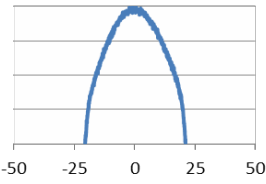
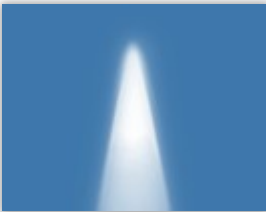
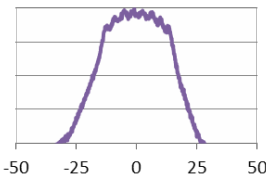

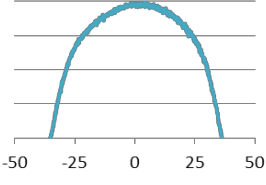
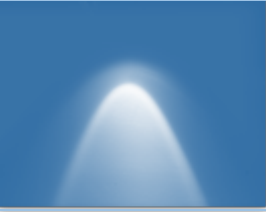
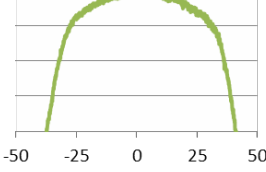



## WhiteOptics® Fresnel Lenses

<b>Product Code:</b>	<b>DFFL</b>
<b>Description:</b>	Micro-embossed, Fresnel lens providing efficient beam control.
<b>Applications:</b>	For flexible beam control in downlights, spot, accent and specialty lighting.
<b>Options:</b>	Available in roll, pre-cut sheets or as custom die-cut parts.
<b>Dimensions:</b>	Up to 8" (203mm) diameter, film thickness 0.006" (0.15 mm) or available on PMMA, Polycarbonate or Glass rigid sheet

Product Code	Angular Response at 25mm	Distribution/Throw	Optical Efficiency*	Focal length (mm)	Beam angle at distance from source			
					0 mm	25 mm	50 mm	75 mm
DFFL-25			92%	25	35°	20°	--	--
DFFL-50			92%	50	52°	37°	23°	--
DFFL-90			95%	90	53°	47°	30°	24°
DFFL-190			96%	190	67°	57°	52°	42°

\* Achievable optical utilization in a downlight with COB and 50mm deep optical cavity lined with WhiteOptics F16 White98® film and DFFL film as lens. Results will vary depending on geometrical design and emitter type.



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