

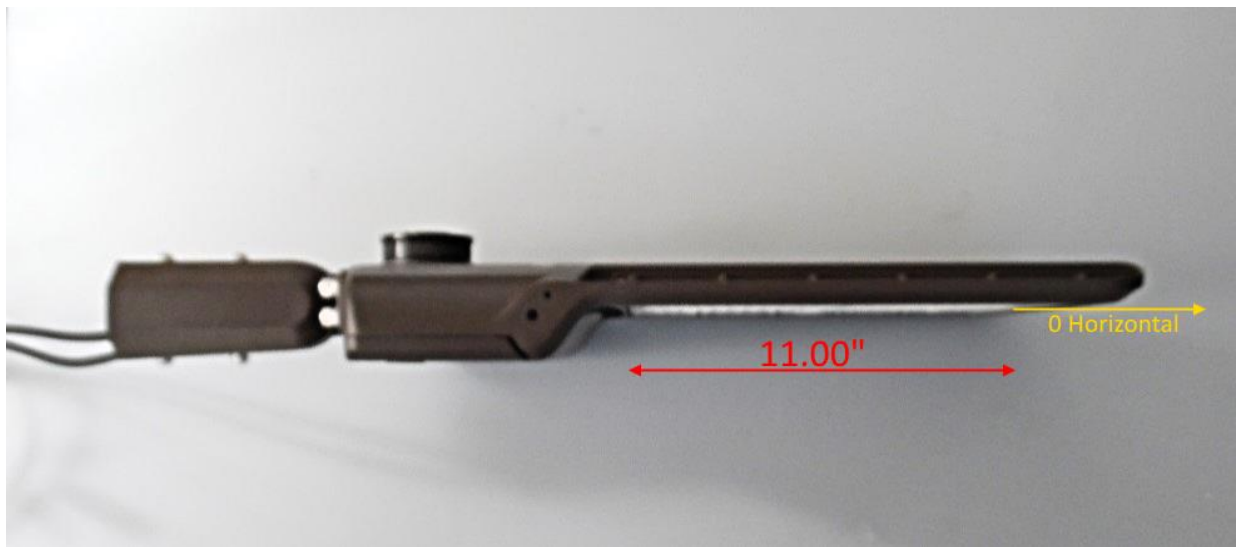


Report of Test

LLIA002251-018

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: ARL-300PCS-T5 -300W Setting - 4000K Setting
Pole mounted, cast aluminum housing, white LED board with
frosted plastic enclosure with clear optic sections below LEDs.
728 white LEDs, 364 CW LEDs and 364 WW LEDs
One Sosen SS-320NH-E260BH LED driver



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

Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	45456.4 Lumens
Input Current	2.416 A	Total Efficacy	157.8 Lm/W
Input Power	288.1 W		
Frequency	60.00 Hz		
Power Factor	0.993	Roadway Type	Area Light
Current THD	9.5 %		

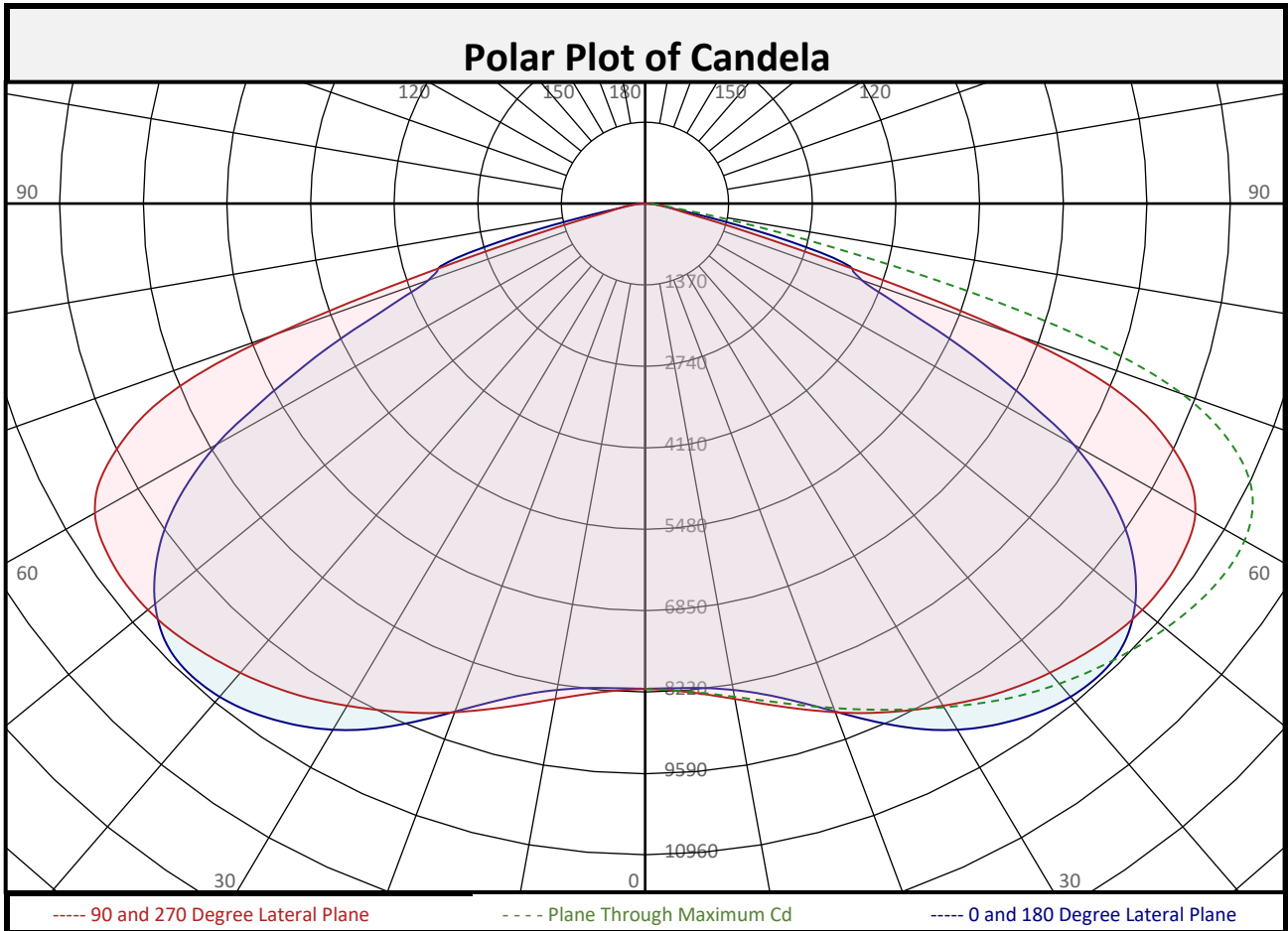
This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 11/09/2023
Report date: 11/10/2023

Signed: _____



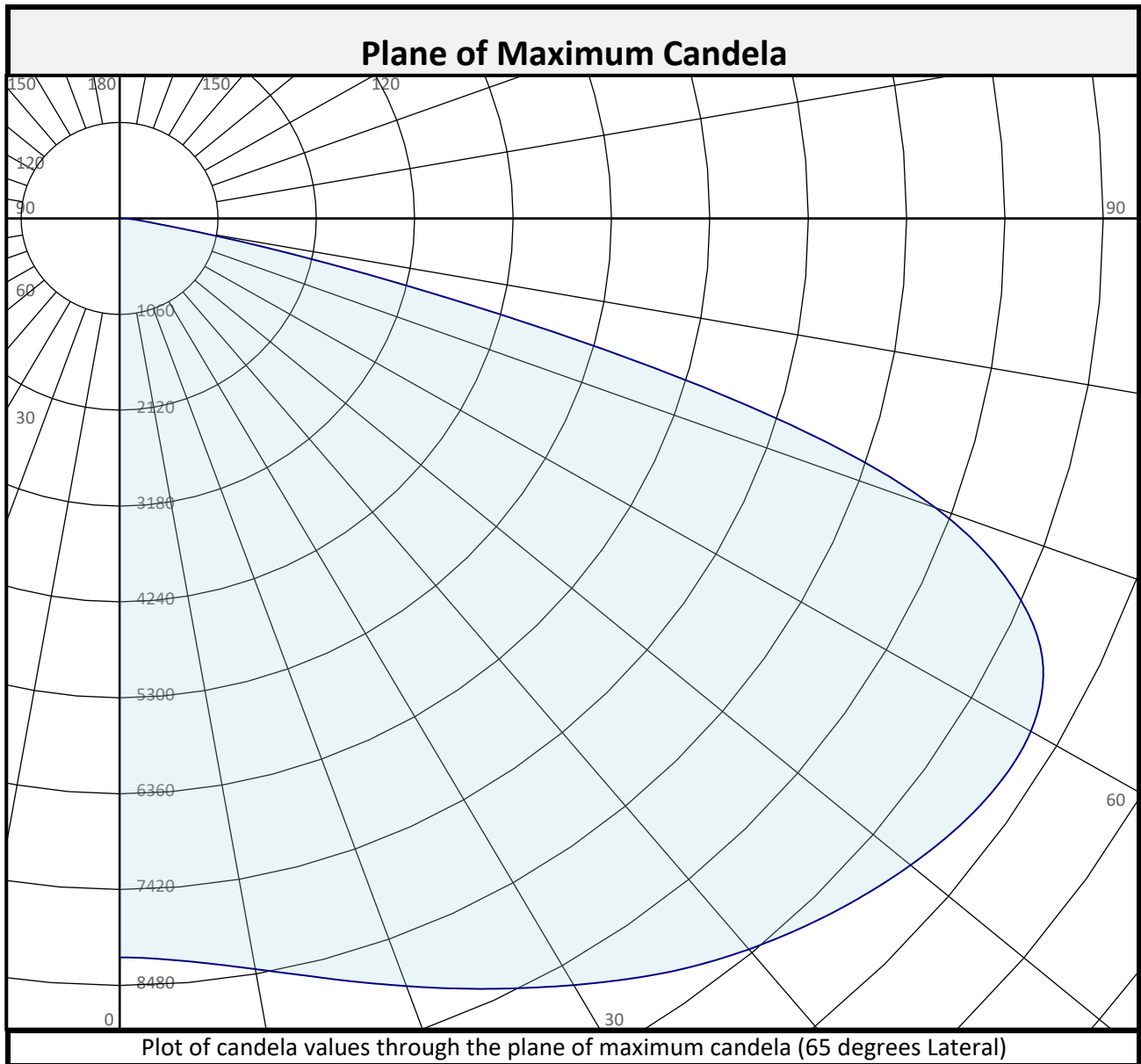
Report of Test
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Zonal Flux Summary								
Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	790.5	1.7%	90-100	0.0	0.0%	0-20	3263	7.2%
10-20	2473	5.4%	100-110	0.0	0.0%	0-30	7683	16.9%
20-30	4420	9.7%	110-120	0.0	0.0%	0-40	14211	31.3%
30-40	6528	14.4%	120-130	0.0	0.0%	0-60	32216	70.9%
40-50	8430	18.5%	130-140	0.0	0.0%	0-80	45145	99.3%
50-60	9575	21.1%	140-150	0.0	0.0%	10-90	44666	98.3%
60-70	8716	19.2%	150-160	0.0	0.0%	20-50	19378	42.6%
70-80	4213	9.3%	160-170	0.0	0.0%	40-90	31245	68.7%
80-90	311.2	0.7%	170-180	0.0	0.0%	60-90	13240	29.1%
0-90	45456	100.0%	90-180	0.0	0.0%	0-180	45456	100.0%



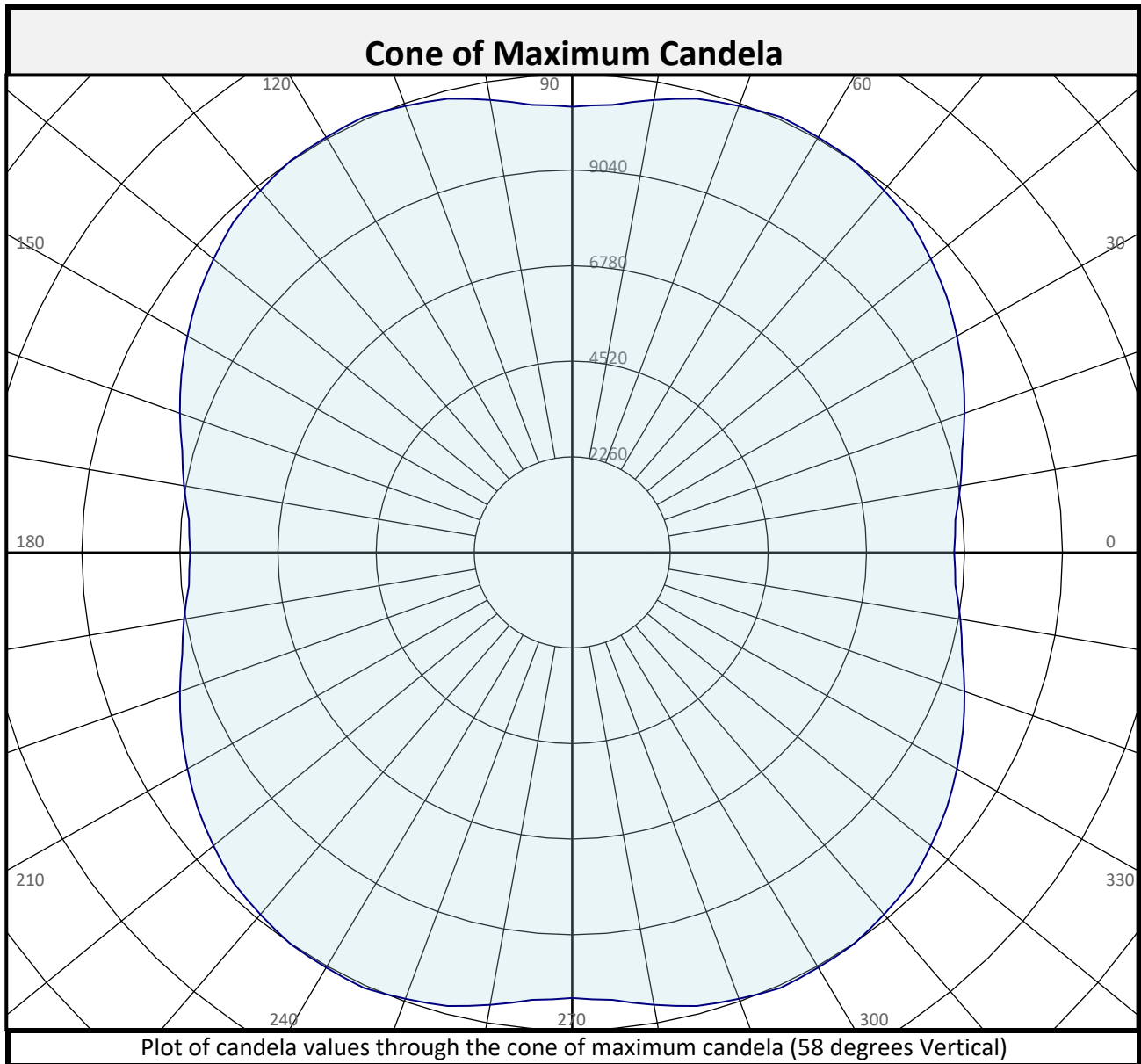
Report of Test
LLIA002251-018



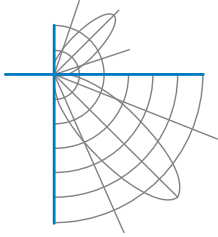
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	22728.2	50.0%	0.0	0.0%	22728.2	50.0%
House Side	22728.2	50.0%	0.0	0.0%	22728.2	50.0%
Total	45456.4	100.0%	0.0	0.0%	45456.4	100.0%



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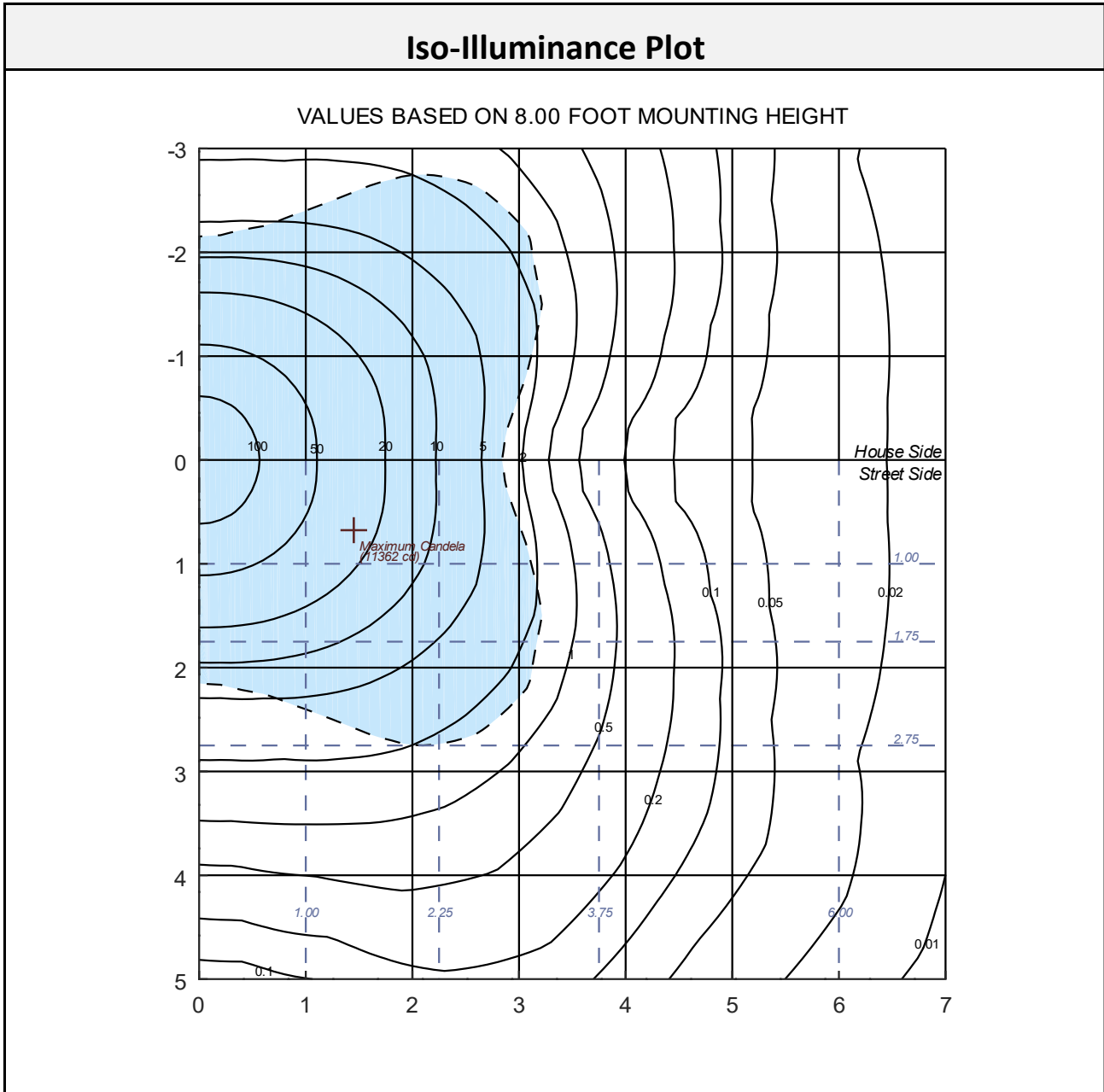


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	22728.2	50.0%	0.0	0.0%	22728.2	50.0%
House Side	22728.2	50.0%	0.0	0.0%	22728.2	50.0%
Total	45456.4	100.0%	0.0	0.0%	45456.4	100.0%



Report of Test

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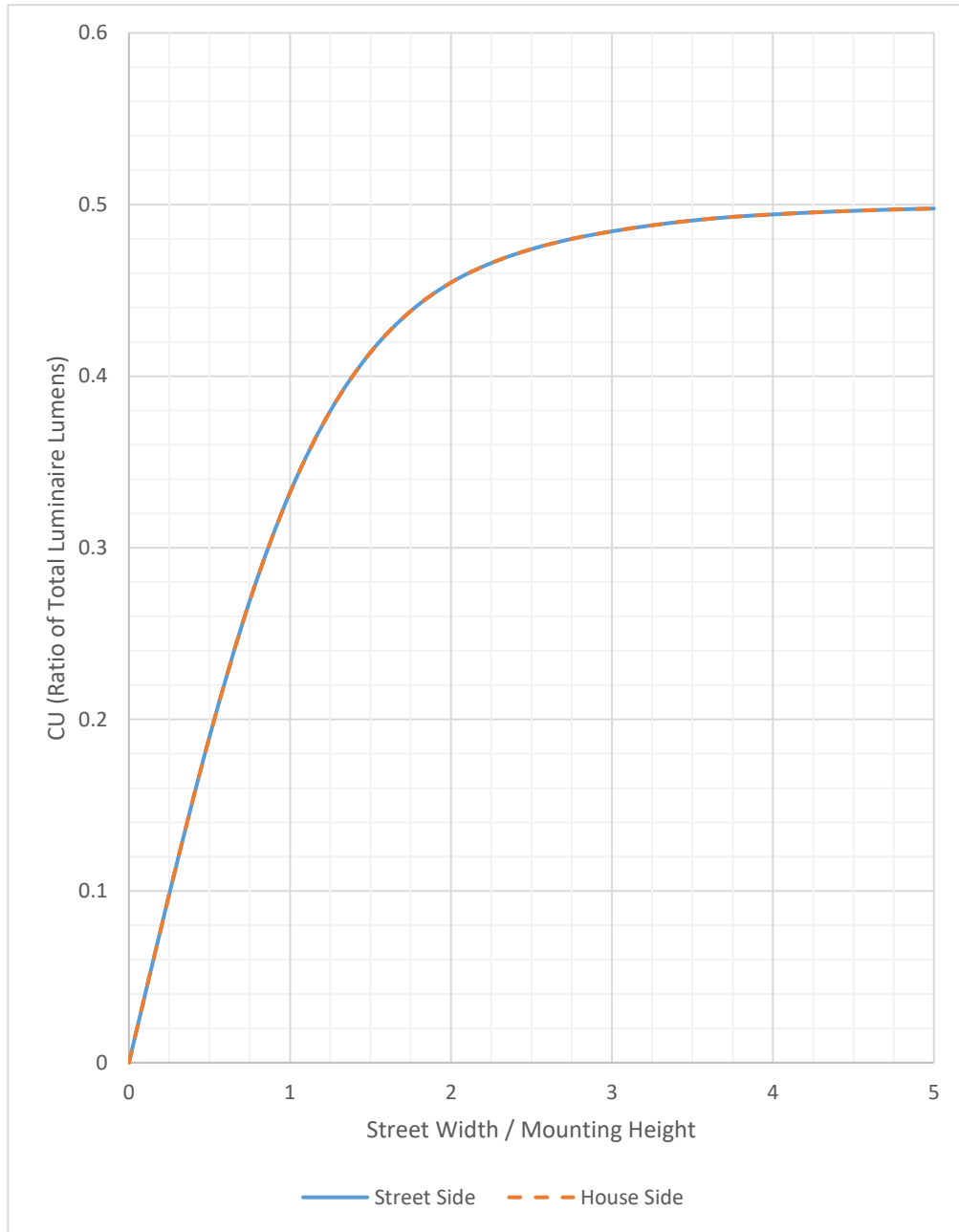


The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



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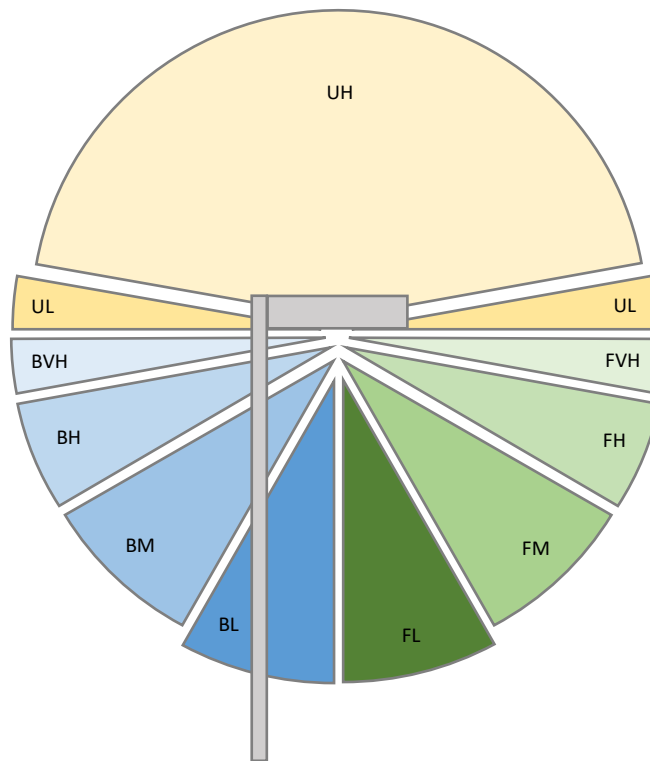
Coefficients of Utilization Plot





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LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	3841.7 Lm
BM - Back Mid (30°-60°)	12266.3 Lm
BH - Back High (60°-80°)	6464.6 Lm
BVH - Back Very High (80°-90°)	155.6 Lm

Forward Light

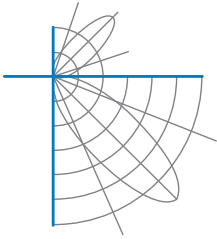
FL - Forward Low (0°-30°)	3841.7 Lm
FM - Forward Mid (30°-60°)	12266.3 Lm
FH - Forward High (60°-80°)	6464.6 Lm
FVH - Forward Very High (80°-90°)	155.6 Lm

Uplight

UL - Upward Low (90°-100°)	0.0 Lm
UH - Upward High (100°-180°)	0.0 Lm

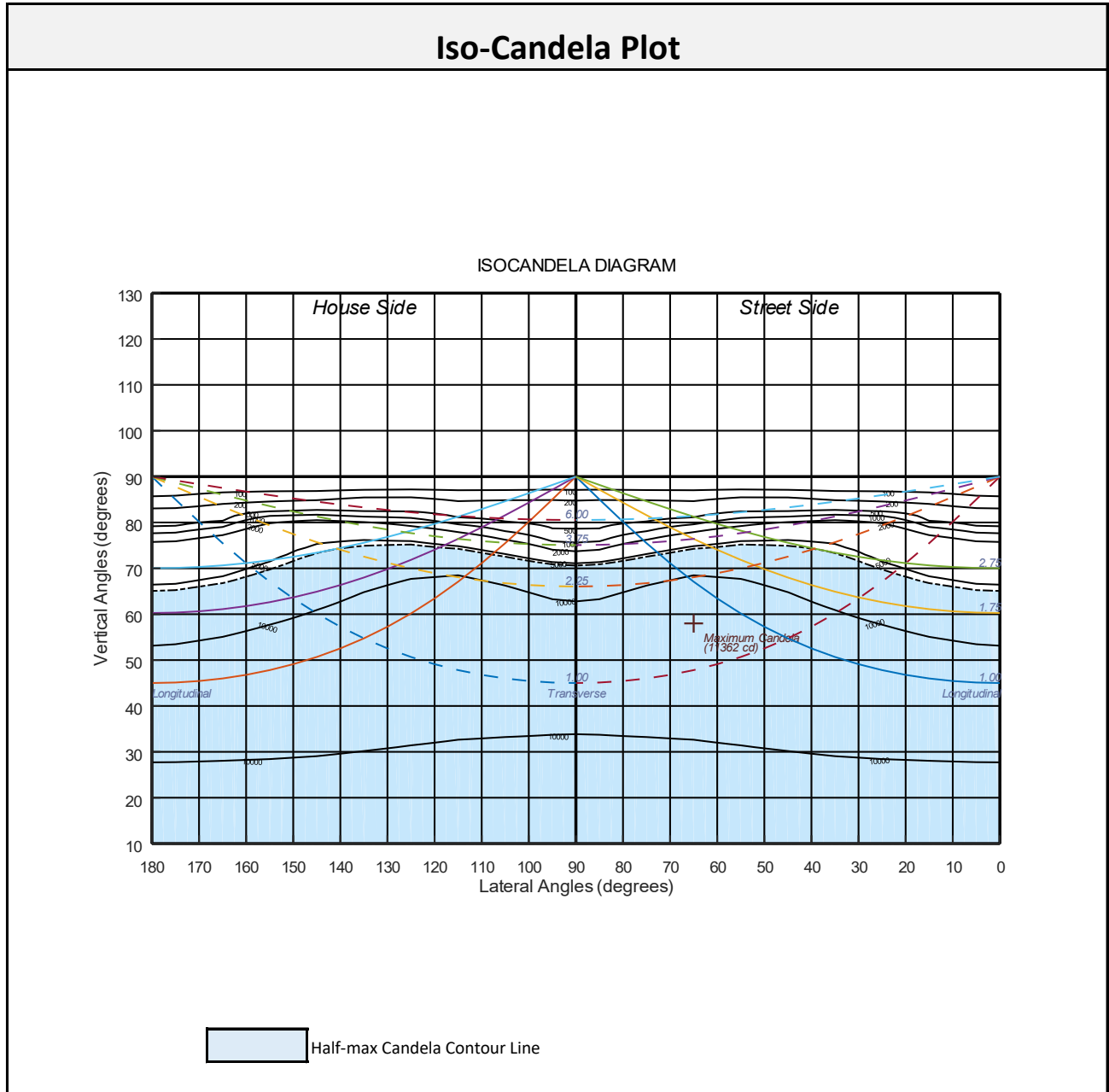
BUG Rating: Asymmetrical Luminaire (Type I, II, III, and IV) B5 - U0 - G5

BUG Rating: Quadrilateral Symmetrical Luminaire (Type V, Type VS) B5 - U0 - G3



Report of Test
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Iso-Candela Plot





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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles										
	0	5	15	25	35	45	55	65	75	85	90
0	8171	8171	8171	8171	8171	8171	8171	8171	8171	8171	8171
2.5	8165	8173	8175	8177	8182	8186	8189	8190	8192	8195	8194
5	8183	8189	8194	8203	8215	8227	8237	8243	8249	8254	8254
7.5	8228	8234	8242	8253	8270	8287	8308	8324	8337	8344	8346
10	8312	8318	8327	8342	8359	8379	8403	8428	8452	8464	8467
12.5	8436	8441	8449	8463	8481	8500	8527	8555	8586	8607	8610
15	8611	8614	8618	8624	8631	8648	8671	8701	8738	8765	8769
17.5	8834	8837	8832	8825	8819	8823	8838	8862	8899	8933	8937
20	9097	9101	9088	9063	9036	9023	9021	9032	9067	9102	9110
22.5	9393	9394	9373	9333	9286	9243	9216	9213	9241	9272	9281
25	9692	9691	9662	9619	9555	9483	9422	9398	9413	9437	9442
27.5	9977	9973	9940	9900	9830	9732	9642	9589	9586	9598	9600
30	10225	10226	10197	10168	10101	9983	9871	9788	9765	9763	9759
32.5	10430	10433	10413	10403	10351	10229	10099	9988	9947	9924	9917
35	10602	10602	10596	10602	10569	10454	10315	10189	10130	10078	10064
37.5	10743	10739	10751	10764	10750	10654	10510	10376	10300	10219	10193
40	10838	10840	10871	10895	10905	10824	10687	10549	10458	10336	10309
42.5	10878	10886	10946	10985	11022	10969	10848	10709	10599	10441	10414
45	10854	10870	10967	11037	11104	11089	10991	10860	10727	10537	10507
47.5	10727	10763	10904	11036	11150	11179	11114	10998	10846	10626	10586
50	10478	10531	10731	10959	11150	11236	11211	11125	10952	10689	10634
52.5	10110	10168	10432	10776	11076	11252	11282	11235	11036	10712	10648
55	9623	9685	10013	10478	10902	11207	11323	11319	11097	10698	10625
57.5	8960	9022	9440	10047	10611	11081	11319	11361	11111	10642	10557
60	8099	8168	8689	9439	10192	10851	11237	11339	11033	10491	10407
62.5	6903	6987	7649	8666	9622	10487	11050	11212	10797	10160	10061
65	5716	5805	6522	7647	8925	9953	10694	10910	10318	9561	9442
67.5	4548	4625	5323	6614	7988	9236	10067	10319	9614	8681	8516
70	3780	3830	4321	5574	7067	8245	9091	9361	8308	6788	6483
72.5	3520	3557	3795	4706	6008	7062	7741	7572	5733	3500	3112
75	2443	2527	3251	4139	5088	5631	5847	4813	3014	1417	1254
77.5	1059	1122	1842	3385	4231	4215	3519	2298	1248	604	587
80	379	386	610	1887	2542	2086	1474	833	529	424	417
82.5	231	235	273	473	576	494	477	328	329	302	296
85	126	131	164	182	193	225	229	185	193	196	190
87.5	44	46	59	65	67	75	84	80	83	85	84
90	0	0	0	0	0	0	0	0	0	0	0

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.



Report of Test

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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	0	5	15	25	35	45	55	65	75	85	90	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	



Report of Test

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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	90	95	105	115	125	135	145	155	165	175	180	
0	8171	8171	8171	8171	8171	8171	8171	8171	8171	8171	8171	8171
2.5	8194	8195	8192	8190	8189	8186	8182	8177	8175	8173	8165	
5	8254	8254	8249	8243	8237	8227	8215	8203	8194	8189	8183	
7.5	8346	8344	8337	8324	8308	8287	8270	8253	8242	8234	8228	
10	8467	8464	8452	8428	8403	8379	8359	8342	8327	8318	8312	
12.5	8610	8607	8586	8555	8527	8500	8481	8463	8449	8441	8436	
15	8769	8765	8738	8701	8671	8648	8631	8624	8618	8614	8611	
17.5	8937	8933	8899	8862	8838	8823	8819	8825	8832	8837	8834	
20	9110	9102	9067	9032	9021	9023	9036	9063	9088	9101	9097	
22.5	9281	9272	9241	9213	9216	9243	9286	9333	9373	9394	9393	
25	9442	9437	9413	9398	9422	9483	9555	9619	9662	9691	9692	
27.5	9600	9598	9586	9589	9642	9732	9830	9900	9940	9973	9977	
30	9759	9763	9765	9788	9871	9983	10101	10168	10197	10226	10225	
32.5	9917	9924	9947	9988	10099	10229	10351	10403	10413	10433	10430	
35	10064	10078	10130	10189	10315	10454	10569	10602	10596	10602	10602	
37.5	10193	10219	10300	10376	10510	10654	10750	10764	10751	10739	10743	
40	10309	10336	10458	10549	10687	10824	10905	10895	10871	10840	10838	
42.5	10414	10441	10599	10709	10848	10969	11022	10985	10946	10886	10878	
45	10507	10537	10727	10860	10991	11089	11104	11037	10967	10870	10854	
47.5	10586	10626	10846	10998	11114	11179	11150	11036	10904	10763	10727	
50	10634	10689	10952	11125	11211	11236	11150	10959	10731	10531	10478	
52.5	10648	10712	11036	11235	11282	11252	11076	10776	10432	10168	10110	
55	10625	10698	11097	11319	11323	11207	10902	10478	10013	9685	9623	
57.5	10557	10642	11111	11361	11319	11081	10611	10047	9440	9022	8960	
60	10407	10491	11033	11339	11237	10851	10192	9439	8689	8168	8099	
62.5	10061	10160	10797	11212	11050	10487	9622	8666	7649	6987	6903	
65	9442	9561	10318	10910	10694	9953	8925	7647	6522	5805	5716	
67.5	8516	8681	9614	10319	10067	9236	7988	6614	5323	4625	4548	
70	6483	6788	8308	9361	9091	8245	7067	5574	4321	3830	3780	
72.5	3112	3500	5733	7572	7741	7062	6008	4706	3795	3557	3520	
75	1254	1417	3014	4813	5847	5631	5088	4139	3251	2527	2443	
77.5	587	604	1248	2298	3519	4215	4231	3385	1842	1122	1059	
80	417	424	529	833	1474	2086	2542	1887	610	386	379	
82.5	296	302	329	328	477	494	576	473	273	235	231	
85	190	196	193	185	229	225	193	182	164	131	126	
87.5	84	85	83	80	84	75	67	65	59	46	44	
90	0	0	0	0	0	0	0	0	0	0	0	

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.



Report of Test

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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	90	95	105	115	125	135	145	155	165	175	180	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	



Report of Test
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Additional Pictures of Test Subject





Report of Test

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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 publications: IES LM-79-19. Format of reports and angular increments based on IES LM-31-20 and LM-10-20.

The luminous intensity values, and other derived quantities, contained in this report are based on absolute data.

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 IES C-Type spherical coordinate system as defined in IES LM-75-19.

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.

The device under test emits no detectable uplight, as defined by ANSI/IES LM-31-20. For the purpose of this report, certain non-zero uplight readings, attributable to instrument artifacts, have been assigned a zero value.