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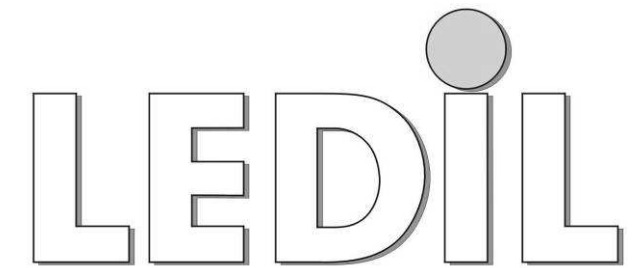
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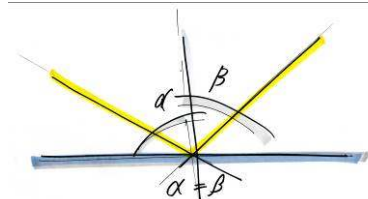


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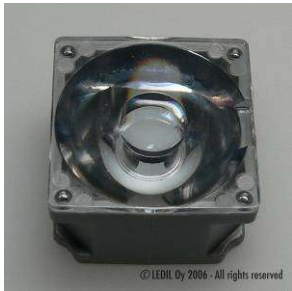
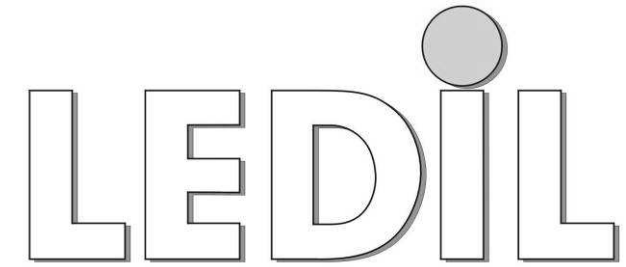
# LEDIL Standard Optics for CREE LEDs

Ledil Oy, Tehdaskatu 13, 24100 SALO, Finland

[www.ledil.com](http://www.ledil.com)



# Lenses for XR-E and XR-C CRS



CRS-RS

CRS-SS

CRS-D



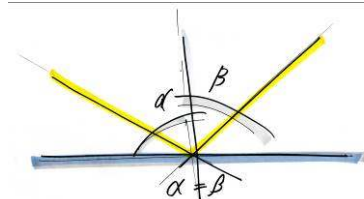
CRS-M

CRS-W

CRS-O

- Specially designed for Cree XR-E and XR-C
- Lens material optical grade PC with high UV and temperature resistance (130° C/220° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Integrated holder. Fastening to heat sink with a PU foam adhesive tape of automotive grade
- Compact dimensions 21.6 x 21.6 mm.

LENS TYPE	ORDERING CODE	FWHM
CRS real spot	CRS-RS, FA10303	$\pm 6^\circ$
CRS smooth spot	CRS-SS, FA10328	$\pm 7^\circ$
CRS diffuser	CRS-D, FA10304	$\pm 7^\circ$
CRS medium	CRS-M, FA10305	$\pm 14^\circ$
CRS wide	CRS-W, FA10343	$\pm 30^\circ$
CRS oval	CRS-O, FA10306	$\pm 6^\circ \times \pm 24^\circ$





# Lenses for XR-E and XR-C

## LC1



LC1-RS



LC1-D



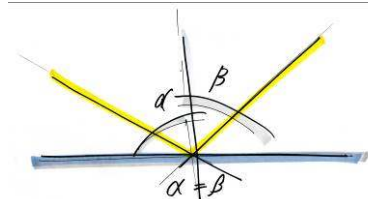
LC1-M



LC1-REC

- Specially designed for Cree XR-E and XR-C
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Holder to be glued to PCB first, then assemble lens. Parts delivered separately
- Compact dimensions D=21.6 mm.

LENS TYPE	ORDERING CODE	FWHM
LC1 real spot	LC1-RS FA10454	±3°
LC1 diffuser	LC1-D F 10627	±5°
LC1 medium	LC1-M FA10452	±14°
LC1 Rectangular	LC1-REC FA10511	±11° x ±21°



# Lenses for XR-E and XR-C

## LC1-TAPE



LC1-TAPE-RS



LC1-TAPE-D



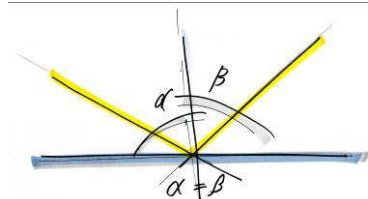
LC1-TAPE-M



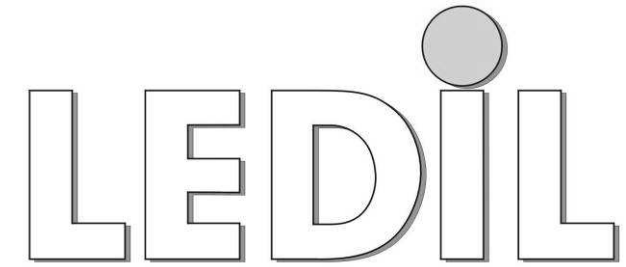
LC1-TAPE-REC

- Specially designed for Cree XR-E and XR-C
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Integrated holder WITH TAPE, parts assembled together
- Compact dimensions D=21.6 mm.

LENS TYPE	ORDERING CODE	FWHM
LC1 real spot	LC1-TAPE-RS FA10653	±3°
LC1 diffuser	LC1-TAPE-D FA 10655	±5°
LC1 medium	LC1-TAPE-M FA10652	±14°
LC1 Rectangular	LC1-TAPE-REC FA10654	±11° x ±21°



# Lenses for XR-E and XR-C ROCKET



ROCKET-SS



ROCKET-M



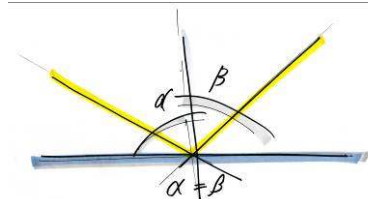
ROCKET-O



ROCKET-W

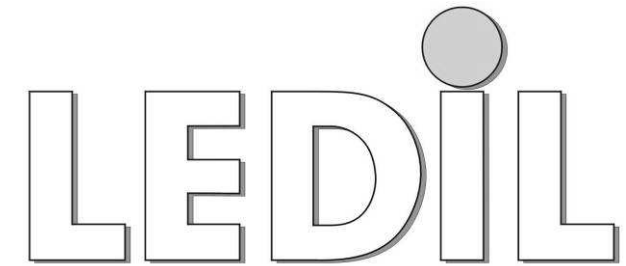
- Designed for Cree XR-E and XR-C
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F)
- No lens holder. Fastening to PCB with a PU foam tape of automotive grade
- Diameter 26 mm (approximately 1")

LENS	ORDERING CODE	FWHM
ROCKET smooth spot	ROCKET-SS, C10324	$\pm 4^\circ$
ROCKET medium	ROCKET-M, C10250	$\pm 13^\circ$
ROCKET wide	ROCKET-W, C10406	$\pm 19^\circ$
ROCKET oval	ROCKET-O, C10325	$\pm 3^\circ \times 20^\circ$



# Lenses for XR-E and XR-C LEDs

## ROCKET-3



ROCKET-3-SS



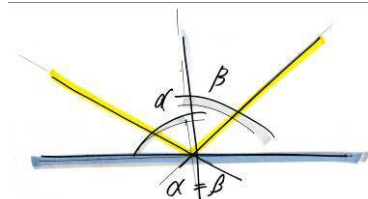
ROCKET-3-M



ROCKET-3-W

- Specially designed for Cree XR-E and XR-C
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Very even color distribution over the whole beam angle
- Compact dimensions of a MR16 fixture, D = 50 mm
- NO sub lenses used; every lens is one molding only

LENS	ORDERING CODE	FWHM
ROCKET-3 smooth spot	ROCKET-3-SS, C10366	$\pm 5^\circ$
ROCKET-3 medium	ROCKET-3-M, C10367	$\pm 10^\circ$
ROCKET-3 wide	ROCKET-3-W, C10365	$\pm 25^\circ$



# Lenses for XR-E and XR-C

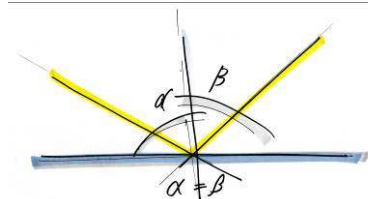
## CUTE-3

LEDIL



- Specially designed for Cree XR-E and XR-C
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Very even color distribution over the whole beam angle
- Compact dimensions of a MR11 fixture, D = 35 mm
- NO sub lenses used; every lens is one molding only

LENS	ORDERING CODE	FWHM
CUTE-3 smooth spot	CUTE-3-SS, C10428	$\pm 6^\circ$
CUTE-3 medium	CUTE-3-M, C10427	$\pm 10^\circ$





# Lenses for XR-E and XR-C

## CUTE-4

LEDIL



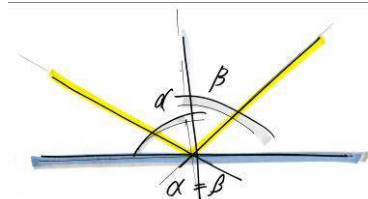
CUTE-4-SS



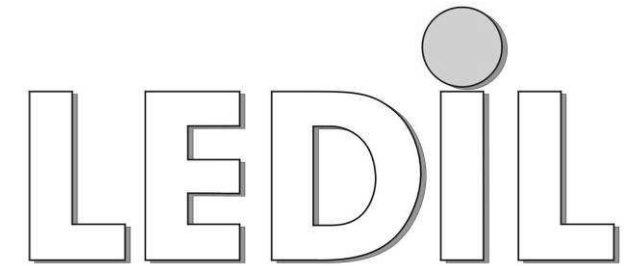
CUTE-4-M

- Specially designed for Cree XR-E and XR-C
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Very even color distribution over the whole beam angle
- Compact dimensions of a MR11 fixture, D = 35 mm
- NO sub lenses used; every lens is one molding only

LENS	ORDERING CODE	FWHM
CUTE-4 smooth spot	CUTE-4-SS, C10446	$\pm 6^\circ$
CUTE-4 medium	CUTE-4-M, C10447	$\pm 9^\circ$

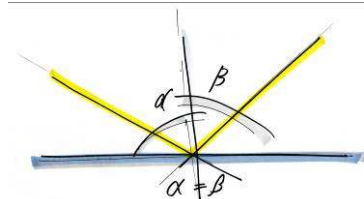


# Lenses for Dragon FLARE-C series

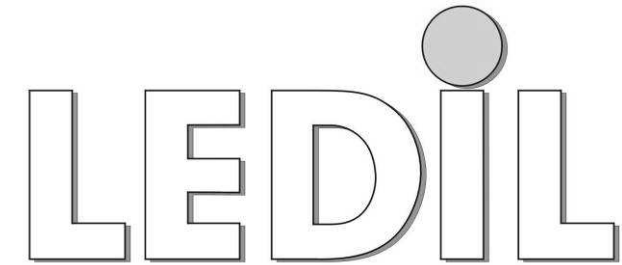


- Lens designed for Cree Xlamp XR, XR-C and XR-E
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Allows use of high current and temperature conditions
- Best available optical efficiency
- Fastening to PCB & heat sink with 2 screws (and TAPE, in that version)
- LED can be assembled parallel or perpendicular to the x,y axis (to turn the light distribution by 90° )
- Compact dimensions 23 x 25 mm. Square form enables easy build of a line without any gaps between lenses
- Especially suitable for Beacon and other 360° solutions and in linear solutions with high evenness requirements

LENS TYPE	ORDERING CODE	FWHM
FLARE-C	FLARE-C, C10402	$\pm 4^\circ \times \pm 45^\circ$
FLARE-C with TAPE	FLARE-C-TAPE, C10563	$\pm 4^\circ \times \pm 45^\circ$
FLARE-C Diffused	FLARE-C-DIFF, C10527	$\pm 6^\circ \times \pm 42^\circ$

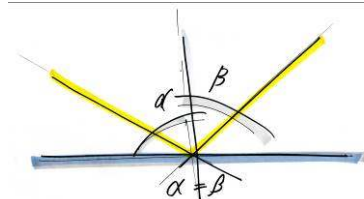


# Lenses for XP-E and XP-C LXP (TAPE)



- Specially designed for Cree XP-E and XP-C
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Integrated holder WITH TAPE, parts assembled together
- Compact dimensions D=21.6 mm.

LENS TYPE	ORDERING CODE	FWHM
LXP real spot	LXP-RS FA10661	±3°
LXP diffuser	LXP-D FA 10663	±5°
LXP medium	LXP-M FA10660	±13°
LXP rectangular	LXP-REC FA10662	±11° x ±21°

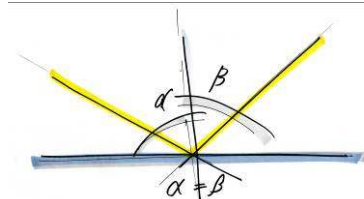


# Lenses for XR-E and XR-C CXP



- Specially designed for Cree XP-E and XP-C
- Lens material optical grade PC with high UV and temperature resistance (130° C/220° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Integrated holder. Fastening to heat sink with a PU foam adhesive tape of automotive grade
- Compact dimensions 21.6 x 21.6 mm.

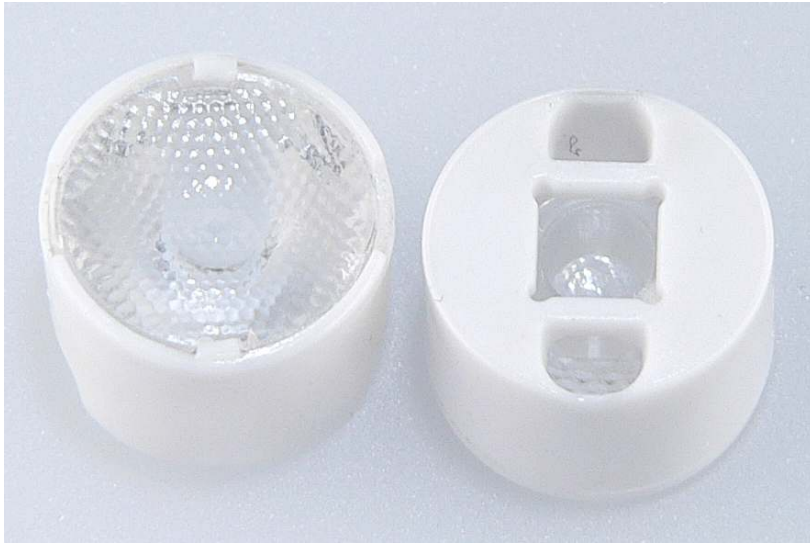
LENS TYPE	ORDERING CODE	FWHM
CXP real spot	CXP-RS, FA10668	$\pm 3^\circ$
CXP smooth spot	CXP-SS, FA10667	$\pm 5^\circ$
CXP diffuser	CXP-D, FA10666	$\pm 9^\circ$
CXP medium	CXP-M, FA10665	$\pm 15^\circ$
CXP wide	CXP-W, FA10708	$\pm 30^\circ$
CXP oval	CXP-O, FA10669	$\pm 6^\circ \times \pm 22^\circ$





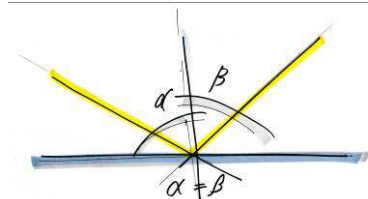
# Lenses for XP-E and XP-C LISA-XP

LEDIL



- Specially designed for XP-E and XP-C
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Integrated holder. Fastening to PCB using appropriate glue
- Compact dimensions D=10.8 mm.

LENS TYPE	ORDERING CODE	FWHM
LISA-XP1 smooth spot	LISA-XP1-SS, CA10641	±9°



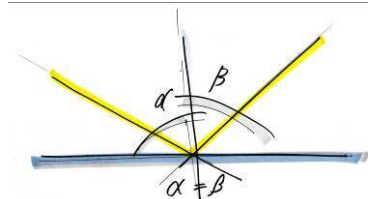
# Lenses for XP-E and XP-C

## TINA-XP



- Specially designed for Cree XP-E and XP-C
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Fastening to PCB by adhesive tape
- Compact dimensions D=16 mm, h=10.5 mm (max)

LENS TYPE	ORDERING CODE	FWHM
TINA XP diffuser	TINA-XP-D, FA10580	Ca. $\pm 7^\circ$
TINA XP medium	TINA-XP-M, FA10581	Ca. $\pm 15^\circ$



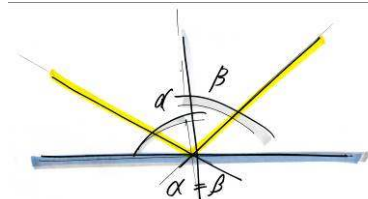
# Lenses for XR-E and XR-C TWIDDLE

# LEDIL



- **REVOLUTIONARY ADJUSTABLE LENS**  
**free tilting by  $\pm 15^\circ$**
- Specially designed for XR-E and XR-C
- Very even color distribution over the whole beam angle
- Double lens system with holder and tape
- Compact dimensions D=22 mm, h=15 mm (max)

LENS TYPE	ORDERING CODE	FWHM
TWIDDLE XR spot	TWIDDLE-XR-S, FA10740	Ca. $\pm 7^\circ$
TWIDDLEXR medium	TWIDDLE-XR-M, FA10741	Ca. $\pm 15^\circ$
TWIDDLE XR wide	TWIDDLE-XR-W, FA10742	$\pm 30^\circ$



# Lenses for MC-E LM1

# LEDIL



LM1-D



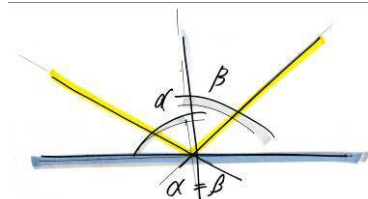
LM1-M



LM1-REC

- Specially designed for Cree MC-E LEDs
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Holder to be glued to PCB first, then assemble lens. Parts delivered separately
- Compact dimensions D=21.6 mm.

LENS TYPE	ORDERING CODE	FWHM
LM1 diffuser	LM1-D F10630	±10°
LM1 medium	LM1-M FA10614	±13°
LM1 Rectangular	LM1-REC FA10615	±19 x ±12°





# Lenses for MC-E RGBx

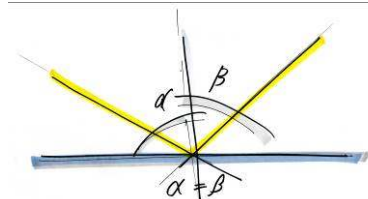
# LEDIL



- Specially designed for Cree MC-E LEDs
- Lens material optical grade PMMA with high UV and temperature resistance (130° C/280° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Integrated holder.
- Dimensions D=27.96 mm, h=25.09 mm.



LENS TYPE	ORDERING CODE	FWHM
RGBX	RGBX, C10548	N/A

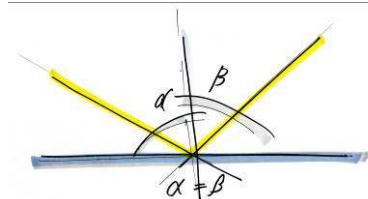


# Lenses for MC-E CMC

# LEDIL

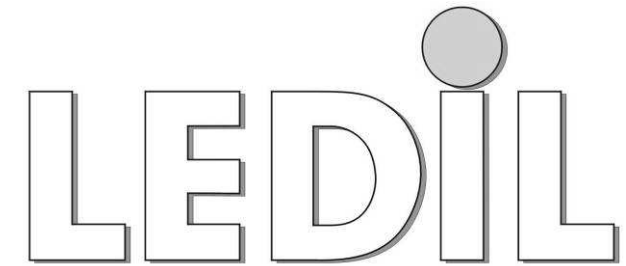
- Specially designed for MC-E LEDs
- Lens material optical grade PC with high UV and temperature resistance (130° C/220° F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Integrated holder. Fastening to heat sink with a PU foam adhesive tape of automotive grade
- Compact dimensions 21.6 x 21.6 mm.

LENS TYPE	ORDERING CODE	FWHM
CMC real spot	CMC-RS, FA10674	N/A
CMC smooth spot	CMC-SS, FA10672	N/A
CMC medium	CMC-M, FA10671	N/A
CMC diffuser	CMC-D, FA10672	N/A
CMC oval	CMC-O, FA10675	N/A
CMC wide	CMC-W, FA10714	N/A



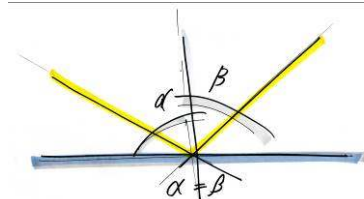
# Lenses for MC-E LEDs

## ROCKET-3-MC



- Specially designed for MC-E LEDs
- Lens material optical grade PMMA with high UV and temperature resistance (105° C/220° F). Very even color distribution over the whole beam angle
- Compact dimensions of a MR16 fixture, D = 50 mm
- NO sub lenses used; every lens is one molding only

LENS	ORDERING CODE	FWHM
ROCKET-3 smooth spot	ROCKET-3-MC-SS, C10681	N/A
ROCKET-3 medium	ROCKET-3-MC-M, C10681	N/A
ROCKET-3 wide	ROCKET-3-MC-W, C10683	N/A



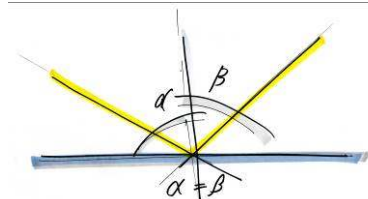
# Reflectors for MC-E BOOM

# LEDIL



- Specially designed for MC-E LEDs
- Material optical ABS, vacuum coated with aluminum and protected with lacquer
- Very even color distribution over the whole beam angle
- Dimensions D=22.22 mm, height 13.54 mm.

LENS TYPE	ORDERING CODE	FWHM
BOOM-MC Spot	BOOM-MC-SS, C10569	$\pm 10^\circ$
BOOM-MC Medium	BOOM-MC-M, C10570	$\pm 19^\circ$
BOOM-MC Wide	BOOM-MC-W, C10571	$\pm 24^\circ$





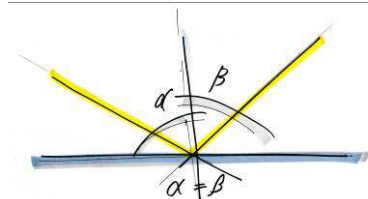
# Lenses for MC-E EVA

# LEDIL



- Specially designed for MC-E LEDs
- Standard MR11 size for replacing halogen lamps
- Material optical grade PMMA, with high UV and temperature resistance (130° C/280° F). Allows use of high current and temperature conditions
- Special care taken to make a uniform white or warm white illumination. Lenses work well with other colors, too. Dimensions D=35 mm, height 16.4 mm.

LENS TYPE	ORDERING CODE	FWHM
EVA-SS Smooth Spot	EVA-SS, C10684	N/A
EVA-M Medium	EVA-M, C10685	N/A
EVA-W Wide	EVA-W, C10686	N/A

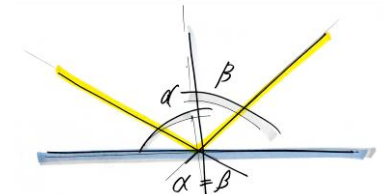




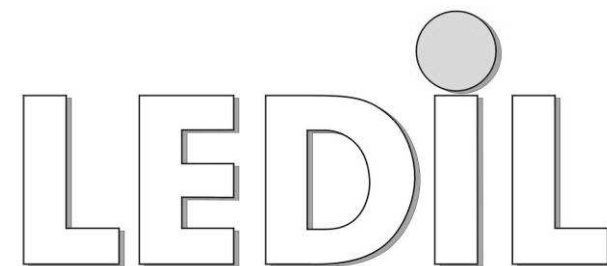
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# Lenses for Dragon/Dragon+ OSS



OSS-RS



OSS-SS



OSS-D



OSS-M



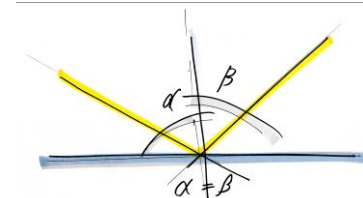
OSS-W



OSS-O

- Specially designed for Osram Dragon and Dragon+
- Lens material optical grade PC with high UV and temperature resistance (130°C/220°F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Integrated holder. Fastening to heat sink with a PU foam adhesive tape of automotive grade
- Compact dimensions 21.6 x 21.6 mm.

LENS TYPE	ORDERING CODE	FWHM
OSS real spot	OSS-RS, FA10299	$\pm 3^\circ$
OSS smooth spot	OSS-SS, FA10327	$\pm 7^\circ$
OSS diffuser	OSS-D, FA10300	$\pm 6^\circ$
OSS medium	OSS-M, FA10301	$\pm 15^\circ$
OSS wide	OSS-W, FA10342	$\pm 30^\circ$
OSS oval	OSS-O, FA10302	$\pm 6^\circ \times \pm 24^\circ$



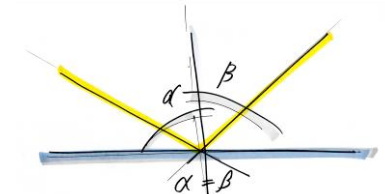
# Lenses for Dragon/Dragon+ LO2

LEDIL



- Specially designed for Osram Dragon and Dragon+
- Lens material optical grade PMMA with high UV and temperature resistance (105°C/220°F). Allows use of high current and temperature conditions
- Very even color distribution over the whole beam angle
- Integrated holder WITH TAPE
- Compact dimensions D=21.6 mm.

LENS TYPE	ORDERING CODE	FWHM
LO2 real spot	LO2-RS FA10751	$\pm 3^\circ$
LO2 diffuser	LO2-D FA10753	$\pm 5^\circ$
LO2 medium	LO2-M FA10750	$\pm 15^\circ$
LO2 Rectangular	LO2-REC FA10752	$\pm 15^\circ \times \pm 25^\circ$



# Lenses for Dragon/Dragon+ TITANUM

# LEDIL



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TITANUM-SS



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TITANUM-M



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TITANUM-O

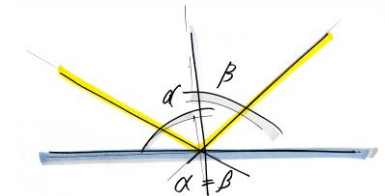


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TITANUM-W

- Designed for Osram Dragon and Dragon+
- Lens material optical grade PMMA with high UV and temperature resistance (105°C/220 °F)
- No lens holder. Fastening to PCB with a PU foam tape of automotive grade
- Diameter 26 mm (approximately 1")

LENS	ORDERING CODE	FWHM
TITANUM smooth spot	TITANUM-SS, C10318	$\pm 7^\circ$
TITANUM medium	TITANUM-M, C10252	$\pm 13^\circ$
TITANUM wide	TITANUM-W, C10244	$\pm 35^\circ$
TITANUM oval	TITANUM-O, C10319	$\pm 3^\circ \times \pm 18^\circ$





# Lenses for Dragon/Dragon+ TITANUM-3

# LEDIL



TITANUM-3-S



TITANUM-3-M

- Specially designed for Osram Dragon and Dragon
- Lens material optical grade PMMA with high UV and temperature resistance (105°C/220°F). Very even color distribution over the whole beam angle
- Compact dimensions of a MR16 fixture, D = 50 mm
- Sub lens used to create a soft beam medium lens

LENS	ORDERING CODE	FWHM
TITANUM-3 spot	TITANUM-3-S, C10268	$\pm 5^\circ$
TITANUM-3 medium	TITANUM-3-M-SUB, CA10374	$\pm 15^\circ$

