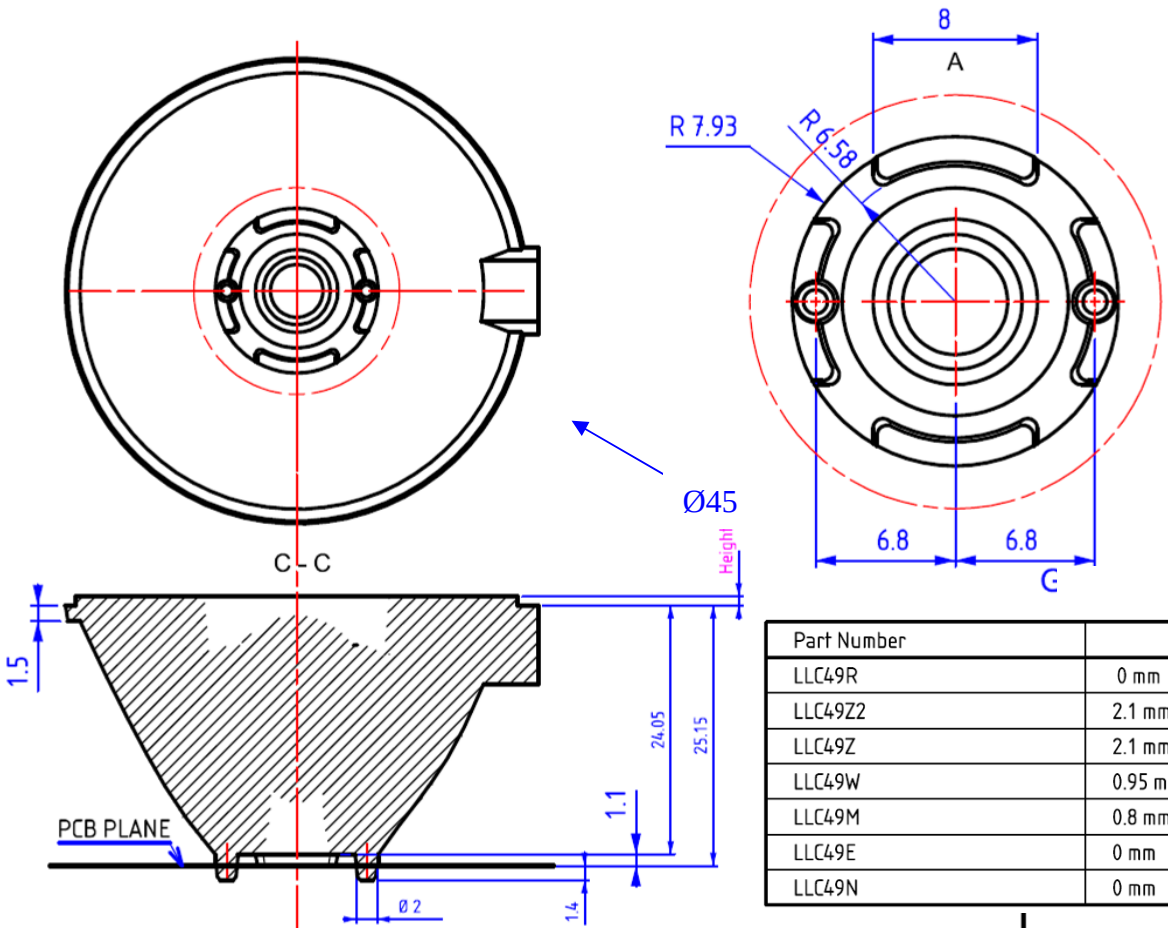
Measurements done with
Ledgon 100 photogoniometer



- CREE XML_RGBW @350mA
- Elliptical beam
- Efficiency in candelas per lumen : 5.7 cd/lm
- Half-angle at 50% from maximum 5.3v/19.6h°
- Half-angle at 10% from maximum 10.3v/ 30.2h°
- Available with 45mm holder LLH09SPB00

Mechanical characteristics
LLC49N / LLC49M / LLC49W /LLC49R and LLC49E

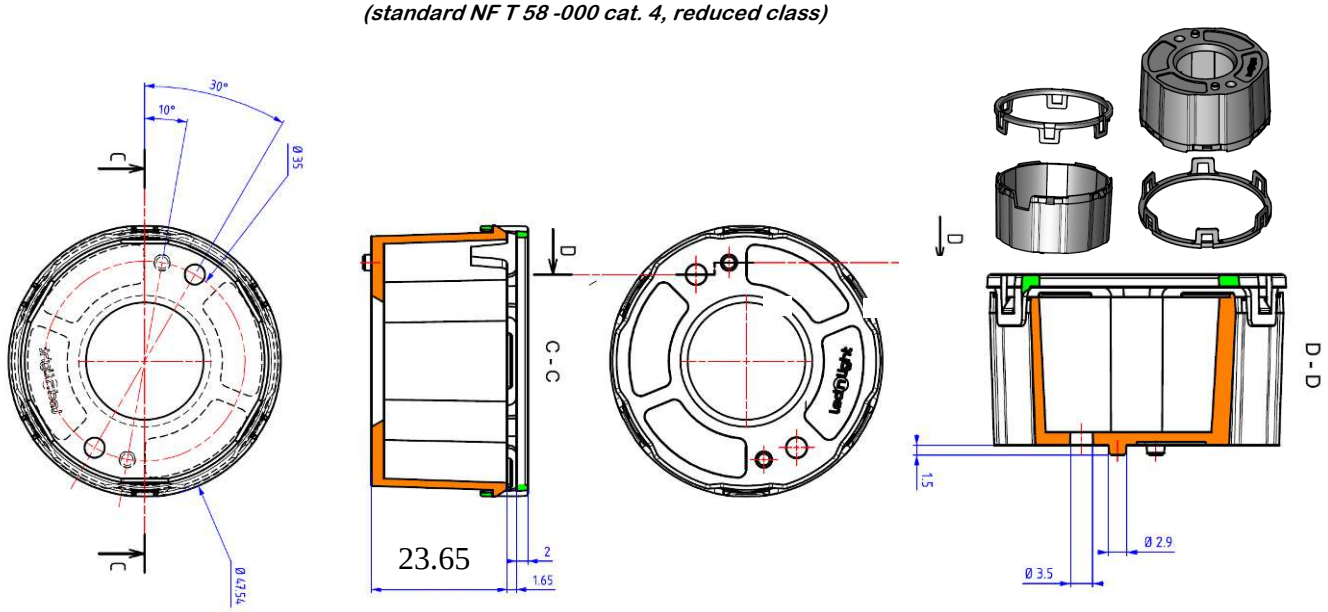
Without holder, all dimensions are in millimeters
General tolerance +/-0.15 mm (standard NF T 58 -000 cat. 4, reduced class)



Part Number	Height
LLC49R	0 mm
LLC49Z2	2.1 mm
LLC49Z	2.1 mm
LLC49W	0.95 mm
LLC49M	0.8 mm
LLC49E	0 mm
LLC49N	0 mm

Mechanical characteristics LLH09SPB00

holder, all dimensions are in millimetres, General tolerance +/-0.15 mm
(standard NF T 58 -000 cat. 4, reduced class)



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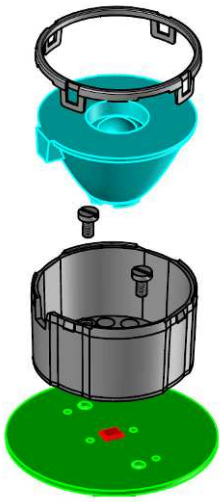
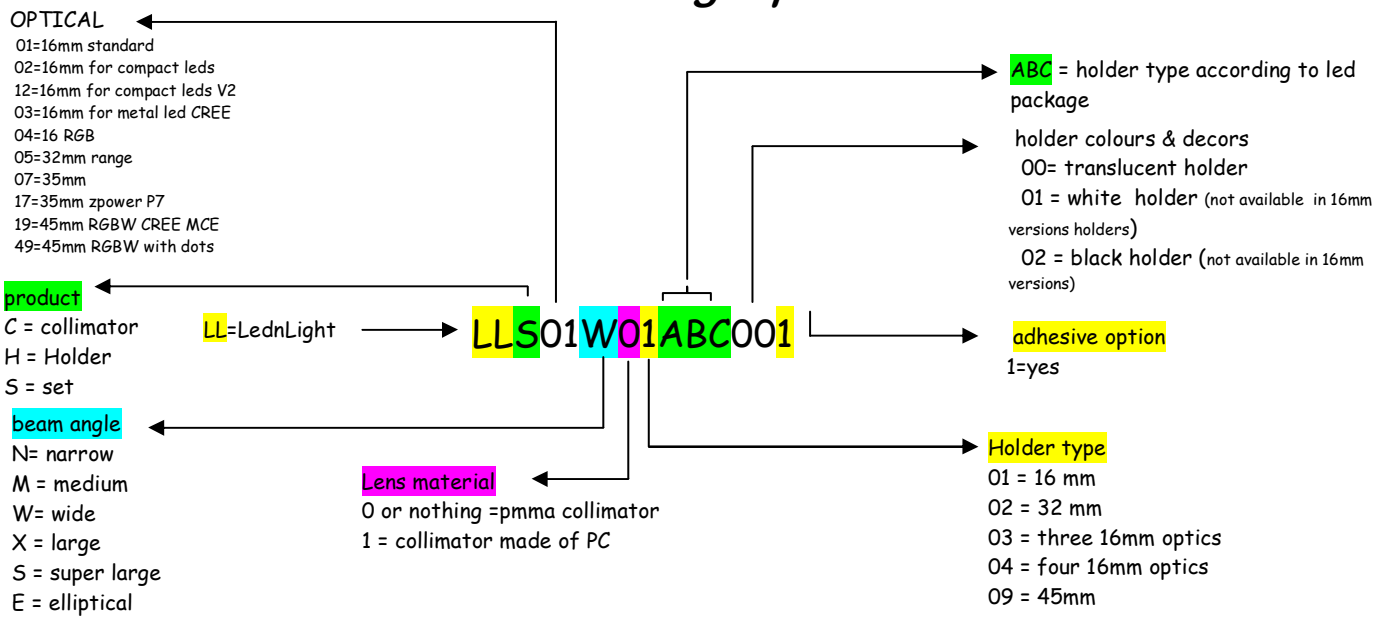


How to use te LLC49 collimator:
The holder is assembled on the PCB using screw or glue. The collimator has to be assembled inside the holder very precisely. The ring has to be snapped on the holder to lock the collimator into the holder.

Code form of LednLight products



Ordering code for LednLight series
To be used with CREE XML_RGBW

Collimator / Holder	Ø 45mm –NARROW	Ø 45mm –MEDIUM	Ø 45mm –WIDE	Ø 45mm –ELLIPTIC	Ø 45mm –Zoom Module see specific datasheet on our website
No holder	LLC49N	LLC49M	LLC49W	LLC49E	LLC49Z + LLW19Z
Holder using screws	LLH09SPB00				-

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FAQ

Q – Of what material are Lednlight collimators made of ? Where are they manufactured ?
A – Lednlight collimators are made of a high purity grade PMMA, which guarantees a maximum luminous efficiency. If you need high temperature resistance this optical can be made of PC. Holders are made of PC. All our products are Made in France.

Q – What is Lednlight collimators luminous efficiency?
A – Luminous efficiency depends on the collimator itself and on the LED. It is between 85% and 93%.

Q – I would like to use a specific LED which is not mentioned in this datasheet. Is it possible?
A – LednLight collimators have a versatile design that can work with most 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 – How can we position the LED compared to the collimator?
A – Mechanical drawings in page 5 indicate the exact location of the focal point for each LednLight collimator. All you have to do is to put the LED chip at the focal point location.

Q – Can you provide CAD files of LednLight collimators?
A – The optical design is confidential; however CAD files of holder are available. You can upload them on our website. IES files and ray sets are also available on request.

Q – My project is very specific and custom. Lednlight collimator performances do not fit completely to my technical requirements.
A – Our engineers can design a custom version of the Lednlight collimators 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