



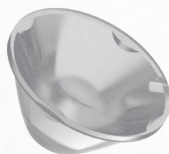
10193
3 - 15° Plain Narrow



10194
10 - 20° Frosted Narrow



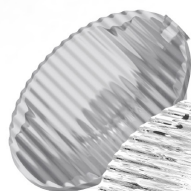
10195
20 - 30° Frosted Medium



10196
30 - 40° Frosted Medium Wide



NEW
60148
55 - 65° Frosted Wide



10197
10 x 45° Frosted Elliptical Ripple



10198
45 x 10° Plain Elliptical Orthogonal

carclo
Optics

THE 20MM RANGE

The 20mm optics range from Carclo has a new addition. The 60148 is a wide beam TIR optic and completes the line up of 20mm premium quality optics from the industry's preferred provider.

For more information, please visit the website or follow Carclo Optics on social media.

www.carclo-optics.com

[company/carclo-optics](https://www.linkedin.com/company/carclo-optics)



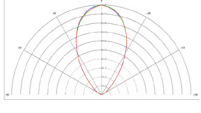
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Optic
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THE FOLLOWING RESULTS WERE ACHIEVED USING THE
NEW 60148 • 20MM • 60° • TIR OPTIC



LED	FWHM	EFFICIENCY	CROSS SECTION	SPOT IMAGE
 CREE LED Solution Provider	XP - E2	65.1	82.6	 
 LUXEON	TX	63.9	80.7	 
 OSRAM	OSLON Square	61.2	80.9	 
 NICHIA	E17A	63.0	80.1	 
 SAMSUNG	LH231B	62.1	81.9	 

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This is a small selection of the LEDs compatible with the new 60148.
For the full list please refer to the website.