


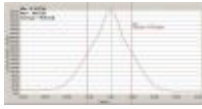

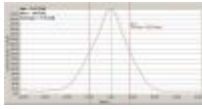


R0.5

20.0MM PLAIN TIGHT TIR

Status	Production
Part no.	10193
Drawing no.	60431
Product type	Optic
Type	TIR
Pieces	1
Diameter	20.0
Height	9.90
Beam	Plain Tight
Flange	Yes
Files	Customer drawing (PDF) Customer 3D model (.igs)



LEDs & Performances	Eff.	FWHM	Cd/lm	Spot	Cross-section	Files
Lumileds Rebel Cool White	86.0%	8.7	24.0			10193_rebel_white_250408.ies
Lumileds Rebel Neutral White	87.1%	8.4	32.5			10193_rebel_neutral_white_250408.ies
Lumileds Rebel Warm White	84.6%	8.1	35.7			10193_rebel_warm_white_250408.ies
Cree MC-E XLamp® White	84.5%	20	5.8			10193_Cree_MCE_white_250408.ies
Cree XP-E XLamp® White	87.3%	8.2	36.3			10193_cree_xpe_white_250408.ies
Osram Golden Dragon W5SG Dragon White	86.0%	8.2	13.0			10193_Dragon_W5SG_White_250408.ies 10193_Dragon_W5SG_White_250408.ltd
Osram Platinum Dragon W5SN Dragon White	86.0%	5.9	36.0			10193_PlattDragon_W5SN_wht_250408.ies 10193_PlattDragon_W5SN_wht_250408.ltd
Osram Golden Dragon W5SM Dragon White	90.0%	5.4	30.0			10193_Dragon_W5SM_White_250408.ies 10193_Dragon_W5SM_White_250408.ltd
SSC A2 Acriche White	87.5%	20.7	5.9			10193_seoul_Acriche2000_cWhite_250408.ies
Nichia NFSW 036 Top Emitting Cool White	88.6%	5.1	41.4			10193_Nichia_036_CoolWhite_250408.IES
Nichia WS6W 083 Top Emitting Cool White	86.9%	10.3	12.1			10193_Nichia_083_CoolWhite_250408.ies
Nichia NS3W 183T Top Emitting White	89.3%	9.1	23.1			10193_Nichia_183_White_250408.ies

Stanley 1643 Cool White	87.3%	19.5	6.3			10193_SCW1643US_cool white_250408.ies
Stanley 1653 Warm White	87.7%	19.1	7.9			10193_SCW1653US_warm white_250408.ies
Samsung Sunnix WH5 White	88.3%	11.9	9.9			10193_Sunnix Samsung_SLHNN WH5_cWhite_250408.ies

Related Holders & LEDs	Cree MC-E XLamp® White	Cree XP-E XLamp® White	Lumileds Rebel Cool White	Lumileds Rebel Neutral White	Lumileds Rebel Warm White	Nichia NFSW 036 Top Emitting Cool White	Nichia NS3W 183T Top Emitting White	Nichia WS6W 083 Top Emitting Cool White	Osram Golden Dragon W5SG Dragon White	Osram Golden Dragon W5SM Dragon White	Osram Platinum Dragon W5SN Dragon White	Samsung Sunnix WH5 White	SSC A2 Acriche White	Stanley 1643 Cool White	Stanley 1653 Warm White
10148 20.0mm Circular Black									✓	✓	✓				
10149 20.0mm Circular Clear									✓	✓	✓				
10150 20.0mm Circular White									✓	✓	✓				
10235 20.0mm Circular Black			✓	✓	✓										
10236 20.0mm Circular White			✓	✓	✓										
10237 20.0mm Circular Clear			✓	✓	✓										
10276 50.0mm Triple White	✓								✓	✓	✓				
10279 50.0mm Triple White		✓	✓	✓	✓	✓		✓							
10286 50.0mm Triple White	✓								✓	✓	✓				
10289 50.0mm Triple White		✓	✓	✓	✓	✓		✓							
10296 50.0mm Triple Black	✓								✓	✓	✓				
10299 50.0mm Triple Black		✓	✓	✓	✓	✓		✓							
10306 50.0mm Circular Black	✓								✓	✓	✓				
10309 50.0mm Triple Black		✓	✓	✓	✓	✓		✓							
10431 20.0mm Hexagonal Black			✓	✓	✓										
10432 20.0mm Hexagonal Clear			✓	✓	✓										
10433 20.0mm Hexagonal White			✓	✓	✓										
10434 20.0mm Hexagonal Black			✓	✓	✓										
10435 20.0mm Hexagonal Clear			✓	✓	✓										
10436 20.0mm Hexagonal White			✓	✓	✓										
10566 20.0mm Circular Black		✓				✓									
10567 20.0mm Circular White		✓				✓									
10568 20.0mm Circular Clear		✓				✓									
10615 20.0mm Circular Black								✓							
10616 20.0mm Circular Clear								✓							
10617 20.0mm Circular White								✓							
10631 20.0mm Universal White														✓	✓

10638 20.0mm Universal White									✓										
10651 20.0mm Universal White																		✓	✓
10658 20.0mm Universal White									✓										
10671 20.0mm Universal White																		✓	✓
10678 20.0mm Universal White									✓										
10691 20.0mm Universal Black																		✓	✓
10698 20.0mm Universal Black									✓										
10711 20.0mm Universal Black																		✓	✓
10718 20.0mm Universal Black									✓										
10731 20.0mm Universal Black																		✓	✓
10738 20.0mm Universal Black									✓										

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Handling instructions

- Do not handle or install lenses without wearing gloves, skin oils may damage the lens or the light transmission.
- Clean lenses with a mild soap and water and dry with a clean soft cloth.
- Do not use any commercial solvents on lenses.
- Mount holders with low Odour epoxy's and allow time for them to out gas to stop lenses fogging.

Please note that flow lines, weld lines and small black or white inclusions within the lenses are acceptable if the optical performance of the lens is within the specification described to +/-10%. FWHM-Full (beam) Width as measured at one Half of Maximum intensity, information shown in the catalogue are based on our laboratory's tests.

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