



Product Model Number

CKO-ZU15-060013-9401

✓ Model Number Definitions

CKO-XXXX-XXXXXX-XXXX

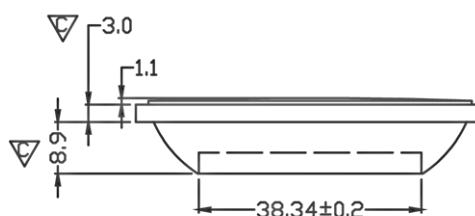
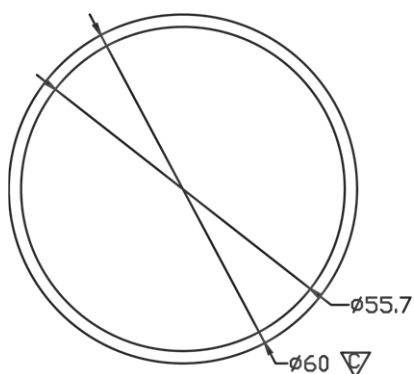


- A. Chun Kuang Optics Corp. Product
- B. Product Type: product abbreviation
Ex:
CH→CoB High Intensity
CC→CoB Compact
ZU→Multi-Angle Zooming Lens
HC→Holder for CoB LED

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

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

✓ Dimensions (mm) : Φ60 x 13



▽:Critical Dimension

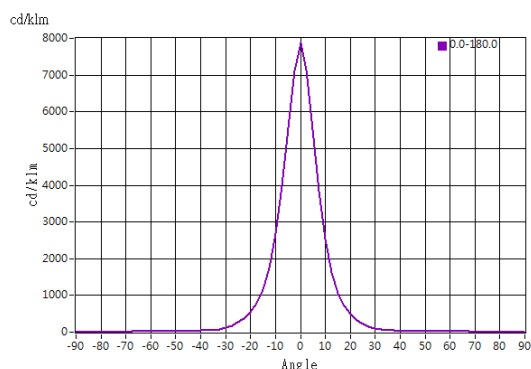
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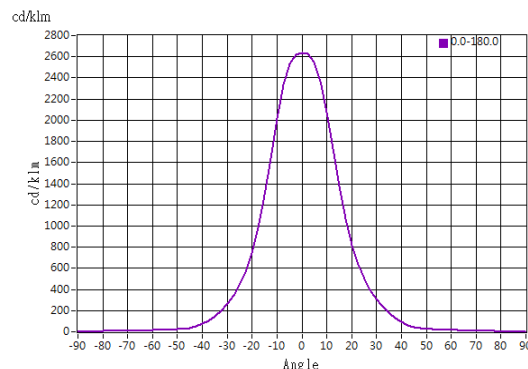
Optical Characteristics

Model Number	CKO-ZU15-060013-9401	"H" definition
LED	CLU 700	
LES / LED Size	Φ 6 mm	
FWHM (D50)	14°-30°	
Field Angle (D10)	34°-62°	
H (distance)	2.0mm~0.8mm	
Dimension	Φ =60 mm, Thickness=13 mm	
Luminous Flux	1502 lm ~ 1491 lm (14° ~ 30°) Measured @ 14.4 W	
Material	PC / UL94V2	

cd/klm

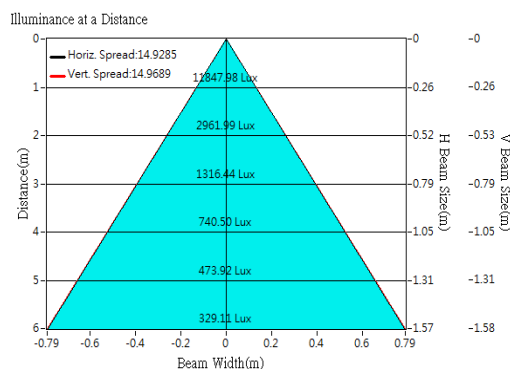


H: 2.0 mm

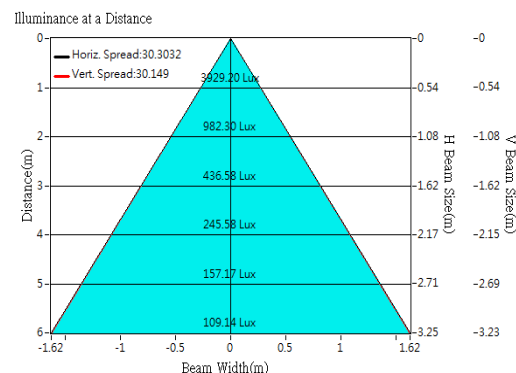


H: -0.8 mm

Illuminance At Distances



H: 2.0 mm



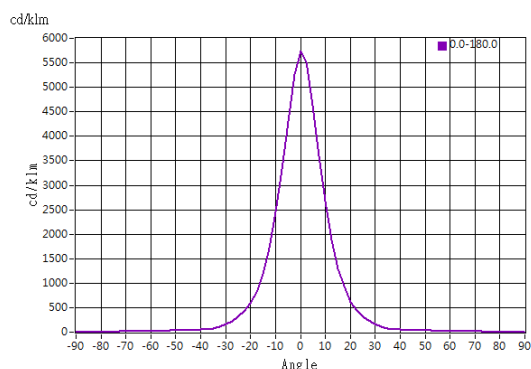
H: -0.8 mm



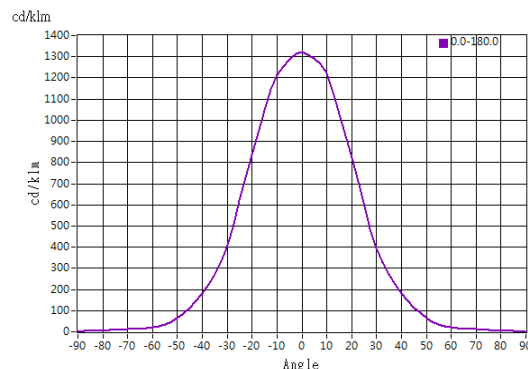
Optical Characteristics

Model Number	CKO-ZU15-060013-9401	"H" definition
LED	CLU 710	
LES / LED Size	Φ 8.5 mm	
FWHM (D50)	18°-48°	
Field Angle (D10)	41°-87°	
H (distance)	2.0mm~2.0mm	
Dimension	Φ =60 mm, Thickness=13 mm	
Luminous Flux	2867 lm ~ 2881 lm (18° ~ 48°) Measured @ 26.4 W	
Material	PC / UL94V2	

cd/klm

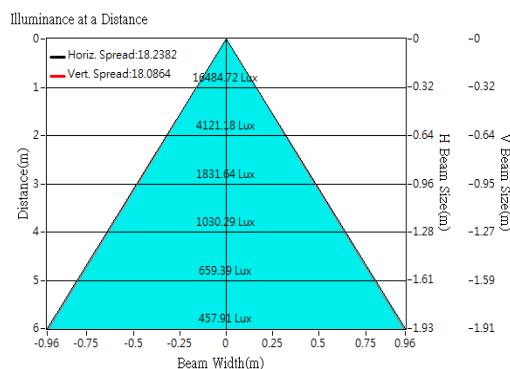


H: 2.0 mm

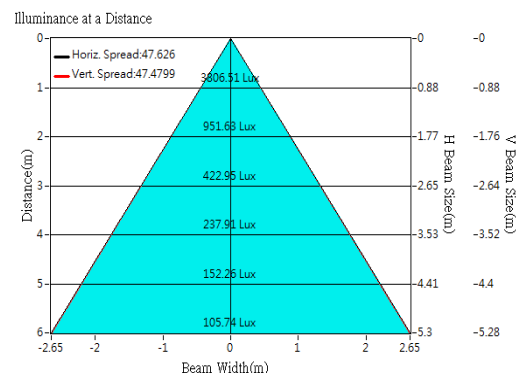


H: -2.0 mm

Illuminance At Distances



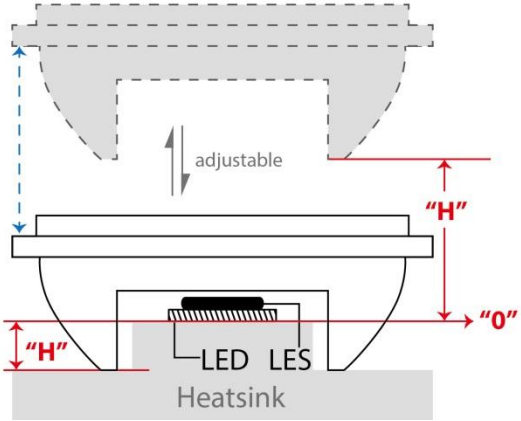
H: 2.0 mm



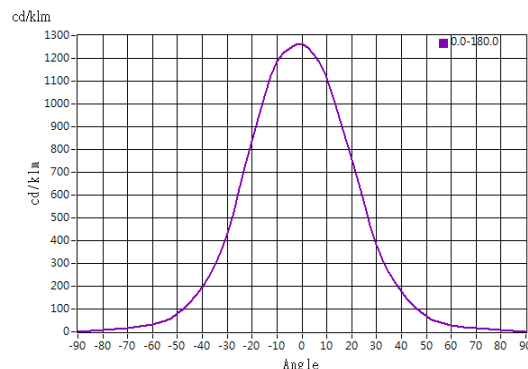
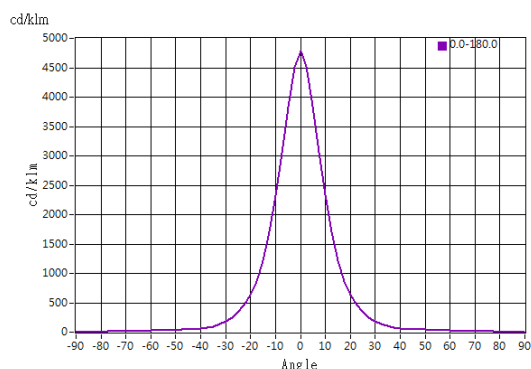
H: -2.0mm



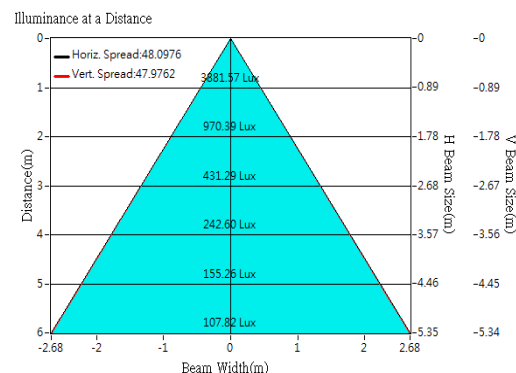
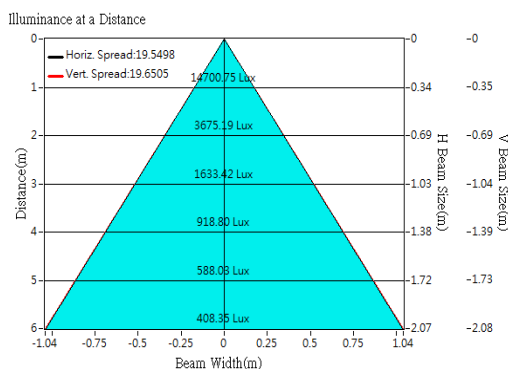
Optical Characteristics

Model Number	CKO-ZU15-060013-9401	"H" definition 
LED	CLU 711	
LES / LED Size	Φ 8.5 mm	
FWHM (D50)	19°-48°	
Field Angle (D10)	44°-89°	
H (distance)	2.0mm~2.0mm	
Dimension	Φ =60 mm, Thickness=13 mm	
Luminous Flux	3070 lm ~ 3072 lm (19° ~ 48°) Measured @ 25.6 W	
Material	PC / UL94V2	

cd/klm

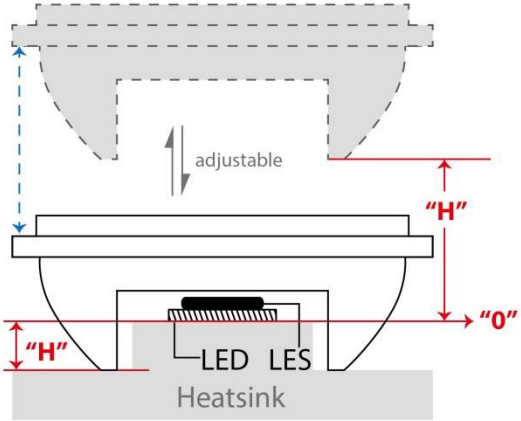


Illuminance At Distances

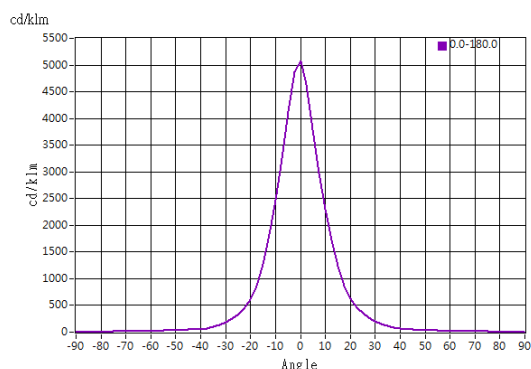




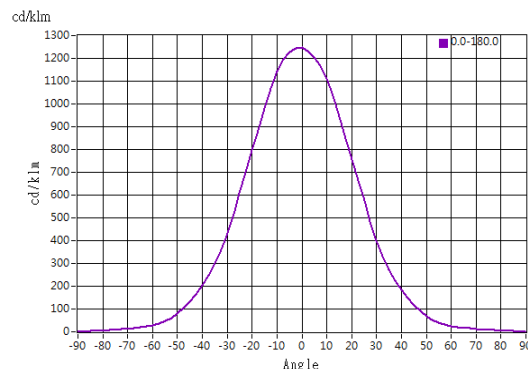
Optical Characteristics

Model Number	CKO-ZU15-060013-9401	"H" definition 
LED	CLU 024	
LES / LED Size	Φ 9.8 mm	
FWHM (D50)	18°-48°	
Field Angle (D10)	43°-90°	
H (distance)	1.5mm~2.0mm	
Dimension	Φ =60 mm, Thickness=13 mm	
Luminous Flux	1068 lm ~1049 lm (18° ~ 48°) Measured @ 9.5 W	
Material	PC / UL94V2	

cd/klm

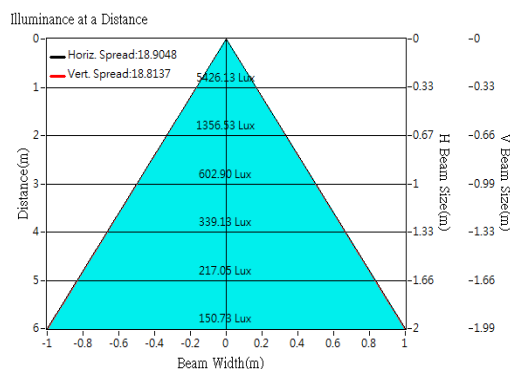


H: 1.5 mm

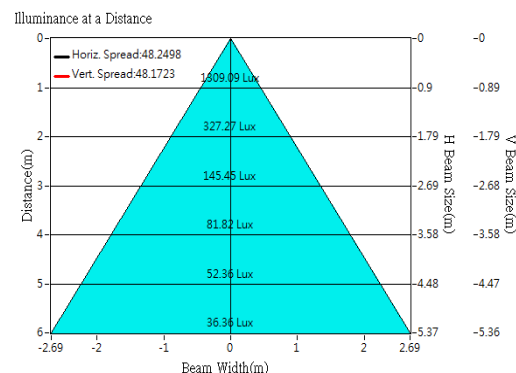


H: -2.0 mm

Illuminance At Distances



H: 1.5 mm

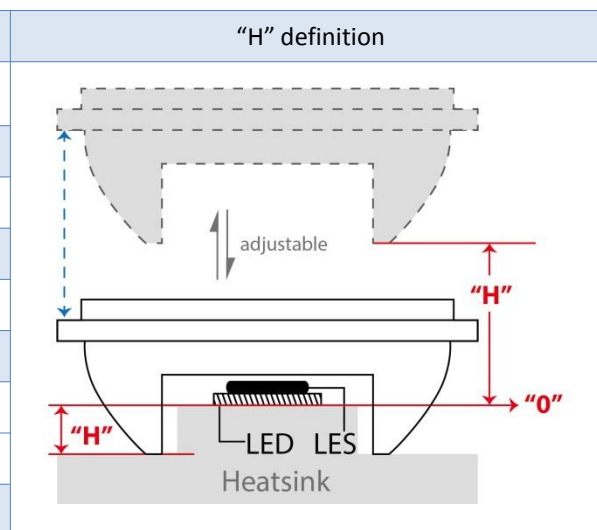


H: -2.0 mm

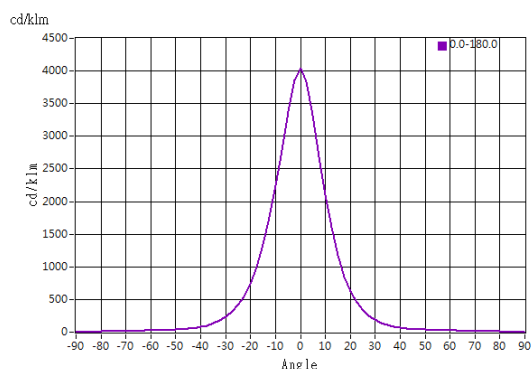


Optical Characteristics

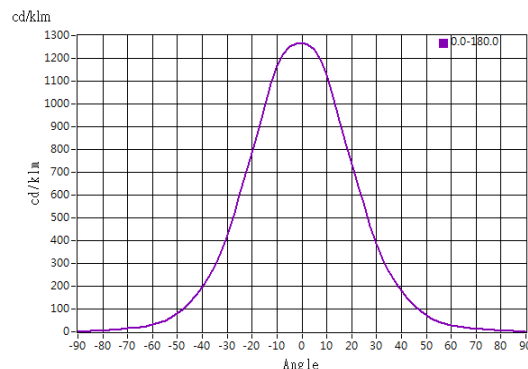
Model Number	CKO-ZU15-060013-9401
LED	CLU 026
LES / LED Size	Φ 9.8 mm
FWHM (D50)	22°-47°
Field Angle (D10)	49°-89°
H (distance)	1.5mm~2.0mm
Dimension	Φ =60 mm, Thickness=13 mm
Luminous Flux	1747 lm ~1787 lm (22° ~ 47°) Measured @ 12.4 W
Material	PC / UL94V2



cd/klm

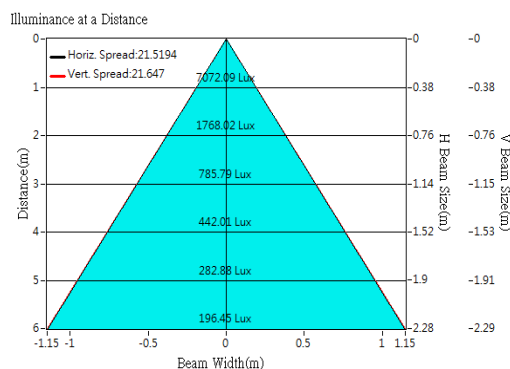


H: 1.5 mm

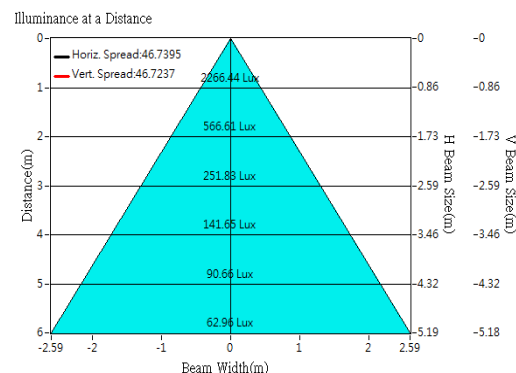


H: -2.0 mm

Illuminance At Distances



H: 1.5 mm

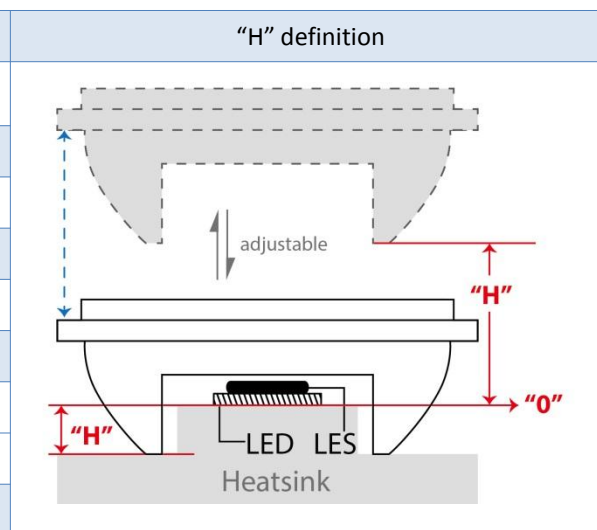


H: -2.0 mm

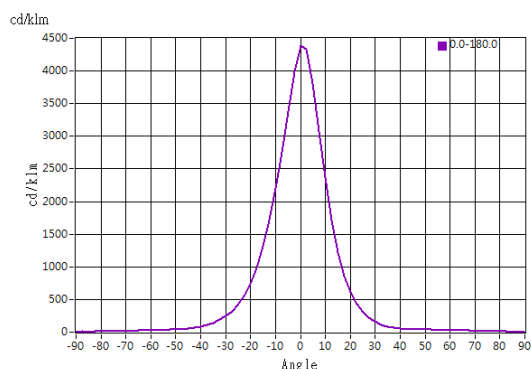


Optical Characteristics

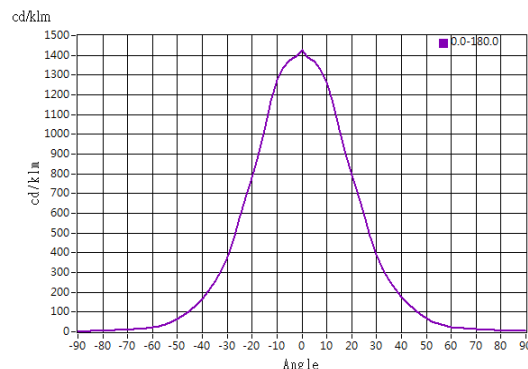
Model Number	CKO-ZU15-060013-9401
LED	CLU 028
LES / LED Size	Φ 9.8 mm
FWHM (D50)	21°-44°
Field Angle (D10)	47°-85°
H (distance)	2.0mm~2.0mm
Dimension	Φ =60 mm, Thickness=13 mm
Luminous Flux	1722 lm ~ 1785 lm (21° ~ 44°) Measured @ 12.5 W
Material	PC / UL94V2



cd/klm

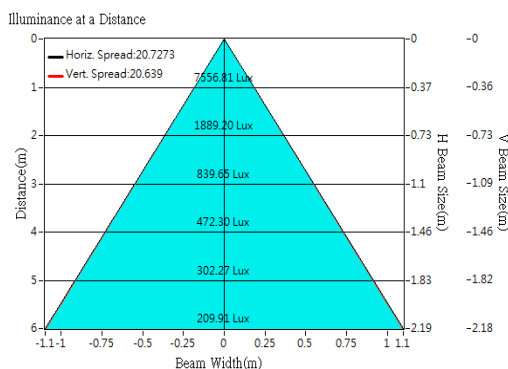


H: 2.0 mm

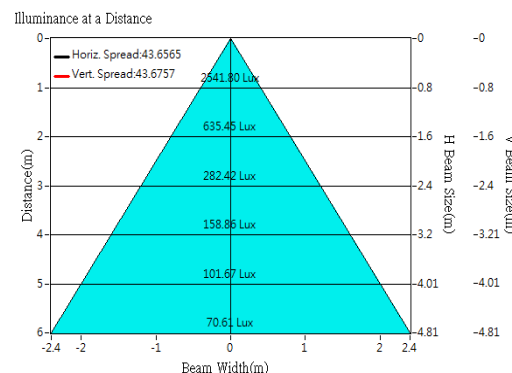


H: -2.0 mm

Illuminance At Distances



H: 2.0 mm



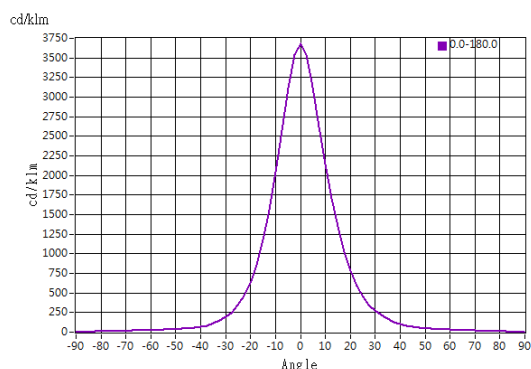
H: -2.0 mm



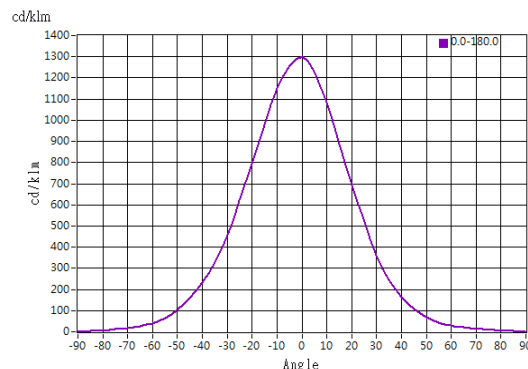
Optical Characteristics

Model Number	CKO-ZU15-060013-9401	"H" definition
LED	CLU 721	
LES / LED Size	Φ 11 mm	
FWHM (D50)	23°-45°	
Field Angle (D10)	52°-90°	
H (distance)	2.0mm~2.0mm	
Dimension	Φ =60 mm, Thickness=13 mm	
Luminous Flux	4575 lm ~4471 lm (23° ~ 45°) Measured @ 39.7 W	
Material	PC / UL94V2	

cd/klm

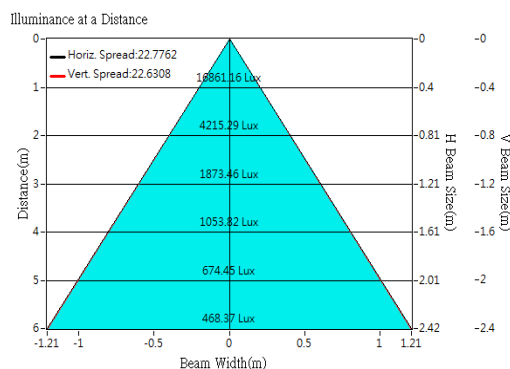


H: 2.0 mm

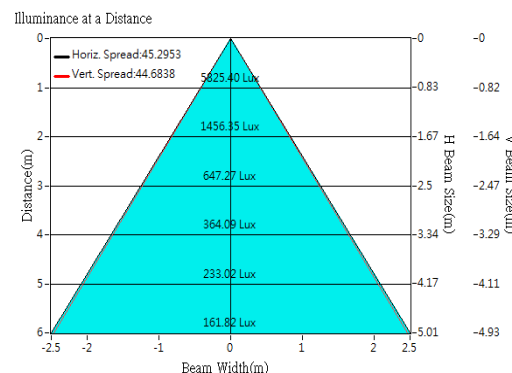


H: -2.0 mm

Illuminance At Distances



H: 2.0 mm



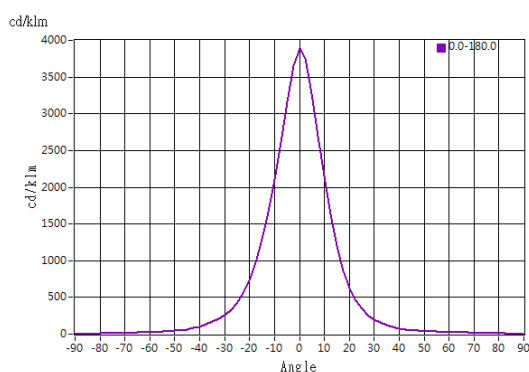
H: -2.0 mm



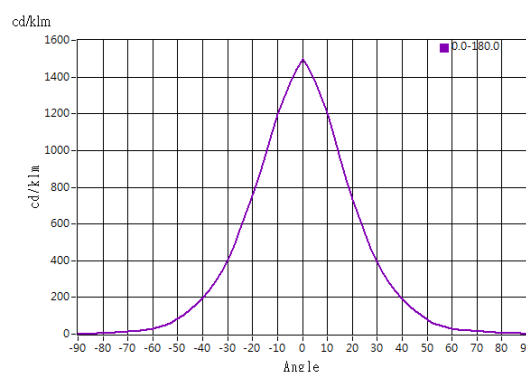
Optical Characteristics

Model Number	CKO-ZU15-060013-9401	"H" definition
LED	CLU 720	
LES / LED Size	Φ 11 mm	
FWHM (D50)	22°-40°	
Field Angle (D10)	50°-87°	
H (distance)	2.5mm~1.8mm	
Dimension	Φ =45 mm, Thickness=11.6 mm	
Luminous Flux	3692 lm ~ 3836 lm (22°-40°) Measured @ 39 W	LED LES Heatsink
Material	PC / UL94V2	

cd/klm

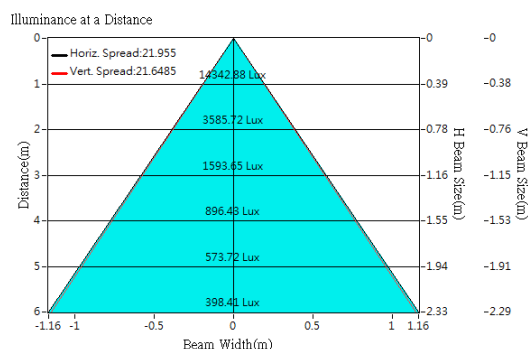


H: 2.5 mm

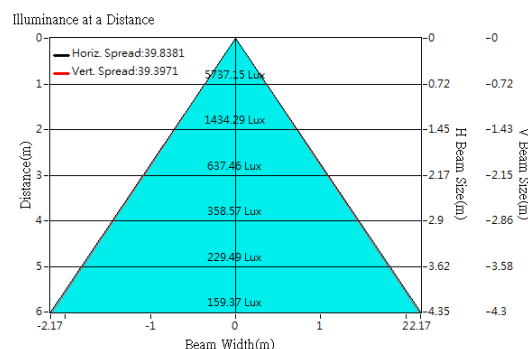


H: 1.8 mm

Illuminance At Distances



H: 2.5 mm

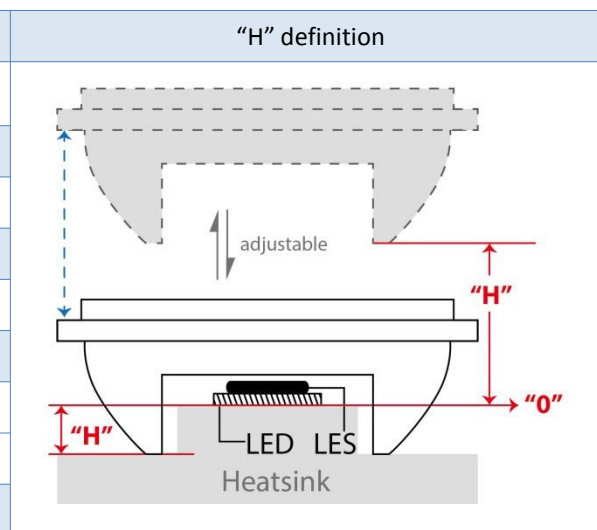


H: 1.8 mm

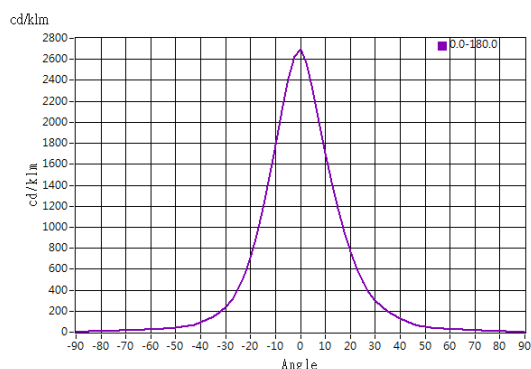


Optical Characteristics

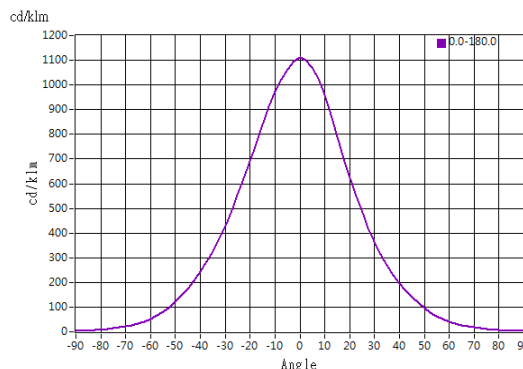
Model Number	CKO-ZU15-060013-9401
LED	CLU 038
LES / LED Size	Φ 14.5 mm
FWHM (D50)	27°-47°
Field Angle (D10)	61°-99°
H (distance)	1.7mm~2.0mm
Dimension	Φ =60 mm, Thickness=13 mm
Luminous Flux	2952 lm ~ 2954 lm (27° ~ 47°) Measured @ 24.8 W
Material	PC / UL94V2



cd/klm

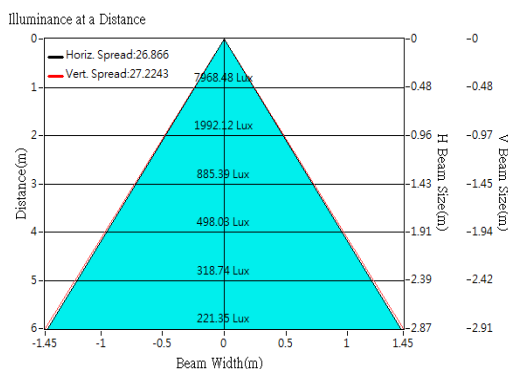


H: 1.7 mm

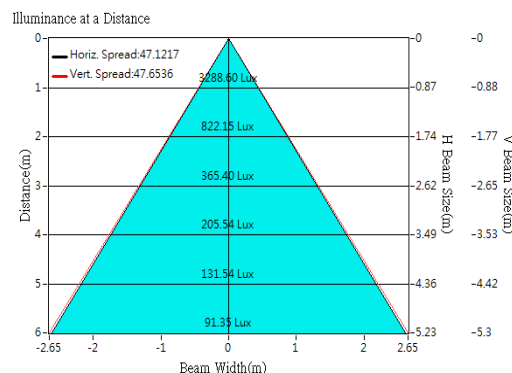


H: -2.0 mm

Illuminance At Distances



H: 1.7 mm



H: -2.0 mm