



Report of Test

LLIA001666-001

Indoor Distribution Photometry Test Report

Catalog Number: SDL6-14W-40K-WH-MS

Surface mounted, formed white painted circular steel housing, clear plastic cover over white circuit board, diffuse white plastic enclosure.

26 white LEDs

LED Driver integral to circuit board



Prepared For:
Topaz Lighting Corp
925 Waverly Avenue
Holtsville, NY 11742, USA

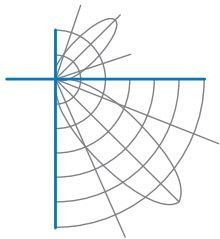
Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	1091.7 Lumens
Input Current	0.1175 A	Total Efficacy	84.7 Lm/W
Input Power	12.89 W	Downward Flux	1076.6 Lumens
Frequency	60.00 Hz	Downward Flux	98.6 % of Total
Power Factor	0.914		
Current THD	44.0 %		

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

Test date: 02/21/2022

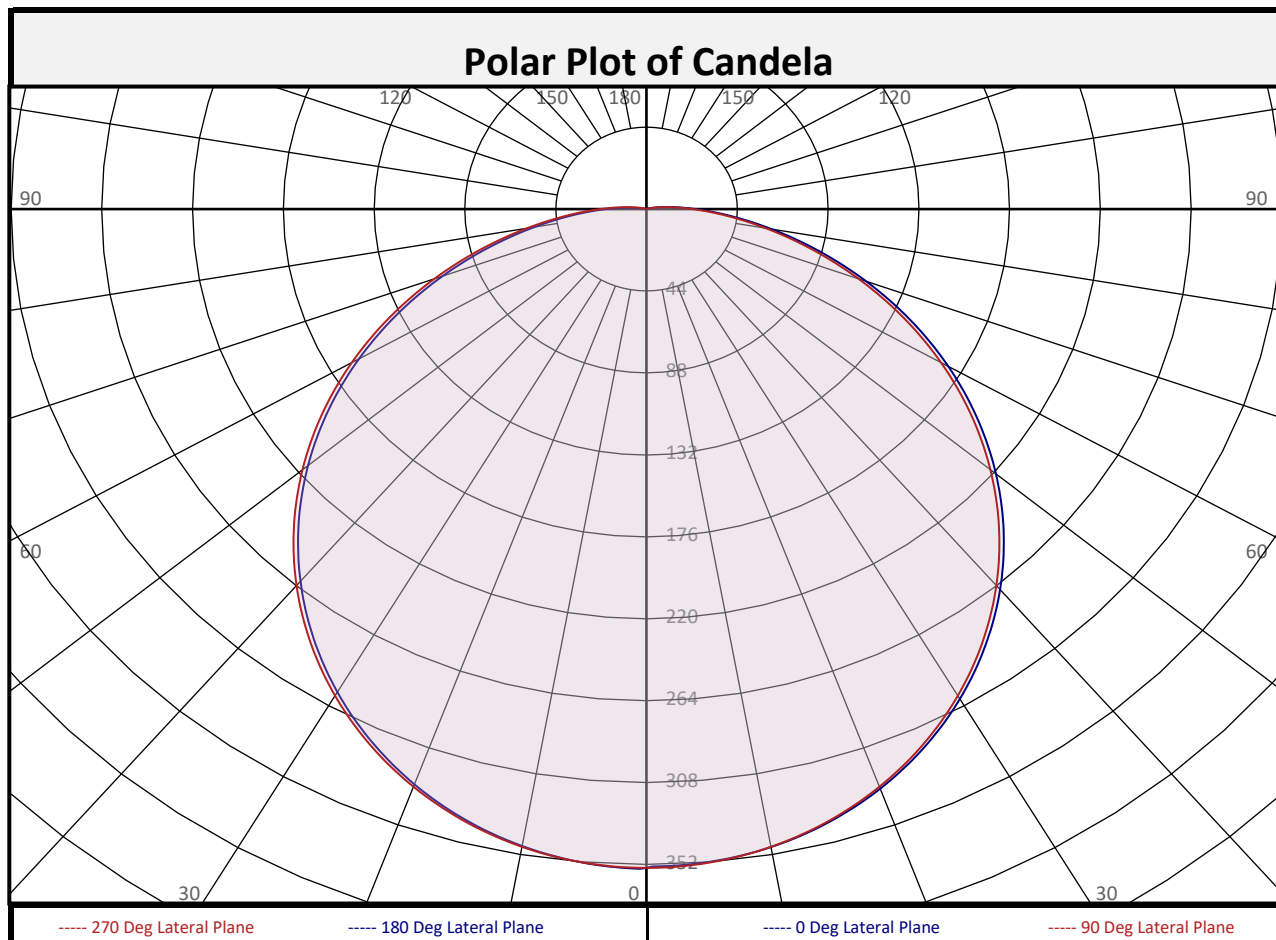
Report date: 02/22/2022

Signed: _____



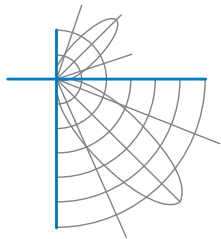
Report of Test

LLIA001666-001



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	33.5	3.1%	90-100	13.0	1.2%	0-20	129.6	11.9%
10-20	96.1	8.8%	100-110	2.1	0.2%	0-30	275.8	25.3%
20-30	146.2	13.4%	110-120	0.0	0.0%	0-40	453.5	41.5%
30-40	177.6	16.3%	120-130	0.0	0.0%	0-60	811.3	74.3%
40-50	186.4	17.1%	130-140	0.0	0.0%	0-80	1035	94.8%
50-60	171.5	15.7%	140-150	0.0	0.0%	10-90	1043	95.5%
60-70	135.7	12.4%	150-160	0.0	0.0%	20-50	510.2	46.7%
70-80	87.5	8.0%	160-170	0.0	0.0%	40-90	623.1	57.1%
80-90	42.1	3.9%	170-180	0.0	0.0%	60-90	265.3	24.3%
0-90	1077	98.7%	90-180	15.1	1.4%	0-180	1092	100.0%

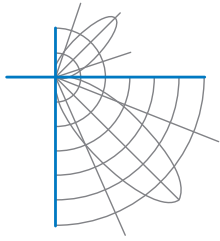


Report of Test

LLIA001666-001

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	354	354	354	354	354	354	354	354	354
	2.5	353	353	353	353	354	354	354	354	354
	5	352	352	352	352	352	352	352	352	352
	7.5	350	351	351	350	350	350	350	350	350
	10	348	348	348	348	348	348	348	347	347
	12.5	345	345	345	345	344	344	344	344	344
	15	341	341	341	341	340	340	340	340	340
	17.5	337	337	336	336	336	335	335	335	335
	20	331	331	331	331	330	330	329	329	329
	22.5	325	325	325	325	324	323	323	323	322
	25	319	319	318	318	317	317	316	316	315
	27.5	312	312	311	311	310	309	309	308	308
	30	304	304	303	303	302	301	300	300	300
	32.5	295	295	295	294	293	292	292	291	291
	35	286	286	286	285	284	283	282	282	281
	37.5	277	277	276	275	274	273	272	272	271
	40	267	267	266	265	264	263	262	261	261
	42.5	256	256	255	254	253	252	251	250	250
	45	245	245	244	243	242	240	239	239	238
	47.5	233	233	232	231	230	228	228	227	226
50	221	221	220	219	218	216	215	214	214	
52.5	208	208	207	206	205	203	202	202	201	
55	196	195	195	193	192	190	189	188	188	
57.5	182	182	181	180	179	177	176	175	175	
60	169	169	168	166	165	163	162	161	161	
62.5	155	155	154	153	151	149	148	147	147	
65	141	141	140	139	137	135	134	133	133	
67.5	127	127	126	125	123	122	120	119	119	
70	113	113	112	111	109	108	106	105	105	
72.5	100	99	98	97	96	94	93	92	92	
75	86	86	85	84	83	81	80	79	79	
77.5	73	73	73	71	70	69	67	67	66	
80	61	61	61	60	58	57	56	55	55	
82.5	50	50	50	49	48	47	45	45	44	
85	40	40	40	39	38	37	36	35	35	
87.5	31	31	31	30	30	29	28	27	27	
90	24	24	24	23	22	22	21	20	20	

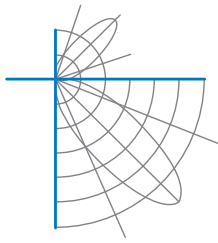


Report of Test

LLIA001666-001

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	24	24	24	23	22	22	21	20	20
	92.5	18	17	17	17	17	16	15	14	13
	95	12	12	12	12	12	11	11	9	8
	97.5	8	8	8	8	8	8	7	6	5
	100	5	5	5	5	5	5	4	3	2
	102.5	3	3	3	3	3	3	3	2	1
	105	2	2	2	2	2	2	1	1	0
	107.5	1	1	1	1	1	1	1	1	0
	110	1	1	1	1	1	1	0	1	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	



Report of Test

LLIA001666-001

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	110	110	110	105	105	105	101	101	101	99			
1	107	102	97	93	104	100	95	92	95	92	88	91	88	85	87	85	83	80			
2	97	88	81	75	94	86	80	74	83	77	72	79	74	70	76	72	69	66			
3	88	77	69	62	86	76	68	61	72	66	60	69	64	59	67	62	58	55			
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	59	54	49	47			
5	74	61	52	45	72	60	51	45	57	50	44	55	49	43	53	47	43	40			
6	68	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35			
7	63	50	41	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31			
8	59	45	37	31	57	44	36	30	43	36	30	42	35	30	40	34	30	28			
9	55	41	33	27	54	41	33	27	40	32	27	38	32	27	37	31	27	25			
10	52	38	30	25	50	38	30	25	37	29	25	36	29	24	35	29	24	22			

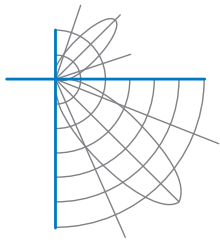
For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are 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	9.8	7.60	7.61	
8.0	5.5	10.14	10.14	
10.0	3.5	12.67	12.68	
12.0	2.5	15.21	15.21	
14.0	1.8	17.74	17.75	
16.0	1.4	20.27	20.28	

Spacing Criterion	
0 deg:	1.3
90 deg:	1.3
180 deg:	1.3
270 deg:	1.3

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	29386	29386	29386
45	28740	28641	28375
55	28306	28160	27781
65	27723	27501	26943
75	27633	27330	26513
85	20994	20703	19874

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	115.5°
Field Angle:	171.1°
90-270 Degree Plane	
Beam Angle:	115.5°
Field Angle:	171.5°



Report of Test

LLIA001666-001

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

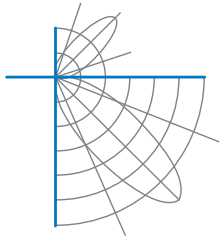
Room Size

UGR Viewed Crosswise

UGR Viewed Endwise

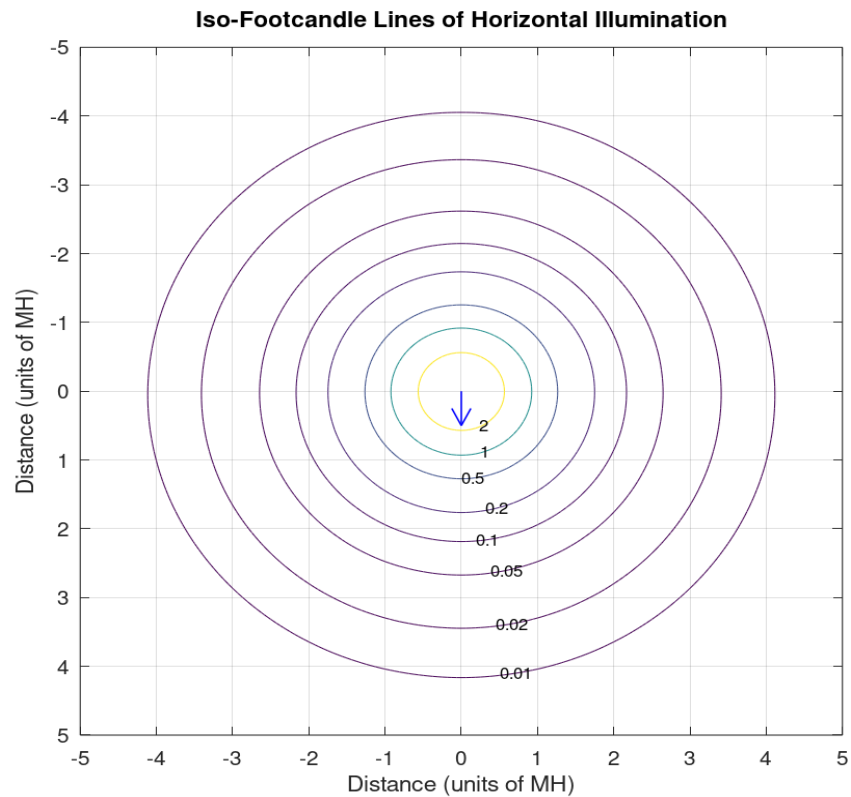
X=2H	Y=2H	22.1	23.7	22.4	24.1	24.4	21.9	23.6	22.3	23.9	24.3
	3H	23.9	25.5	24.3	25.8	26.2	23.8	25.3	24.2	25.6	26.0
	4H	24.7	26.1	25.1	26.5	26.9	24.5	25.9	24.9	26.3	26.7
	6H	25.3	26.6	25.7	27.0	27.4	25.1	26.4	25.5	26.8	27.2
	8H	25.5	26.8	26.0	27.2	27.6	25.3	26.6	25.8	27.0	27.4
	12H	25.8	27.0	26.2	27.4	27.8	25.5	26.7	26.0	27.1	27.6
4H	2H	22.7	24.1	23.1	24.5	24.9	22.5	24.0	22.9	24.3	24.7
	3H	24.8	26.0	25.2	26.4	26.8	24.6	25.8	25.0	26.2	26.6
	4H	25.6	26.7	26.1	27.2	27.6	25.4	26.5	25.9	27.0	27.4
	6H	26.4	27.4	26.9	27.8	28.3	26.2	27.1	26.6	27.6	28.1
	8H	26.7	27.6	27.2	28.1	28.6	26.5	27.4	26.9	27.8	28.3
	12H	27.0	27.8	27.5	28.3	28.8	26.7	27.6	27.2	28.1	28.5
8H	4H	25.9	26.9	26.4	27.3	27.8	25.7	26.7	26.2	27.1	27.6
	6H	26.8	27.6	27.3	28.1	28.6	26.6	27.4	27.1	27.9	28.4
	8H	27.2	27.9	27.8	28.5	29.0	27.0	27.7	27.5	28.2	28.7
	12H	27.6	28.3	28.2	28.8	29.3	27.4	28.0	27.9	28.5	29.1
12H	4H	26.0	26.8	26.5	27.3	27.8	25.8	26.6	26.3	27.1	27.6
	6H	26.9	27.6	27.5	28.1	28.7	26.7	27.4	27.2	27.9	28.4
	8H	27.4	28.0	27.9	28.5	29.1	27.2	27.8	27.7	28.3	28.9

Maximum UGR = 29.3

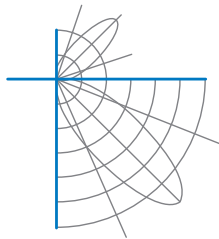


Report of Test LLIA001666-001

Iso-Illuminance Plot



The isofootcandle values shown in the plot above are based on a mounting height of $h = 10.0$ 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

LLIA001666-001

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.