



## Report of Test

**LLIA002547-008**

Indoor Distribution Photometry Test Report

Catalog Number: GCP-100PCS-WH (100W - Uplight/Downlight - 4000K)

Surface or bracket mounted, cast aluminum housing, lightly frosted prismatic plastic direct enclosure, frosted plastic indirect enclosure. 128 LEDs (64CW and 64WW) on two E502083 LED boards in direct section and 24 LEDs (12CW and 12WW) on two boards in uplight section.

One Moso N7L-120M260A12 LED driver



Prepared For:

Topaz Lighting Corp  
925 Waverly Avenue  
Holtsville, NY 11742, USA

### Performance Summary

Input Voltage	120.0 Vac	Luminous Flux	14107.2 Lumens
Input Current	0.8198 A	Total Efficacy	144.0 Lm/W
Input Power	97.99 W	Downward Flux	12303.8 Lumens
Frequency	60.00 Hz	Downward Flux	87.2 % of Total
Power Factor	0.996		
Current THD	3.8 %		

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

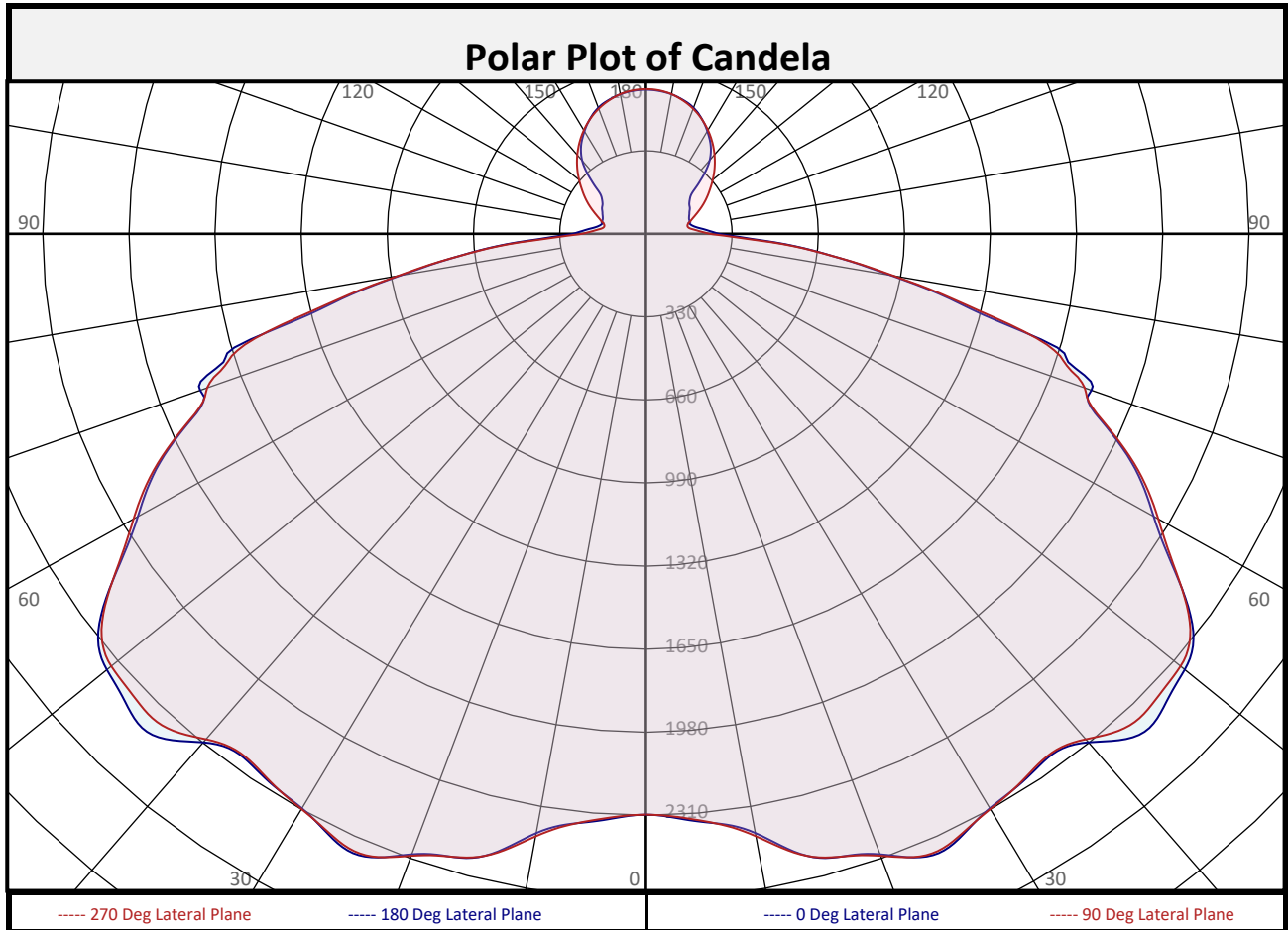
Test date: 01/16/2025

Report date: 01/17/2025

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



Report of Test  
LLIA002547-008



### 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	226.1	1.6%	90-100	226.5	1.6%	0-20	950.5	6.7%
10-20	724.4	5.1%	100-110	177.5	1.3%	0-30	2186	15.5%
20-30	1236	8.8%	110-120	193.3	1.4%	0-40	3824	27.1%
30-40	1638	11.6%	120-130	222.5	1.6%	0-60	8160	57.8%
40-50	2090	14.8%	130-140	266.6	1.9%	0-80	11674	82.7%
50-60	2247	15.9%	140-150	275.4	2.0%	10-90	12078	85.6%
60-70	1989	14.1%	150-160	232.5	1.6%	20-50	4963	35.2%
70-80	1524	10.8%	160-170	154.8	1.1%	40-90	8480	60.1%
80-90	630.3	4.5%	170-180	54.3	0.4%	60-90	4144	29.4%
0-90	12304	87.2%	90-180	1803	12.8%	0-180	14107	100.0%



## Report of Test

LLIA002547-008

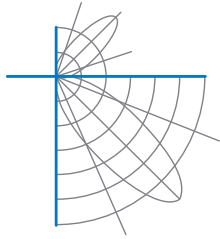
Luminous Intensity (Candela) Table

		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	2307	2307	2307	2307	2307	2307	2307	2307	2307
	2.5	2321	2320	2319	2317	2317	2317	2319	2320	2321
	5	2344	2344	2343	2340	2339	2340	2343	2344	2344
	7.5	2368	2370	2375	2375	2373	2375	2375	2370	2368
	10	2418	2418	2427	2432	2431	2432	2427	2418	2418
	12.5	2502	2496	2498	2506	2508	2506	2498	2496	2502
	15	2566	2561	2555	2558	2565	2558	2555	2561	2566
	17.5	2590	2595	2587	2586	2592	2586	2587	2595	2590
	20	2623	2635	2630	2630	2630	2630	2630	2635	2623
	22.5	2682	2685	2682	2682	2680	2682	2682	2685	2682
	25	2703	2696	2693	2692	2693	2692	2693	2696	2703
	27.5	2669	2666	2661	2663	2665	2663	2661	2666	2669
	30	2635	2639	2632	2639	2639	2639	2632	2639	2635
	32.5	2619	2620	2615	2622	2619	2622	2615	2620	2619
	35	2600	2597	2596	2597	2593	2597	2596	2597	2600
	37.5	2590	2589	2590	2586	2584	2586	2590	2589	2590
	40	2638	2628	2632	2630	2622	2630	2632	2628	2638
	42.5	2723	2695	2700	2699	2679	2699	2700	2695	2723
	45	2751	2725	2725	2718	2698	2718	2725	2725	2751
	47.5	2720	2715	2707	2692	2685	2692	2707	2715	2720
50	2695	2703	2690	2676	2673	2676	2690	2703	2695	
52.5	2644	2657	2642	2636	2628	2636	2642	2657	2644	
55	2523	2544	2528	2522	2519	2522	2528	2544	2523	
57.5	2370	2402	2384	2370	2382	2370	2384	2402	2370	
60	2246	2278	2260	2245	2266	2245	2260	2278	2246	
62.5	2142	2157	2144	2134	2156	2134	2144	2157	2142	
65	2014	2015	2008	1997	2023	1997	2008	2015	2014	
67.5	1863	1866	1855	1846	1870	1846	1855	1866	1863	
70	1817	1801	1775	1757	1788	1757	1775	1801	1817	
72.5	1696	1699	1689	1669	1676	1669	1689	1699	1696	
75	1485	1480	1499	1488	1498	1488	1499	1480	1485	
77.5	1194	1222	1198	1214	1210	1214	1198	1222	1194	
80	954	965	961	973	964	973	961	965	954	
82.5	754	762	754	765	757	765	754	762	754	
85	576	584	570	586	567	586	570	584	576	
87.5	382	383	369	379	354	379	369	383	382	
90	278	276	264	263	243	263	264	276	278	

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

**North America (issuing laboratory)**

**Australasia & S.E. Asia**



## Report of Test

### LLIA002547-008

#### 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	278	276	264	263	243	263	264	276	278
	92.5	245	240	230	222	209	222	230	240	245
	95	218	215	204	193	185	193	204	215	218
	97.5	196	192	182	171	168	171	182	192	196
	100	182	179	169	160	162	160	169	179	182
	102.5	174	171	161	156	164	156	161	171	174
	105	170	167	158	159	170	159	158	167	170
	107.5	175	172	162	169	183	169	162	172	175
	110	176	173	164	181	196	181	164	173	176
	112.5	179	176	167	201	211	201	167	176	179
	115	183	180	172	221	228	221	172	180	183
	117.5	188	185	178	240	245	240	178	185	188
	120	194	190	188	259	262	259	188	190	194
	122.5	199	196	204	278	280	278	204	196	199
	125	203	203	237	297	297	297	237	203	203
	127.5	210	214	276	316	315	316	276	214	210
	130	221	234	309	336	334	336	309	234	221
	132.5	240	273	338	355	353	355	338	273	240
	135	290	321	363	374	372	374	363	321	290
	137.5	340	361	385	393	391	393	385	361	340
140	380	391	406	411	409	411	406	391	380	
142.5	409	415	426	428	426	428	426	415	409	
145	432	437	445	445	443	445	445	437	432	
147.5	452	457	462	461	460	461	462	457	452	
150	470	474	478	476	475	476	478	474	470	
152.5	488	490	493	491	490	491	493	490	488	
155	505	505	506	505	504	505	506	505	505	
157.5	520	518	518	517	517	517	518	518	520	
160	532	530	530	529	528	529	530	530	532	
162.5	543	540	540	539	539	539	540	540	543	
165	550	549	549	548	548	548	549	549	550	
167.5	557	557	556	556	556	556	556	557	557	
170	562	563	563	563	563	563	563	563	562	
172.5	566	567	568	568	568	568	568	567	566	
175	569	570	571	571	572	571	571	570	569	
177.5	571	572	573	573	574	573	573	572	571	
180	573	573	573	573	573	573	573	573	573	

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



## Report of Test

LLIA002547-008

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	70	50	30	10	70	50	30	10	70	50	30	10	0
RCR																					
0	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87			
1	103	98	92	88	99	94	89	85	87	84	80	81	78	75	76	73	71	68			
2	92	83	75	68	88	80	73	67	74	68	63	69	64	60	64	60	56	53			
3	83	71	62	55	79	69	60	53	64	57	51	59	53	48	55	50	46	43			
4	75	62	52	45	72	60	51	44	56	48	42	52	45	40	48	43	38	35			
5	69	55	45	38	66	53	44	37	49	41	35	46	39	34	43	37	32	30			
6	63	49	39	32	60	47	38	31	44	36	30	41	34	29	38	32	28	25			
7	58	44	34	28	55	42	33	27	39	32	26	37	30	25	34	29	24	22			
8	54	39	30	24	51	38	30	24	36	28	23	34	27	22	31	25	21	19			
9	50	36	27	21	48	35	27	21	33	25	20	31	24	19	29	23	19	17			
10	47	33	25	19	45	32	24	19	30	23	18	28	22	17	27	21	17	15			

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	64.1	10.38	10.29
8.0	36.1	13.84	13.72
10.0	23.1	17.30	17.14
12.0	16.0	20.76	20.57
14.0	11.8	24.22	24.00
16.0	9.0	27.69	27.43

Spacing Criterion	
0 deg:	1.7
90 deg:	1.7
180 deg:	1.7
270 deg:	1.7

Average Luminance (cd/m <sup>2</sup> )			
	0 deg Plane	45 deg Plane	90 deg Plane
0	24987	24987	24987
45	38916	38554	38161
55	42612	42691	42535
65	43846	43716	44043
75	47505	47939	47923
85	36800	36420	36253

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	151.4°
Field Angle:	#N/A
90-270 Degree Plane	
Beam Angle:	152.0°
Field Angle:	178.1°



## Report of Test

### LLIA002547-008

#### 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

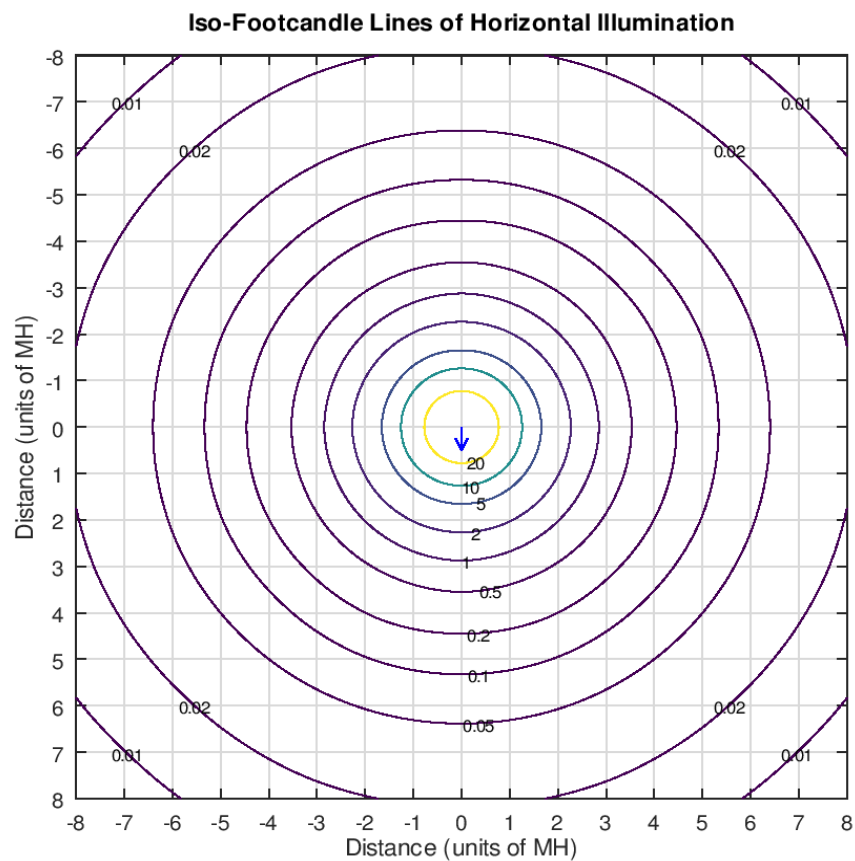
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	23.9	25.4	24.4	25.9	26.6	23.8	25.3	24.4	25.9	26.5
	3H	26.3	27.6	26.8	28.2	28.9	26.2	27.6	26.8	28.1	28.8
	4H	27.5	28.8	28.0	29.3	30.0	27.4	28.7	28.0	29.3	29.9
	6H	28.2	29.4	28.8	30.0	30.7	28.2	29.4	28.8	30.0	30.7
	8H	28.5	29.7	29.1	30.3	31.0	28.4	29.6	29.0	30.2	30.9
	12H	28.7	29.8	29.3	30.4	31.2	28.7	29.8	29.3	30.4	31.1
4H	2H	24.6	25.9	25.2	26.5	27.2	24.6	25.9	25.2	26.5	27.1
	3H	27.3	28.4	27.9	29.0	29.7	27.2	28.3	27.8	29.0	29.7
	4H	28.6	29.6	29.2	30.2	31.0	28.5	29.6	29.1	30.2	30.9
	6H	29.5	30.4	30.1	31.1	31.8	29.5	30.4	30.1	31.0	31.7
	8H	29.8	30.7	30.5	31.3	32.1	29.8	30.7	30.4	31.3	32.0
	12H	30.1	30.9	30.8	31.6	32.3	30.1	30.9	30.7	31.5	32.3
8H	4H	29.0	29.9	29.7	30.5	31.3	29.0	29.8	29.6	30.5	31.2
	6H	30.1	30.8	30.7	31.5	32.2	30.1	30.8	30.7	31.5	32.2
	8H	30.5	31.2	31.2	31.8	32.6	30.5	31.1	31.2	31.8	32.6
	12H	30.9	31.5	31.6	32.2	33.0	30.9	31.5	31.6	32.1	33.0
12H	4H	29.1	29.9	29.7	30.5	31.3	29.0	29.8	29.7	30.5	31.2
	6H	30.2	30.8	30.9	31.5	32.3	30.2	30.8	30.9	31.5	32.3
	8H	30.7	31.2	31.4	31.9	32.7	30.7	31.2	31.3	31.9	32.7

Maximum UGR = 33.0

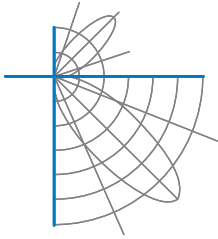


Report of Test  
LLIA002547-008

**Iso-Illuminance Plot**

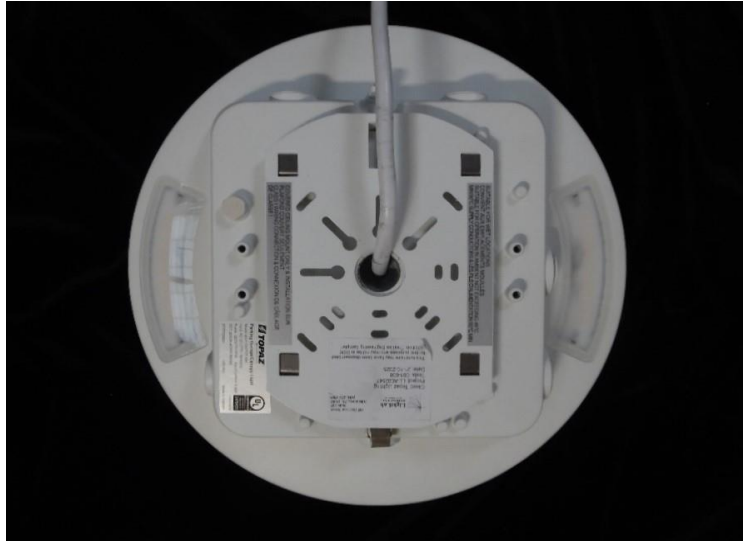


The isofootcandle values shown in the plot above are based on a mounting height of  $h = 8.0$  feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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



Report of Test  
LLIA002547-002

**Additional Pictures of Test Subject**







## Report of Test

### LLIA002547-008

Test Distance                    9.5 m  
Ambient Temperature        24.9 °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.