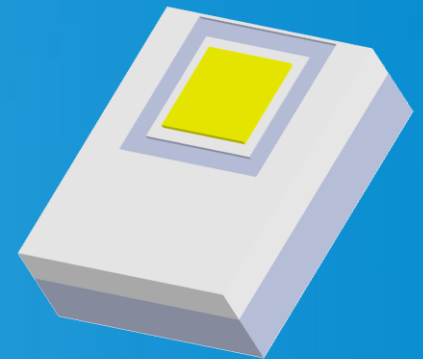
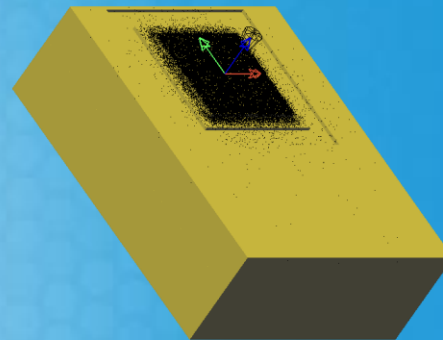


LUXEON Altilon Intense 1x1

Optical Rayset Readme

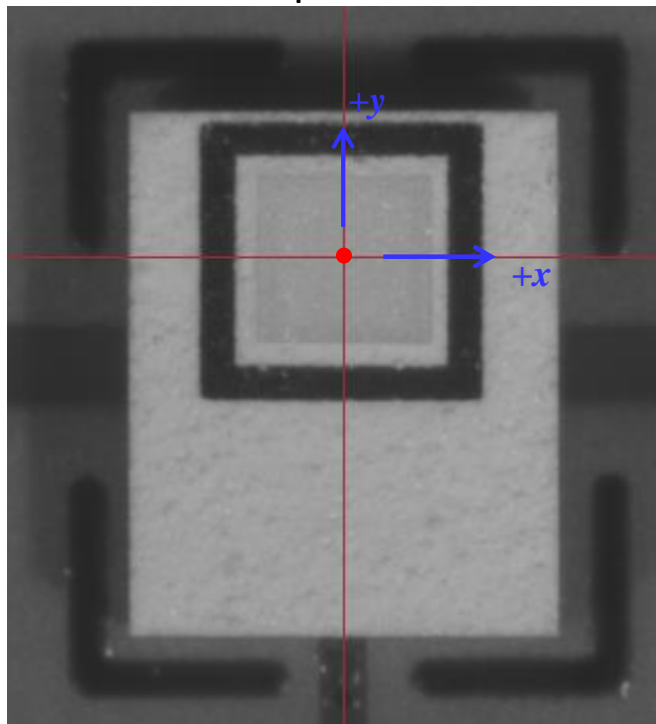
2018 May



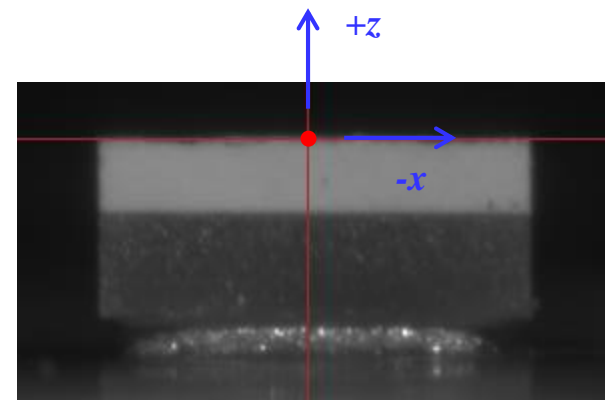
LUXEON Altilon Intense 1x1

Measurement Reference Location

Top view



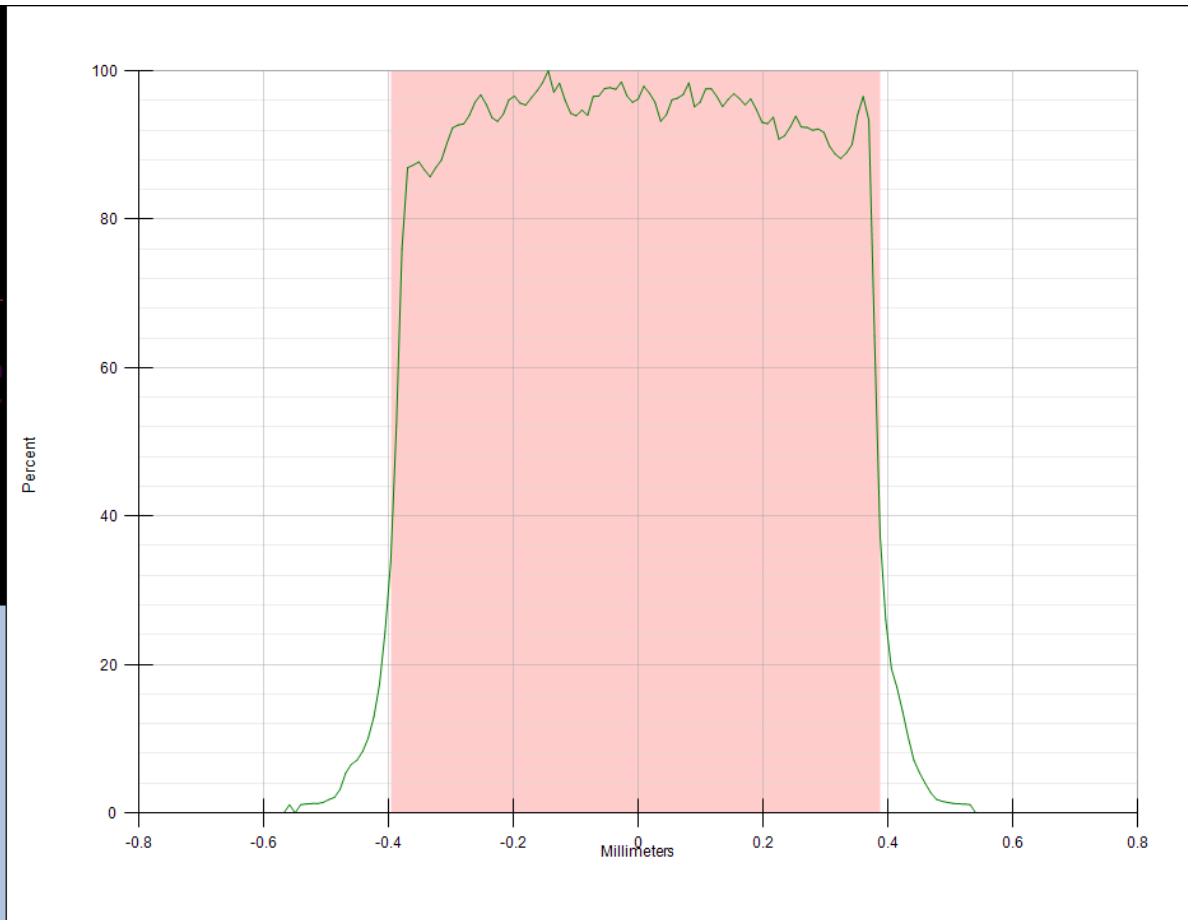
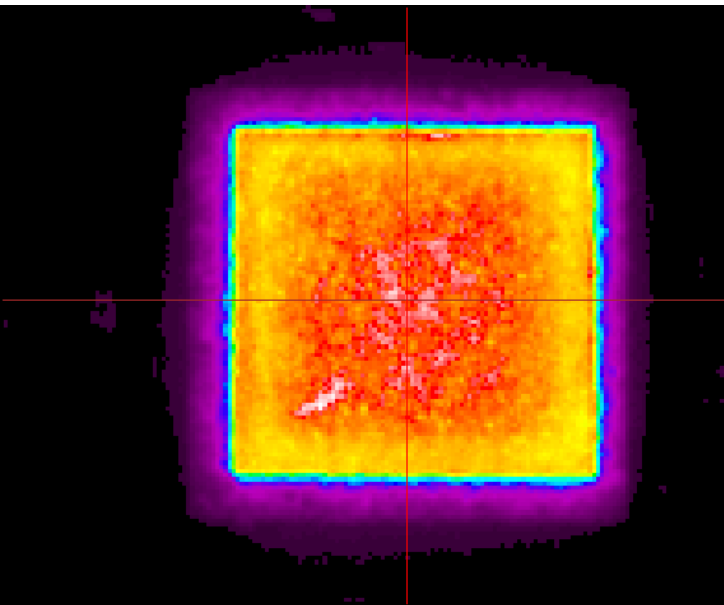
Side view



- xy centered on center of package
- z-axis referenced to top edge

LUXEON Altilon Intense 1x1

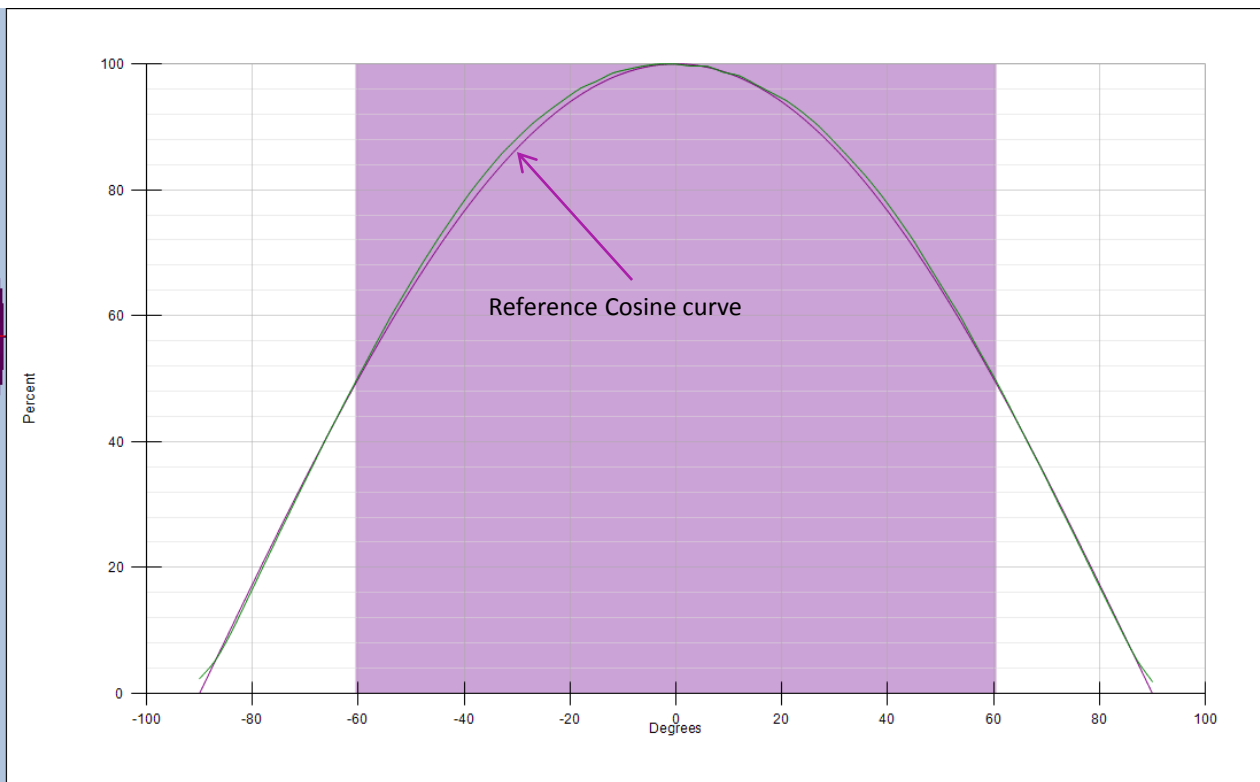
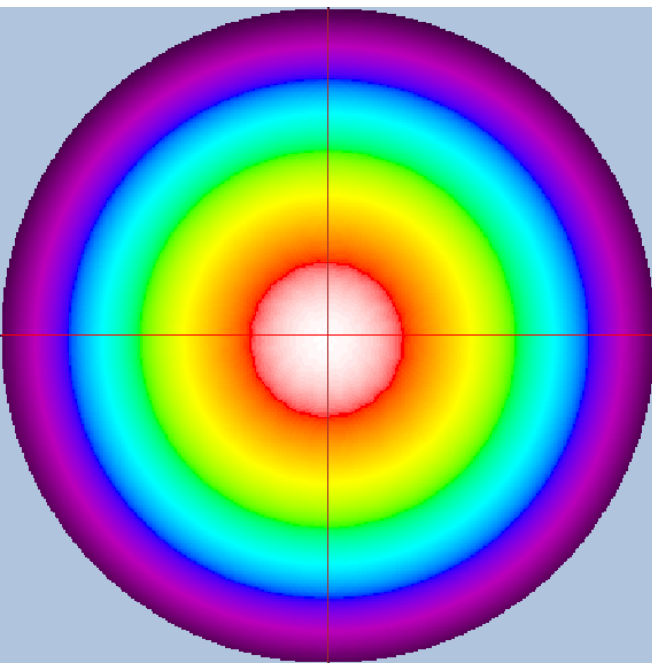
Source Size



Source luminance (FWHM) = $0.78 \times 0.81 \text{ mm}^2$

LUXEON Altilon Intense 1x1

Luminous Intensity Distribution

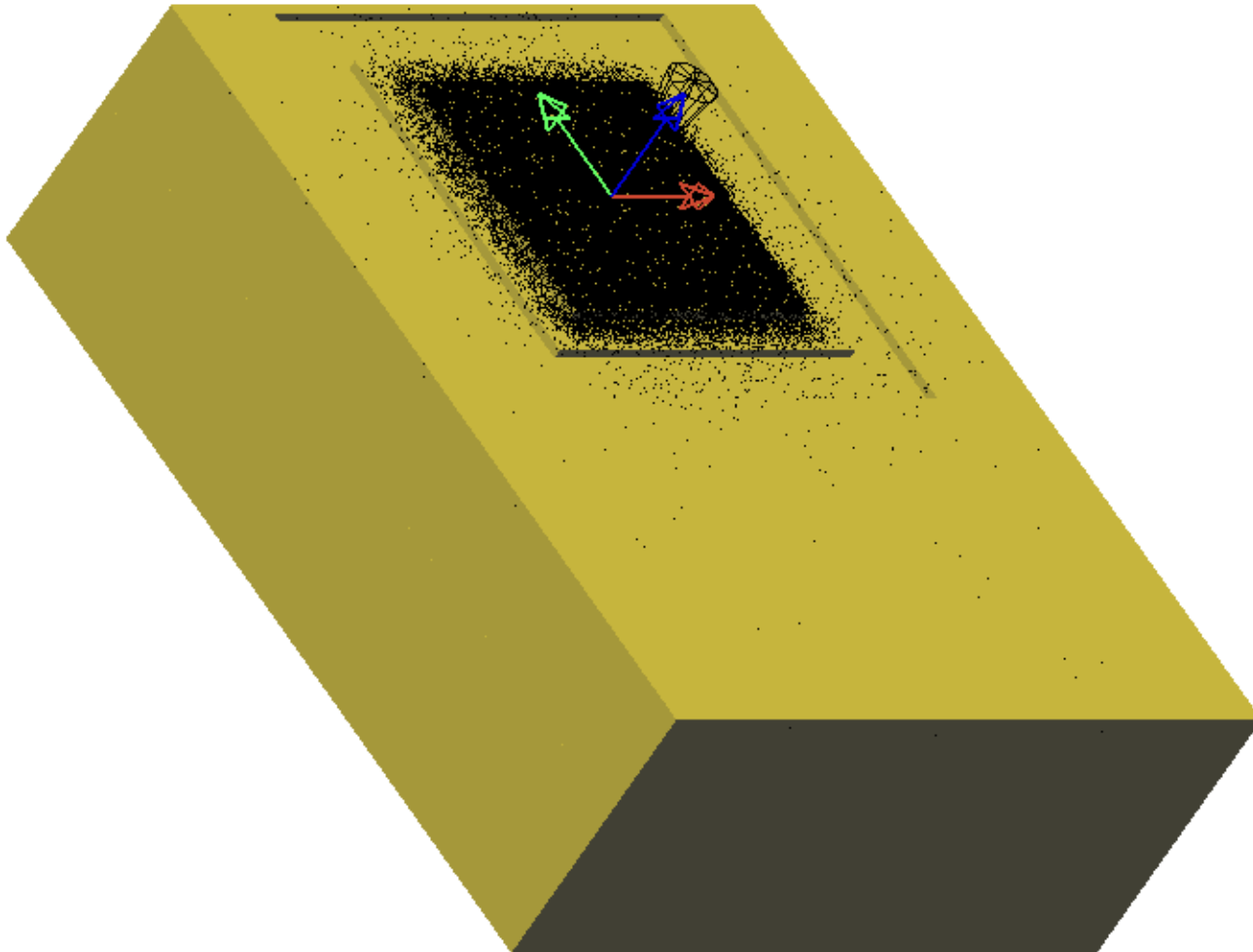


LUXEON Altilon Intense 1x1

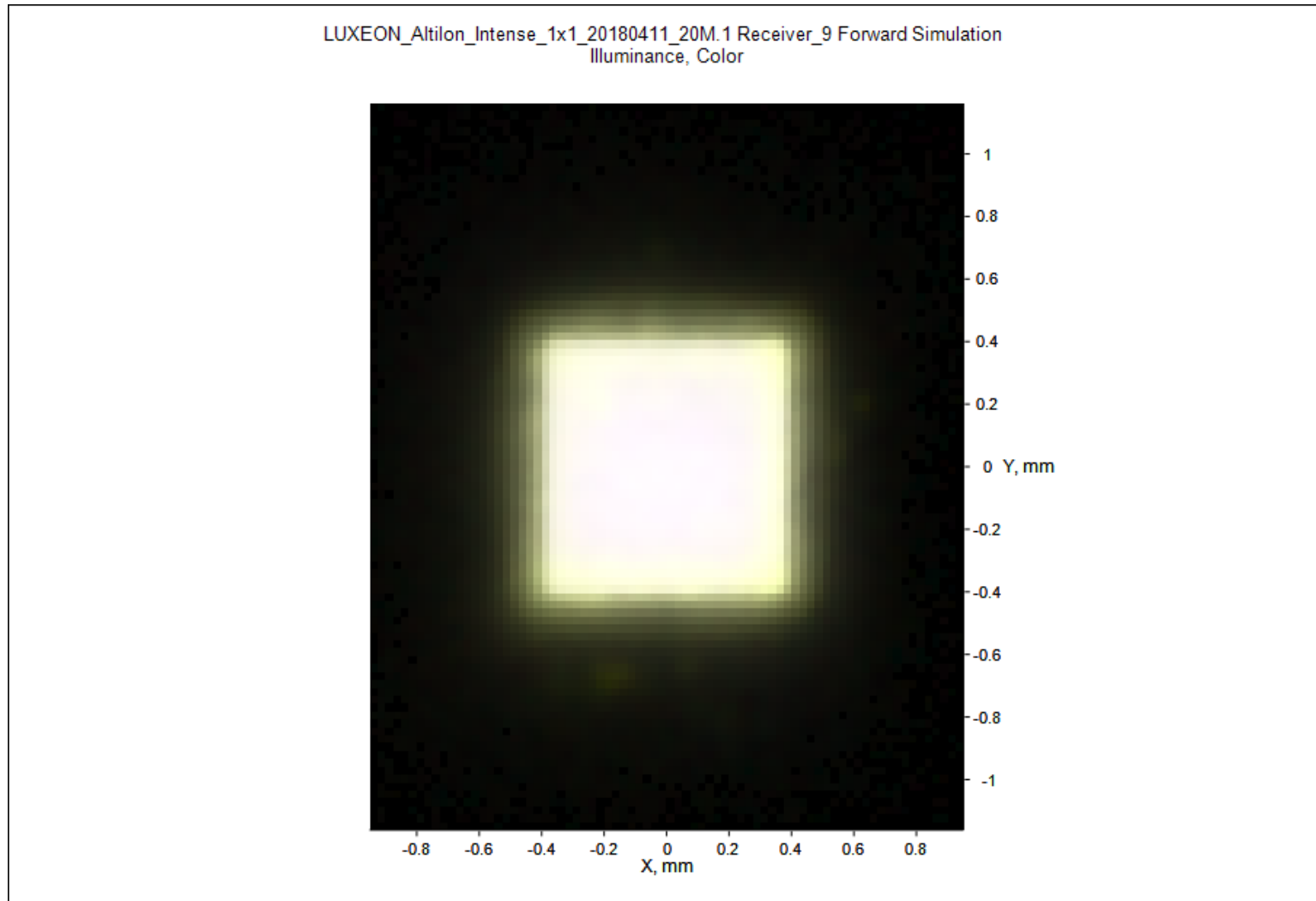
Rayset Download Links

ProSource		839_LUXEON_Altilon_Intense_1x1_20180411.rs8 Download link: https://www.sendspace.com/pro/dl/61bpep	143 MB	
LightTools	Spectral Projected:	LUXEON_Altilon_Intense_1x1_20180411_20M_proj_spectral_LT.ray Download link: https://www.sendspace.com/pro/dl/b95p8o	1215 MB	20M
	Y-Component Projected:	LUXEON_Altilon_Intense_1x1_20180411_20M_proj_Y_LT.ray Download link: https://www.sendspace.com/pro/dl/3bi7sr	532 MB	20M
	Z-Component Projected:	LUXEON_Altilon_Intense_1x1_20180411_20M_proj_Z_LT.ray Download link: https://www.sendspace.com/pro/dl/u05x2g	531 MB	20M
ASAP / LucidShape	Y-Component Projected:	LUXEON_Altilon_Intense_1x1_20180411_20M_proj_Y_ASAP.dis Download link: https://www.sendspace.com/pro/dl/fqml1k	532 MB	20M
	Z-Component Projected:	LUXEON_Altilon_Intense_1x1_20180411_20M_proj_Z_ASAP.dis Download link: https://www.sendspace.com/pro/dl/uojapo	531 MB	20M
OPTIS SPEOS	Y-Component Projected:	LUXEON_Altilon_Intense_1x1_20180411_20M_proj_Y_SPEOS.ray Download link: https://www.sendspace.com/pro/dl/bx6ezl	608 MB	20M
	Z-Component Projected:	LUXEON_Altilon_Intense_1x1_20180411_20M_proj_Z_SPEOS.ray Download link: https://www.sendspace.com/pro/dl/0720fz	606 MB	20M
Zemax	Spectral Projected:	LUXEON_Altilon_Intense_1x1_20180411_20M_proj_spectral_zemax.zip Download link: https://www.sendspace.com/pro/dl/5rd1i0	1173 MB	20M
Spectrum		spectrum_LUXEON_Altilon_Intense_1x1_20180411.txt Download link: https://www.sendspace.com/pro/dl/5izvgr	7 kB	
CAD	STEP:	LUXEON_Altilon_Intense_1x1_20180411.STEP Download link: https://www.sendspace.com/pro/dl/947kco	1182 kB	
	IGES:	LUXEON_Altilon_Intense_1x1_20180411.IGS Download link: https://www.sendspace.com/pro/dl/itmzku	1439 kB	

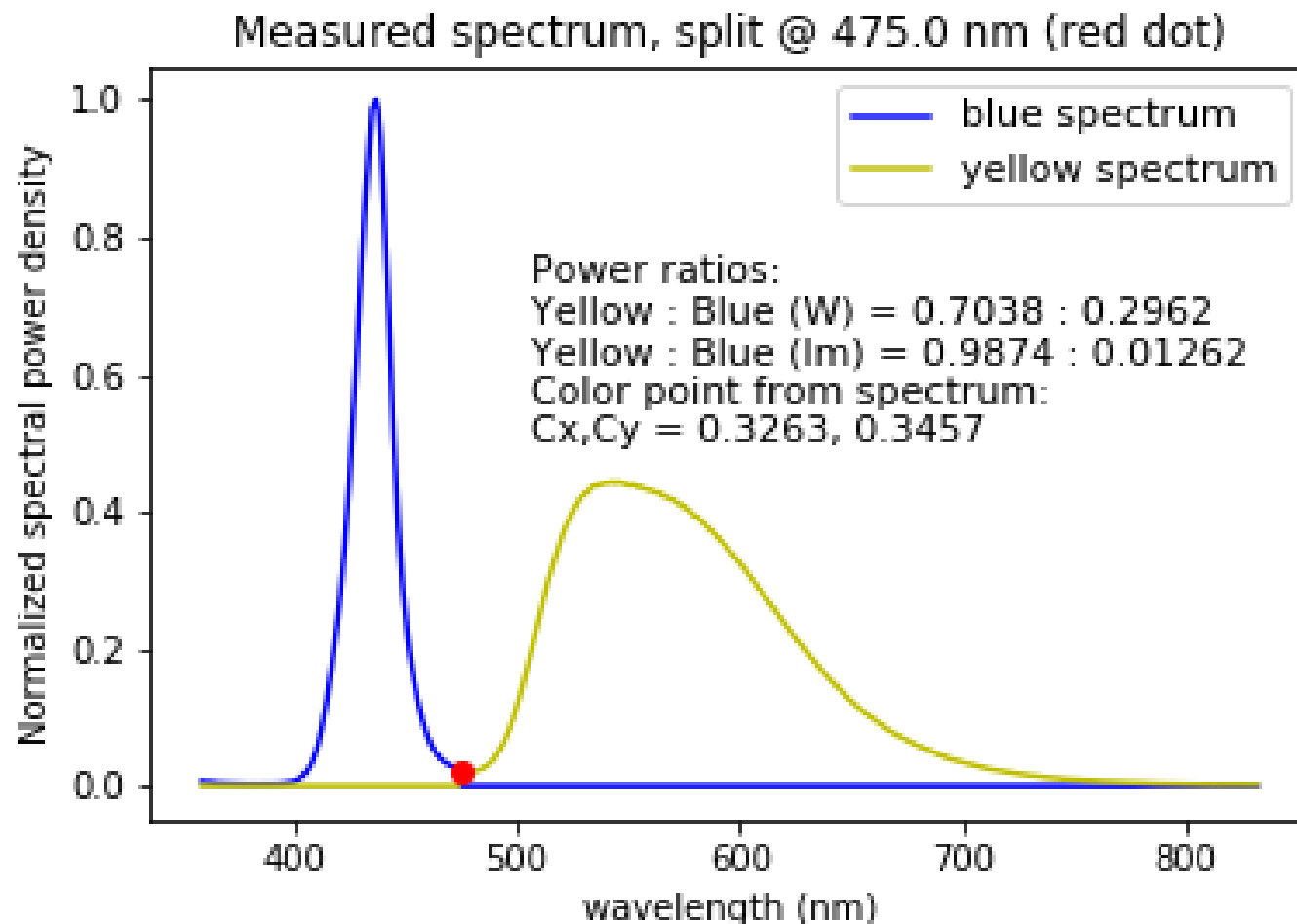
3D CAD view + ray starting points



Illuminance color chart (color over position)



Measured spectrum split in blue (Z) and yellow (Y) components



Color data info

Parameter	Value
yellow : blue ratio (W) (from measured spectrum)	0.7038 : 0.2962
yellow : blue ratio (lm) (from measured spectrum)	0.9874 : 0.01262
Average color point Cx, Cy (from measured spectrum)	0.3263, 0.3457
Average color point Cx, Cy (from simulation)	0.3259, 0.3471
Color point Cx, Cy @ HV (from simulation)	0.3246, 0.3432
Average CCT (K) (from simulation)	5.784e+03

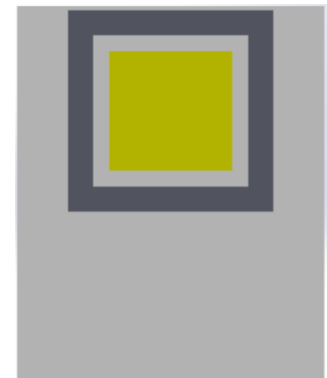
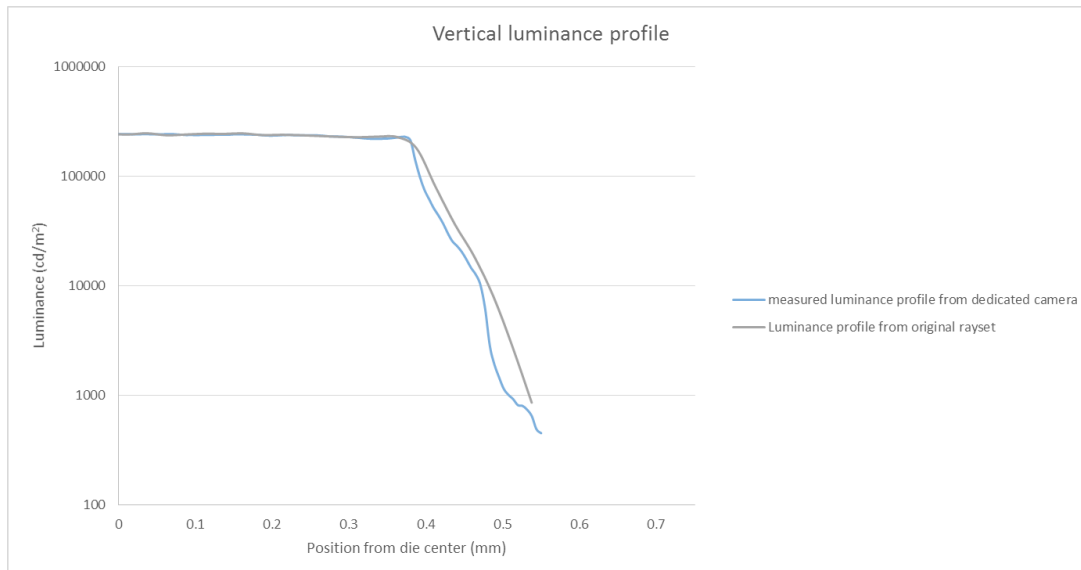
Fitting luminance contrast of rayset to measured contrast

Improved rayset for LUXEON Altilon Intense 1x1

Enhancing rayset for improved contrast

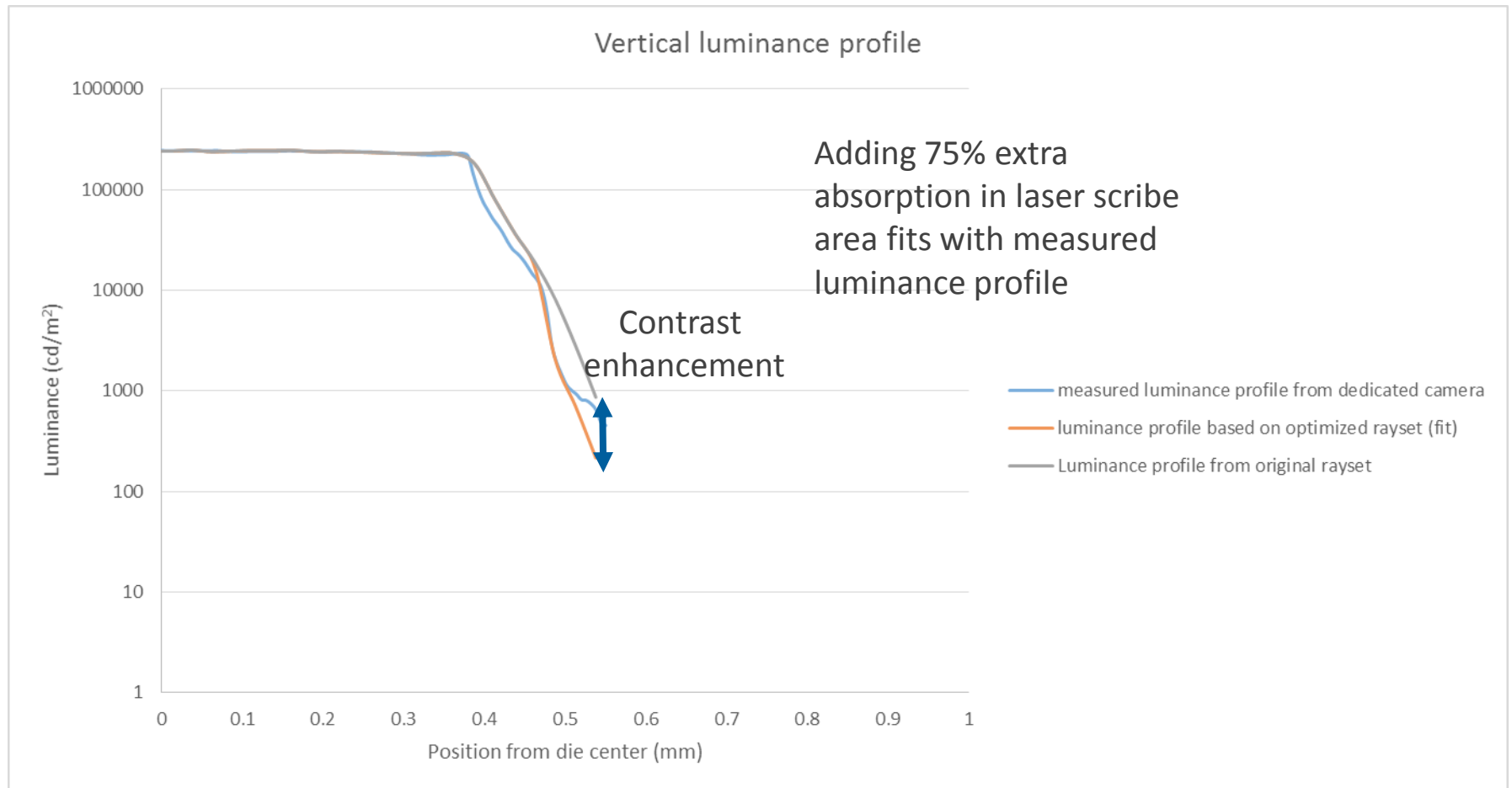
Overview & goal

- The Altilon Intense 1x1 package has an improved luminance contrast ratio. Current rayset goniometers camera cannot capture this contrast level. Therefore, the raysets measured with these goniometers also will show a lower contrast ratio than the LED package actually has.
- A dedicated stand-alone luminance camera can capture these higher contrast ratios. The information from such a camera is used to enhance the rayset such that it provides the expected contrast ratio. In practice, the rays coming from the black area are attenuated in order to fit the measured luminance profile.



Luminance contrast fitting

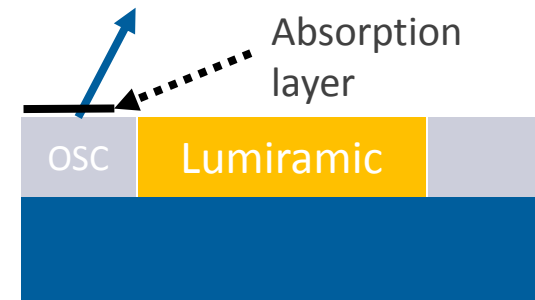
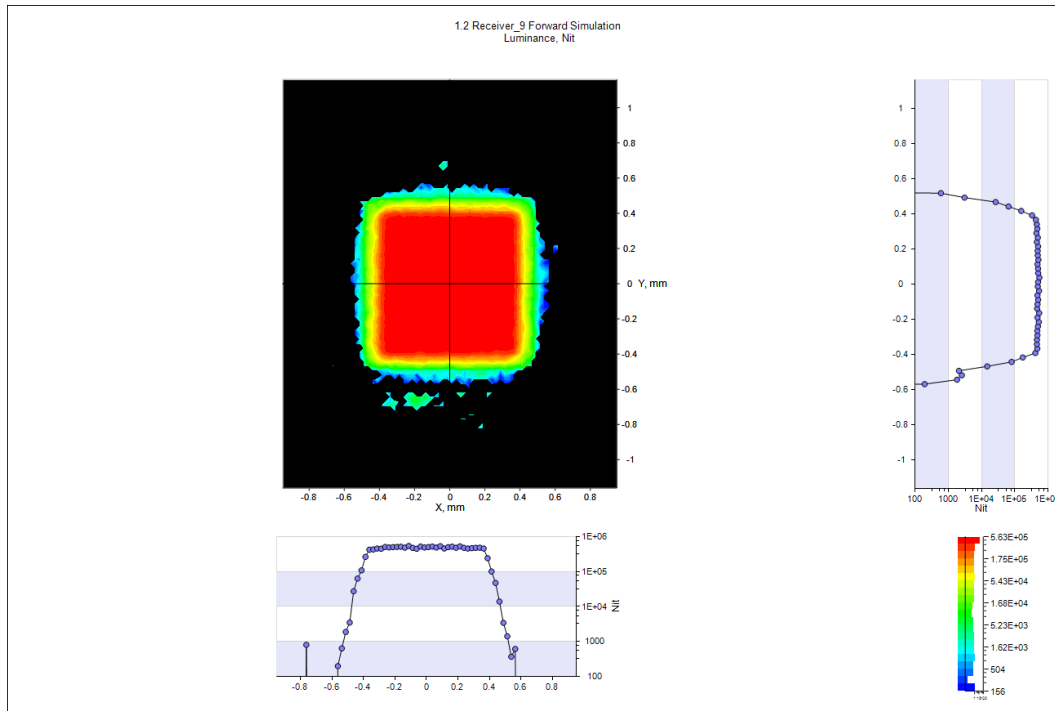
Fit to top edge range only



Luminance distribution for enhanced rayset

- Adding 75% absorption in laser scribe region in order to fit the measured luminance profile.

Logarithmic plot



LUXEON Altilon Intense 1x1 Enhanced Raysets

Enhanced Rayset Download Links

ProSource	Download link:				
LightTools	Projected rayset	LUXEON_Altilon_intense_1x1_20180411_ENHANCED_proj_Y_LT.ray		532 MB	20M
		Download link: https://www.sendspace.com/pro/dl/ujzjs6			
ASAP / LucidShape	Projected rayset	LUXEON_Altilon_intense_1x1_20180411_ENHANCED_proj_Y_ASAP.dis		532 MB	20M
		Download link: https://www.sendspace.com/pro/dl/gvc6su			
OPTIS SPEOS	Projected rayset	LUXEON_Altilon_intense_1x1_20180411_ENHANCED_proj_Y_SPEOS.ray		608 MB	20M
		Download link: https://www.sendspace.com/pro/dl/ujzjs6			
Zemax	Projected rayset	LUXEON_Altilon_intense_1x1_20180411_ENHANCED_proj_Y_zemax.zip		537 MB	20M
		Download link: https://www.sendspace.com/pro/dl/ge363x			
Spectrum	Download link:				
CAD	STEP:	Download link:			
	IGES:	Download link:			

Lumileds ref.: 839_LUXEON_Altilon_Intense_1x1_20180411



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