



Report of Test

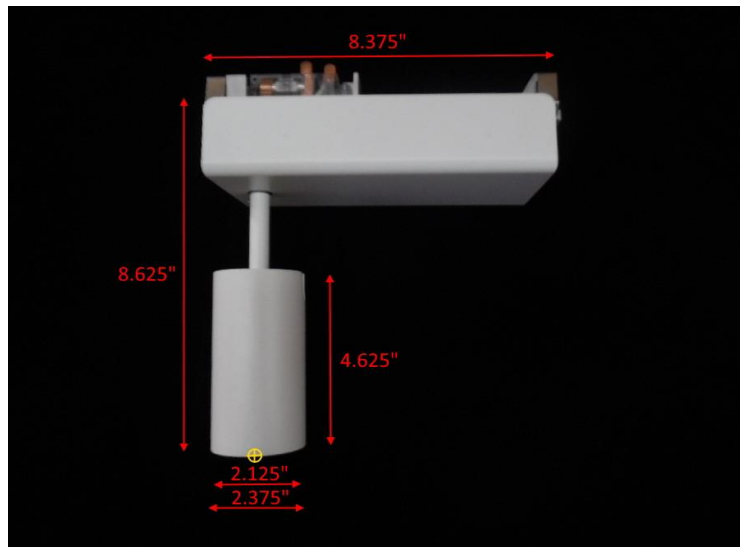
LLIA001532-003

Indoor Distribution Photometry Test Report

Catalog Number: C20-L0690TH-9HCE0PA-P2, 25 degree optic
Track mounted steel driver housing with cylindrical aluminum luminaire housing,
clear multi-faceted clear conical lens below LED and black plastic baffle.

One white LED

One eldoLED SOLOdrive 361/S LED driver



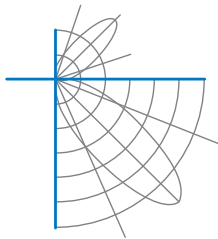
Prepared For:
LiteLab, Inc
251 Elm Street
Buffalo, NY 14203, USA

Performance Summary			
Input Voltage	120.0 V	Luminous Flux	275.8 Lumens
Input Current	0.0658 A	Total Efficacy	38.0 lm/W
Input Power	7.26 W	Downward Flux	275.8 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.919		
Current THD	15.8 %		

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

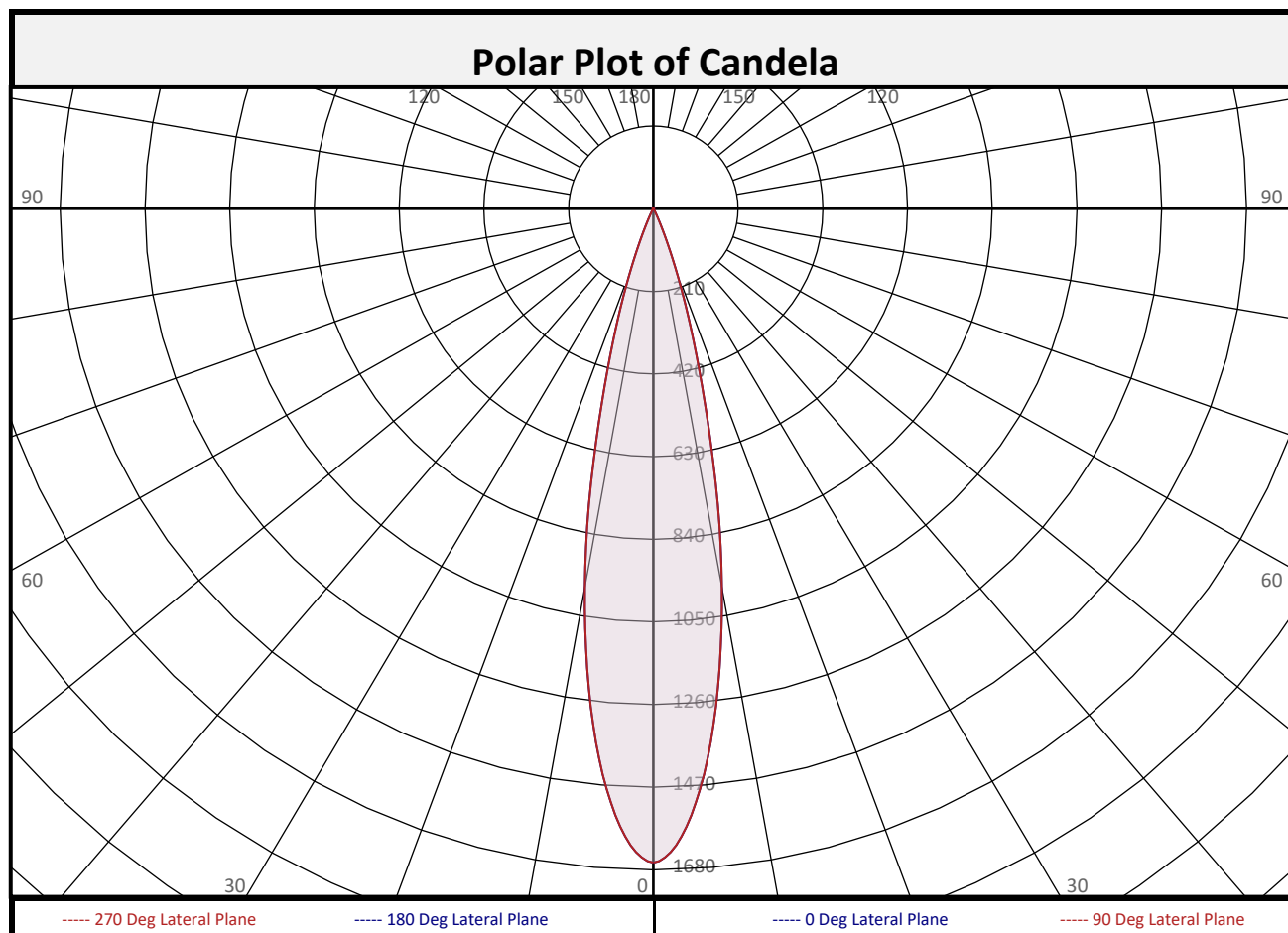
Test date: 08/30/2021
Report date: 09/01/2021

Signed: _____



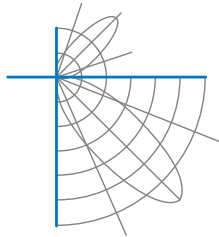
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Zonal Flux Summary

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	122.5	44.4%	90-100	0.0	0.0%	0-20	253.0	91.7%
10-20	130.5	47.3%	100-110	0.0	0.0%	0-30	272.8	98.9%
20-30	19.9	7.2%	110-120	0.0	0.0%	0-40	274.9	99.7%
30-40	2.1	0.8%	120-130	0.0	0.0%	0-60	275.7	100.0%
40-50	0.6	0.2%	130-140	0.0	0.0%	0-80	275.8	100.0%
50-60	0.2	0.1%	140-150	0.0	0.0%	10-90	153.3	55.6%
60-70	0.1	0.0%	150-160	0.0	0.0%	20-50	22.5	8.2%
70-80	0.0	0.0%	160-170	0.0	0.0%	40-90	0.8	0.3%
80-90	0.0	0.0%	170-180	0.0	0.0%	60-90	0.1	0.0%
0-90	275.8	100.0%	90-180	0.0	0.0%	0-180	275.8	100.0%

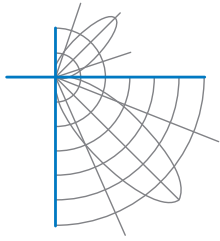


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Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles								
		0	22.5	45	67.5	90	112.5	135	157.5	180
Vertical (Gamma) Angles	0	1662	1662	1662	1662	1662	1662	1662	1662	1662
	2.5	1597	1597	1597	1597	1597	1597	1597	1597	1597
	5	1443	1443	1443	1443	1443	1443	1443	1443	1443
	7.5	1227	1227	1227	1227	1227	1227	1227	1227	1227
	10	977	977	977	977	977	977	977	977	977
	12.5	713	713	713	713	713	713	713	713	713
	15	466	466	466	466	466	466	466	466	466
	17.5	288	288	288	288	288	288	288	288	288
	20	158	158	158	158	158	158	158	158	158
	22.5	72	72	72	72	72	72	72	72	72
	25	30	30	30	30	30	30	30	30	30
	27.5	13	13	13	13	13	13	13	13	13
	30	7	7	7	7	7	7	7	7	7
	32.5	5	5	5	5	5	5	5	5	5
	35	3	3	3	3	3	3	3	3	3
	37.5	2	2	2	2	2	2	2	2	2
	40	1	1	1	1	1	1	1	1	1
	42.5	1	1	1	1	1	1	1	1	1
	45	1	1	1	1	1	1	1	1	1
	47.5	1	1	1	1	1	1	1	1	1
50	1	1	1	1	1	1	1	1	1	
52.5	0	0	0	0	0	0	0	0	0	
55	0	0	0	0	0	0	0	0	0	
57.5	0	0	0	0	0	0	0	0	0	
60	0	0	0	0	0	0	0	0	0	
62.5	0	0	0	0	0	0	0	0	0	
65	0	0	0	0	0	0	0	0	0	
67.5	0	0	0	0	0	0	0	0	0	
70	0	0	0	0	0	0	0	0	0	
72.5	0	0	0	0	0	0	0	0	0	
75	0	0	0	0	0	0	0	0	0	
77.5	0	0	0	0	0	0	0	0	0	
80	0	0	0	0	0	0	0	0	0	
82.5	0	0	0	0	0	0	0	0	0	
85	0	0	0	0	0	0	0	0	0	
87.5	0	0	0	0	0	0	0	0	0	
90	0	0	0	0	0	0	0	0	0	

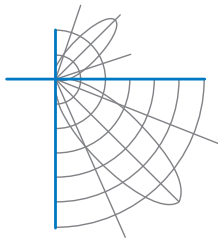


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Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles								
		0	22.5	45	67.5	90	112.5	135	157.5	180
Vertical (Gamma) Angles	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	



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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	115	114	112	110	113	111	110	108	107	106	105	104	103	102	100	100	99	97
2	112	109	106	104	110	107	105	103	104	102	101	101	100	99	99	98	97	95
3	109	105	102	99	107	104	101	98	101	99	97	99	97	95	97	95	94	93
4	106	102	98	95	105	101	97	95	99	96	94	97	95	93	95	93	92	91
5	104	99	95	92	102	98	94	92	96	93	91	95	92	90	93	91	90	89
6	101	96	92	90	100	95	92	89	94	91	89	93	90	88	92	89	88	87
7	99	93	90	87	98	93	89	87	92	89	87	91	88	86	90	88	86	85
8	97	91	88	85	96	91	87	85	90	87	85	89	86	84	88	86	84	83
9	95	89	86	83	94	89	85	83	88	85	83	87	84	83	87	84	82	81
10	93	87	84	81	92	87	83	81	86	83	81	86	83	81	85	83	81	80

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	46.2	2.32	2.32
8.0	26.0	3.10	3.10
10.0	16.6	3.87	3.87
12.0	11.5	4.65	4.65
14.0	8.5	5.42	5.42
16.0	6.5	6.20	6.20

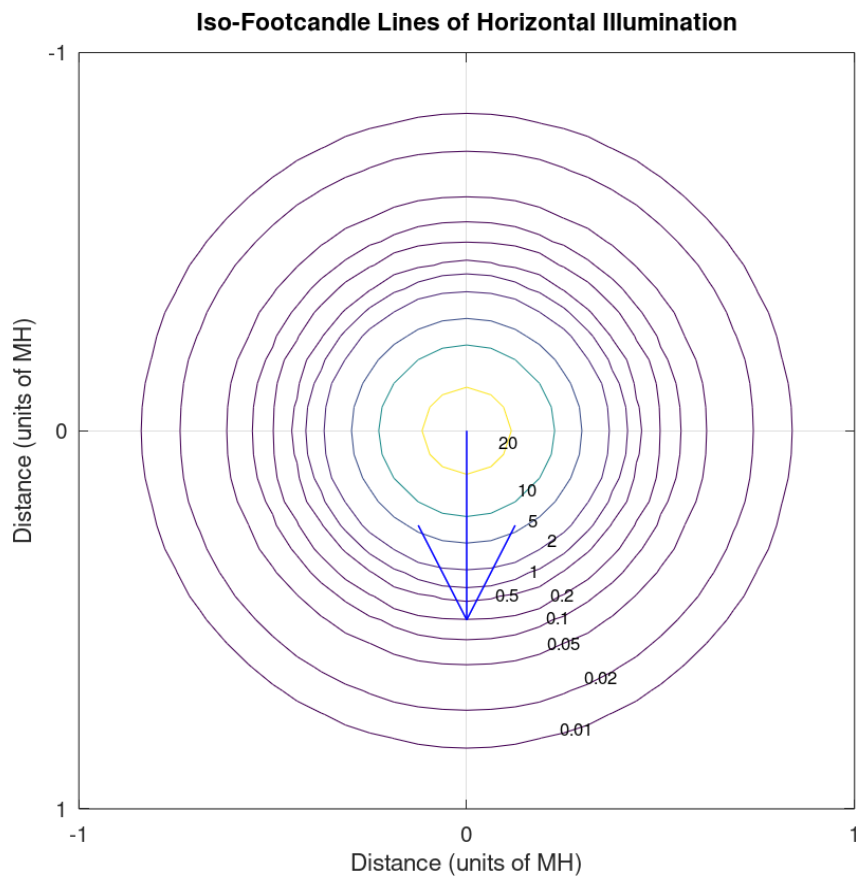
Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	726155	726155	726155
45	437	437	437
55	115	115	115
65	71	71	71
75	0	0	0
85	0	0	0

Spacing Criterion	
Spacing Criterion:	0.4
Beam Angle:	22.8 °
Field Angle:	39.8 °

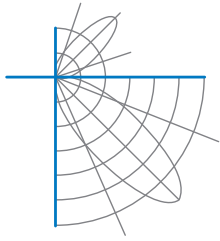


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Iso-Illuminance Plot

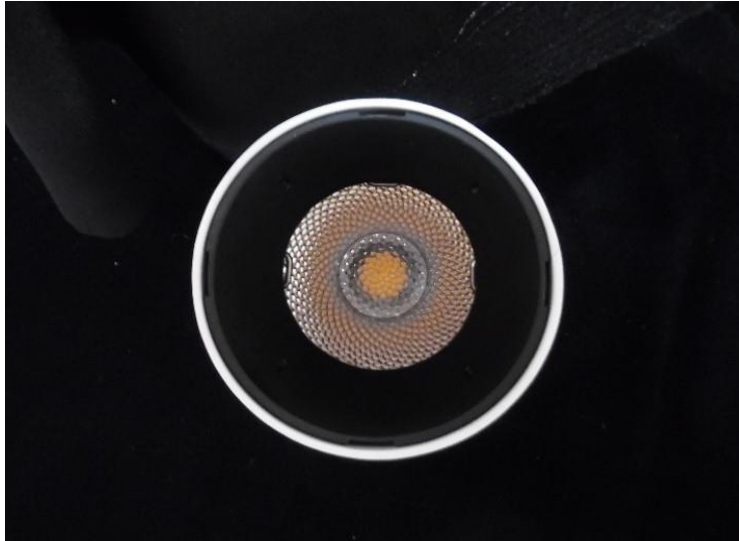


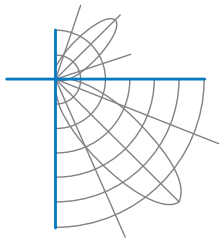
The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



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Additional Pictures of Test Subject





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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-41-14 and LM-46-04.

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.