

## Report of Test

**LLIA002305-010**

Indoor Distribution Photometry Test Report

Catalog Number: Stingray 350W RGBW

Yoke mounted, black formed aluminum housing with sealed adjustable optical assembly, formed black aluminum snoot.

Unknown number and type of LEDs.

Proprietary LED driver, client states driver operating at 100% output.



Prepared For:  
Group One Ltd  
70 Sea Lane  
Farmingdale, NY 11735, USA

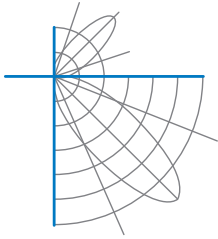
Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	3453.9 Lumens
Input Current	2.728 A	Total Efficacy	10.6 lm/W
Input Power	324.8 W	Downward Flux	3453.9 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.992		
Current THD	8.7 %		

This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

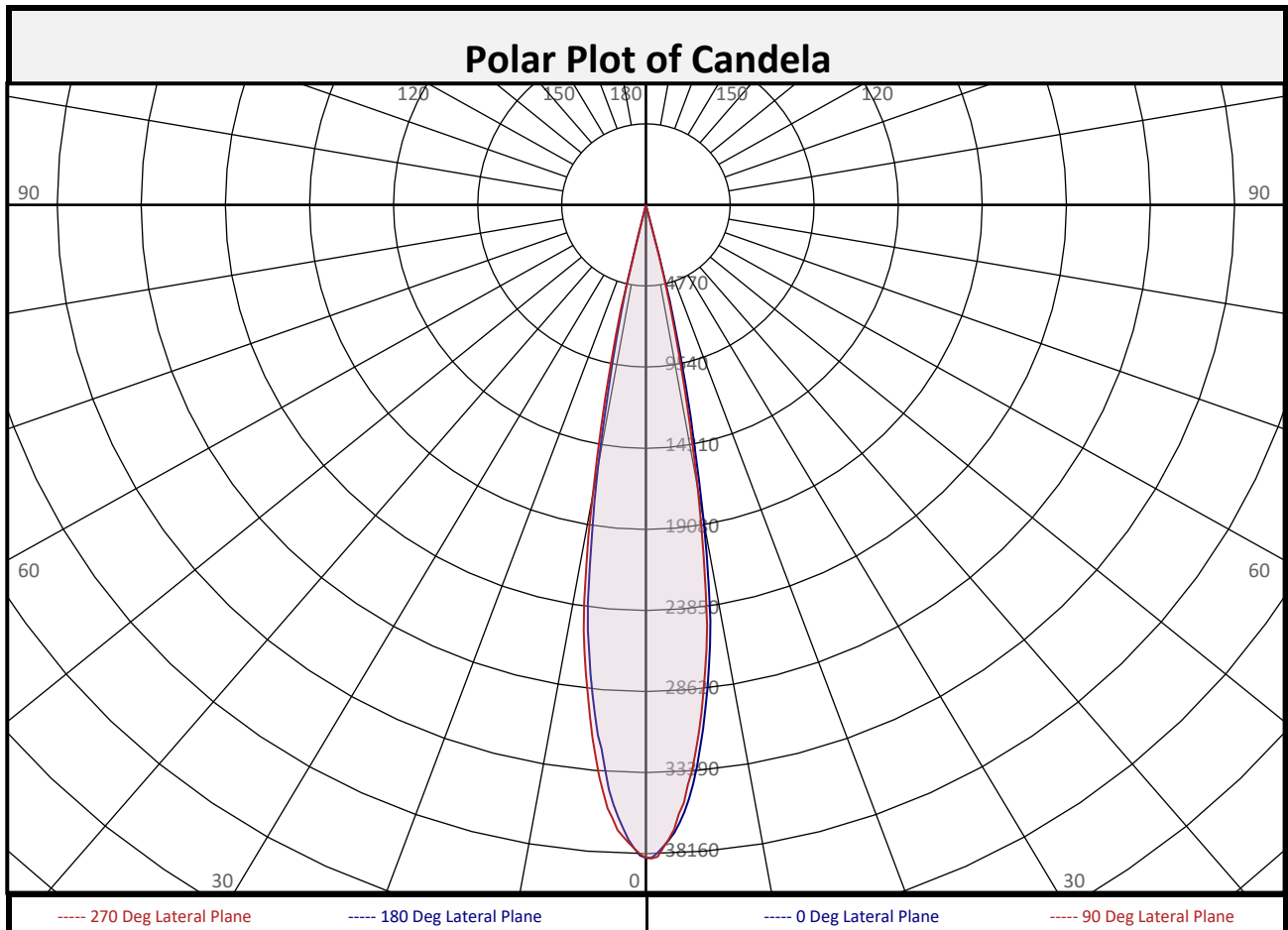
Test date: 02/09/2024

Report date: 02/19/2024

Signed: \_\_\_\_\_

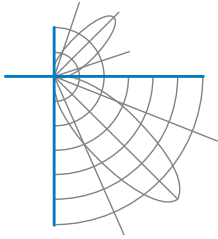


## Report of Test LLIA002305-010



### Zonal Flux Summary

Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	2629	76.1%	90-100	0.0	0.0%	0-20	3454	100.0%
10-20	824.5	23.9%	100-110	0.0	0.0%	0-30	3454	100.0%
20-30	0.0	0.0%	110-120	0.0	0.0%	0-40	3454	100.0%
30-40	0.0	0.0%	120-130	0.0	0.0%	0-60	3454	100.0%
40-50	0.0	0.0%	130-140	0.0	0.0%	0-80	3454	100.0%
50-60	0.0	0.0%	140-150	0.0	0.0%	10-90	824.5	23.9%
60-70	0.0	0.0%	150-160	0.0	0.0%	20-50	0.0	0.0%
70-80	0.0	0.0%	160-170	0.0	0.0%	40-90	0.0	0.0%
80-90	0.0	0.0%	170-180	0.0	0.0%	60-90	0.0	0.0%
0-90	3454	100.0%	90-180	0.0	0.0%	0-180	3454	100.0%



## Report of Test

### LLIA002305-010

#### Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles								
		0	22.5	45	67.5	90	112.5	135	157.5	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	38416	38416	38416	38416	38416	38416	38416	38416	38416
	2.5	36964	37161	37098	36900	36771	36452	36246	36033	36048
	5	33184	33113	33057	32767	32338	32006	31531	31314	31298
	7.5	27376	27342	27127	26797	26385	25973	25574	25278	25230
	10	18822	18423	18080	17712	17016	16170	15726	15580	15666
	12.5	8878	8849	8477	7921	7547	7159	6463	6184	6379
	15	1	2	3	0	0	3	0	0	0
	17.5	0	0	0	0	0	0	0	0	0
	20	0	0	0	0	0	0	0	0	0
	22.5	0	0	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0	0	0
	27.5	0	0	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0	0	0
	32.5	0	0	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0	0	0
	37.5	0	0	0	0	0	0	0	0	0
	40	0	0	0	0	0	0	0	0	0
	42.5	0	0	0	0	0	0	0	0	0
	45	0	0	0	0	0	0	0	0	0
	47.5	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	
52.5	0	0	0	0	0	0	0	0	0	
55	0	0	0	0	0	0	0	0	0	
57.5	0	0	0	0	0	0	0	0	0	
60	0	0	0	0	0	0	0	0	0	
62.5	0	0	0	0	0	0	0	0	0	
65	0	0	0	0	0	0	0	0	0	
67.5	0	0	0	0	0	0	0	0	0	
70	0	0	0	0	0	0	0	0	0	
72.5	0	0	0	0	0	0	0	0	0	
75	0	0	0	0	0	0	0	0	0	
77.5	0	0	0	0	0	0	0	0	0	
80	0	0	0	0	0	0	0	0	0	
82.5	0	0	0	0	0	0	0	0	0	
85	0	0	0	0	0	0	0	0	0	
87.5	0	0	0	0	0	0	0	0	0	
90	0	0	0	0	0	0	0	0	0	

16 lateral half-planes of data were acquired, 22.5 degree increments shown.

**North America (issuing laboratory)**

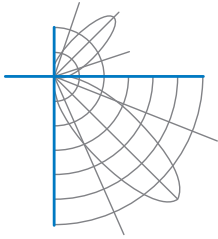
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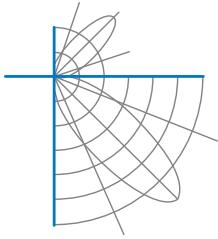
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		Lateral (C-Plane) Angles									
		0	22.5	45	67.5	90	112.5	135	157.5	180	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	
	92.5	0	0	0	0	0	0	0	0	0	
	95	0	0	0	0	0	0	0	0	0	
	97.5	0	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	0	
	102.5	0	0	0	0	0	0	0	0	0	
	105	0	0	0	0	0	0	0	0	0	
	107.5	0	0	0	0	0	0	0	0	0	
	110	0	0	0	0	0	0	0	0	0	
	112.5	0	0	0	0	0	0	0	0	0	
	115	0	0	0	0	0	0	0	0	0	
	117.5	0	0	0	0	0	0	0	0	0	
	120	0	0	0	0	0	0	0	0	0	
	122.5	0	0	0	0	0	0	0	0	0	
	125	0	0	0	0	0	0	0	0	0	
	127.5	0	0	0	0	0	0	0	0	0	
	130	0	0	0	0	0	0	0	0	0	
	132.5	0	0	0	0	0	0	0	0	0	
	135	0	0	0	0	0	0	0	0	0	
	137.5	0	0	0	0	0	0	0	0	0	
	140	0	0	0	0	0	0	0	0	0	
	142.5	0	0	0	0	0	0	0	0	0	
	145	0	0	0	0	0	0	0	0	0	
	147.5	0	0	0	0	0	0	0	0	0	
	150	0	0	0	0	0	0	0	0	0	
	152.5	0	0	0	0	0	0	0	0	0	
	155	0	0	0	0	0	0	0	0	0	
	157.5	0	0	0	0	0	0	0	0	0	
	160	0	0	0	0	0	0	0	0	0	
	162.5	0	0	0	0	0	0	0	0	0	
165	0	0	0	0	0	0	0	0	0		
167.5	0	0	0	0	0	0	0	0	0		
170	0	0	0	0	0	0	0	0	0		
172.5	0	0	0	0	0	0	0	0	0		
175	0	0	0	0	0	0	0	0	0		
177.5	0	0	0	0	0	0	0	0	0		
180	0	0	0	0	0	0	0	0	0		

16 lateral half-planes of data were acquired, 22.5 degree increments shown.



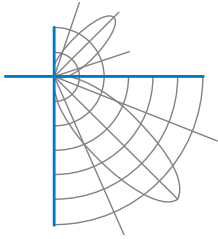
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### LLIA002305-010

#### Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles								
		180	202.5	225	247.5	270	292.5	315	337.5	0
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	38416	38416	38416	38416	38416	38416	38416	38416	38416
	2.5	36048	36208	36333	36552	36809	36930	36996	36907	36964
	5	31298	31538	31879	32214	32603	32964	33298	33307	33184
	7.5	25230	25448	25668	26206	26595	27053	27281	27460	27376
	10	15666	15417	15900	16573	17289	18044	18409	19164	18822
	12.5	6379	6493	6640	7294	7857	8521	8744	8880	8878
	15	0	2	0	0	2	2	0	1	1
	17.5	0	0	0	0	0	0	0	0	0
	20	0	0	0	0	0	0	0	0	0
	22.5	0	0	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0	0	0
	27.5	0	0	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0	0	0
	32.5	0	0	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0	0	0
	37.5	0	0	0	0	0	0	0	0	0
	40	0	0	0	0	0	0	0	0	0
	42.5	0	0	0	0	0	0	0	0	0
	45	0	0	0	0	0	0	0	0	0
	47.5	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	
52.5	0	0	0	0	0	0	0	0	0	
55	0	0	0	0	0	0	0	0	0	
57.5	0	0	0	0	0	0	0	0	0	
60	0	0	0	0	0	0	0	0	0	
62.5	0	0	0	0	0	0	0	0	0	
65	0	0	0	0	0	0	0	0	0	
67.5	0	0	0	0	0	0	0	0	0	
70	0	0	0	0	0	0	0	0	0	
72.5	0	0	0	0	0	0	0	0	0	
75	0	0	0	0	0	0	0	0	0	
77.5	0	0	0	0	0	0	0	0	0	
80	0	0	0	0	0	0	0	0	0	
82.5	0	0	0	0	0	0	0	0	0	
85	0	0	0	0	0	0	0	0	0	
87.5	0	0	0	0	0	0	0	0	0	
90	0	0	0	0	0	0	0	0	0	

16 lateral half-planes of data were acquired, 22.5 degree increments shown.



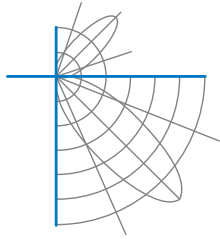
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Luminous Intensity (Candela) Table

Lateral (C-Plane) Angles										
	180	202.5	225	247.5	270	292.5	315	337.5	0	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	

16 lateral half-planes of data were acquired, 22.5 degree increments shown.



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### LLIA002305-010

Coefficients of Utilization/Room Utilization - Zonal Cavity Method																					
Effective Floor Cavity Reflectance 0.20																					
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	116	115	113	112	114	112	111	110	109	108	107	105	104	104	102	101	101	99			
2	114	111	109	107	112	109	108	106	106	105	104	104	103	101	101	100	99	98			
3	112	108	106	104	110	107	105	103	105	103	101	103	101	100	101	99	98	97			
4	110	106	103	101	108	105	103	101	103	101	100	101	100	98	100	99	97	96			
5	108	104	101	99	107	103	101	99	102	100	98	100	99	97	99	98	97	96			
6	107	102	100	98	106	102	99	97	101	98	97	100	98	96	99	97	96	95			
7	105	101	98	96	104	101	98	96	100	97	96	99	97	95	98	96	95	94			
8	104	100	97	95	103	99	97	95	99	96	95	98	96	95	97	95	94	94			
9	103	99	96	94	102	98	96	94	98	95	94	97	95	94	96	95	94	93			
10	102	98	95	94	101	97	95	93	97	95	93	96	94	93	96	94	93	92			

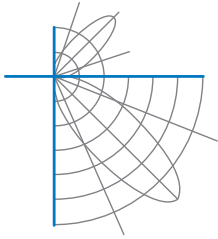
For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are lambertian reflectors. 2) Incident flux on each surface is uniformly distributed. 3) The room is spectrally neutral. When luminaires are not evenly distributed throughout the room, or do not exhibit lateral symmetry, CU values may differ from actual performance.

Circle of Light Plot			
Height(ft)	Illuminance at Nadir (fc)	Ground-level distance to half-of-nadir illuminance (ft)	
		0-180 deg	90-270 deg
6.0	1067.1	1.96	1.97
8.0	600.2	2.62	2.63
10.0	384.2	3.27	3.29
12.0	266.8	3.93	3.95
14.0	196.0	4.58	4.60
16.0	150.1	5.24	5.26

Spacing Criterion	
0 deg:	0.3
90 deg:	0.3
180 deg:	0.3
270 deg:	0.3

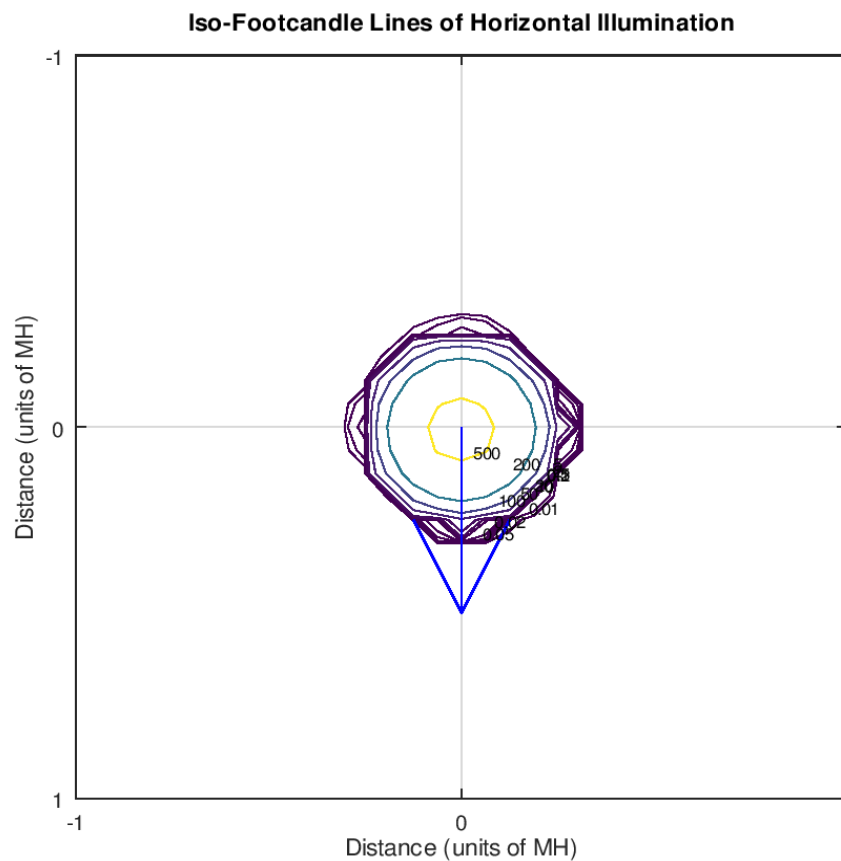
Average Luminance (cd/m <sup>2</sup> )			
	0 deg Plane	45 deg Plane	90 deg Plane
0	3032574	3032574	3032574
45	0	0	0
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	19.0°
Field Angle:	27.1°
90-270 Degree Plane	
Beam Angle:	19.1°
Field Angle:	27.0°

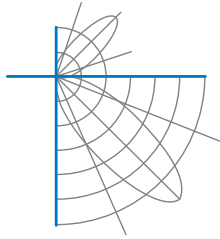


## Report of Test LLIA002305-010

### Iso-Illuminance Plot



The isofootcandle values shown in the plot above are based on a mounting height of  $h = 8.0$  feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.



## Report of Test

### LLIA002305-010

Test Distance                    9.5 m  
Ambient Temperature         25.6 °C

#### Notes

The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of IES LM-79-19. Format of reports and angular increments based on IES LM-41-20 and LM-46-20.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE C-Gamma coordinate system as defined in CIE publication number 121.

This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with ‡ are not covered.

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.