

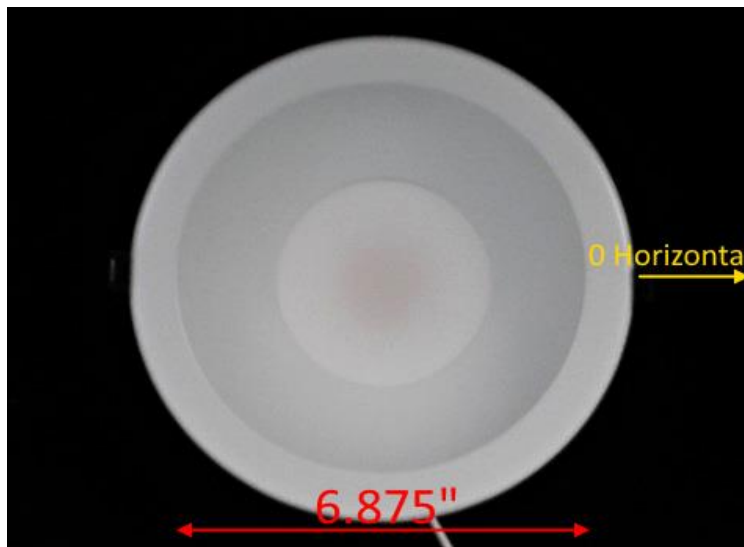


## Report of Test

LLIA002379-021

Indoor Distribution Photometry Test Report

Catalog Number: CDL8S-RM-24WPCS-U - 30W Setting - 4000K Setting  
Recessed mounted, formed white painted aluminum housing,  
white interior reflector, diffuse white plastic enclosure.  
white LEDs  
One unmarked PCB type LED driver in formed steel box.



Prepared For:  
Topaz Lighting, A Southwire Company  
925 Waverly Avenue  
Holtsville, NY 11742, USA

Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	2651.6 Lumens
Input Current	0.2290 A	Total Efficacy	97.0 Lm/W
Input Power	27.35 W	Downward Flux	2651.6 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.995		
Current THD	7.0 %		

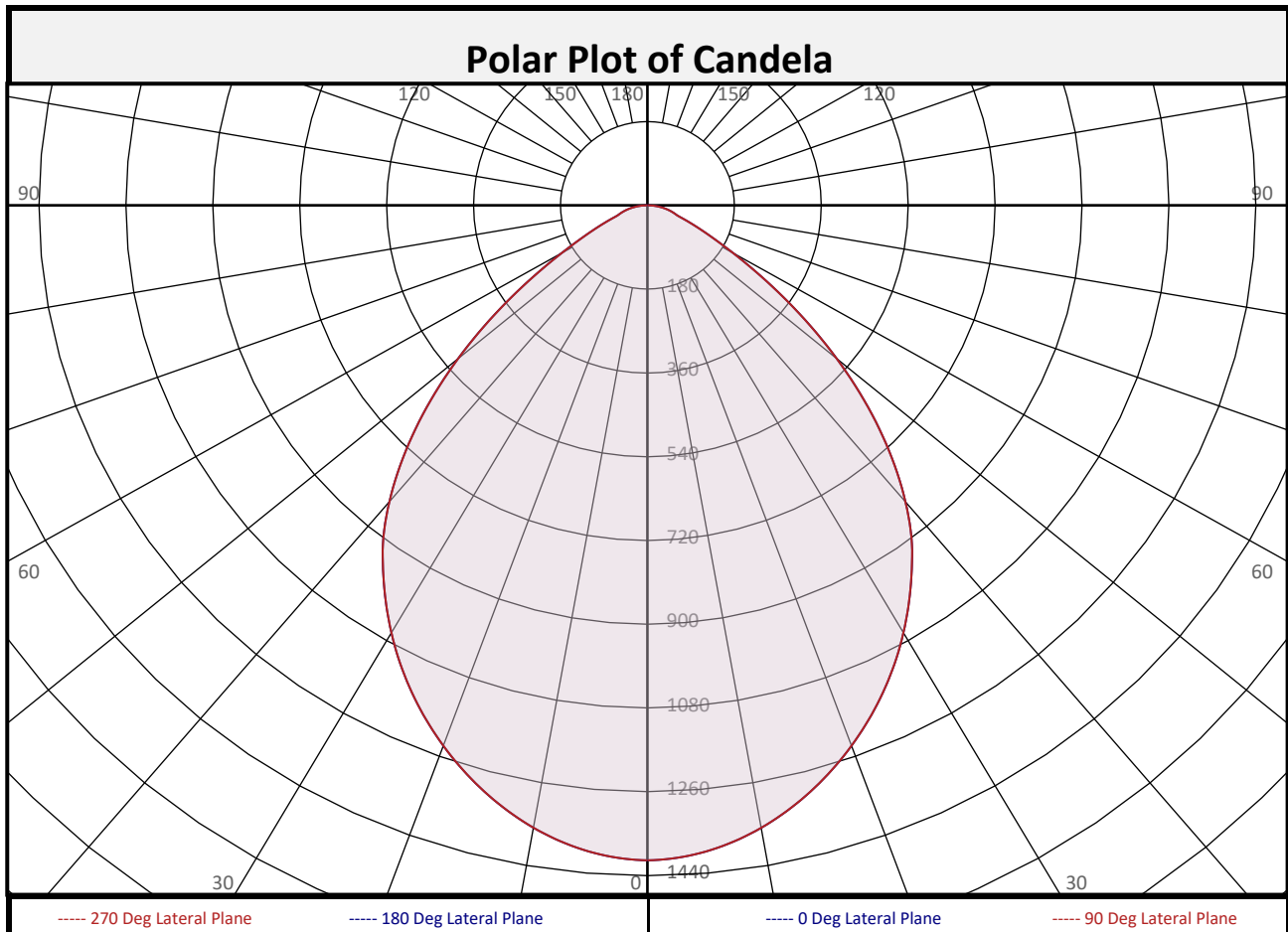
This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 05/01/2024  
Report date: 05/16/2024

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



## Report of Test LLIA002379-021



### 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	132.0	5.0%	90-100	0.0	0.0%	0-20	499.2	18.8%
10-20	367.2	13.8%	100-110	0.0	0.0%	0-30	1030	38.9%
20-30	531.1	20.0%	110-120	0.0	0.0%	0-40	1626	61.3%
30-40	595.6	22.5%	120-130	0.0	0.0%	0-60	2456	92.6%
40-50	520.7	19.6%	130-140	0.0	0.0%	0-80	2633	99.3%
50-60	309.7	11.7%	140-150	0.0	0.0%	10-90	2520	95.0%
60-70	123.0	4.6%	150-160	0.0	0.0%	20-50	1647	62.1%
70-80	54.1	2.0%	160-170	0.0	0.0%	40-90	1026	38.7%
80-90	18.3	0.7%	170-180	0.0	0.0%	60-90	195.3	7.4%
0-90	2652	100.0%	90-180	0.0	0.0%	0-180	2652	100.0%



## Report of Test

### LLIA002379-021

#### 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	1407	1407	1407	1407	1407	1407	1407	1407	1407
	2.5	1403	1403	1403	1403	1403	1403	1403	1403	1403
	5	1394	1394	1394	1394	1394	1394	1394	1394	1394
	7.5	1378	1378	1378	1378	1378	1378	1378	1378	1378
	10	1358	1358	1358	1358	1358	1358	1358	1358	1358
	12.5	1333	1333	1333	1333	1333	1333	1333	1333	1333
	15	1304	1304	1304	1304	1304	1304	1304	1304	1304
	17.5	1272	1272	1272	1272	1272	1272	1272	1272	1272
	20	1236	1236	1236	1236	1236	1236	1236	1236	1236
	22.5	1197	1197	1197	1197	1197	1197	1197	1197	1197
	25	1155	1155	1155	1155	1155	1155	1155	1155	1155
	27.5	1110	1110	1110	1110	1110	1110	1110	1110	1110
	30	1061	1061	1061	1061	1061	1061	1061	1061	1061
	32.5	1009	1009	1009	1009	1009	1009	1009	1009	1009
	35	955	955	955	955	955	955	955	955	955
	37.5	899	899	899	899	899	899	899	899	899
	40	832	832	832	832	832	832	832	832	832
	42.5	758	758	758	758	758	758	758	758	758
	45	680	680	680	680	680	680	680	680	680
	47.5	597	597	597	597	597	597	597	597	597
50	512	512	512	512	512	512	512	512	512	
52.5	426	426	426	426	426	426	426	426	426	
55	343	343	343	343	343	343	343	343	343	
57.5	268	268	268	268	268	268	268	268	268	
60	205	205	205	205	205	205	205	205	205	
62.5	155	155	155	155	155	155	155	155	155	
65	119	119	119	119	119	119	119	119	119	
67.5	91	91	91	91	91	91	91	91	91	
70	69	69	69	69	69	69	69	69	69	
72.5	59	59	59	59	59	59	59	59	59	
75	51	51	51	51	51	51	51	51	51	
77.5	43	43	43	43	43	43	43	43	43	
80	35	35	35	35	35	35	35	35	35	
82.5	26	26	26	26	26	26	26	26	26	
85	17	17	17	17	17	17	17	17	17	
87.5	8	8	8	8	8	8	8	8	8	
90	0	0	0	0	0	0	0	0	0	

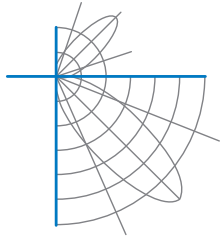
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

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## Report of Test

LLIA002379-021

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.	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.



## Report of Test

### LLIA002379-021

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	111	107	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89			
2	103	96	91	86	101	95	89	85	91	87	83	88	85	81	85	82	80	78			
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68			
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	70	66	62	60			
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	60	56	54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48			
7	71	59	52	46	70	59	51	46	57	50	46	56	50	45	55	49	45	43			
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36			
10	59	47	40	35	58	46	39	35	45	39	35	44	39	34	44	38	34	33			

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	39.1	6.81	6.81
8.0	22.0	9.08	9.08
10.0	14.1	11.35	11.35
12.0	9.8	13.62	13.62
14.0	7.2	15.89	15.89
16.0	5.5	18.16	18.16

Spacing Criterion	
SC:	1.1

Average Luminance (cd/m <sup>2</sup> )			
	0 deg Plane	45 deg Plane	90 deg Plane
0	58763	58763	58763
45	40140	40140	40140
55	25003	25003	25003
65	11758	11758	11758
75	8283	8283	8283
85	8046	8046	8046

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	88.5°
Field Angle:	126.9°
90-270 Degree Plane	
Beam Angle:	88.5°
Field Angle:	126.9°



## Report of Test

### LLIA002379-021

#### UGR Table - Corrected

##### Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

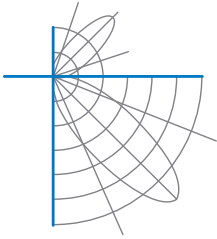
##### Room Size

##### UGR Viewed Crosswise

##### UGR Viewed Endwise

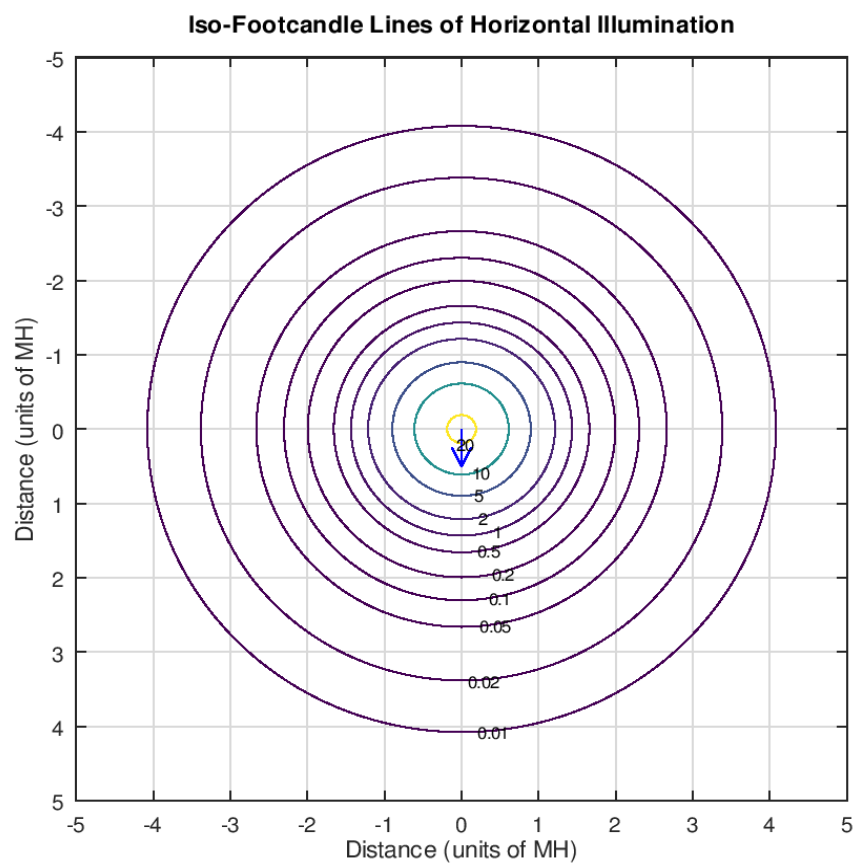
X=2H	Y=2H	20.4	21.8	20.7	22.1	22.4	20.4	21.8	20.7	22.1	22.4
	3H	20.8	22.1	21.2	22.4	22.8	20.8	22.1	21.2	22.4	22.8
	4H	21.0	22.2	21.4	22.5	22.9	21.0	22.2	21.4	22.5	22.9
	6H	21.2	22.3	21.6	22.6	23.0	21.2	22.3	21.6	22.6	23.0
	8H	21.3	22.3	21.7	22.7	23.1	21.3	22.3	21.7	22.7	23.1
	12H	21.3	22.3	21.8	22.7	23.1	21.3	22.3	21.8	22.7	23.1
4H	2H	20.5	21.7	20.9	22.0	22.4	20.5	21.7	20.9	22.0	22.4
	3H	21.1	22.0	21.5	22.4	22.8	21.1	22.0	21.5	22.4	22.8
	4H	21.4	22.2	21.8	22.6	23.1	21.4	22.2	21.8	22.6	23.1
	6H	21.7	22.4	22.2	22.9	23.3	21.7	22.4	22.2	22.9	23.3
	8H	21.8	22.5	22.3	23.0	23.4	21.8	22.5	22.3	23.0	23.4
	12H	21.9	22.5	22.4	23.0	23.5	21.9	22.5	22.4	23.0	23.5
8H	4H	21.5	22.1	21.9	22.6	23.1	21.5	22.1	21.9	22.6	23.1
	6H	21.9	22.4	22.4	22.9	23.4	21.9	22.4	22.4	22.9	23.4
	8H	22.1	22.6	22.6	23.1	23.6	22.1	22.6	22.6	23.1	23.6
	12H	22.2	22.7	22.7	23.2	23.7	22.2	22.7	22.7	23.2	23.7
12H	4H	21.4	22.1	21.9	22.5	23.0	21.4	22.1	21.9	22.5	23.0
	6H	21.9	22.4	22.4	22.9	23.4	21.9	22.4	22.4	22.9	23.4
	8H	22.1	22.6	22.6	23.1	23.6	22.1	22.6	22.6	23.1	23.6

Maximum UGR = 23.7

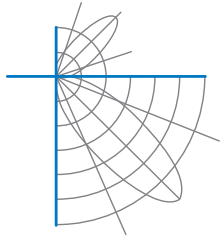


## Report of Test LLIA002379-021

### 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

### LLIA002379-021

Test Distance                    9.5 m  
Ambient Temperature        25.2 °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.