

Report of Test

LLIA002379-008

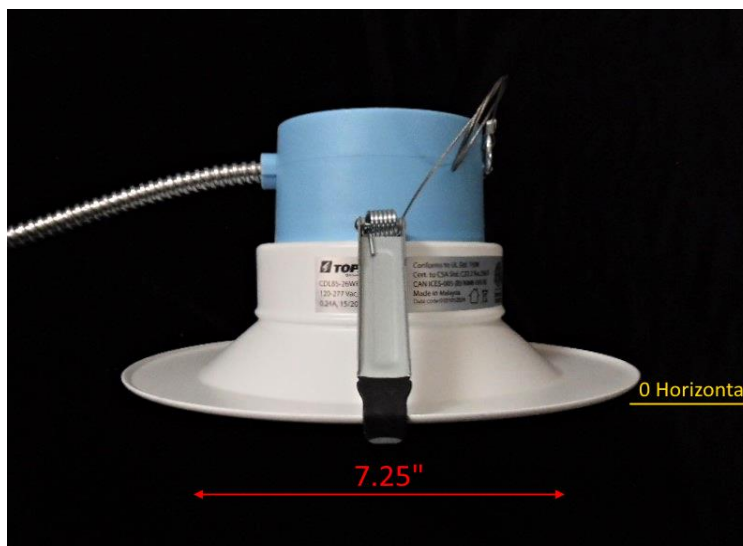
Indoor Distribution Photometry Test Report

Catalog Number: CDL8S-26WPCS-U - 20W 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 mounted on top of fixture housing



Prepared For:

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

Performance Summary

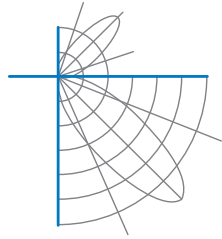
Input Voltage	120.0 Vac	Luminous Flux	2277.9 Lumens
Input Current	0.1678 A	Total Efficacy	114.9 lm/W
Input Power	19.82 W	Downward Flux	2277.9 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.985		
Current THD	7.8 %		

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

Test date: 05/02/2024

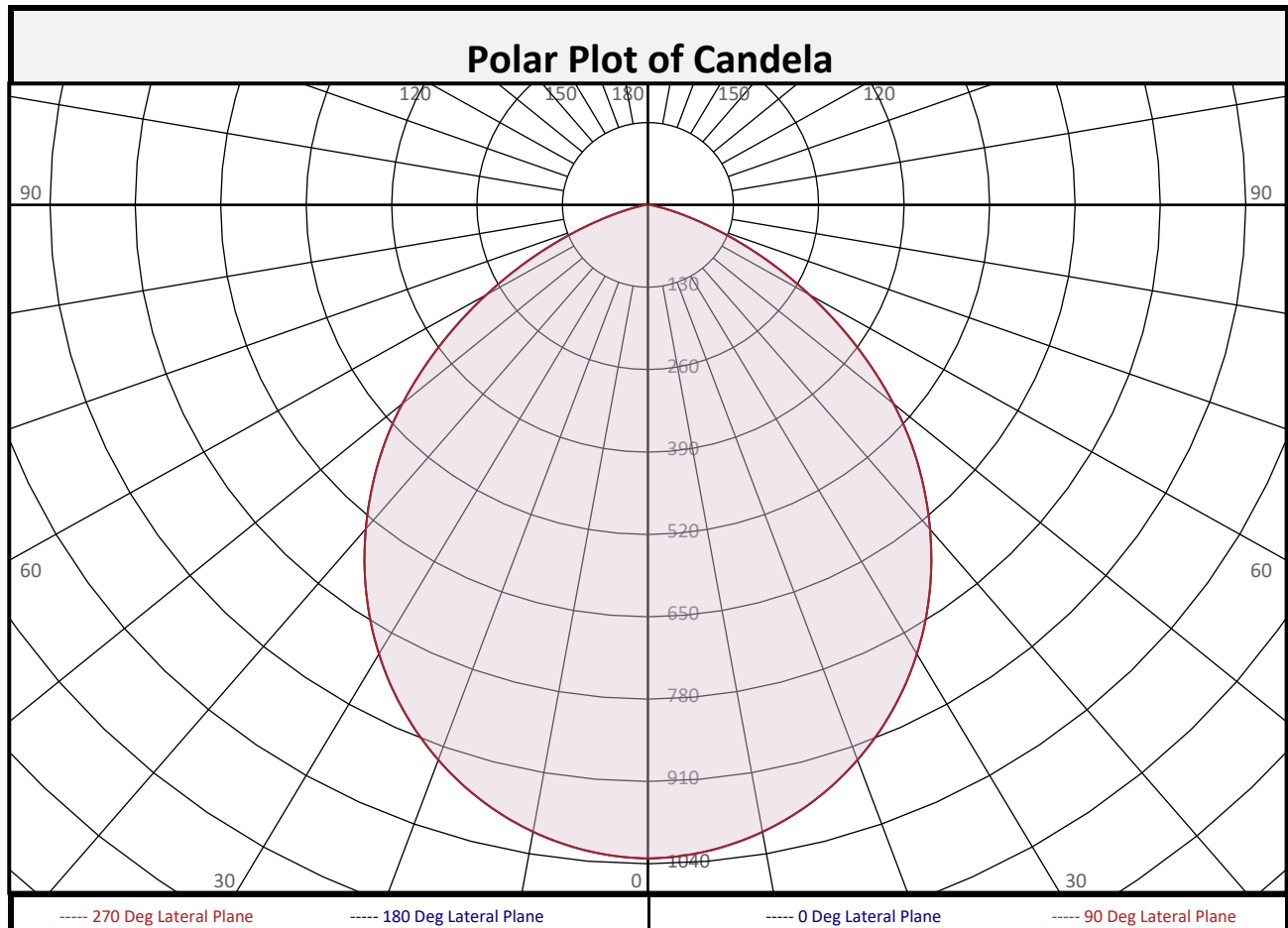
Report date: 05/16/2024

Signed: _____

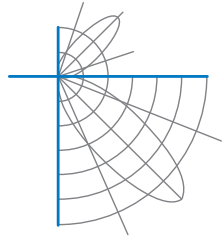


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Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	97.2	4.3%		90-100	0.0	0.0%		0-20	371.6	16.3%
10-20	274.5	12.0%		100-110	0.0	0.0%		0-30	776.7	34.1%
20-30	405.1	17.8%		110-120	0.0	0.0%		0-40	1243	54.6%
30-40	466.6	20.5%		120-130	0.0	0.0%		0-60	2035	89.3%
40-50	447.7	19.7%		130-140	0.0	0.0%		0-80	2272	99.7%
50-60	344.2	15.1%		140-150	0.0	0.0%		10-90	2181	95.7%
60-70	186.9	8.2%		150-160	0.0	0.0%		20-50	1319	57.9%
70-80	50.0	2.2%		160-170	0.0	0.0%		40-90	1035	45.4%
80-90	5.8	0.3%		170-180	0.0	0.0%		60-90	242.7	10.7%
0-90	2278	100.0%		90-180	0.0	0.0%		0-180	2278	100.0%



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Luminous Intensity (Candela) Table

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	Lateral (C-Plane) Angles									
		0	22.5	45	67.5	90	112.5	135	157.5	180
	0	1032	1032	1032	1032	1032	1032	1032	1032	1032
	2.5	1029	1029	1029	1029	1029	1029	1029	1029	1029
	5	1024	1024	1024	1024	1024	1024	1024	1024	1024
	7.5	1016	1016	1016	1016	1016	1016	1016	1016	1016
	10	1005	1005	1005	1005	1005	1005	1005	1005	1005
	12.5	991	991	991	991	991	991	991	991	991
	15	974	974	974	974	974	974	974	974	974
	17.5	954	954	954	954	954	954	954	954	954
	20	932	932	932	932	932	932	932	932	932
	22.5	907	907	907	907	907	907	907	907	907
	25	880	880	880	880	880	880	880	880	880
	27.5	851	851	851	851	851	851	851	851	851
	30	818	818	818	818	818	818	818	818	818
	32.5	784	784	784	784	784	784	784	784	784
	35	747	747	747	747	747	747	747	747	747
	37.5	709	709	709	709	709	709	709	709	709
	40	668	668	668	668	668	668	668	668	668
	42.5	626	626	626	626	626	626	626	626	626
	45	582	582	582	582	582	582	582	582	582
	47.5	536	536	536	536	536	536	536	536	536
	50	488	488	488	488	488	488	488	488	488
	52.5	437	437	437	437	437	437	437	437	437
	55	386	386	386	386	386	386	386	386	386
	57.5	335	335	335	335	335	335	335	335	335
	60	284	284	284	284	284	284	284	284	284
	62.5	235	235	235	235	235	235	235	235	235
	65	187	187	187	187	187	187	187	187	187
	67.5	143	143	143	143	143	143	143	143	143
	70	103	103	103	103	103	103	103	103	103
	72.5	69	69	69	69	69	69	69	69	69
	75	43	43	43	43	43	43	43	43	43
	77.5	24	24	24	24	24	24	24	24	24
	80	13	13	13	13	13	13	13	13	13
	82.5	8	8	8	8	8	8	8	8	8
	85	5	5	5	5	5	5	5	5	5
87.5	2	2	2	2	2	2	2	2	2	
90	0	0	0	0	0	0	0	0	0	
16 lateral half-planes of data were acquired, 22.5 degree increments shown.										

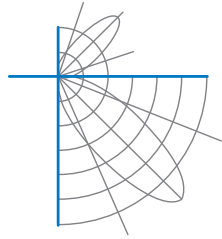
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

North America (issuing laboratory)

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Luminous Intensity (Candela) Table

Lateral (C-Plane) Angles										
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.		0	22.5	45	67.5	90	112.5	135	157.5	180
	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.

North America (issuing laboratory)

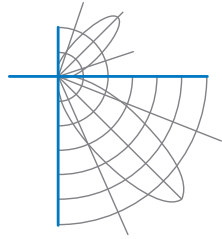
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Coefficients of Utilization/Room Utilization - Zonal Cavity Method

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			0
RCR																										
0	119	119	119	119		116	116	116	116		111	111	111			106	106	106			102	102	102			100
1	111	107	103	100		108	105	101	98		100	98	95			97	94	92			93	91	90			88
2	102	95	89	84		100	93	88	83		90	85	81			86	83	79			84	80	78			76
3	94	85	77	72		92	83	76	71		80	75	70			78	73	69			75	71	68			66
4	87	76	68	62		84	74	67	61		72	66	61			70	64	60			68	63	59			57
5	80	68	60	54		78	67	59	54		65	58	53			63	57	53			61	56	52			50
6	74	62	54	48		72	61	53	47		59	52	47			58	51	47			56	51	46			44
7	69	56	48	42		67	56	48	42		54	47	42			53	46	42			51	46	41			40
8	64	52	44	38		63	51	43	38		50	43	38			48	42	38			47	42	37			36
9	60	48	40	34		59	47	39	34		46	39	34			45	39	34			44	38	34			32
10	57	44	36	31		55	43	36	31		42	36	31			42	35	31			41	35	31			29

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	28.7	7.11	7.11
8.0	16.1	9.48	9.48
10.0	10.3	11.85	11.85
12.0	7.2	14.22	14.22
14.0	5.3	16.59	16.59
16.0	4.0	18.96	18.96

Spacing Criterion

SC: 1.2

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	38729	38729	38729
45	30914	30914	30914
55	25251	25251	25251
65	16656	16656	16656
75	6188	6188	6188
85	2137	2137	2137

Beam and Field Angle

0-180 Degree Plane

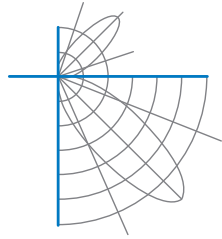
Beam Angle: 97.1°

Field Angle: 140.0°

90-270 Degree Plane

Beam Angle: 97.1°

Field Angle: 140.0°



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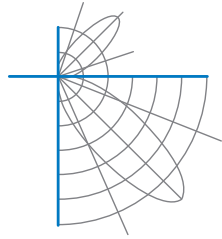
UGR Table - Corrected

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

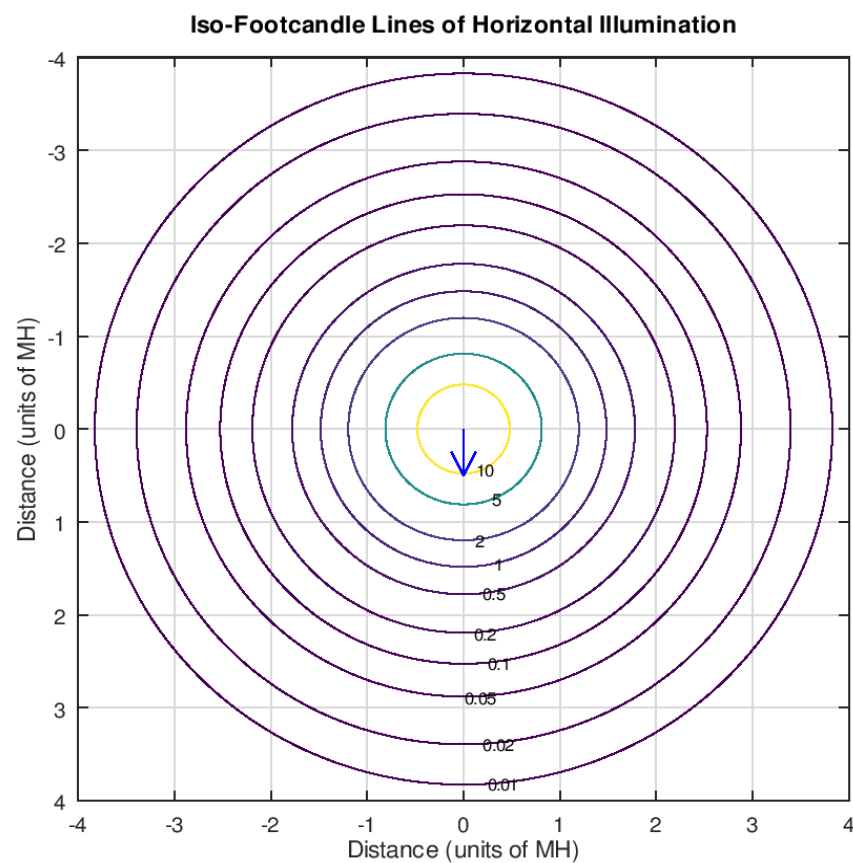
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	22.0	23.5	22.4	23.9	24.2	22.0	23.5	22.4	23.9	24.2
	3H	22.8	24.1	23.1	24.4	24.8	22.8	24.1	23.1	24.4	24.8
	4H	22.9	24.1	23.3	24.4	24.8	22.9	24.1	23.3	24.4	24.8
	6H	22.8	24.0	23.2	24.3	24.7	22.8	24.0	23.2	24.3	24.7
	8H	22.8	23.9	23.2	24.3	24.7	22.8	23.9	23.2	24.3	24.7
	12H	22.7	23.8	23.2	24.2	24.6	22.7	23.8	23.2	24.2	24.6
4H	2H	22.4	23.6	22.8	24.0	24.3	22.4	23.6	22.8	24.0	24.3
	3H	23.2	24.2	23.6	24.6	25.0	23.2	24.2	23.6	24.6	25.0
	4H	23.3	24.2	23.7	24.6	25.1	23.3	24.2	23.7	24.6	25.1
	6H	23.3	24.1	23.7	24.5	25.0	23.3	24.1	23.7	24.5	25.0
	8H	23.2	24.0	23.7	24.4	24.9	23.2	24.0	23.7	24.4	24.9
	12H	23.2	23.9	23.7	24.4	24.8	23.2	23.9	23.7	24.4	24.8
8H	4H	23.2	24.0	23.7	24.4	24.9	23.2	24.0	23.7	24.4	24.9
	6H	23.2	23.8	23.7	24.3	24.8	23.2	23.8	23.7	24.3	24.8
	8H	23.2	23.8	23.7	24.3	24.8	23.2	23.8	23.7	24.3	24.8
	12H	23.2	23.7	23.7	24.2	24.7	23.2	23.7	23.7	24.2	24.7
12H	4H	23.2	23.9	23.7	24.4	24.8	23.2	23.9	23.7	24.4	24.8
	6H	23.2	23.7	23.7	24.2	24.8	23.2	23.7	23.7	24.2	24.8
	8H	23.2	23.7	23.7	24.2	24.7	23.2	23.7	23.7	24.2	24.7

Maximum UGR = 25.1

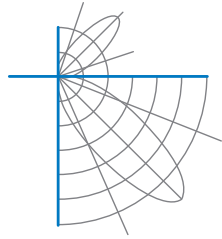


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Iso-Illuminance Plot

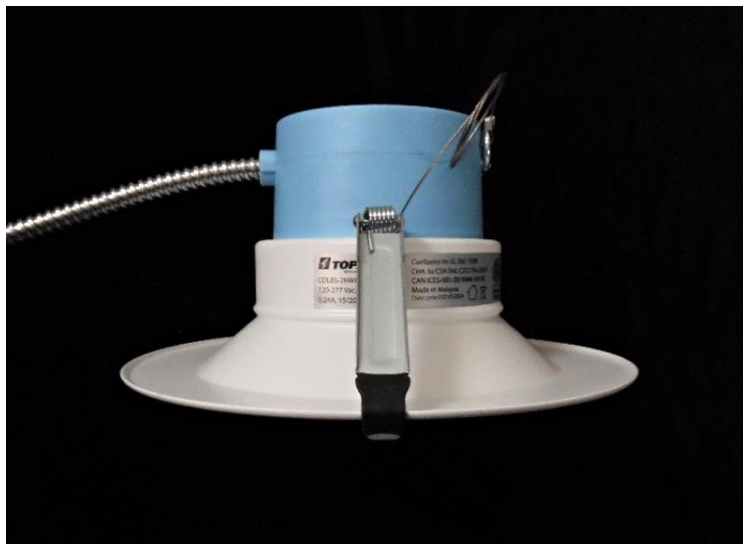


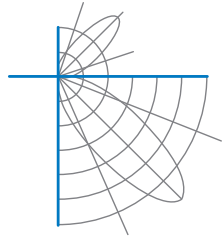
The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



Report of Test LLIA002379-008

Additional Pictures of Test Subject





Report of Test

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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.

North America (issuing laboratory)

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