



Report of Test

LLIA002547-004

Indoor Distribution Photometry Test Report

Catalog Number: GCP-100PCS-WH (50W - 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	7303.8 Lumens
Input Current	0.4040 A	Total Efficacy	152.9 Lm/W
Input Power	47.78 W	Downward Flux	6353.4 Lumens
Frequency	60.00 Hz	Downward Flux	87.0 % of Total
Power Factor	0.986		
Current THD	5.6 %		

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

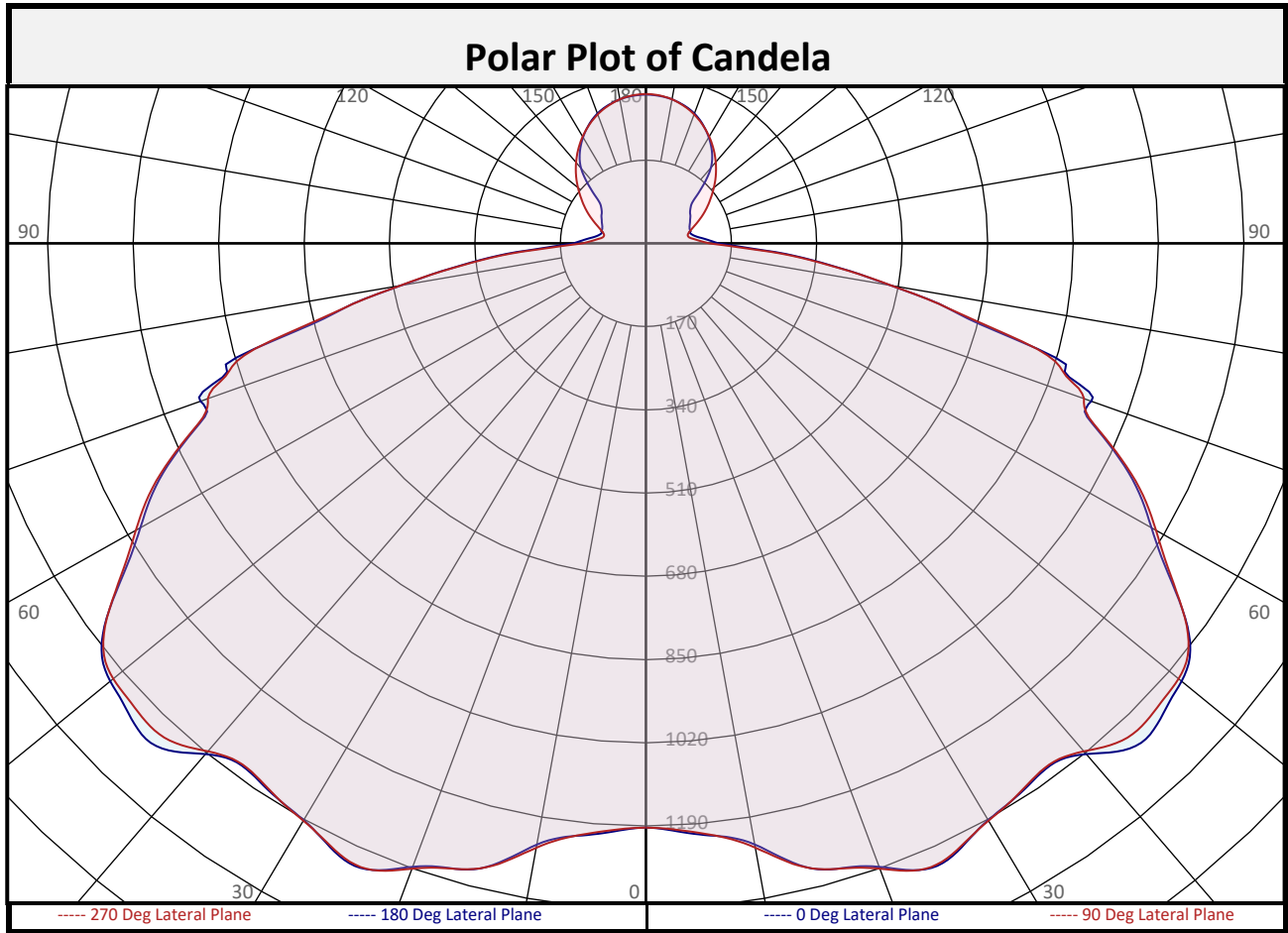
Test date: 01/15/2025

Report date: 01/17/2025

Signed: _____



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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	116.8	1.6%	90-100	117.6	1.6%	0-20	490.7	6.7%
10-20	373.9	5.1%	100-110	92.9	1.3%	0-30	1130	15.5%
20-30	638.8	8.7%	110-120	101.5	1.4%	0-40	1975	27.0%
30-40	845.7	11.6%	120-130	117.4	1.6%	0-60	4215	57.7%
40-50	1080	14.8%	130-140	141.0	1.9%	0-80	6029	82.5%
50-60	1160	15.9%	140-150	145.9	2.0%	10-90	6237	85.4%
60-70	1027	14.1%	150-160	123.3	1.7%	20-50	2564	35.1%
70-80	786.6	10.8%	160-170	82.1	1.1%	40-90	4378	59.9%
80-90	324.5	4.4%	170-180	28.8	0.4%	60-90	2138	29.3%
0-90	6353	87.0%	90-180	950.4	13.0%	0-180	7304	100.0%



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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	1194	1194	1194	1194	1194	1194	1194	1194	1194
	2.5	1201	1200	1199	1199	1198	1199	1199	1200	1201
	5	1212	1212	1212	1210	1209	1210	1212	1212	1212
	7.5	1223	1224	1227	1227	1225	1227	1227	1224	1223
	10	1247	1248	1252	1255	1254	1255	1252	1248	1247
	12.5	1290	1288	1289	1292	1293	1292	1289	1288	1290
	15	1324	1321	1319	1320	1323	1320	1319	1321	1324
	17.5	1337	1340	1336	1336	1339	1336	1336	1340	1337
	20	1356	1362	1359	1359	1360	1359	1359	1362	1356
	22.5	1386	1389	1387	1387	1387	1387	1387	1389	1386
	25	1397	1395	1392	1392	1394	1392	1392	1395	1397
	27.5	1380	1379	1375	1376	1378	1376	1375	1379	1380
	30	1361	1362	1358	1363	1362	1363	1358	1362	1361
	32.5	1352	1353	1350	1354	1352	1354	1350	1353	1352
	35	1341	1341	1340	1341	1339	1341	1340	1341	1341
	37.5	1337	1336	1338	1337	1334	1337	1338	1336	1337
	40	1362	1357	1361	1360	1355	1360	1361	1357	1362
	42.5	1405	1392	1395	1394	1385	1394	1395	1392	1405
	45	1419	1407	1408	1403	1395	1403	1408	1407	1419
	47.5	1404	1402	1399	1392	1389	1392	1399	1402	1404
50	1392	1396	1390	1384	1384	1384	1390	1396	1392	
52.5	1365	1373	1364	1362	1361	1362	1364	1373	1365	
55	1303	1314	1304	1302	1303	1302	1304	1314	1303	
57.5	1224	1240	1229	1224	1231	1224	1229	1240	1224	
60	1161	1176	1167	1162	1172	1162	1167	1176	1161	
62.5	1107	1114	1107	1103	1115	1103	1107	1114	1107	
65	1039	1038	1035	1030	1044	1030	1035	1038	1039	
67.5	961	960	955	951	964	951	955	960	961	
70	943	933	921	917	927	917	921	933	943	
72.5	874	877	872	863	869	863	872	877	874	
75	765	763	768	764	774	764	768	763	765	
77.5	616	628	613	624	618	624	613	628	616	
80	493	497	496	499	494	499	496	497	493	
82.5	389	392	387	393	387	393	387	392	389	
85	297	301	294	302	291	302	294	301	297	
87.5	196	198	191	195	182	195	191	198	196	
90	143	142	136	135	125	135	136	142	143	

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								
		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	143	142	136	135	125	135	136	142	143
	92.5	127	125	119	115	108	115	119	125	127
	95	114	112	106	100	96	100	106	112	114
	97.5	102	100	95	89	88	89	95	100	102
	100	95	93	88	83	85	83	88	93	95
	102.5	91	89	84	82	86	82	84	89	91
	105	90	88	83	83	89	83	83	88	90
	107.5	92	90	85	88	95	88	85	90	92
	110	92	91	86	95	102	95	86	91	92
	112.5	94	92	88	105	111	105	88	92	94
	115	97	95	90	116	119	116	90	95	97
	117.5	99	97	94	126	129	126	94	97	99
	120	102	100	99	136	138	136	99	100	102
	122.5	105	103	108	147	147	147	108	103	105
	125	107	107	125	157	156	157	125	107	107
	127.5	111	113	145	167	166	167	145	113	111
	130	117	124	163	177	176	177	163	124	117
	132.5	127	144	179	188	187	188	179	144	127
	135	153	170	192	198	197	198	192	170	153
	137.5	179	191	204	208	206	208	204	191	179
140	201	207	215	217	216	217	215	207	201	
142.5	217	220	226	227	225	227	226	220	217	
145	229	231	236	235	235	235	236	231	229	
147.5	240	242	245	244	243	244	245	242	240	
150	250	251	253	252	252	252	253	251	250	
152.5	259	260	261	260	259	260	261	260	259	
155	268	268	268	267	267	267	268	268	268	
157.5	275	275	275	274	274	274	275	275	275	
160	282	281	281	280	280	280	281	281	282	
162.5	287	286	286	286	286	286	286	286	287	
165	292	291	291	291	291	291	291	291	292	
167.5	295	295	295	295	295	295	295	295	295	
170	298	298	299	299	299	299	299	298	298	
172.5	301	301	301	301	301	301	301	301	301	
175	302	303	303	303	303	303	303	303	302	
177.5	303	304	304	304	304	304	304	304	303	
180	304	304	304	304	304	304	304	304	304	

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



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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	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	75	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	29			
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	28	24	22			
8	54	39	30	24	51	38	30	24	36	28	23	33	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	33.2	10.36	10.28
8.0	18.7	13.81	13.70
10.0	11.9	17.27	17.13
12.0	8.3	20.72	20.56
14.0	6.1	24.17	23.98
16.0	4.7	27.63	27.41

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

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	12927	12927	12927
45	20074	19917	19735
55	22000	22021	22001
65	22616	22522	22721
75	24469	24579	24762
85	18981	18790	18580

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	151.4°
Field Angle:	#N/A
90-270 Degree Plane	
Beam Angle:	151.8°
Field Angle:	178.1°



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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

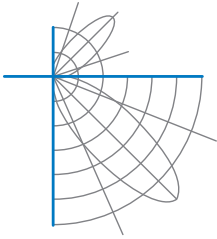
Room Size

UGR Viewed Crosswise

UGR Viewed Endwise

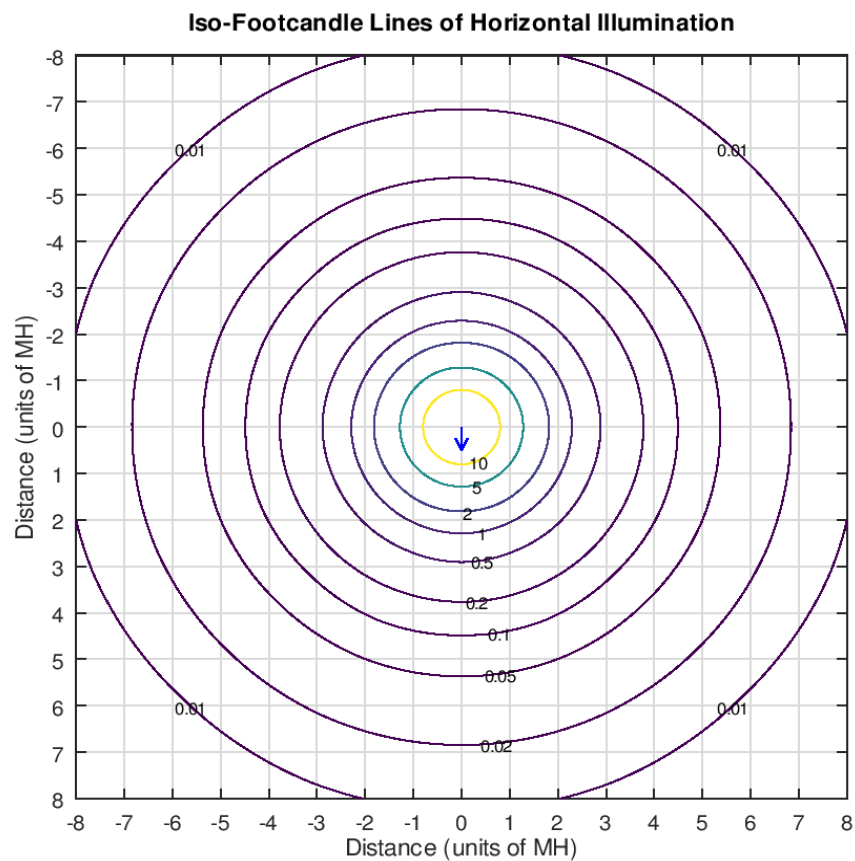
X=2H	Y=2H	21.6	23.1	22.1	23.6	24.2	21.5	23.0	22.0	23.6	24.2
	3H	23.9	25.3	24.5	25.9	26.5	23.9	25.3	24.4	25.8	26.5
	4H	25.1	26.4	25.7	27.0	27.7	25.1	26.4	25.6	26.9	27.6
	6H	25.9	27.1	26.5	27.7	28.4	25.9	27.1	26.4	27.7	28.3
	8H	26.2	27.3	26.8	27.9	28.6	26.1	27.3	26.7	27.9	28.6
	12H	26.4	27.5	27.0	28.1	28.8	26.4	27.5	27.0	28.1	28.8
4H	2H	22.3	23.6	22.9	24.2	24.9	22.3	23.6	22.8	24.1	24.8
	3H	25.0	26.1	25.6	26.7	27.4	24.9	26.0	25.5	26.7	27.3
	4H	26.3	27.3	26.9	27.9	28.6	26.2	27.2	26.8	27.9	28.6
	6H	27.2	28.1	27.8	28.7	29.5	27.1	28.0	27.8	28.7	29.4
	8H	27.5	28.4	28.1	29.0	29.8	27.5	28.3	28.1	29.0	29.7
	12H	27.8	28.6	28.5	29.2	30.0	27.8	28.5	28.4	29.2	30.0
8H	4H	26.7	27.6	27.4	28.2	29.0	26.7	27.5	27.3	28.2	28.9
	6H	27.8	28.5	28.4	29.2	29.9	27.7	28.4	28.4	29.1	29.9
	8H	28.2	28.8	28.9	29.5	30.3	28.2	28.8	28.8	29.5	30.3
	12H	28.6	29.2	29.3	29.8	30.7	28.6	29.1	29.2	29.8	30.6
12H	4H	26.8	27.5	27.4	28.2	29.0	26.7	27.5	27.4	28.2	28.9
	6H	27.9	28.5	28.6	29.2	30.0	27.8	28.5	28.5	29.1	29.9
	8H	28.3	28.9	29.0	29.6	30.4	28.3	28.9	29.0	29.6	30.4

Maximum UGR = 30.7

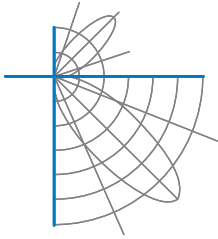


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Iso-Illuminance Plot

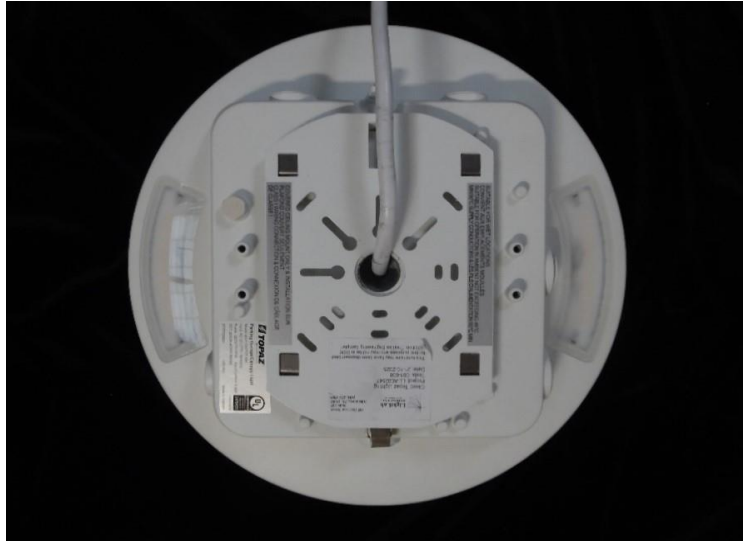


The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



Report of Test
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Additional Pictures of Test Subject





Report of Test

LLIA002547-004

Test Distance 9.5 m
Ambient Temperature 25.0 °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.