



Product Model Number

CKO-CH15-045021-1609

✓ Model Number Definitions

CKO-XXXX-XXXXXX-XXXX

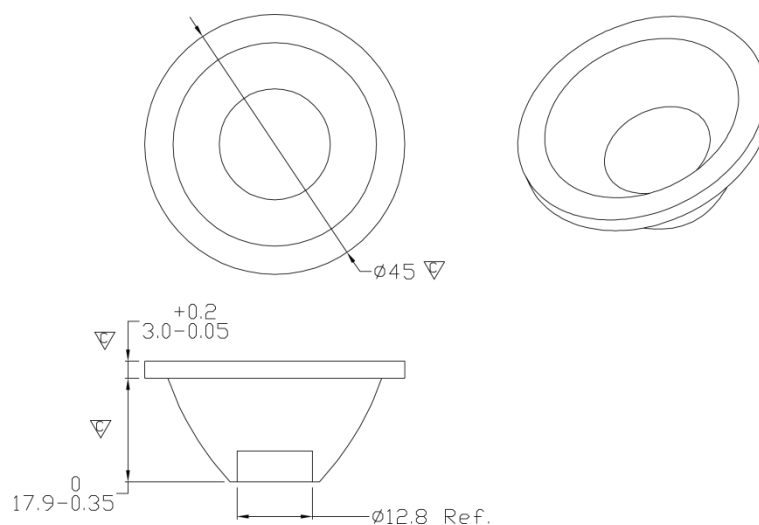


- A. Chun Kuang Optics Corp. Product
- B. Product Type: product abbreviation
Ex:
CH→CoB High Intensity
CC→CoB Compact
CS→Soft Shading for CoB LED
HC→Holder for CoB LED

- C. Identity Code
- D. Lens / Fixture Size
Ex: 075026=Φ75mm / Thickness=26mm (round up)
- C. Serial Numbers

The lens datasheet is applicable for **CREE LED**, that manufactured by Chun Kuang Optics Corp.

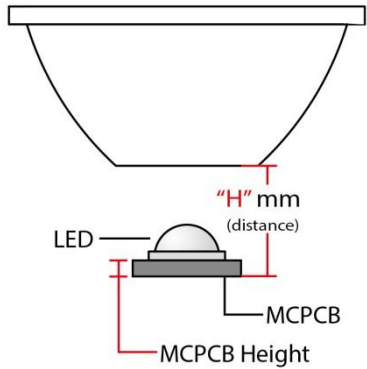
✓ Dimensions (mm) : Φ45 x 20.9



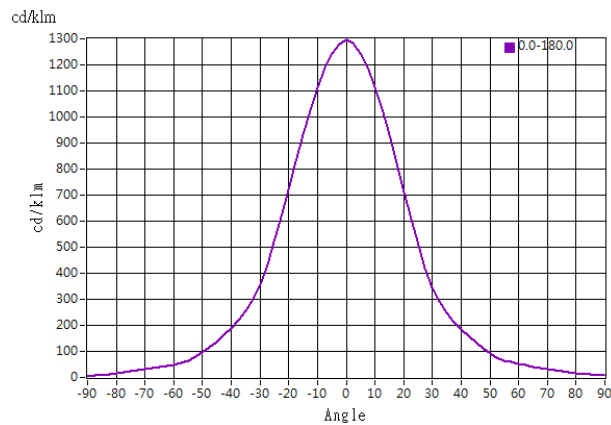
▽:Critical Dimension



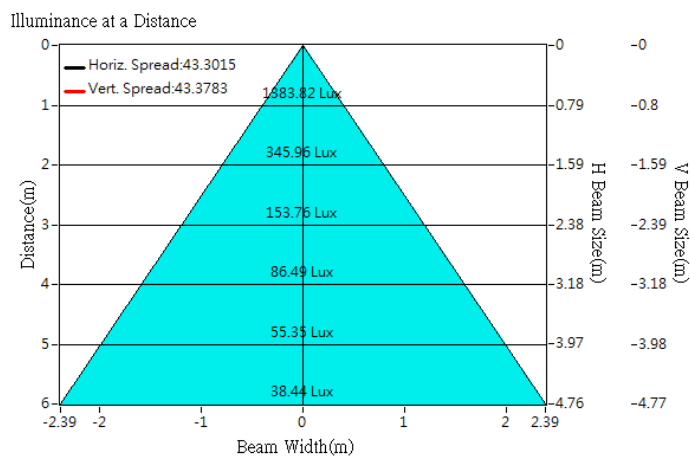
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p> 
LED	MHD-G		
LES / LED Size	7.0 x 7.0		
FWHM (D50)	43°		
Field Angle (D10)	91°		
H (distance)	2.5 mm		
MCPCB Height	1.1 mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1067 lm	Measured @ 12.9 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

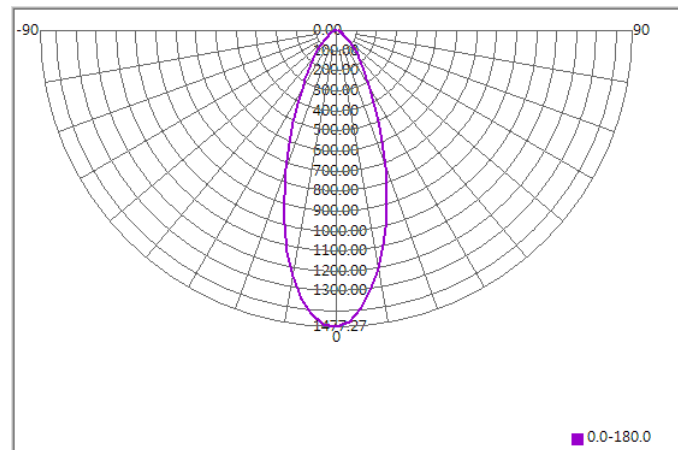




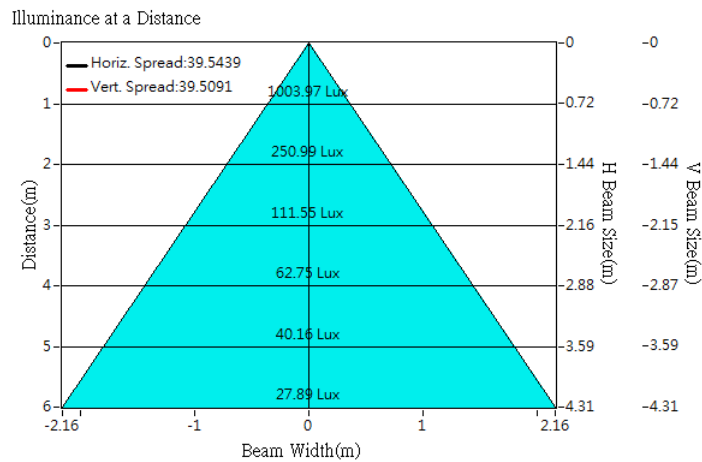
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CMA1303		
LES / LED Size	Φ 4.5 mm		
FWHM (D50)	40°		
Field Angle (D10)	86°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	679 lm	Measured @ 6.7 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

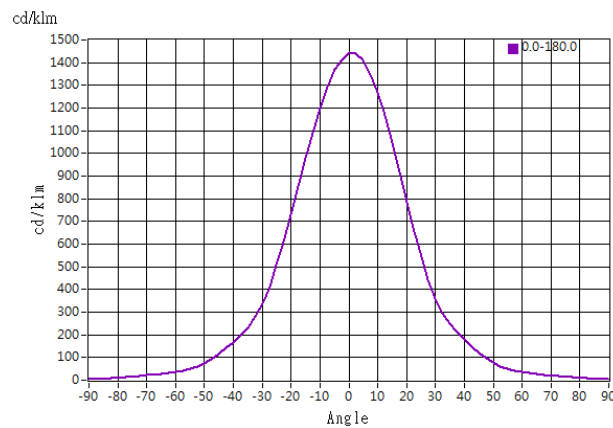




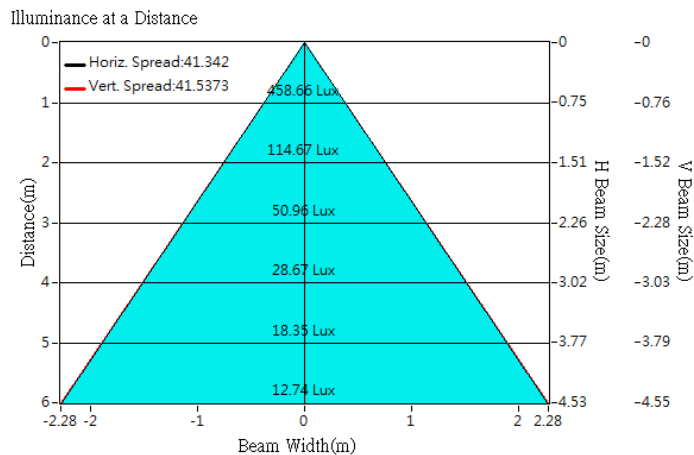
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXA 1304		
LES / LED Size	Φ 6 mm		
FWHM (D50)	41°		
Field Angle (D10)	85°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	318 lm	Measured @ 3.7 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

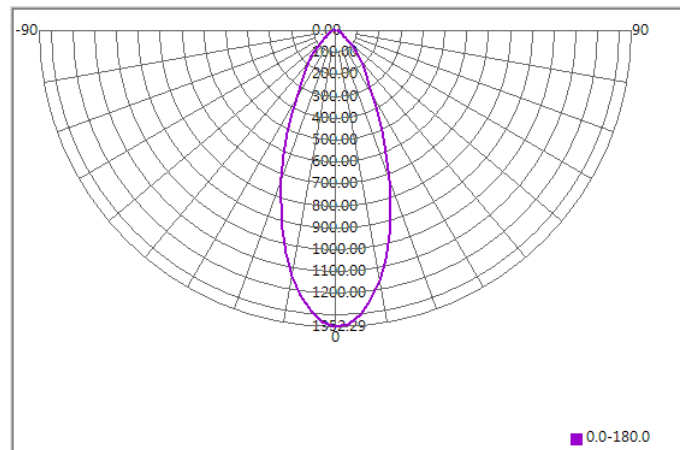




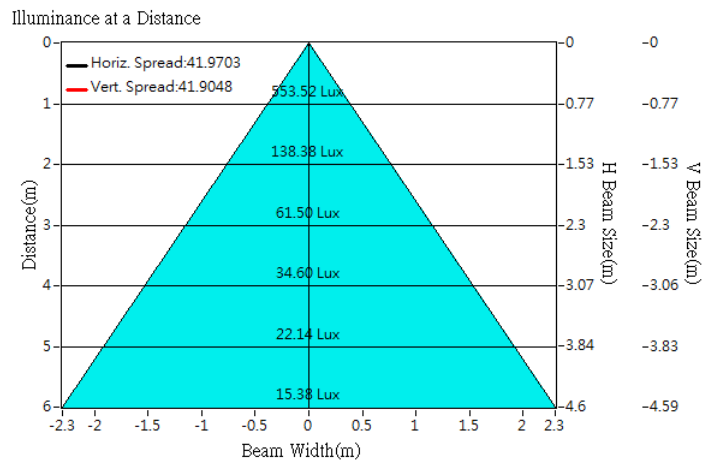
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p> <p>LES CoB</p>
LED	CXB1304		
LES / LED Size	Φ 6 mm		
FWHM (D50)	42°		
Field Angle (D10)	90°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	409 lm	Measured @ 3.4 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

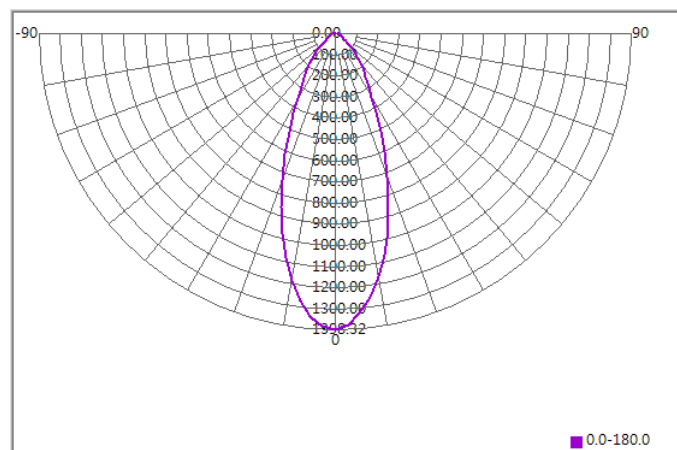




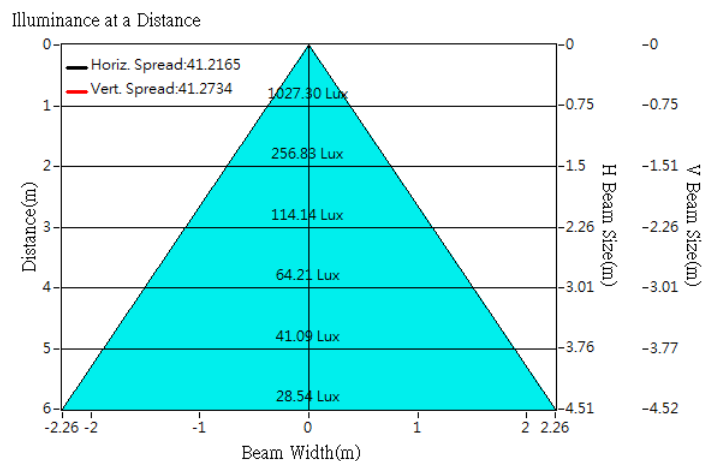
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CMA1306		
LES / LED Size	Φ 6 mm		
FWHM (D50)	41°		
Field Angle (D10)	90°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	734 lm	Measured @ 6.2 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

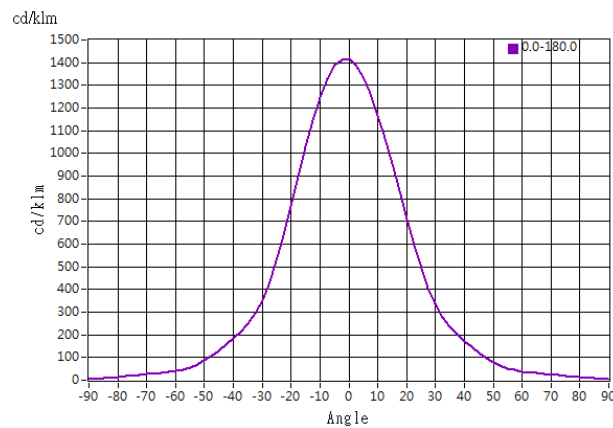




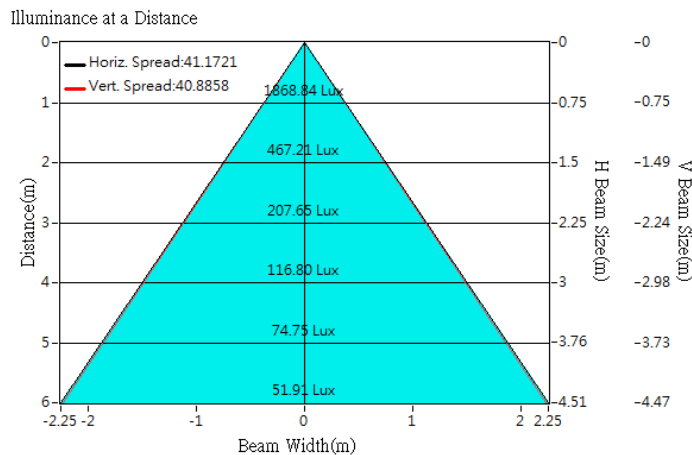
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXB 1310		
LES / LED Size	Φ 6 mm		
FWHM (D50)	41°		
Field Angle (D10)	87°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1319 lm	Measured @ 12.1 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

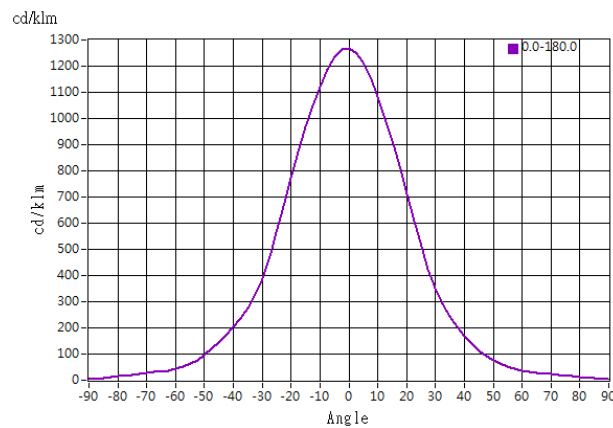




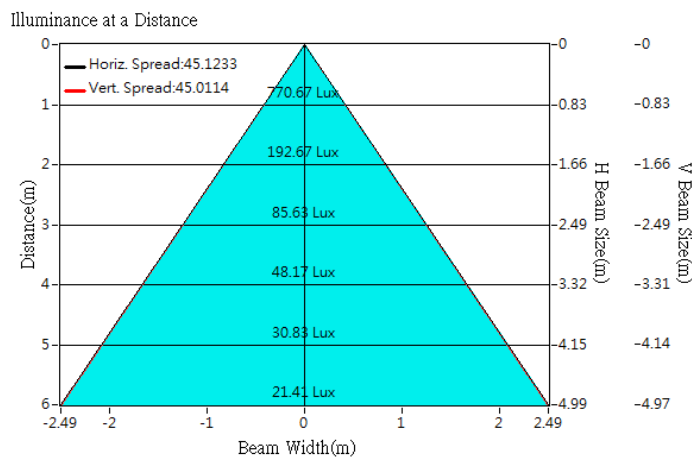
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXA 1507		
LES / LED Size	Φ 9 mm		
FWHM (D50)	45°		
Field Angle (D10)	91°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	608 lm	Measured @ 7.5 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

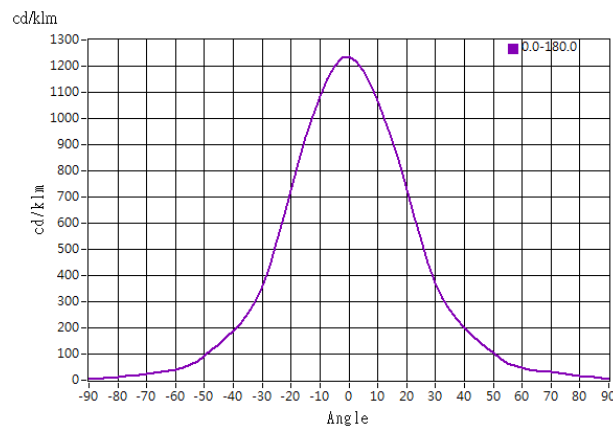




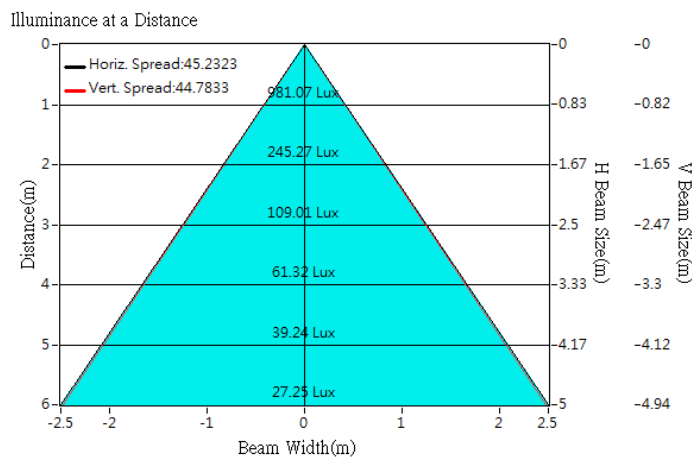
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXB 1507		
LES / LED Size	Φ 9 mm		
FWHM (D50)	45°		
Field Angle (D10)	94°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	794 lm	Measured @ 7.3 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

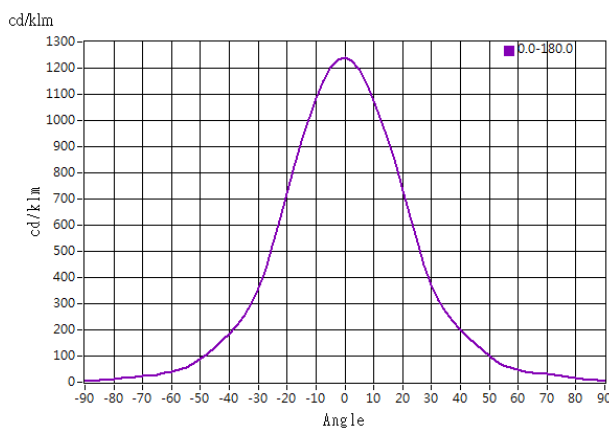




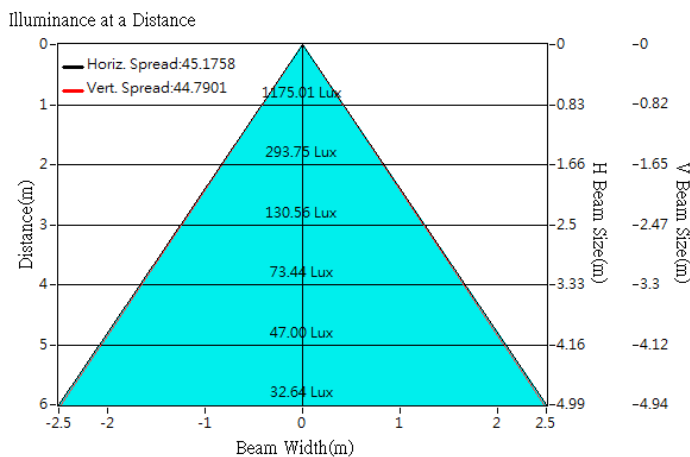
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXA 1510		
LES / LED Size	Φ 9 mm		
FWHM (D50)	45°		
Field Angle (D10)	93°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	946 lm	Measured @ 9.1 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

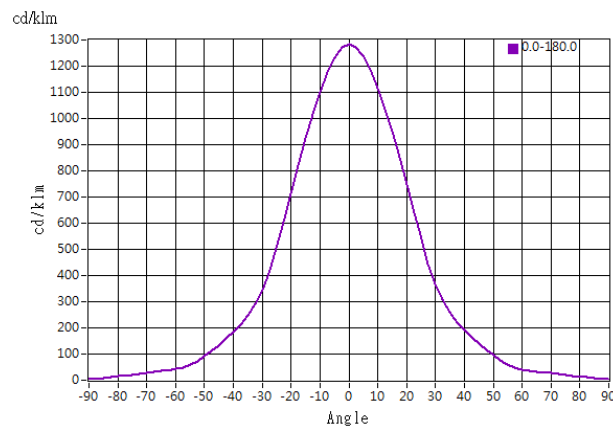




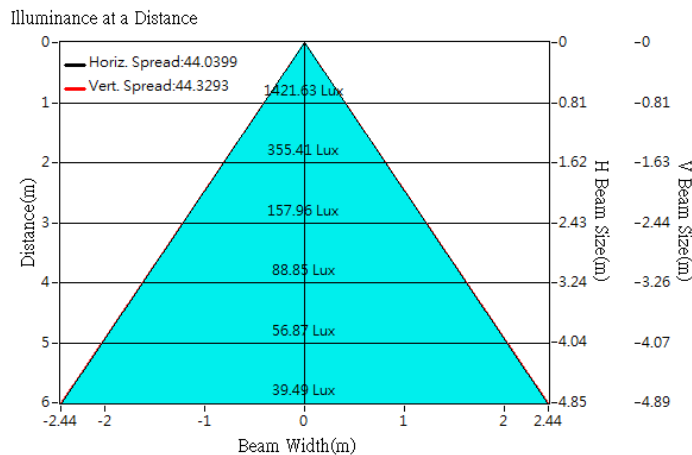
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXA 1512		
LES / LED Size	Φ 9 mm		
FWHM (D50)	44°		
Field Angle (D10)	92°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1107 lm	Measured @ 13.5 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

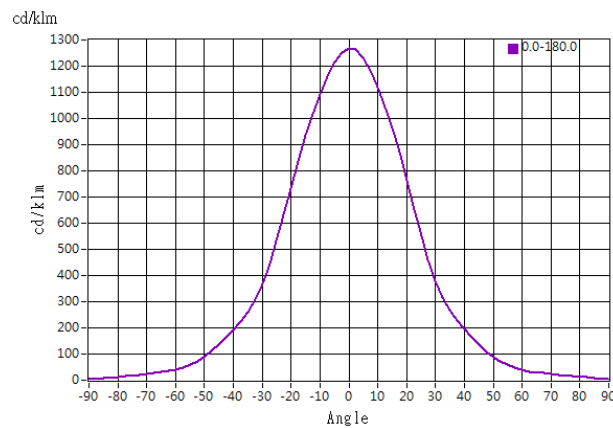




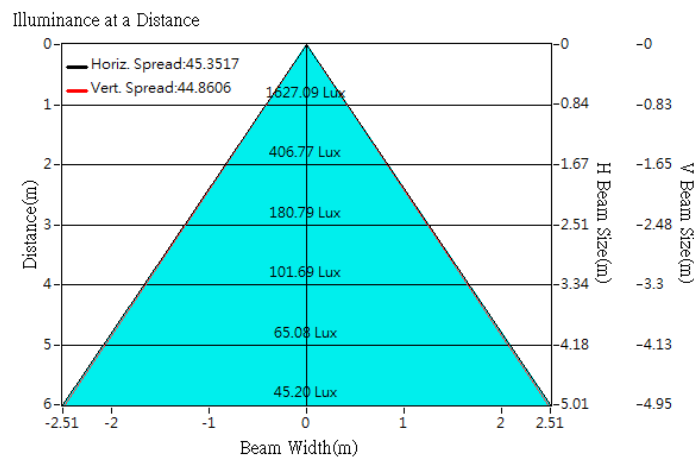
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXB 1512		
LES / LED Size	Φ 9 mm		
FWHM (D50)	45°		
Field Angle (D10)	92°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1284 lm	Measured @ 12.2 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

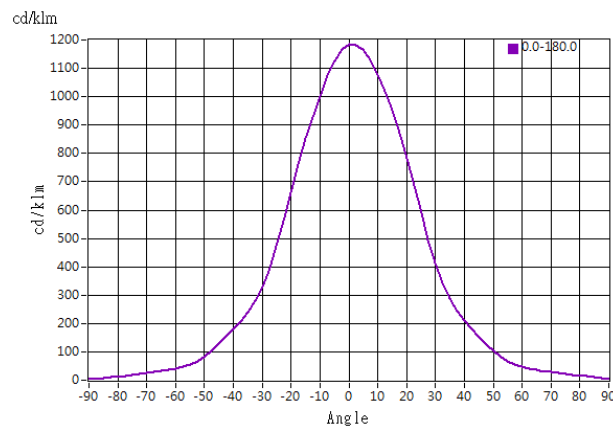




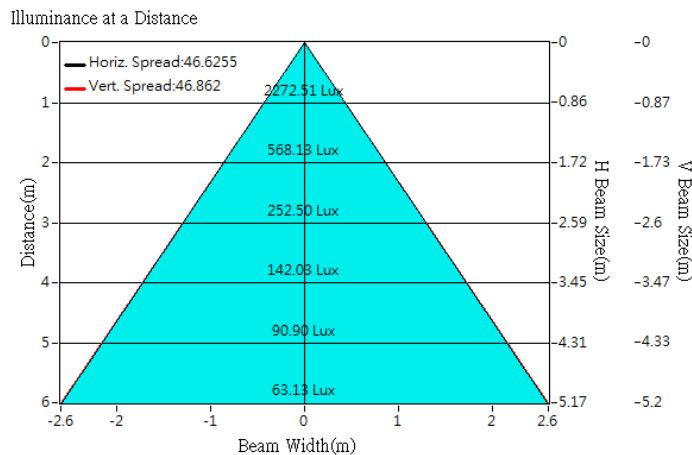
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXB 1520		
LES / LED Size	Φ 9 mm		
FWHM (D50)	47°		
Field Angle (D10)	94°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1915 lm	Measured @ 16.7 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

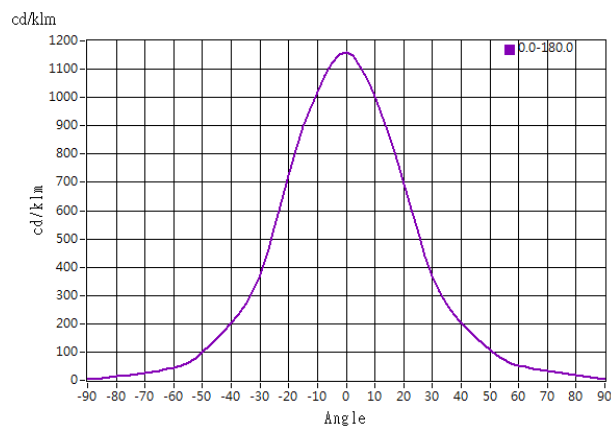




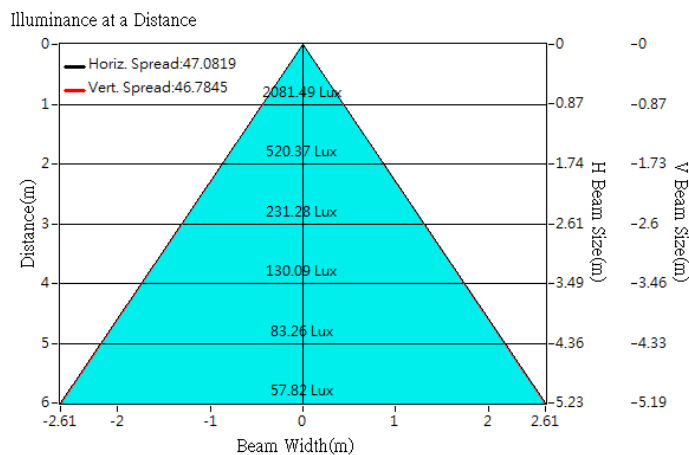
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CMA 1516		
LES / LED Size	Φ 9 mm		
FWHM (D50)	47°		
Field Angle (D10)	97°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1796 lm	Measured @ 15.8 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

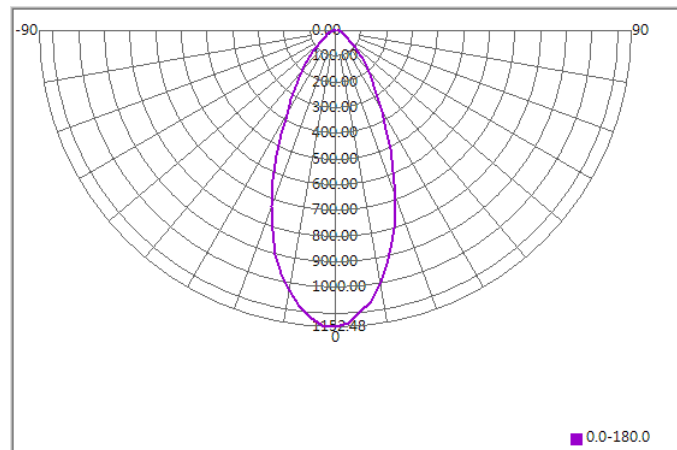




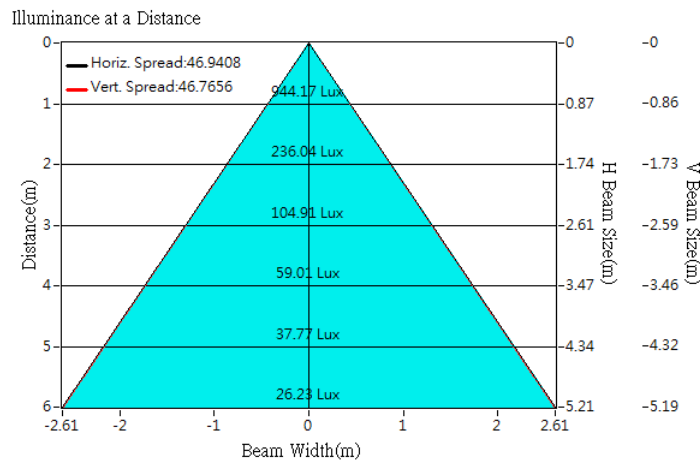
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p> <p>LES CoB</p>
LED	CMT1407		
LES / LED Size	Φ 9.8 mm		
FWHM (D50)	47°		
Field Angle (D10)	96°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	819 lm	Measured @ 6.9 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

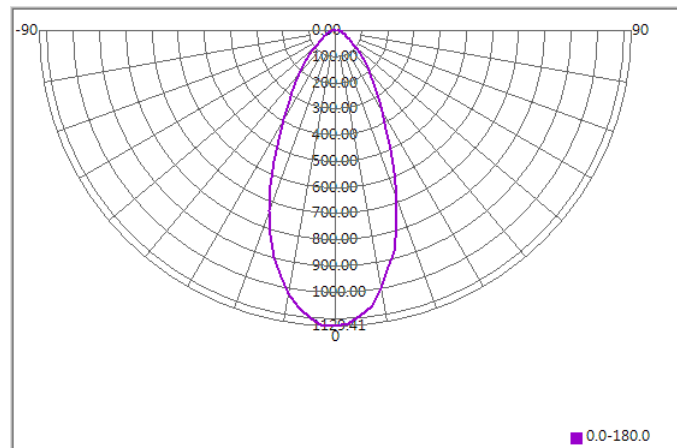




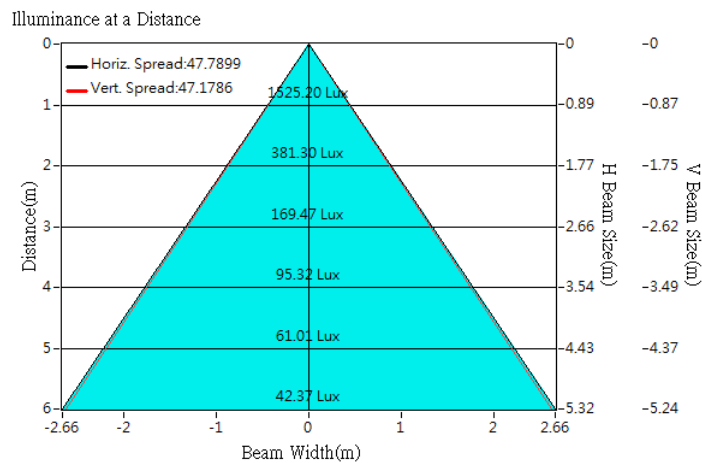
Optical Characteristics

Model Number	CKO-CH15-045021-1609	<p>"H" definition</p> <p>LES CoB</p>
LED	CMT1412	
LES / LED Size	Φ 9.8 mm	
FWHM (D50)	48°	
Field Angle (D10)	99°	
H (distance)	2.5mm	
Dimension	Φ =45 mm, Thickness=20.9 mm	
Luminous Flux	1350 lm	
Material	PC / UL94V2	

cd/klm

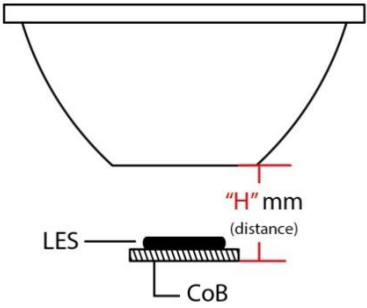


Illuminance At Distances

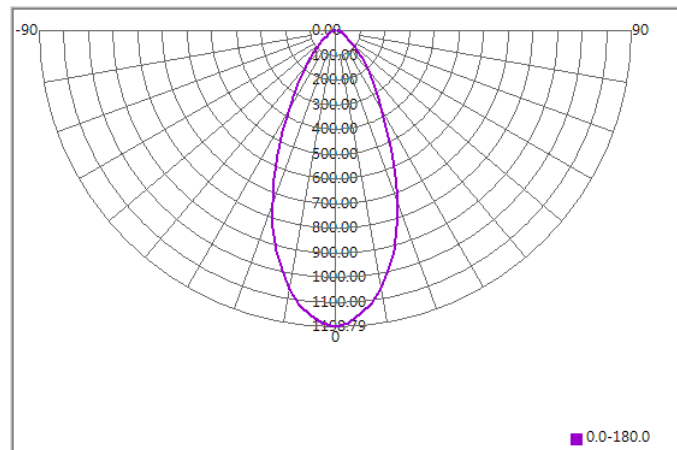




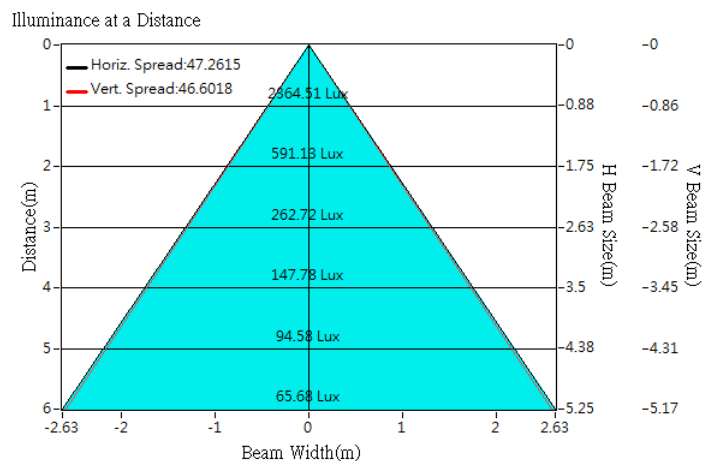
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p> 
LED	CMT1420		
LES / LED Size	Φ 9.8 mm		
FWHM (D50)	47°		
Field Angle (D10)	94°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1972 lm	Measured @ 18.9 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

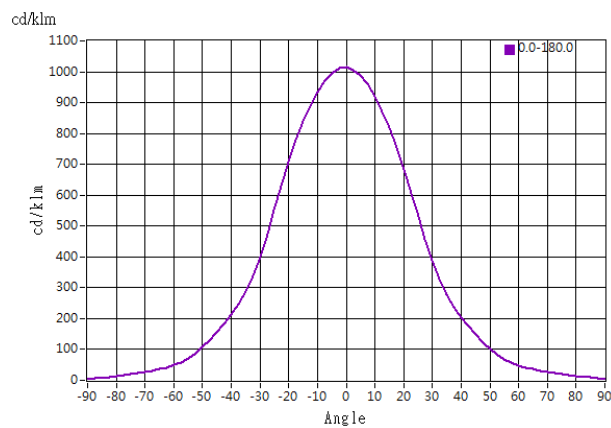




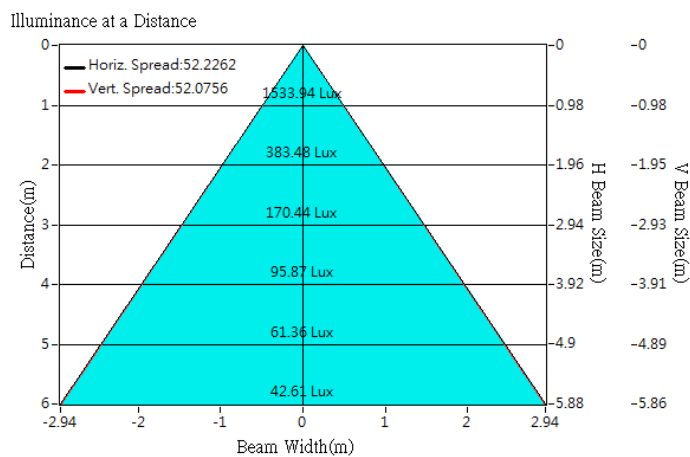
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXA 1816		
LES / LED Size	Φ 12 mm		
FWHM (D50)	52°		
Field Angle (D10)	101°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1512 lm	Measured @ 16.5 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

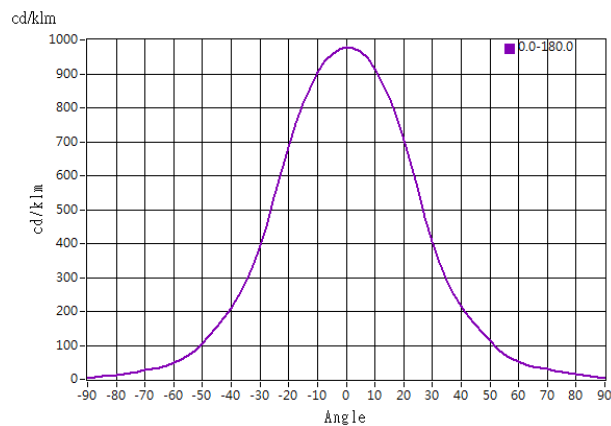




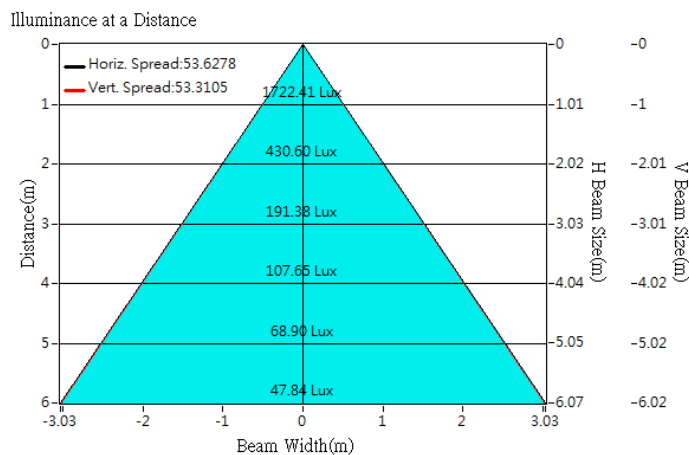
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXB 1816		
LES / LED Size	Φ 12 mm		
FWHM (D50)	54°		
Field Angle (D10)	103°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1758 lm	Measured @ 15.9 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

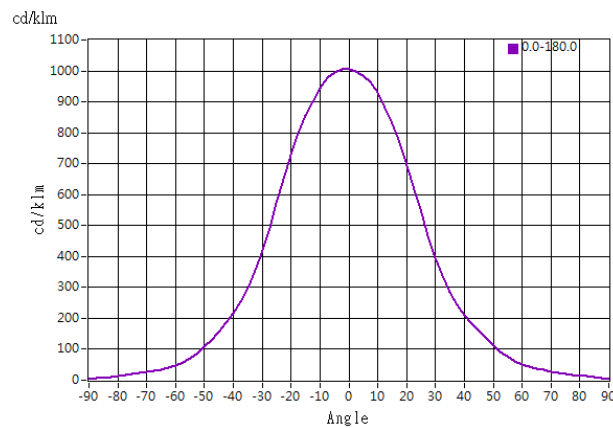




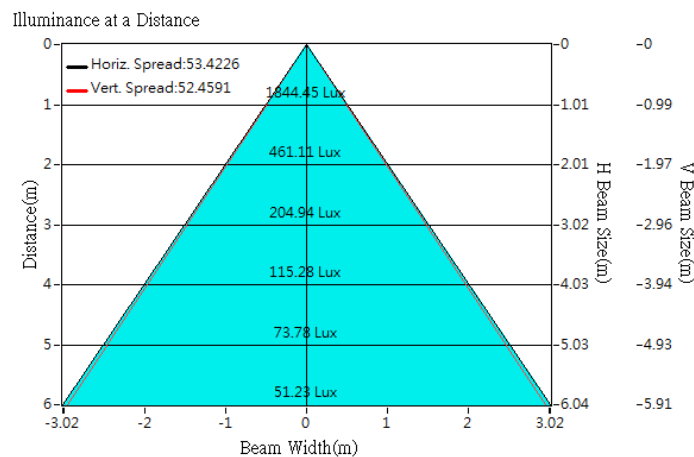
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXA 1820		
LES / LED Size	Φ 12 mm		
FWHM (D50)	53°		
Field Angle (D10)	102°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	1834 lm	Measured @ 20.1 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

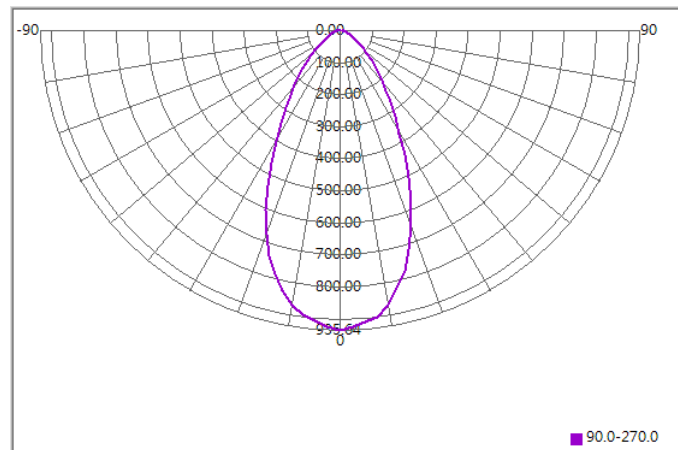




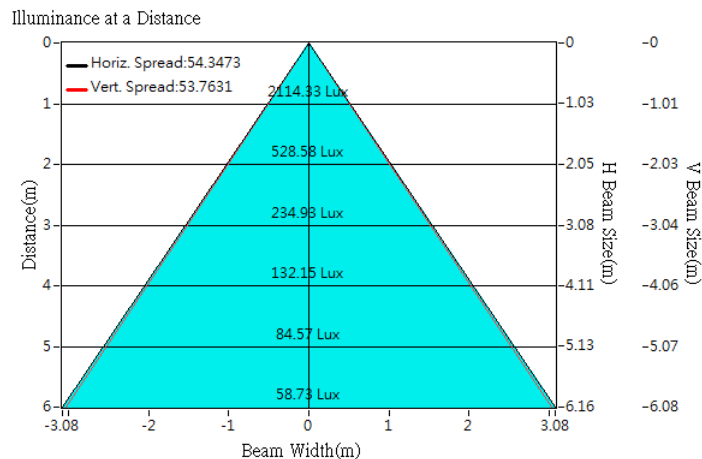
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CXB1820		
LES / LED Size	Φ 12 mm		
FWHM (D50)	54°		
Field Angle (D10)	107°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	2260 lm	Measured @ 19.4 W	
Material	PC / UL94V2		

cd/klm



Illuminance At Distances

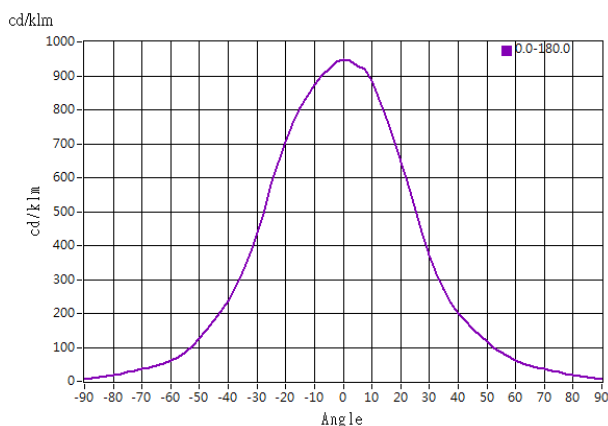




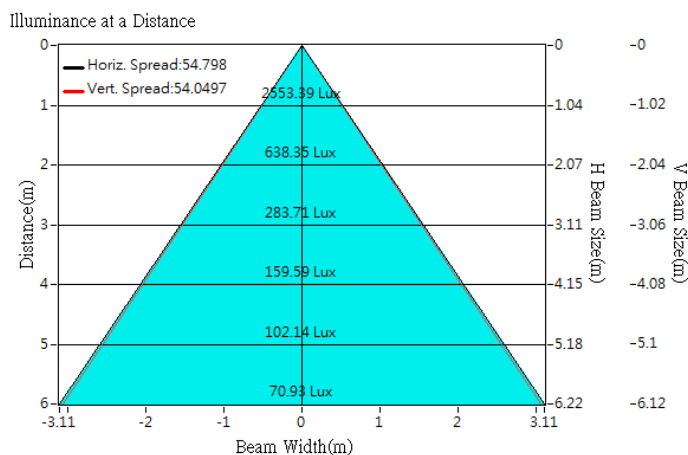
Optical Characteristics

Model Number	CKO-CH15-045021-1609		<p>"H" definition</p>
LED	CMA 1825		
LES / LED Size	Φ 12 mm		
FWHM (D50)	55°		
Field Angle (D10)	107°		
H (distance)	2.5mm		
Dimension	Φ =45 mm, Thickness=20.9 mm		
Luminous Flux	2691 lm	Measured @ 25.2 W	
Material	PC / UL94V2		

cd/klm

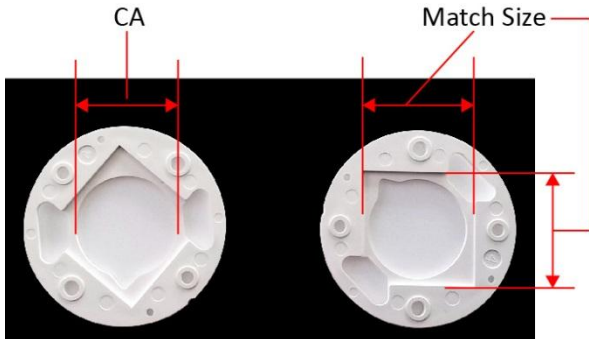


Illuminance At Distances





Lens Accessories - CoB Holder



Example of LES Area & LED Size Dimension Locations

Product Model	Match Size (mm)	CA (mm)	Material	Applicability
CKO-HC13-131307-6411	13.6 x 13.6	Φ 7.8	PBT	CREE CXA 13XX
CKO-HC13-161610-6412	16.1 x 16.1	Φ 10.8	PBT	CREE CXA 15XX
CKO-HC13-181816-6413	18.1 x 18.1	Φ 16.4	PBT	CREE CXA 18XX
CKO-HC13-242421-6414	24.1 x 24.1	Φ 21.3	PBT	CREE CXA 25XX
CKO-HC13-272725-6415	27.6 x 27.6	Φ 25.3	PBT	CREE CXA 30XX