

#### LED OPTIC SOLUTION DEPARTMENT

AnyCasting's True Color Lens series has been applied to various products designed for LED lighting in a wide range of industrial environments. The True Color Lens series is the product of optical design optimized for different user environments and ultra-precision molding, and new product will be added to the series continuously.

AnyCasting's specialized lens design techniques are based on the latest plastic molding technology and offer high quality with micro and nano-patterned optical lenses.

AnyCasting's LED Optic Solution Development is engaged in ongoing R&D on ultra-precision pattern-applied optical uniform color temperature. AnyCasting is a proud supplier of high quality LED lighting lenses for different applications to meet the diverse needs of our clients. AnyCasting's LED Optic Solution Department provides optical solutions suitable for the diverse application required by clients to help them to achieve their objectives quickly and efficiently.

Through innovative R&D, AnyCasting supplies its clients with the highly technical plastic goods used in optical, bio, and TV BLU products. AnyCasing's advanced plastic molding technology has allowed it to take plastic Molding quality to a new level.

# 2017 AnyCasting LED Optics

TIR / Street / Array / Asymmetry Lens



www.anyoptics.com



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### **ANYCASTING**

#### AnyCasting Co., Ltd.

AnyCasting's True-Color Lens series has been applied to various products designed for LED lighting in a wide range. The True-Color Lens series is the product of optical design optimized for different user environments and ultra-precision molding, and new products will be continuously added to the series.

#### General Lens



#### **High Power TIR Lens**

AnyCasting's TIR LED lenses are compact and provide superior optical quality. Color temperature differences have been minimized and optical efficiency has been increasd for diverse applications.



#### Street Lights Lens

Street lights lenses offer diverse solutions to customers with optical designs that are suitable for a variety of outdoor environments and installation conditions.



#### Security Lights Lens

The security lights lenses provide environment suitable for safe walking on various road conditions based on high illuminance.



#### Array Lens

The 10 points and 12 points standard array lenses are designed on the basis of Korea Expressway Corporation's (government) street light and tunnels, and we offer vary array lenses that meet IESNA.

#### **Tunnel Lens**



The 10 points standard array lens is designed on the basis of Korea Expressway Corporation's (government) tunnels and we provide optimal and right lens solution.

### Automobile Lights Lens

Specialty Lens

The aspheric plastic projection lenses used in LED headlights have addressed the issues of glass lenses.

#### Indoor Lights Lens Patterned nanostructures with a DMTC

(Digital Molding Temperature Control system) are applied to the indoor lights lens surface.

Marine Lights Lens We supply light concentrating plastic lenses 1912-114 suitable for marine environments. 11 . 111



With a patterned nanostructured lens, it is able to create a pleasant and beautiful space and visual effect using light.

#### Concentrating Photovoltaic Lens (CPV)

Patterned nanostructures with DMTC are applied to the surface of the Fresnel lens to provide a high quality lens.

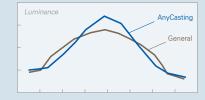
#### Advanced Plastic-Molding Technology

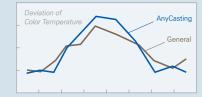


Without nano-pattern Yellow Rina Luminance : 164 lx Beam Angle : 60 °

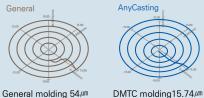


With nano-pattern No Yellow Ring Luminance Increase by 4.5 % Beam Angle : 60 °





#### Comparison of General Molding with DMTC Moldina







**Comparison of SEM Picture** 





General Injection : Nano-Pattern cannot be formed

AnyCasting DMTC Injection : 1⊭ Pattern can be transmitted



Please refer to the standard specification and contact AnvCasting to produce efficiently suitable lens as request of customers. Search for www.anycasting.com for more details. The information of all materials provided above is the valuable resource of AnyCasting, South Korea and is able to change without prior notice. Please visit www.anycasting.com for further information such as technology of the various products and events of AnyCasting.



### Introduction of TIR Lens

3030	Ø14.38 6.21	SIZE(mm)	FWHM	Material (Lens/Holder)	Efficiency(%)	Remark
PKG		Ø14.38×6.21	20~60°	PMMA / PC	88~92	3030 Flat Type PKG
2525		SIZE(mm)	FWHM	Material (Lens/Holder)	Efficiency(%)	Remark
3535 PKG	Ø14.38 6.21	□ 33.0×19.3 □ 20.5×11.83 Ø 18.48×8.23 Ø 14.38×6.21	7° 10° 15° 20~80°	PMMA / PC	88~92	CREE : Xlamp Series (XTE-HE, XPG3) LG INNOTEK : H35C1(G2) LUMILEDS : Rebel + Luxeon Series NICHIA : 1198, 757D OSRAM : OSLON Square SAMSUNG : LH351B, LH351D SEOUL Seri : Z5M/M2, Z5P
				Material		
5050	Ø18.61 9.43	SIZE(mm)	FWHM	(Lens/Holder)	Efficiency(%)	Remark
PKG		Ø 24.48 × 15.53	10~13°	PMMA / PC	88~92	CREE : XML. XML2
		Ø18.61×9.43	20~70°	T WIWA / T C	00 92	
				Matorial		
7070	Ø23.6 13.85	SIZE(mm)	FWHM	Material (Lens/Holder)	Efficiency(%)	Remark
7070 PKG	Ø23.6 13.85	SIZE(mm) Ø 27.6×13.85	FWHM 15~20°	(Lens/Holder)		Remark CREE : MKR LUMILEDS : Luxeon M
	Ø23.6 13.85				Efficiency(%) 88 ~ 92	CREE : MKR

XPL	Ø14.38	6.21	SIZE(mm)	FWHM	Material (Lens/Holder)	Efficiency(%)	Remark
G4L			Ø 24.48 × 15.53	15°	PMMA / PC	88~92	CREE : XPL, XPL2, XPL-HI
	$\cup$		Ø14.38×6.21	30~60°	T WIWA / T C	00 92	LG INNOTEK : 3535 G4L
	Ø23.6	6 14.35	SIZE(mm)	FWHM	Material	Efficiency(%)	Remark
XHP50			Ø 27.6×14.35	15~20°	(Lens/Holder)		
	$\bigcirc$		Ø23.6×14.35	30~70°	PMMA / PC	88~92	CREE : XHP50, XHP50 G2
XHP70	Ø32	15	SIZE(mm)	FWHM	Material (Lens/Holder)	Efficiency(%)	Remark
XHP70	$\bigcirc$		Ø 32.0×15.0	20~60°	PC	88	CREE : XHP70
NEMA	Ø35	19.5	SIZE(mm)	FWHM	Material (Lens/Holder)	Efficiency(%)	Remark
(	$\bigcirc$		Ø 35.0 × 19.5	10~20°	PC	88	CREE : XHP50/70, XPL/HI, MKR LG INNOTEK : 3535 G2, G4L OSRAM : Luxeon M SAMSUNG : LH351B, LH351D

### **Total Internal Reflective Lens**

#### TIR stands for Total Internal Reflection.

Most typical lenses in the AnyCasting standard product range are the cone-like lenses. TIR lenses have a nice round light distribution of a circular symmetrical design. These lenses capture more of the LED light and direct to target point and make sure the light is going to the place need it most. The optic collimates the light and sends a concentrated beam in the same direction. With a TIR optic in place, a reflector is not needed.



and events of AnyCasting.



### NEMA

National Electrical Manufacturers Associations

Compatible PKG use XPL, MKR, XHP50,70 High efficiency by Optimized Design Application : Sports Lighting, Floodlighting..etc

The National Electrical Manufacturers Association (NEMA) is the association of electrical equipment and medical imaging manufacturers, founded in 1926 and headquartered in Rosslyn, Virginia. Nearly 400 members strong, its companies manufacture a diverse set of products including power transmission and distribution equipment, lighting systems, factory automation and control systems, and medical diagnostic imaging systems.

In the sports lighting application, the lighting fixtures need to satisfy the required beam angle by NEMA, wherein the beam angle is specified between Type 1 through Type 7, based on the field angle defined as 10% of luminous intensity.

Angle Reg	julations	Type 4	46 °~ 70 °
Type 1	10°~18°	Type 5	70°~100°
Type 2	18°~ 29°	Type 6	100 °~ 130 °
Type 3	29°~46°	Type 7	130°~

Optical Cha	racteristic				
Part No.	TC1001B5LPL	TC1501B5LP5	TC1001B5LLM	TC2001B5LP7	
Light Distribution Curve					
PKG	XPL	XHP 50	LUXEON M	XHP 70	
Size	Ø35.0 X 19.5 mm				
Beam Angle	11.4	14.1	12	19.5	
Field Angle	18.0	26.1	28.8	35.5	
NEMA Type	1	2	2	3	
Efficiency		90	%		
Illuminance Chart					

### NEMA Lens

#### NEMA Lens

Manufacturer	Part No.	PKG	NEMA class	Beam (FWHM)	Angle (Field)
	TC1001B5LPL	XPL	NEMA 1	10	18
	TC1001B5LPL2	XPL-2	NEMA 2	10	21.8
	TC1001B5LP3	XHP35	NEMA 2	10	20
	TC1501B5LP5	XHP50	NEMA 2	15	26
CREE ÷	TC1501B5LP52	XHP50-2	NEMA 3	15	29.2
	TC2001B5LP7	XHP70	NEMA 3	20	35
	TC1501B5LBA	MHB-A	NEMA 2	15	25.4
	TC1501B5LBB	MHB-B	NEMA 2	15	25.6
	TC1501B5LKR	MKR	NEMA 3	15	28.9
LUMILEDS	TC1001B5LLM	Luxoen-M	NEMA 3	10	27.7
🕑 LG Innotek	TC1001B5LL2	H35C1	NEMA 1	10	17
<b><i>Ø</i>NICHIΛ</b>	TC1001B5LN2	NVSW219CTE	NEMA 2	10	19.8
	TC1001B5LCB	351B	NEMA 2	10	17.5
SAMSUNG	TC1001B5LC3	351C	NEMA 2	10	17.5
	TC1001B5LCD	351D	NEMA 2	10	19.5
	TC1001B5LO3	GW P7STA1 PM	NEMA 3	10	28.6
	TC2001B5LO4	GW P7LM32 EM	NEMA 3	20	40
OSRAM	TC1501B5LO5	GW P7LP32 EM	NEMA 3	15	38.9
USRAM	TC1501B5LO6	GW P9LR31 EM	NEMA 3	15	30.8
	TC1501B5LO7	GW P9LR32 EM	NEMA 3	15	30.3
	TC1501B5L08	GW P9LT32 EM	NEMA 3	15	30



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# LED Optic Solutions

## **TIR** Lens

### **CREE PKG**

#### Cree XP-E PKG (3.45x3.45)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP1501IXSPE	Pattern	15	Ø14.38×6.21	90	PC / PC
TP2001PXSPE	Pattern	20	Ø14.38×6.21	88	PC / PC
TP3501IXSPE	Pattern	35	Ø14.38×6.21	90	PC / PC
TP4001PXSPE	Pattern	40	Ø14.38×6.21	88	PC / PC
TP4501IXSPE	Pattern	45	Ø14.38×6.21	90	PC / PC
TP5001IXSPE	Pattern	50	Ø14.38×6.21	90	PC / PC
TP5501PXSPE	Pattern	55	Ø14.38×6.21	88	PC / PC
TP7001IXSPE	Pattern	70	Ø14.38×6.21	90	PC / PC
TP1001EXMPE	Pattern	10	Ø18.48×8.22	92	PMMA / PC
TP1501EXMPE	Pattern	15	Ø18.48×8.23	92	PMMA / PC
TP2001EXSPE	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3001EXSPE	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP4001EXSPE	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP4501EXSPE	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5501EXSPE	Pattern	55	Ø14.38×6.21	92	PMMA / PC

#### Cree XP-E2 PKG (3.45×3.45)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP1001PXPE2	Pattern	10	Ø18.48×8.22	88	PC / PC
TP1501IXSPE2	Pattern	15	Ø14.38×6.21	90	PC / PC
TP2001PXSPE2	Pattern	20	Ø14.38×6.21	88	PC / PC
TP3501IXSPE2	Pattern	35	Ø14.38×6.21	90	PC / PC
TP4001PXSPE2	Pattern	40	Ø14.38×6.21	88	PC / PC
TP4501IXSPE2	Pattern	45	Ø14.38×6.21	90	PC / PC
TP5501IXSPE2	Pattern	55	Ø14.38×6.21	90	PC / PC
TP7001PXSPE2	Pattern	70	Ø14.38×6.21	88	PC / PC
TP1501EXSPE2	Pattern	15	Ø18.48×8.22	92	PMMA / PC
TP2001EXSPE2	Pattern	20	Ø18.48×8.23	92	PMMA / PC
TP3001EXSPE2	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP4001EXSPE2	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP5001EXSPE2	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6501EXSPE2	Pattern	65	Ø14.38×6.21	92	PMMA / PC
TP7001EXSPE2	Pattern	70	Ø14.38×6.21	92	PMMA / PC

#### Cree XPG2 PKG (3.45x3.45)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001IXSG2	Pattern	20	Ø14.38×6.21	90	PC / PC
TP4001IXSG2	Pattern	40	Ø14.38×6.21	90	PC / PC
TP4501IXSG2	Pattern	45	Ø14.38×6.21	90	PC / PC
TP5001IXSG2	Pattern	50	Ø14.38×6.21	90	PC / PC
TP6001IXSG2	Pattern	60	Ø14.38×6.21	90	PC / PC
TP7501IXSG2	Pattern	75	Ø14.38×6.21	90	PC / PC
TP2001EXSG2	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3501EXSG2	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4001EXSG2	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP5001EXSG2	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6001EXSG2	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TP7501EXSG2	Pattern	75	Ø14.38×6.21	92	PMMA / PC

Cree XPG PKG (3	3.45×3.45)
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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC0701MXNXG	Clear	7	□ 33.0×19.3	88	PC / PC
TC1001MXNXG	Clear	10	□ 20.5×11.8	88	PC / PC
TP1501MXMXG	Pattern	15	Ø18.48×8.22	88	PC / PC
TP2001EXSXG	Pattern	20	Ø14.38×6.21	88	PC / PC
TP2001IXSXG	Pattern	20	Ø14.38×6.21	90	PC / PC
TP3501IXSXG	Pattern	35	Ø14.38×6.21	90	PC / PC
TP4501IXSXG	Pattern	45	Ø14.38×6.21	90	PC / PC
TP6001IXSXG	Pattern	60	Ø14.38×6.21	90	PC / PC
TP2201MXSXG	Pattern	22	Ø18.48×8.22	92	PMMA / PC
TP3001MXSXG	Pattern	30	Ø18.48×8.23	92	PMMA / PC
TP3501EXSXG	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4201EXSXG	Pattern	42	Ø14.38×6.21	92	PMMA / PC
TP5501EXSXG	Pattern	55	Ø14.38×6.21	92	PMMA / PC
TP6001EXSXG	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TC6001MXSXG	Clear	60	Ø14.38×6.21	92	PMMA / PC
TP6501EXSXG	Pattern	65	Ø14.38×6.21	92	PMMA / PC
TP7501EXSXG	Pattern	75	Ø14.38×6.21	92	PMMA / PC

#### Cree XPG3 PKG (3.45x3.45)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1501PXMG3	Clear	15	Ø18.48×8.23	88	PC / PC
TP2001PXMG3	Pattern	20	Ø18.48×8.23	88	PC / PC
TP2501IXSG3	Pattern	25	Ø14.38×6.21	90	PC / PC
TP3001PXSG3	Pattern	30	Ø14.38×6.21	88	PC / PC
TP4001IXSG3	Pattern	40	Ø14.38×6.21	90	PC / PC
TP5001IXSG3	Pattern	50	Ø14.38×6.21	90	PC / PC
TP6501IXSG3	Pattern	65	Ø14.38×6.21	90	PC / PC
TP7001PXSG3	Pattern	70	Ø14.38×6.21	88	PC / PC
TC1501EXMG3	Clear	15	Ø18.48×8.23	92	PMMA / PC
TP2001EXSG3	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP2501EXSG3	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3001EXSG3	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP3501EXSG3	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4501EXSG3	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001EXSG3	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6001EXSG3	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TP6501EXSG3	Pattern	65	Ø14.38×6.21	92	PMMA / PC
TP7001EXSG3	Pattern	70	Ø14.38×6.21	92	PMMA / PC



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#### Cree XTE PKG (3.45×3.45)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001ITSTE	Pattern	20	Ø14.38×6.21	90	PC / PC
TP2501ITSTE	Pattern	25	Ø14.38×6.21	90	PC / PC
TP3501ITSTE	Pattern	35	Ø14.38×6.21	90	PC / PC
TP4501ITSTE	Pattern	45	Ø14.38×6.21	90	PC / PC
TP6001ITSTE	Pattern	60	Ø14.38×6.21	90	PC / PC
TP6501ITSTE	Pattern	65	Ø14.38×6.21	90	PC / PC
TP2001ETSTE	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP2501ETSTE	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3501ETSTE	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4501ETSTE	Pattern	45	Ø14.38×6.21	92	PMMA / PC

#### Cree XTE HE PKG (3.45×3.45)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001ITSTEH	Pattern	20	Ø14.38×6.21	90	PC / PC
TP4001ITSTEH	Pattern	40	Ø14.38×6.21	90	PC / PC
TP5001ITSTEH	Pattern	50	Ø14.38×6.21	90	PC / PC
TP6001ITSTEH	Pattern	60	Ø14.38×6.21	90	PC / PC
TP7001ITSTEH	Pattern	70	Ø14.38×6.21	90	PC / PC
TP2001ETSTEH	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP2501ETSTEH	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3501ETSTEH	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4501ETSTEH	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP6001ETSTEH	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TP7001ETSTEH	Pattern	70	Ø14.38×6.21	92	PMMA / PC

#### Cree XPL PKG (3.45 x 3.45)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1001B5LPL	Clear	10	Ø35.0×19.5	88	PC / PC
TP2001PXMPL	Pattern	20	Ø18.48×8.23	88	PC / PC
TP3501PXSPL	Pattern	35	Ø14.38×6.21	88	PC / PC
TP4501PXSPL	Pattern	45	Ø14.38×6.21	88	PC / PC
TP6001PXSPL	Pattern	60	Ø14.38×6.21	88	PC / PC
TP1501MPMPL	Pattern	15	Ø24.48×15.53	92	PMMA / PC
TP2001MXMPL	Pattern	20	Ø18.48×8.23	92	PMMA / PC
TP3001EXSPL	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP4501EXSPL	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP6001EXSPL	Pattern	60	Ø14.38×6.21	92	PMMA / PC

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	262		22
	22	144	250
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#### Cree XPL HI PKG (3.45 x 3.45)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP1501MXMHI	Pattern	15	Ø18.48×8.23	92	PMMA / PC
TP2001EXSHI	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3001EXSHI	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP4001EXSHI	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP5001EXSHI	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6001EXSHI	Pattern	60	Ø14.38×6.21	92	PMMA / PC

#### Cree XPL2 PKG (3.45×3.45)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1201PPMPL2	Clear	12	Ø24.48×15.53	88	PC / PC
TP2501PXMPL2	Pattern	25	Ø18.48×8.23	88	PC / PC
TP3501PXSPL2	Pattern	35	Ø14.38×6.21	88	PC / PC
TP4501PXSPL2	Pattern	45	Ø14.38×6.21	88	PC / PC
TP5001PXSPL2	Pattern	50	Ø14.38×6.21	88	PC / PC
TC1201MPMPL2	Clear	12	Ø24.48×15.53	92	PMMA / PC
TP1501MPMPL2	Pattern	15	Ø24.48×15.53	92	PMMA / PC
TP2501MXMPL2	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3501BXSPL2	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4001PXSPL2	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP5001EXSPL2	Pattern	50	Ø14.38×6.21	92	PMMA / PC

#### Cree XHP35 PKG (3.45x3.45)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1001B5LP3	Clear	10	Ø35.0×19.5	88	PC / PC
TP3501PXSP3	Pattern	35	Ø14.38×6.21	88	PC / PC
TP4501PXSP3	Pattern	45	Ø14.38×6.21	88	PC / PC
TP5501PXSP3	Pattern	55	Ø14.38×6.21	88	PC / PC

#### Cree XHP35 HI PKG (3.45 x 3.45)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001IXS3H	Pattern	20	Ø14.38×6.21	90	PC / PC
TP3001PXS3H	Pattern	30	Ø14.38×6.21	88	PC / PC
TP3501PXS3H	Pattern	35	Ø14.38×6.21	88	PC / PC
TP4501IXS3H	Pattern	45	Ø14.38×6.21	90	PC / PC
TP5501IXS3H	Pattern	55	Ø14.38×6.21	90	PC / PC
TP6001IXS3H	Pattern	60	Ø14.38×6.21	90	PC / PC



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#### Cree XML PKG (5.0×5.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1001MMMML	Clear	10	Ø24.48×15.53	92	PMMA / PC
TP1301MMMML	Pattern	13	Ø24.48×15.53	92	PMMA / PC
TC2001MMSML	Clear	20	Ø18.61×9.43	92	PMMA / PC
TP2001MMSML	Pattern	20	Ø18.61×9.43	92	PMMA / PC
TP4501MMSML	Pattern	45	Ø18.61×9.43	92	PMMA / PC
TC6001MMSML	Clear	60	Ø18.61×9.43	92	PMMA / PC
TP6001MMSML	Pattern	60	Ø18.61×9.43	92	PMMA / PC

#### Cree XML2 PKG (5.0×5.0)

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TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
Clear	10	Ø24.48×15.53	92	PMMA / PC
Pattern	13	Ø24.48×15.53	92	PMMA / PC
Clear	20	Ø18.61×9.43	92	PMMA / PC
Pattern	20	Ø18.61×9.43	92	PMMA / PC
Pattern	45	Ø18.61×9.43	92	PMMA / PC
Pattern	65	Ø18.61×9.43	92	PMMA / PC
Clear	70	Ø18.61×9.43	92	PMMA / PC
	Clear Pattern Clear Pattern Pattern Pattern Pattern	TYPE         (FWHM)           Clear         10           Pattern         13           Clear         20           Pattern         20           Pattern         20           Pattern         45           Pattern         65	IYPE         (FWHM)         SIZE (mm)           Clear         10         Ø24.48×15.53           Pattern         13         Ø24.48×15.53           Clear         20         Ø18.61×9.43           Pattern         20         Ø18.61×9.43           Pattern         45         Ø18.61×9.43           Pattern         65         Ø18.61×9.43	IYPE         (FWHM)         SL2 (m)         Efficiency (%)           Clear         10         Ø24.48×15.53         92           Pattern         13         Ø24.48×15.53         92           Clear         20         Ø18.61×9.43         92           Pattern         20         Ø18.61×9.43         92           Pattern         45         Ø18.61×9.43         92           Pattern         65         Ø18.61×9.43         92

#### Cree XHP50 PKG (5.0×5.0)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1501B5LP5	Clear	15	Ø35.0×19.5	88	PC / PC
TC1501I5MP5	Clear	15	Ø27.6×13.85	90	PC / PC
TP3001I5SP5	Pattern	30	Ø23.6×14.35	90	PC / PC
TP4501I5SP5	Pattern	45	Ø23.6×14.35	90	PC / PC
TP6001I5SP5	Pattern	60	Ø23.6×14.35	90	PC / PC
TP7001I5SP5	Pattern	70	Ø23.6×14.35	90	PC / PC
TP2001E5MP5	Pattern	20	Ø27.6×14.35	92	PMMA / PC
TP2501E5SP5	Pattern	25	Ø23.6×14.35	92	PMMA / PC
TP4001E5SP5	Pattern	40	Ø23.6×14.35	92	PMMA / PC
TP6001E5SP5	Pattern	60	Ø23.6×14.35	92	PMMA / PC
TP7001E5SP5	Pattern	70	Ø23.6×14.35	92	PMMA / PC

#### Cree XHP50-ver2 PKG (5.0×5.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1501I5LP52	Clear	15	Ø35.0×19.5	90	PC / PC
TC2001I5MP52	Clear	20	Ø27.6×13.85	90	PC / PC
TP3001I5SP52	Pattern	30	Ø23.6×14.35	90	PC / PC
TP450115SP52	Pattern	45	Ø23.6×14.35	90	PC / PC
TP550115SP52	Pattern	55	Ø23.6×14.35	90	PC / PC
TP6001I5SP52	Pattern	60	Ø23.6×14.35	90	PC / PC
TP2001E5MP52	Pattern	20	Ø27.6×14.35	92	PMMA / PC
TP2501E5SP52	Pattern	25	Ø23.6×14.35	92	PMMA / PC
TP4001E5SP52	Pattern	40	Ø23.6×14.35	92	PMMA / PC
TP5501E5SP52	Pattern	55	Ø23.6×14.35	92	PMMA / PC
TP6001E5SP52	Pattern	60	Ø23.6×14.35	92	PMMA / PC

#### Cree XHP70 PKG (7.0x7.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC2001B5LP7	Clear	20	Ø35.0×19.5	88	PC / PC
TP2001B7SP7	Pattern	20	Ø32.0×15.0	88	PC / PC
TP6001B7SP7	Pattern	60	Ø32.0×15.0	88	PC / PC

#### Cree MHB-A PKG (5.0×5.0)

Beam Angle (FWHM) Material Part No. TYPE SIZE (mm) Efficiency (%) (Lens/Holder) TC1501I5MBA Ø27.6×14.35 PC / PC 15 90 Clear TP2001I5MBA 20 Ø27.6×14.35 90 PC / PC Pattern TP350115SBA 35 Ø23.6×14.35 90 PC / PC Pattern TP7001I5SBA 90 Pattern 70 Ø23.6×14.35 PC / PC TP2001E5MBA Pattern 20 Ø27.6×14.35 92 PMMA / PC PMMA / PC TP2501E5SBA Pattern 25 Ø23.6×14.35 92 TP7501E5SBA 75 Ø23.6×14.35 92 PMMA / PC Pattern

#### Cree MHB-B PKG (5.0×5.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1501I5MBB	Clear	15	Ø27.6×14.35	90	PC / PC
TP200115MBB	Pattern	20	Ø27.6×14.35	90	PC / PC
TP300115SBB	Pattern	30	Ø23.6×14.35	90	PC / PC
TP650115SBB	Pattern	65	Ø23.6×14.35	90	PC / PC
TP2001E5MBB	Pattern	20	Ø27.6×14.35	92	PMMA / PC
TP2501E5SBB	Pattern	25	Ø23.6×14.35	92	PMMA / PC
TP4501E5SBB	Pattern	45	Ø23.6×14.35	92	PMMA / PC
TP7001E5SBB	Pattern	70	Ø23.6×14.35	92	PMMA / PC

#### Cree MKR PKG (7.0×7.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1501IKMKR	Clear	15	Ø27.6×13.85	90	PC / PC
TP2501ILPKR	Pattern	25	Ø27.6×13.85	90	PC / PC
TP3001ILPKR	Pattern	30	Ø23.6×14.35	90	PC / PC
TP4501ILPKR	Pattern	45	Ø23.6×14.35	90	PC / PC
TP6001ILPKR	Pattern	60	Ø23.6×14.35	90	PC / PC
TP6501ILPKR	Pattern	65	Ø23.6×14.35	90	PC / PC
TC1501EKMKR	Clear	15	Ø27.6×13.85	92	PMMA / PC
TP3001ELPKR	Pattern	30	Ø23.6×14.35	92	PMMA / PC
TP4501ELPKR	Pattern	45	Ø23.6×14.35	92	PMMA / PC
TP6001ELPKR	Pattern	60	Ø23.6×14.35	92	PMMA / PC

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#### 14 / AnyCasting

Please refer to the standard specification and contact AnyCasting to produce efficiently suitable lens as request of customers. Search for www.anycasting.com for more details. The information of all materials provided above is the valuable resource of AnyCasting, South Korea and is able to change without prior notice. Please visit www.anycasting.com for further information such as technology of the various products and events of AnyCasting.



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### LUMILEDS PKG

#### Lumileds REBEL ES PKG

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Part No.	TYPE	(FWHM)	SIZE (mm)	Efficiency (%)	(Lens/Holder)
TP2001IRSRE	Pattern	20	Ø14.38×6.21	90	PC / PC
TP4501IRSRE	Pattern	45	Ø14.38×6.21	90	PC / PC
TP2001ERSRE	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3001MRSRE	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP4001MRSRE	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP5501MRSRE	Pattern	55	Ø14.38×6.21	92	PMMA / PC
TC6001MRSRE	Clear	60	Ø14.38×6.21	92	PMMA / PC
TP6001MRSRE	Pattern	60	Ø14.38×6.21	92	PMMA / PC

Room Angle

#### Lumileds LUXEON R PKG

LUMILEDS

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001ERSLR	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3501ERSLR	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4501ERSLR	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001ERSLR	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6001ERSLR	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TP6501ERSLR	Pattern	65	Ø14.38×6.21	92	PMMA / PC
TP7001ERSLR	Pattern	70	Ø14.38×6.21	92	PMMA / PC

#### Lumileds LUXEON T PKG

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001ENSLT	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3501ENSLT	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP5001ENSLT	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP5501ENSLT	Pattern	55	Ø14.38×6.21	92	PMMA / PC
TP6001EXSLT	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TP7001ENSLT	Pattern	70	Ø14.38×6.21	92	PMMA / PC

#### Lumileds LUXEON M PKG

UMILEDS

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1501ILMLM	Clear	15	Ø27.6×13.85	90	PC / PC
TP2201ILMLM	Pattern	22	Ø27.6×13.85	90	PC / PC
TP3001ILSLM	Pattern	30	Ø23.6×13.85	90	PC / PC
TP5001ILSLM	Pattern	50	Ø23.6×13.85	90	PC / PC
TP6001ILSLM	Pattern	60	Ø23.6×13.85	90	PC / PC
TP7001ILSLM	Pattern	70	Ø23.6×13.85	90	PC / PC
TC1501MLMLM	Clear	15	Ø27.6×13.85	92	PMMA / PC
TP2201MLMLM	Pattern	22	Ø27.6×13.85	92	PMMA / PC
TP3001MLSLM	Pattern	30	Ø23.6×13.85	92	PMMA / PC
TP4501MLSLM	Pattern	45	Ø23.6×13.85	92	PMMA / PC
TP6001MLSLM	Pattern	60	Ø23.6×13.85	92	PMMA / PC
TP7001MLSLM	Pattern	70	Ø23.6×13.85	92	PMMA / PC

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### SEOUL SEMICONDUCTOR PKG

#### Seoul semiconductor Z5M PKG (3.5×3.5)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001EXSZ5	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP4501EXSZ5	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP6001EXSZ5	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TP7001EXSZ5	Pattern	70	Ø14.38×6.21	92	PMMA / PC

#### Seoul semiconductor Z5M2 PKG (3.5x3.5)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)	
TP2001EXSZ52	Pattern	20	Ø14.38×6.21	92	PMMA / PC	_
TP4501EXSZ52	Pattern	45	Ø14.38×6.21	92	PMMA / PC	
TP6001EXSZ52	Pattern	60	Ø14.38×6.21	92	PMMA / PC	
TP7001EXSZ52	Pattern	70	Ø14.38×6.21	92	PMMA / PC	

#### Seoul semiconductor Z5P PKG (3.5×3.5)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1501MXMZP	Clear	15	Ø18.48×8.23	92	PMMA / PC
TP1501MXMZP	Pattern	15	Ø18.48×8.23	92	PMMA / PC
TP2001MXSZP	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TC4001MXSZP	Clear	40	Ø14.38×6.21	92	PMMA / PC
TP4001MXSZP	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TC6201MXSZP	Clear	62	Ø14.38×6.21	92	PMMA / PC

#### Seoul semiconductor S2-STW9C2SB PKG (3.0x3.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)	
TP2001IXTS1	Pattern	20	Ø14.38×6.21	90	PC / PC	
TP3501IXTS1	Pattern	35	Ø14.38×6.21	90	PC / PC	
TP4501IXTS1	Pattern	45	Ø14.38×6.21	90	PC / PC	
TP5001IXTS1	Pattern	50	Ø14.38×6.21	90	PC / PC	
TP2001EXTS1	Pattern	20	Ø14.38×6.21	92	PMMA / PC	
TP3001EXTS1	Pattern	30	Ø14.38×6.21	92	PMMA / PC	
TP3501EXTS1	Pattern	35	Ø14.38×6.21	92	PMMA / PC	
TP4001EXTS1	Pattern	40	Ø14.38×6.21	92	PMMA / PC	
TP5001EXTS1	Pattern	50	Ø14.38×6.21	92	PMMA / PC	
TP6001EXTS1	Pattern	60	Ø14.38×6.21	92	PMMA / PC	_



### SAMSUNG PKG

#### Samsung 351A PKG (3.5x3.5)

### SAMSUNG

Part No.	TYPE	(FWHM)	SIZE (mm)	Efficiency (%)	(Lens/Holder)
TC1001ECNC2	Clear	10	□20.5×11.83	92	PMMA / PC
TP1501ECMC2	Pattern	15	Ø18.48×8.23	92	PMMA / PC
TP2001ECSC2	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP2501ECSC2	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3001ECSC2	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP3501ECSC2	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4001ECSC2	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP4501ECSC2	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001ECSC2	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6001ECSC2	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TP9001ECSC2	Pattern	90	Ø14.38×6.21	92	PMMA / PC

Room Angle

#### Samsung 351B PKG (3.5×3.5)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1001PPMCB	Clear	10	Ø24.48×15.53	88	PC / PC
TP1501PXMCB	Pattern	15	Ø18.48×8.23	88	PC / PC
TP2001IXSCB	Pattern	20	Ø14.38×6.21	90	PC / PC
TP2501PXSCB	Pattern	25	Ø14.38×6.21	88	PC / PC
TP3501PXSCB	Pattern	35	Ø14.38×6.21	88	PC / PC
TP5501IXSCB	Pattern	55	Ø14.38×6.21	90	PC / PC
TP6001PXSCB	Pattern	60	Ø14.38×6.21	88	PC / PC
TP1501MCMCB	Pattern	15	Ø18.48×8.23	92	PMMA / PC
TP2001ECSCB	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP2501ECSCB	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3501MCSCB	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP5501ECSCB	Pattern	55	Ø14.38×6.21	92	PMMA / PC
TP6001ECSCB	Pattern	60	Ø14.38×6.21	92	PMMA / PC

#### Samsung LH351C PKG (3.5x3.5)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1001B5LC3	Clear	10	Ø35.0×19.5	88	PC / PC
TP2001IXSC3	Pattern	20	Ø14.38×6.21	90	PC / PC
TP4001IXSC3	Pattern	40	Ø14.38×6.21	90	PC / PC
TP4501PXSC3	Pattern	45	Ø14.38×6.21	88	PC / PC
TP5501PXSC3	Pattern	55	Ø14.38×6.21	88	PC / PC
TP6001IXSC3	Pattern	60	Ø14.38×6.21	90	PC / PC
TP6501PXSC3	Pattern	65	Ø14.38×6.21	88	PC / PC
TP1001EPMC3	Pattern	10	Ø24.48×15.53	92	PMMA / PC
TP2001EXSC3	Pattern	20	Ø18.48×8.23	92	PMMA / PC
TP2501EXSC3	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3501EXSC3	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4001EXSC3	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP4501EXSC3	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5501EXSC3	Pattern	55	Ø14.38×6.21	92	PMMA / PC
TP6001EXSC3	Pattern	60	Ø14.38×6.21	92	PMMA / PC

#### Samsung 351D PKG (3.5×3.5)

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)	
TC1001PPMCD	Clear	10	Ø24.48×15.53	88	PC / PC	
TP2001PXSCD	Pattern	20	Ø18.48×8.23	88	PC / PC	
TP3001IXSCD	Pattern	30	Ø14.38×6.21	90	PC / PC	
TP3501PXSCD	Pattern	35	Ø14.38×6.21	88	PC / PC	
TP4501IXSCD	Pattern	45	Ø14.38×6.21	90	PC / PC	
TP6501IXSCD	Pattern	65	Ø14.38×6.21	90	PC / PC	
TC1001MPMCD	Clear	10	Ø24.48×15.53	92	PMMA / PC	
TP1501MPMCD	Pattern	15	Ø24.48×15.53	92	PMMA / PC	
TP2001MXMCD	Pattern	20	Ø18.48×8.23	92	PMMA / PC	
TP3001EXSCD	Pattern	30	Ø14.38×6.21	92	PMMA / PC	
TP3501EXSCD	Pattern	35	Ø14.38×6.21	92	PMMA / PC	
TP4501EXSCD	Pattern	45	Ø14.38×6.21	92	PMMA / PC	
TP5501EXSCD	Pattern	55	Ø14.38×6.21	92	PMMA / PC	
TP6001EXSCD	Pattern	60	Ø14.38×6.21	92	PMMA / PC	
TP7001EXSCD	Pattern	70	Ø14.38×6.21	92	PMMA / PC	

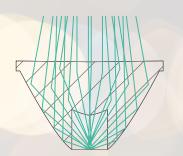
### **Total Internal Reflective Lens**

Applications : High-bay, Flood Lights, Down Lights, Landscape, etc.

TIR stands for Total Internal Reflection. Most typical lenses in the AnyCasting standard product range are the cone-like lenses. TIR lenses have a nice round light distribution of a circular symmetrical design. These lenses capture more of the LED light and direct

to target point and

make sure the light is going to the place need it most. The optic collimates the light and sends a concentrated beam in the same direction. With a TIR optic in place, a reflector is not needed.



Beams that are reflected by the reflector surface

SAMSUNG

**TIR** Lens



### **OSRAM PKG**

#### Osram LCW CQAR PC PKG (3.0×3.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP1501MXMOP	Pattern	15	Ø18.48×8.23	92	PMMA / PC
TP2001MXSOP	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3001MXSOP	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP3501EXSOP	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4501EXSOP	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001EXSOP	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP5501EXSOP	Pattern	55	Ø14.38×6.21	92	PMMA / PC
TP7001EXSOP	Pattern	70	Ø14.38×6.23	92	PMMA / PC

#### Osram LCW CQAR EC PKG Dome Oslon G1 (3.0x3.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP1501MOMOE	Pattern	15	Ø18.48×8.23	92	PMMA / PC
TP2001MOSOE	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3001MOSOE	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP3501EOSOE	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4001EOSOE	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP4501EOSOE	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001EOSOE	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP5501EOSOE	Pattern	55	Ø14.38×6.21	92	PMMA / PC
TP6001EOSOE	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TP7001EOSOE	Pattern	70	Ø14.38×6.21	92	PMMA / PC

#### Osram GW CSSRM2.PM PKG Dome Oslon SQ G3 (3.0×3.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP1501EOMO1	Pattern	15	Ø18.48×8.23	92	PMMA / PC
TP2001EOSO1	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP2501EOSO1	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3501EOSO1	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4501EOSO1	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001EOSO1	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6501EOSO1	Pattern	65	Ø14.38×6.21	92	PMMA / PC
TP7001EOSO1	Pattern	70	Ø14.38×6.21	92	PMMA / PC

#### Osram GW PUSRA1.PM PKG Dome Duris P8 (3.7x3.7)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2501ENSO2	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3001ENSO2	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP4001ENSO2	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP5001ENSO2	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6001ENSO2	Pattern	60	Ø14.38×6.21	92	PMMA / PC

#### OSRAM

OSRAM

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OSRAM



# Osram GW JSLPS1 EM PKG (Flat Type 3030) Part No. TYPE Beam Angle SIZE (mm)

Part No.	TYPE	(FWHM)	SIZE (mm)	Efficiency (%)	(Lens/Holder)
TP1501IXTO9	Pattern	15	Ø14.38×6.21	90	PC / PC
TP2501PXTO9	Pattern	25	Ø14.38×6.21	88	PC / PC
TP3001PXTO9	Pattern	30	Ø14.38×6.21	88	PC / PC
TP3501PXTO9	Pattern	35	Ø14.38×6.21	88	PC / PC
TP4001IXTO9	Pattern	40	Ø14.38×6.21	90	PC / PC
TP4501PXTO9	Pattern	45	Ø14.38×6.21	88	PC / PC
TP5501IXTO9	Pattern	55	Ø14.38×6.21	90	PC / PC
TP6001PXTO9	Pattern	60	Ø14.38×6.21	88	PC / PC
TP1501EXTO9	Pattern	15	Ø14.38×6.21	92	PMMA / PC
TP2001EXTO9	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP2501EXTO9	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3001EXTO9	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP3501EXTO9	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4001EXTO9	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP4501EXTO9	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001EXTO9	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP5501EXTO9	Pattern	55	Ø14.38×6.21	92	PMMA / PC

#### Osram GW P9LR32 EM PKG (Flat Type 5050)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1501B5LO7	Clear	15	Ø35.0×19.5	88	PC / PC
TP2001I5MO7	Pattern	20	Ø27.6×14.35	90	PC / PC
TP3001PMSO7	Pattern	30	Ø18.61×9.43	88	PC / PC
TP4001I5SO7	Pattern	40	Ø23.6×14.35	90	PC / PC
TP4501I5SO7	Pattern	45	Ø23.6×14.35	90	PC / PC
TP5501I5SO7	Pattern	55	Ø23.6×14.35	90	PC / PC
TP6001EOSOE	Pattern	60	Ø24.48×15.53	88	PC / PC
TP1501EMMO7	Pattern	15	Ø24.61×15.35	92	PMMA / PC
TP2001E5MO7	Pattern	20	Ø27.6×14.35	92	PMMA / PC
TP2501E5SO7	Pattern	25	Ø23.6×14.35	92	PMMA / PC
TP3501E5SO7	Pattern	35	Ø23.6×14.35	92	PMMA / PC
TP4501E5SO7	Pattern	45	Ø23.6×14.35	92	PMMA / PC
TP5501EMSO7	Pattern	55	Ø18.61×9.49	92	PMMA / PC

#### Osram GW P7STA1 PKG Dome Duris P10 (7.0×7.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1501ILMO3	Clear	15	Ø27.6×13.85	90	PC / PC
TP2501ILMO3	Pattern	25	Ø27.6×13.85	90	PC / PC
TP3001ILSO3	Pattern	30	Ø27.6×13.85	90	PC / PC
TP5001ILSO3	Pattern	50	Ø27.6×13.85	90	PC / PC
TP6001ILSO3	Pattern	60	Ø27.6×13.85	90	PC / PC

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OSRAM

OSRAM

OSRAM

Material



**TIR** Lens



### NICHIA PKG

#### Nichia 119B PKG (3.5×3.5)

### Material

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1001PPMN9	Clear	10	Ø24.48×15.53	88	PC / PC
TP2001PXMN9	Pattern	20	Ø18.48×8.23	88	PC / PC
TP2501PXSN9	Pattern	25	Ø14.38×6.21	88	PC / PC
TP3501PXSN9	Pattern	35	Ø14.38×6.21	88	PC / PC
TP4001IXSN9	Pattern	40	Ø14.38×6.21	90	PC / PC
TP4501PXSN9	Pattern	45	Ø14.38×6.21	88	PC / PC
TP5001IXSN9	Pattern	50	Ø14.38×6.21	90	PC / PC
TP5501PXSN9	Pattern	55	Ø14.38×6.21	88	PC / PC
TP6001PXSN9	Pattern	60	Ø14.38×6.21	88	PC / PC
TP6501PXSN9	Pattern	65	Ø14.38×6.21	88	PC / PC
TP2001EXSN9	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP2501MXSN9	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3501EXSN9	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4501EXSN9	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001EXSN9	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP5501EXSN9	Pattern	55	Ø14.38×6.21	92	PMMA / PC
TP6001EXSN9	Pattern	60	Ø14.38×6.21	92	PMMA / PC
TP6501EXSN9	Pattern	65	Ø14.38×6.21	92	PMMA / PC

#### Nichia 757D PKG (3.0×3.0)

**Ø**ΝΙCΗΙΛ

**ØNICHIA** 

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001EXSN7	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3001EXSN7	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP4001EXSN7	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP4501EXSN7	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001EXSN7	Pattern	50	Ø14.38×6.21	92	PMMA / PC

#### Nichia NF2W757GRT-V1 PKG (3.0×3.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001IXTN1	Pattern	20	Ø14.38×6.21	90	PC / PC
TP3501IXTN1	Pattern	35	Ø14.38×6.21	90	PC / PC
TP4501IXTN1	Pattern	45	Ø14.38×6.21	90	PC / PC
TP5501IXTN1	Pattern	55	Ø14.38×6.21	90	PC / PC
TP2001EXTN1	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3501EXTN1	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP4001EXTN1	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP4501EXTN1	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001EXTN1	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6001EXTN1	Pattern	60	Ø14.38×6.21	92	PMMA / PC

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Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1001PPMN2	Clear	10	Ø24.48×15.53	88	PC / PC
TP2001IXSN2	Pattern	20	Ø14.38×6.21	90	PC / PC
TP4001IXSN2	Pattern	40	Ø14.38×6.21	90	PC / PC
TP5501IXSN2	Pattern	55	Ø14.38×6.21	90	PC / PC
TP6501IXSN2	Pattern	65	Ø14.38×6.21	90	PC / PC
TP7001IXSN2	Pattern	70	Ø14.38×6.21	90	PC / PC
TP1001EPMN2	Pattern	10	Ø24.48×15.53	92	PMMA / PC
TP2001EXMN2	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP2501EXSN2	Pattern	25	Ø14.38×6.21	92	PMMA / PC
TP3501EXSN2	Pattern	35	Ø14.38×6.21	92	PMMA / PC
TP5001EXSN2	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP6501EXSN2	Pattern	65	Ø14.38×6.21	92	PMMA / PC

Ø14.38×6.21

92

Nichia NVSW219CTE PKG (3.5x3.5)

Pattern

75

TP7501EXSN2

**Ø**ΝΙCΗΙΛ

PMMA / PC

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### TIR Lens

🚯 LG Innotek

C LG Innotek

🚯 LG Innotek

### LG INNOTEK PKG

#### LG Innotek H35C1 (G2) PKG (3.5x3.5)

				-
TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
Pattern	15	Ø18.48×8.23	88	PC / PC
Pattern	20	Ø14.38×6.21	90	PC / PC
Pattern	30	Ø14.38×6.21	88	PC / PC
Pattern	40	Ø14.38×6.21	90	PC / PC
Pattern	55	Ø14.38×6.21	90	PC / PC
Pattern	60	Ø14.38×6.21	88	PC / PC
Pattern	80	Ø14.38×6.21	88	PC / PC
Pattern	15	Ø18.48×8.23	92	PMMA / PC
Pattern	20	Ø14.38×6.21	92	PMMA / PC
Pattern	30	Ø14.38×6.21	92	PMMA / PC
Pattern	35	Ø14.38×6.21	92	PMMA / PC
Pattern	50	Ø14.38×6.21	92	PMMA / PC
Pattern	55	Ø14.38×6.21	92	PMMA / PC
Pattern	60	Ø14.38×6.21	92	PMMA / PC
Pattern	80	Ø14.38×6.21	92	PMMA / PC
	Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern Pattern	TYPE         (FWHM)           Pattern         15           Pattern         20           Pattern         30           Pattern         40           Pattern         40           Pattern         55           Pattern         80           Pattern         15           Pattern         15           Pattern         30           Pattern         30           Pattern         30           Pattern         30           Pattern         30           Pattern         30           Pattern         35           Pattern         50           Pattern         50           Pattern         55           Pattern         60	TYPE         (FWHM)         SIZE (mm)           Pattern         15         Ø18.48×8.23           Pattern         20         Ø14.38×6.21           Pattern         30         Ø14.38×6.21           Pattern         40         Ø14.38×6.21           Pattern         55         Ø14.38×6.21           Pattern         55         Ø14.38×6.21           Pattern         80         Ø14.38×6.21           Pattern         80         Ø14.38×6.21           Pattern         15         Ø18.48×8.23           Pattern         15         Ø14.38×6.21           Pattern         30         Ø14.38×6.21           Pattern         35         Ø14.38×6.21           Pattern         35         Ø14.38×6.21           Pattern         50         Ø14.38×6.21           Pattern         50         Ø14.38×6.21           Pattern         55         Ø14.38×6.21           Pattern         55         Ø14.38×6.21           Pattern         60         Ø14.38×6.21	TTPE         (FWHM)         SIZE (im)         Efficiency (%)           Pattern         15         Ø18.48×8.23         88           Pattern         20         Ø14.38×6.21         90           Pattern         30         Ø14.38×6.21         88           Pattern         40         Ø14.38×6.21         90           Pattern         55         Ø14.38×6.21         90           Pattern         60         Ø14.38×6.21         88           Pattern         55         Ø14.38×6.21         88           Pattern         80         Ø14.38×6.21         88           Pattern         80         Ø14.38×6.21         88           Pattern         30         Ø14.38×6.21         92           Pattern         15         Ø18.48×8.23         92           Pattern         30         Ø14.38×6.21         92           Pattern         30         Ø14.38×6.21         92           Pattern         30         Ø14.38×6.21         92           Pattern         50         Ø14.38×6.21         92           Pattern         55         Ø14.38×6.21         92           Pattern         55         Ø14.38×6.21         92

#### LG Innotek H35F0 (G4L) PKG (3.5×3.5)

					-
Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TC1001B5LG4	Clear	10	Ø35.0×19.5	88	PC / PC
TP1501BPMG4	Pattern	15	Ø24.48×15.53	88	PC / PC
TP1501MPMG4	Pattern	15	Ø24.48×15.53	92	PMMA / PC
TP3001EXSG4	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP4001EXSG4	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP5501EXSG4	Pattern	55	Ø14.38×6.21	92	PMMA / PC

#### LG Innotek Flat Type PKG (3.0×3.0)

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)
TP2001IXTG1	Pattern	20	Ø14.38×6.21	90	PC / PC
TP3501IXTG1	Pattern	35	Ø14.38×6.21	90	PC / PC
TP4001PXTG1	Pattern	40	Ø14.38×6.21	88	PC / PC
TP4501IXTG1	Pattern	45	Ø14.38×6.21	90	PC / PC
TP5001IXTG1	Pattern	50	Ø14.38×6.21	90	PC / PC
TP2001EXTG1	Pattern	20	Ø14.38×6.21	92	PMMA / PC
TP3001EXTG1	Pattern	30	Ø14.38×6.21	92	PMMA / PC
TP4001EXTG1	Pattern	40	Ø14.38×6.21	92	PMMA / PC
TP4501EXTG1	Pattern	45	Ø14.38×6.21	92	PMMA / PC
TP5001EXTG1	Pattern	50	Ø14.38×6.21	92	PMMA / PC
TP5501EXTG1	Pattern	55	Ø14.38×6.21	92	PMMA / PC

LG Innotek G4I	🚯 LG Innotel					
Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material (Lens/Holder)	
TC1501IKMG7	Clear	15	Ø27.6×13.85	90	PC / PC	
TP3001ILPG7	Pattern	30	Ø23.6×13.85	90	PC / PC	
TP5001ILPG7	Pattern	50	Ø23.6×13.85	90	PC / PC	
TP6001ILPG7	Pattern	60	Ø23.6×13.85	90	PC / PC	
TP7001ILPG7	Pattern	70	Ø23.6×13.85	90	PC / PC	
TP3001ELPG7	Pattern	30	Ø23.6×13.85	92	PMMA / PC	
TP5001ELPG7	Pattern	50	Ø23.6×13.85	92	PMMA / PC	

Ø23.6×13.85

Ø23.6×13.85

92

92

PMMA / PC

PMMA / PC

TP6001ELPG7

TP7001ELPG7

Pattern

Pattern

60

70

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#### AnyCasting LED Optic Solutions

### Asymmetry TIR Lens

### Asymmetry TIR Lens

AnyCasting's total internal reflection LED lens maintains excellent optical quality with minimized size. Also, since it has minimized color temperature deviation and increased optical efficiency, it is used for diverse applications.

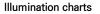
AnyCasting's Ture Color Lens series is the product of optical design optimized for different user environment and offer a wide range of high quality standard products and Optical lenses using for Flood Light, Highbay, Landscape, Sports Lighting moreover Vehicle, Airport, Marine etc... Now whenever and wherever you can experience specialized technology of AnyCasting Co., Ltd.



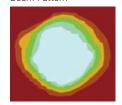


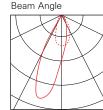
### TA101EXLG2

Applicable LED	3535PKG				
Material	PMMA / PC				
Material Details	Lens Material Optical Grade PMMA - Flammability : HB (UL94) - Luminous transmittance : 92% (ISO 13468-2) - Refractive index : 1.49 (ISO 489)				
	Lens Material Optical Grade PC – Flammability : V–0 (UL94) – Heat Deformation Temperature : 133 °C (ASTM D648) – Izod Impact Strength : 75 J/m				
Beam Angle Type (FWHM)	Asymmetric Lens				
Size	Ø26.07 x 13.14 mm				
Assembly	In order to present the best optical effect, the PIN at the bottom of the lens is fixed to the PCB board, so that the center of the LED and the center of the lens can be aligned to get high efficiency.				

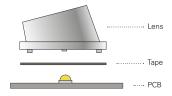


Beam Pattern

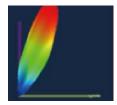




TIR Single Lens Line-up

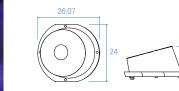


3D distribution



Beam Pattern simulation

Lens Dimensions



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Please refer to the standard specification and contact AnyCasting to produce efficiently suitable lens as request of customers. Search for *www.anycasting.com* for more details.



### **Oval** Lens

### **Oval** Lens

AnyCasting's total-reflection LED lens maintains excellent optical quality with minimized size. Also, it is used for diverse applications since it has minimized color temperature deviation and increased optical efficiency.

#### Features

- Reduction in color temperature difference by optimized lens surface
- Improvement of optical guality by using lens surfaces with patterned nanostructures
- Superior luminous flux efficiency
- It is available to improve the linearity of light applied to signboard or advertisement in medium and large size
- Applicable to a variety of 3030 & 3535 PKG



#### TO3010EXNxx

Material PMMA FWHM 30×10° Size Ø23.60×11.77mm Efficiency 90% Applicable LED 3535 PKG

#### TO3511BXNxx

Material PC FWHM 35×11° Ø23.60x11.77mm Size Efficiency 88% Applicable LED 3535 PKG

#### TO4212EXNxx

Material PMMA FWHM 42 x 12° Ø26.0x12.2mm Size Efficiency 90% Applicable LED 3535 PKG

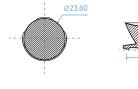
#### TO4814EXNxx

PMMA Material FWHM 48 x 14° Ø26.0x12.2mm Size Efficiency 90% Applicable LED 3535 PKG

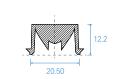
#### TO5312BXNxx

Material PC FWHM 53 x 12° Ø26.0x12.2mm Size Efficiency 88% 3535 PKG Applicable LED

#### Lens Dimensions







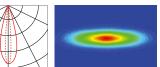
#### TO3010EXNxx / TO3511BXNxx

TO4212EXNxx / TO4814EXNxx / TO5312BXNxx

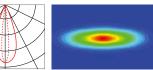
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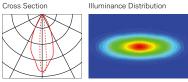
Cross Section

#### Cross Section Illuminance Distribution



#### Cross Section Illuminance Distribution





#### Cross Section

Illuminance Distribution

Illuminance Distribution

TO4212EXNxx TO4814EXNxx TO5312BXNxx

TO3010EXNxx

TO3511BXNxx

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Please refer to the standard specification and contact AnyCasting to produce efficiently suitable lens as request of customers. Search for www.anycasting.com for more details.

### TIR Array Lens

### 2x2 lens

#### TIR Array Lens

Part No.	TYPE	Beam Angle (FWHM)	SIZE (mm)	Efficiency (%)	Material	Manufacturer	PKG
TS2504BXLG1	Sanding	25	49.80×49.80	88	PC	LG Innotek	3030 PKG
TS3004BXLG3	Sanding	30	49.80×49.80	88	PC	Cree	3535 PKG
TS3004BXLCB	Sanding	30	49.80×49.80	88	PC	Samsung	3535 PKG
TS3004BXLL2	Sanding	30	49.80×49.80	88	PC	LG Innotek	3535 PKG
TS3004BXLS1	Sanding	30	49.80×49.80	88	PC	Seoul semi	3030 PKG
TS4504BXLG1	Sanding	45	49.80×49.80	88	PC	LG Innotek	3030 PKG
TS5004BXLS1	Sanding	50	49.80×49.80	88	PC	Seoul semi	3030 PKG
TS6004BXLG3	Sanding	60	49.80×49.80	88	PC	Cree	3535 PKG
TS7004BXLCB	Sanding	70	49.80×49.80	88	PC	Samsung	3535 PKG
TS7004BXLL2	Sanding	70	49.80×49.80	88	PC	LG Innotek	3535 PKG
AC7504BXLG1	Clear	75	49.80×49.80	88	PC	LG Innotek	3030 PKG
AC8004BXLS1	Clear	80	49.80×49.80	88	PC	Seoul semi	3030 PKG
AC8504BXLCB	Clear	85	49.80×49.80	88	PC	Samsung	3535 PKG
AC8504BXLL2	Clear	85	49.80×49.80	88	PC	LG Innotek	3535 PKG
AC9004BXLG3	Clear	90	49.80×49.80	88	PC	Cree	3535 PKG
TS2004EXLG1	Sanding	20	49.80×49.80	92	PMMA	LG Innotek	3030 PKG
TS2504EXLS1	Sanding	25	49.80×49.80	92	PMMA	Seoul semi	3030 PKG
TS3004EXLCB	Sanding	30	49.80×49.80	92	PMMA	Samsung	3535 PKG
TS3004EXLL2	Sanding	30	49.80×49.80	92	PMMA	LG Innotek	3535 PKG
TS3004EXLG3	Sanding	30	49.80×49.80	92	PMMA	Cree	3535 PKG
TS4504EXLG1	Sanding	45	49.80×49.80	92	PMMA	LG Innotek	3030 PKG
TS5004EXLS1	Sanding	50	49.80×49.80	92	PMMA	Seoul semi	3030 PKG
TS6004EXLG3	Sanding	60	49.80×49.80	92	PMMA	Cree	3535 PKG
TS7004EXLL2	Sanding	70	49.80×49.80	92	PMMA	LG Innotek	3535 PKG
TS7004EXLCB	Sanding	70	49.80×49.80	92	PMMA	Samsung	3535 PKG
AC8004EXLG1	Clear	80	49.80×49.80	92	PMMA	LG Innotek	3030 PKG
AC9004EXLG3	Clear	90	49.80×49.80	92	PMMA	Cree	3535 PKG
AC9004EXLCB	Clear	90	49.80×49.80	92	PMMA	Samsung	3535 PKG
AC9004EXLL2	Clear	90	49.80×49.80	92	PMMA	LG Innotek	3535 PKG
AC9004EXLS1	Clear	90	49.80×49.80	92	PMMA	Seoul semi	3030 PKG



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Please refer to the standard specification and contact AnyCasting to produce efficiently suitable lens as request of customers. Search for *www.anycasting.com* for more details.

### TPxx36MXSMG (36EA Multi Array Holder)

#### For 3535 PKG

Enable Standard Lens used Ultrasonic Welding Variety Angle Applicable Applications : High-bay, Flood Lights, Down Lights, Landscape, etc.

Size	Ø140.0×12.6mm
Material	PC
Efficiency	90%
Applicable LED	3535PKG / CREE XPX Series / LG INNOTEK / SANMSUNG / SEOUL Semi / NICHIA / OSRAM / etc.





SECTION A-A

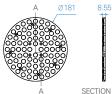
### TPxx84MXSMG (84EA Multi Array Holder)

For 3535 PKG

Enable Standard Lens used Ultrasonic Welding Variety Angle Applicable Applications : High-bay, Flood Lights, Down Lights, Landscape, etc.

Size	Ø181.0x8.55mm
Material	PC
Efficiency	90%
Applicable LED	3535PKG / CREE XPX Series / LG INNOTEK / SANMSUNG / SEOUL Semi / NICHIA / OSRAM / etc.

Dimensions







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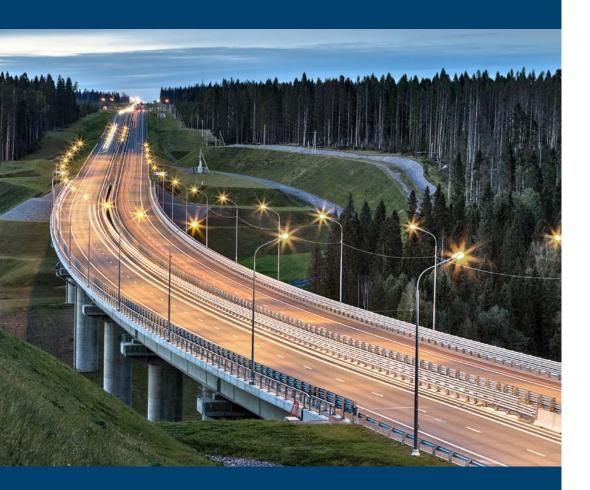


### Street lights Lens

AnyCasting's outdoor lighting lenses have an optical design to suit various outdoor environments and installation conditions. Their high optical efficiency ensures that the lighting specifications meet all customers request.

AnyCasting's universal LED street lighting lenses are designed for diverse installation environments. They are high performance asymmetrical lenses with optical efficiencies of over 93% that provide high overall / longitudinal illuminance uniformity.

Their effective light control minimizes glare, and assembly and installation in streetlights are simple and easy. Heat-resistant materials are used for high durability.



as request of customers. Search for www.anycasting.com for more details.



#### STA301MXLXG

PMMA Material FWHM Asymmetric Size 19.0 x 14.0 mm Applicable LED 3535PKG

#### STA601CMLML

Material PC Asymmetric 20.0 x 19.0 mm 5050PKG





STA701MXLXG Material PMMA FWHM Asymmetric 19.0 x 14.0 mm Size Applicable LED 3535PKG

### STA801MXLXG

PMMA Material FWHM Asymmetric 23.0 x 16.0 mm Size Applicable LED 3535PKG

### STA901MXLXG

Material PMMA FWHM Asymmetric 32.0 x 26.0 mm Size Applicable LED 7070PKG

### STA1201ETLTE

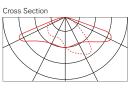
PMMA Material FWHM Asymmetric Size 19.0 x 14.0 mm 3535PKG Applicable LED

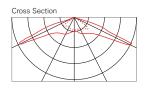
### STA1801EXLXG

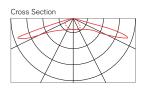
#### Material FWHM Size Applicable LED

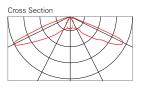
PMMA 3535PKG

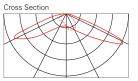
Asymmetric 19.0 x 14.0 mm Street lights Lens

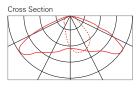


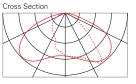












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### Street lights Lens

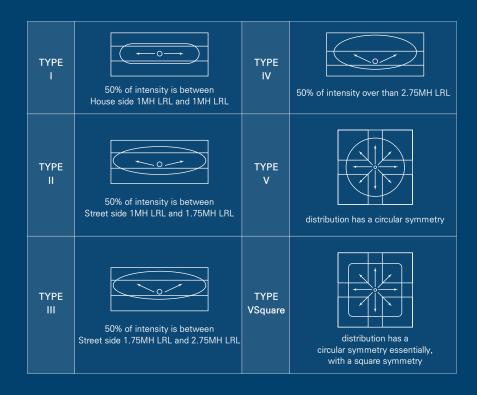
### **IESNA Roadway Classification**

(Illuminating Engineering Society of North America)

Classification of Type I~VS, Short, Medium, Long depend on Mounting Height. Classification of Type I~VS depend on 50% point of Max Candela. Classification of Short, Medium, Long depend on the point of Max Candela.

MH Mounting Height

- LRL Longitudinal Roadway Lines, running along the roadway
- TRL Transverse Roadway Lines, running across the roadway



Very Short	: Max Candela is between 0 and 1.0MH TRL
Short	: Max Candela is between 1.0MH TRL and 2.25MH TRL
Medium	: Max Candela is between 2.25MH TRL and 3.75MH TRL
Long	: Max Candela is between 3.75MH TRL and 6.0MH TRL
Very Long	: Max Candela is over than 6.0MH TRL



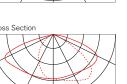
#### STA1901EXLXG

Size

PMMA Material FWHM Asymmetric Size 19.0 x 14.0 mm Applicable LED 3535PKG



STA2001EXLXG Material PMMA FWHM Asymmetric 19.0 x 14.0 mm Applicable LED 3535PKG





#### STA2101PXLXG PC Asymmetric 19.0 x 14.0 mm

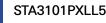
Material FWHM Size Applicable LED 3535PKG

### STA2301PXLL2

PC Material FWHM Asymmetric 19.0 x 14.0 mm Size Applicable LED 3535PKG

### STA2701PXLL2

Material PC FWHM Asymmetric 19.0×14.0mm Size Applicable LED 3535PKG



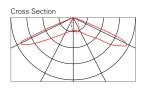
PC Material FWHM Asymmetric Size 20.0 x 15.0 mm Applicable LED 5152PKG

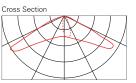
### STA3301PXLL2

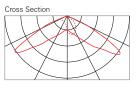
#### Material PC FWHM Size Applicable LED 3535PKG

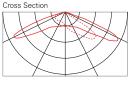
Asymmetric 19.0 x14.0 mm

# Cross Section



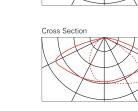






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Cross Section









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## Street lights Lens

Cross Section

Cross Section



#### STA3701PXLPL

 Material
 PC

 FWHM
 Asymmetric

 Size
 19.0 x14.0 mm

 Applicable LED
 3535PKG



#### STA4101PXLCB

MaterialPCFWHMAsymmetricSize19.0 x14.0mmApplicable LED3535PKG



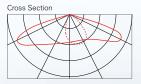
### STA4201PXLL2

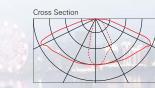
MaterialPCFWHMAsymmetricSize19.0 x14.0mmApplicable LED3535PKG



#### STA5201PXLL2

MaterialPCFWHMAsymmetricSize19.0 x14.0mmApplicable LED3535PKG





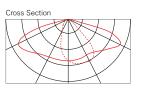


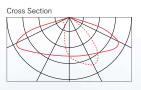
#### STA5301PXLL2

MaterialPCFWHMAsymmetricSize19.0 x14.0 mmApplicable LED3535PKG

#### STA6401EXLS1

Material PMMA FWHM Asymmetric Size 16.0 x12.0mm Applicable LED 3030, 3535PKG, OSRAM duris P8, Luxeon TX





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### Street lights Lens



### Security lights Lens

AnyCasting's universal LED security lighting lenses are designed for diverse installation environments.

They are high performance asymmetrical lenses with over 93% optical efficiencies that provide high overall / longitudinal illuminance uniformity.

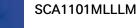






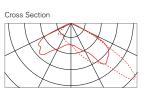


PC Material FWHM Symmetric 23.0x16.4x9.1mm Size 3535PKG Applicable LED



Material PMMA FWHM Size Applicable LED 7070PKG

# Asymmetric 27.0x27.0x10.30mm



Cross Section

Cross Section



PMMA Asymmetric 19.0x14.0x6.2mm 3535PKG

### SCS3501PXLCB

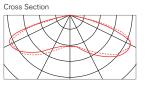
SCA501MXLXG

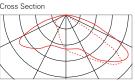
Material PC FWHM Symmetric Size Applicable LED 3535PKG

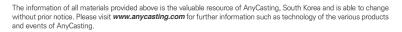
20.0x20.0x4.7mm

### SCA4601PXLPL

PC Material FWHM Asymmetric 19.0×14.0×6.55mm Size Applicable LED 3535PKG







Security lights Lens

FWHM Size Applicable LED

Material



Please refer to the standard specification and contact AnyCasting to produce efficiently suitable lens as request of customers. Search for www.anycasting.com for more details. Q3 2017 / 39



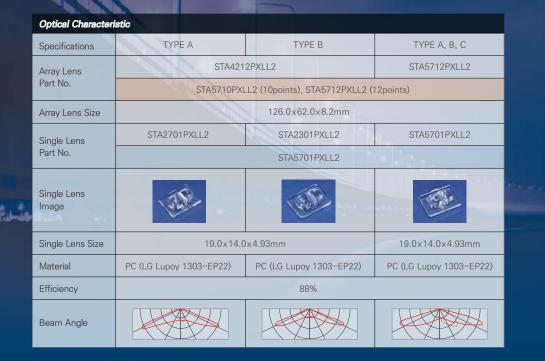
### Array Lens

### Array Lens

Applications : Street Lights, Security Lights, Tunnel Lights

AnyCasting has standard 10points and 12spoints array lenses. A wide range of standard array lenses can be used with one heat sink and one gasket, and it is used for ceilings and walls of tunnels.

- Compact and efficient design make modules easy to use and save expenses by using the same heat sink. - High performance and perfect for street lights and tunnel lights.





#### STA2310PXLL2

Material PC FWHM Asymmetric 126.0 x 62.0 x 8.2 mm Size 3535PKG Applicable LED

### STA3310PXLL2

Material PMMA FWHM Asymmetric Size 126.0 x 62.0 x 8.2 mm Applicable LED 3535PKG

Cross Section



# STA4212PXLL2

Material PC FWHM Asymmetric Size 3535PKG Applicable LED

126.0 x 62.0 x 8.2 mm

### STA5212PXLL2

Material PC. FWHM Asymmetric 126.0 x 62.0 x 8.2 mm Size Applicable LED 3535PKG

### STA5312PXLL2

Material FWHM Size Applicable LED

PC Asymmetric 126.0 x 62.0 x 8.2 mm 3535PKG

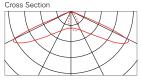
STA5710PXLL2

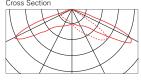
Material PC FWHM Asymmetric 126.0 x 62.0 x 8.2 mm Size Applicable LED 3535PKG

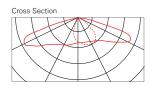
### STA5712PXLL2

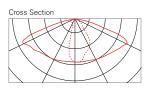
#### Material PC FWHM Size Applicable LED

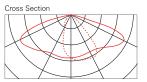
Asymmetric 126.0 x 62.0 x 8.2 mm 3535PKG

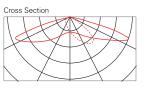


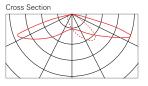












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# Array Lens

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Please refer to the standard specification and contact AnyCasting to produce efficiently suitable lens as request of customers. Search for www.anycasting.com for more details. 03 2017 / 41



### Array Lens



#### STA6112PXLL2

Material PC FWHM Asymmetric Size 126.0×62.0×8.2mm 3535PKG Applicable LED



#### STA6404xxxx

Material PMMA FWHM Asymmetric Size 50.0×50.0mm 3030, 3535PKG, Applicable LED OSRAM duris P8, Luxeon TX



#### STA6408xxxx

Material PMMA FWHM Asymmetric 50.0×50.0mm Size Applicable LED 3030, 3535PKG

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#### STA1224ETLTE

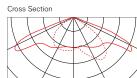
Size

Material PMMA FWHM Asymmetric 120.0 x100.0 mm Applicable LED 3535PKG

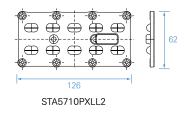
e		-	-	8	1	3		1	-	2	-
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ê		6			-		-	-	-		
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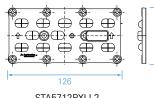
#### STA160Mxxxx

Material PMMA FWHM Asymmetric Size 348.0 x165.0 mm Applicable LED 3535PKG



Lens Dimensions







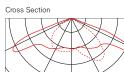


Cross Section

Cross Section

Cross Section

Cross Section

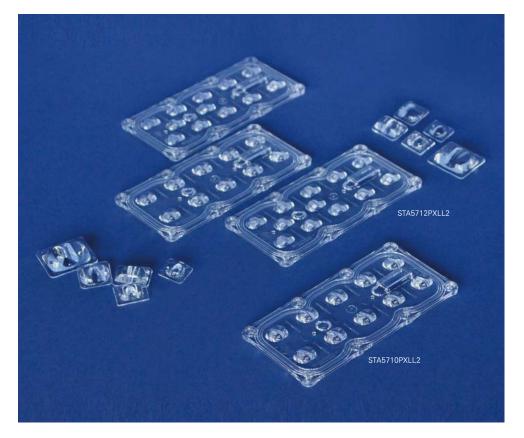


Please refer to the standard specification and contact AnyCasting to produce efficiently suitable lens as request of customers. Search for www.anycasting.com for more details.

#### Assembly







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## Tunnel lights Lens

### Tunnel lights Lens

TNA210PXLL2

(10pt Array Lens)

The 10 points standard array lens is designed on the basis of Korea Expressway Corporation's (government) tunnelsand we provide optimal and right lens solution.



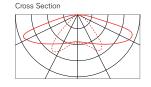


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Please refer to the standard specification and contact AnyCasting to produce efficiently suitable lens as request of customers. Search for www.anycasting.com for more details.

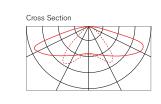
#### TNA210PXLL2

PC Material FWHM Asymmetric Size 124.0×60.0×8.2mm Applicable LED 3535PKG

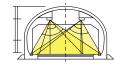


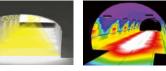
#### TNA301PXLL2

PC Material FWHM Asymmetric Size 18.85×13.85×5.19mm 351B, H35C1, TL1L4-NW1 Applicable LED



Design Condition





Cross Section



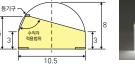
#### TNA101PXLTE

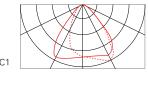
Design Condition

5.5

Material PC FWHM Asymmetric 20.0×19.0×7.71mm Size Applicable LED XPG, XPG G2, XTE, 351A, H35C1

Dialux Simulation





Dialux Simulation





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TNA301PXLL2

TNA101PXLTE



### Channel Sign for BLU Lens

AnyCasting lens presents high quality Backlight Unit (BLU) with great uniformity and no color temperature deviation in the extremely low optical distance. AnyCasting lenses are designed and supplied by considering an optical distance and the number of light sources.

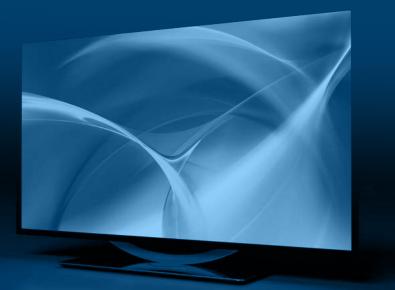
#### Comparison of BLU before and after AnyCasting lens application





#### Light Distribution depending on Optical Distance





Please refer to the standard specification and contact AnyCasting to produce efficiently suitable lens as request of customers. Search for *www.anycasting.com* for more details.

### Channel Sign for BLU Lens

#### AS1603ADHS3

BLD501PHXA1

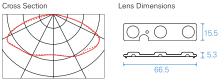
PC

Material

FWHM

Size Applicable LED

Material	Diffusion PC
FWHM	155°
Size	15.5x66.5x5.3mm
Applicable LED	3030, 3528, 5630 PKG



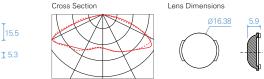
#### BLC101EHXA1 / BCS

 Material
 PMMA

 FWHM
 150°

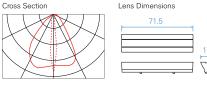
 Size
 Ø16.38×13.7×5.9mm

 Applicable LED
 3030, 3528 PKG



#### BLD501PHXA2

PC
10°~13°
70.8x15.7x6.75mm
1313 CSP



10°~13° (1313 CSP).

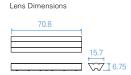
71.5x17.8x10.0(T)mm

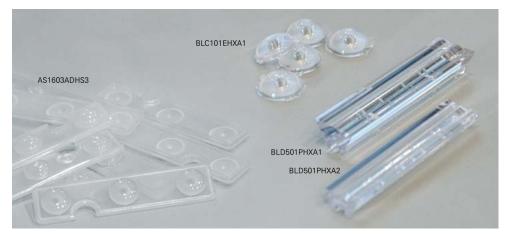
17°~20° (High Power LED PKG)

1313 CSP, High Power LED PKG

# 

Cross Section





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### **Custom Design**

AnyCasting is a high quality optical lens manufacturer, and the best LED optical lens company which can satisfy customers' needs through partnership with customers based on long-term expertise of optical design and injection technology. We design many standard products and customized lenses to meet the needs of our customers. We also produce the products that customers need from our own factories through mold manufacturing technology with know-how accumulated numerous years.

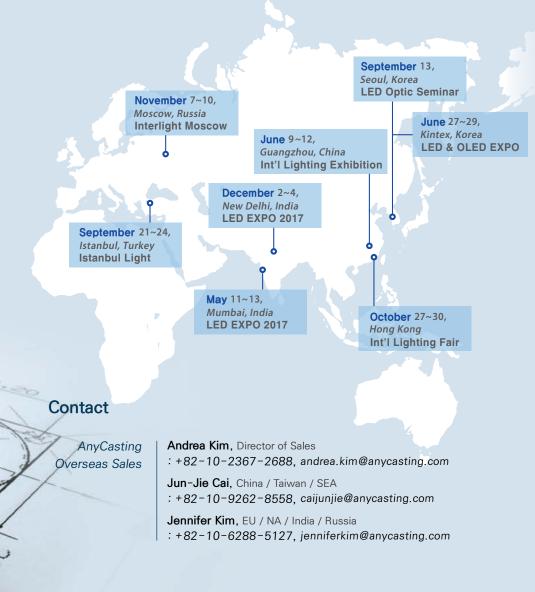
#### AnyCasting's strength?

- Exact optical lens design
   and quick simulation results based on long-term experience
- Continuous Lens Line-Up for various PKG
- Through the QDM (Quick Delivery Mold) mold system, prototypes can be produced and it reduce errors in mold for mass production
- Production technology and production facilities capable of injecting complex lens structures
- Optical lens measurement technology
- Management of lens quality assurance
- Management of schedule product shipment to customer needs

If you need to produce optical lenses that require special LED optics, join with AnyCasting, a specialized manufacturer of LED optical lenses.

### 2017 Exhibition Schedule

AnyCasting Co., Ltd.



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#### **Gimhae Plant**

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AnyCasting Co., Ltd.

LED Optics

www.anyoptics.com