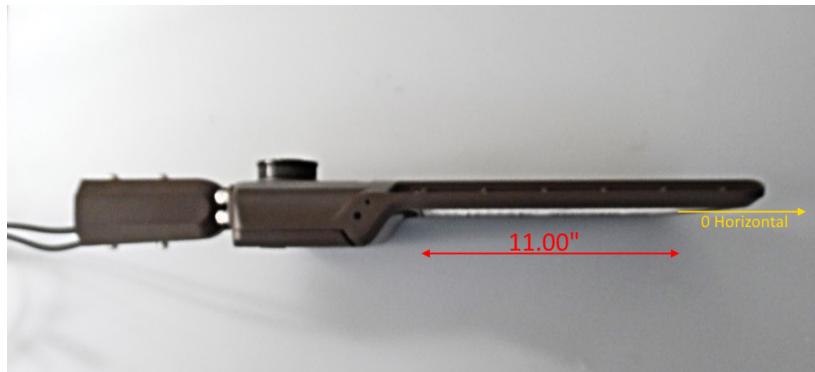


## Report of Test

**LLIA002251-011**

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: ARL-300PCS-T3 - 250W 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



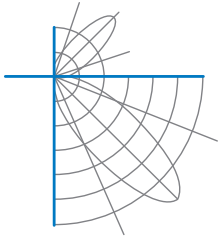
Prepared For:  
Topaz Lighting Corp  
925 Waverly Avenue  
Holtsville, NY 11742, USA

Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	39241.5 Lumens
Input Current	2.054 A	Total Efficacy	160.2 Lm/W
Input Power	244.9 W		
Frequency	60.00 Hz	Roadway Throw	Medium
Power Factor	0.994	Roadway Type	Type III
Current THD	9.0 %		

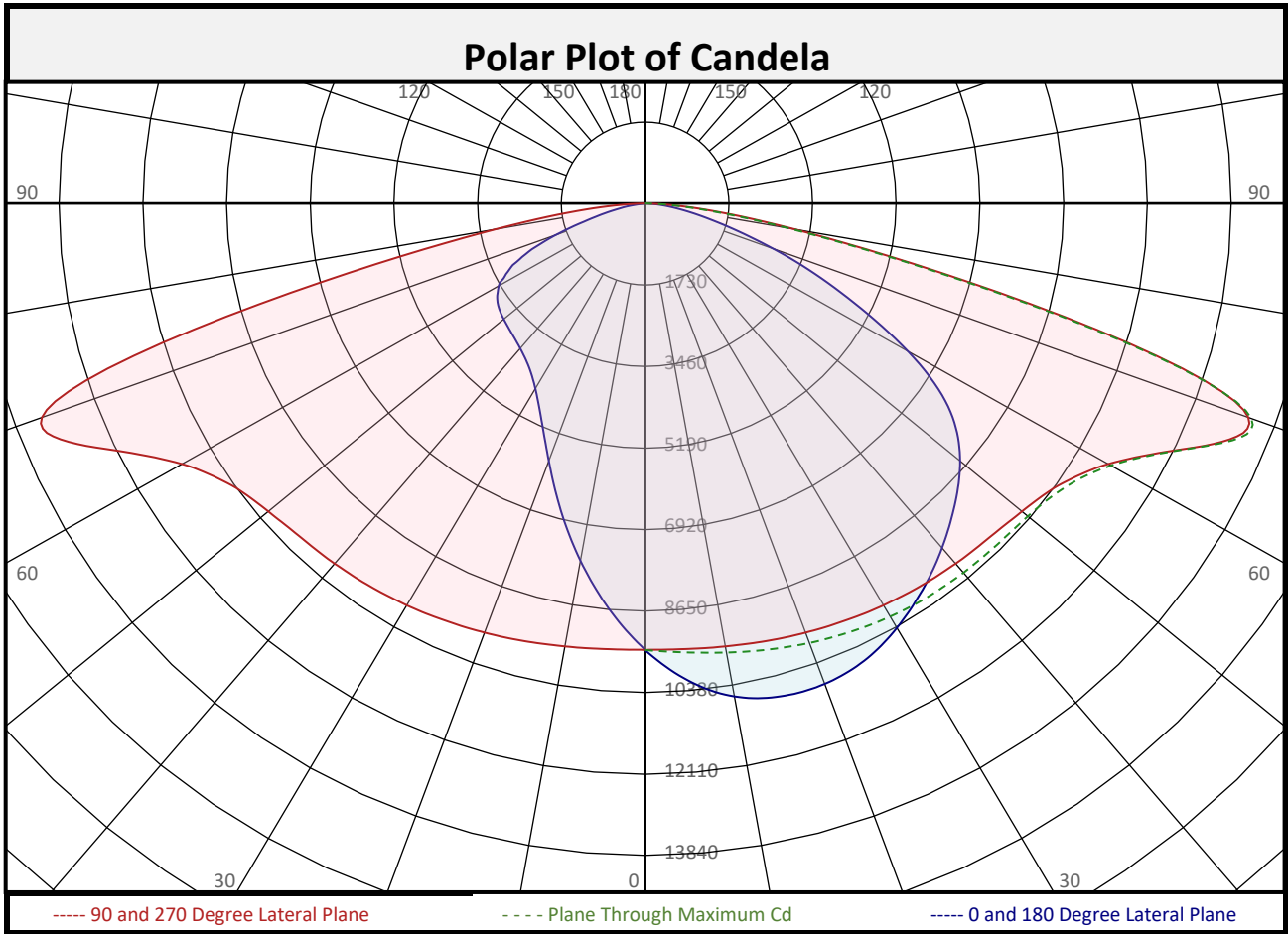
This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 11/28/2023  
Report date: 12/04/2023

Signed: \_\_\_\_\_

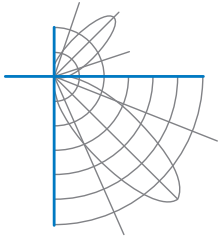


Report of Test  
LLIA002251-011

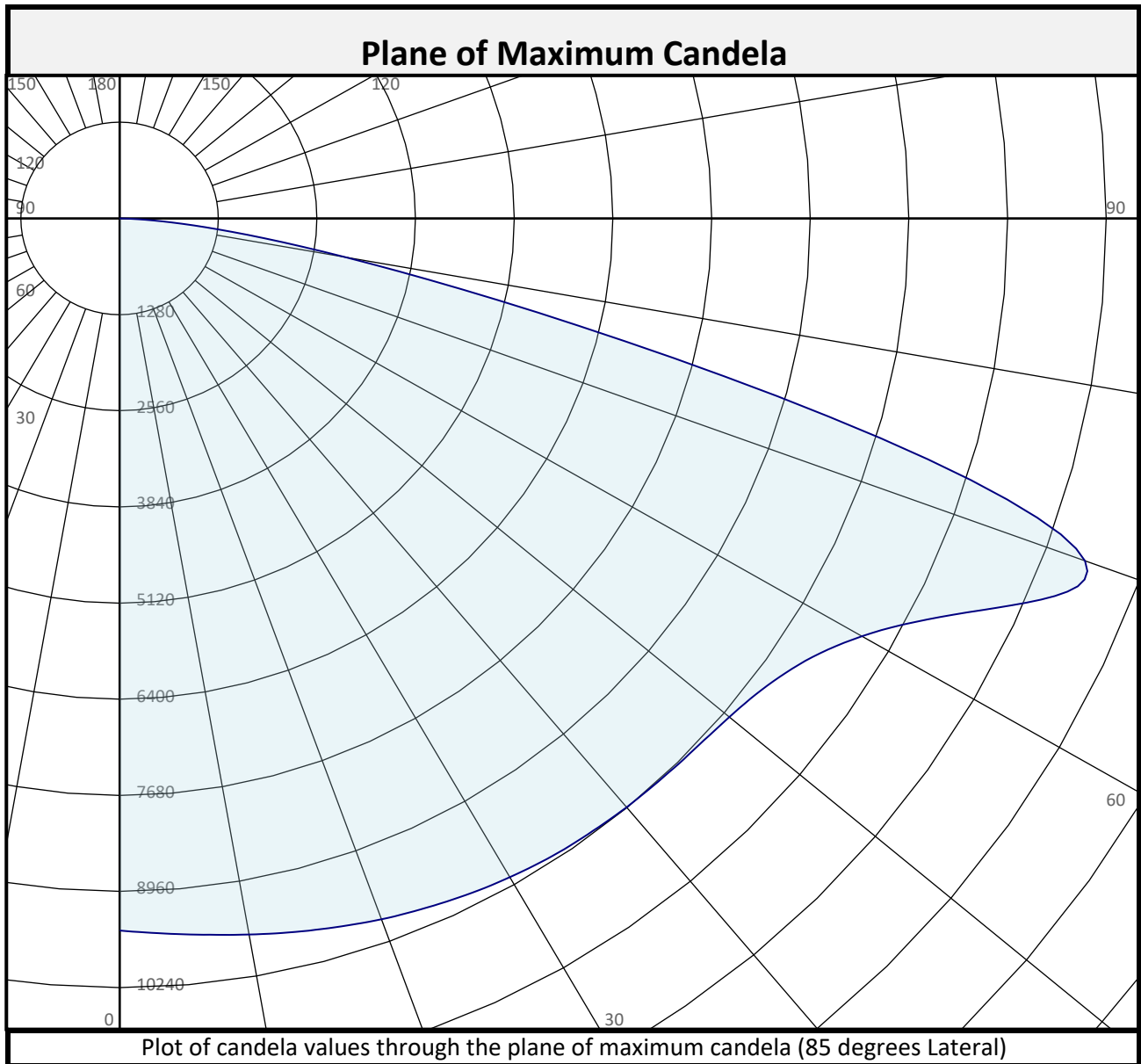


### Zonal Flux Summary

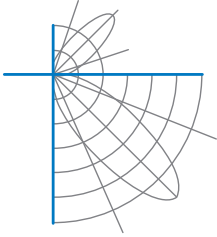
Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	899.9	2.3%	90-100	0.0	0.0%	0-20	3503	8.9%
10-20	2603	6.6%	100-110	0.0	0.0%	0-30	7579	19.3%
20-30	4076	10.4%	110-120	0.0	0.0%	0-40	12881	32.8%
30-40	5302	13.5%	120-130	0.0	0.0%	0-60	26209	66.8%
40-50	6288	16.0%	130-140	0.0	0.0%	0-80	38358	97.7%
50-60	7040	17.9%	140-150	0.0	0.0%	10-90	38342	97.7%
60-70	7281	18.6%	150-160	0.0	0.0%	20-50	15666	39.9%
70-80	4868	12.4%	160-170	0.0	0.0%	40-90	26360	67.2%
80-90	883.1	2.3%	170-180	0.0	0.0%	60-90	13032	33.2%
0-90	39242	100.0%	90-180	0.0	0.0%	0-180	39242	100.0%



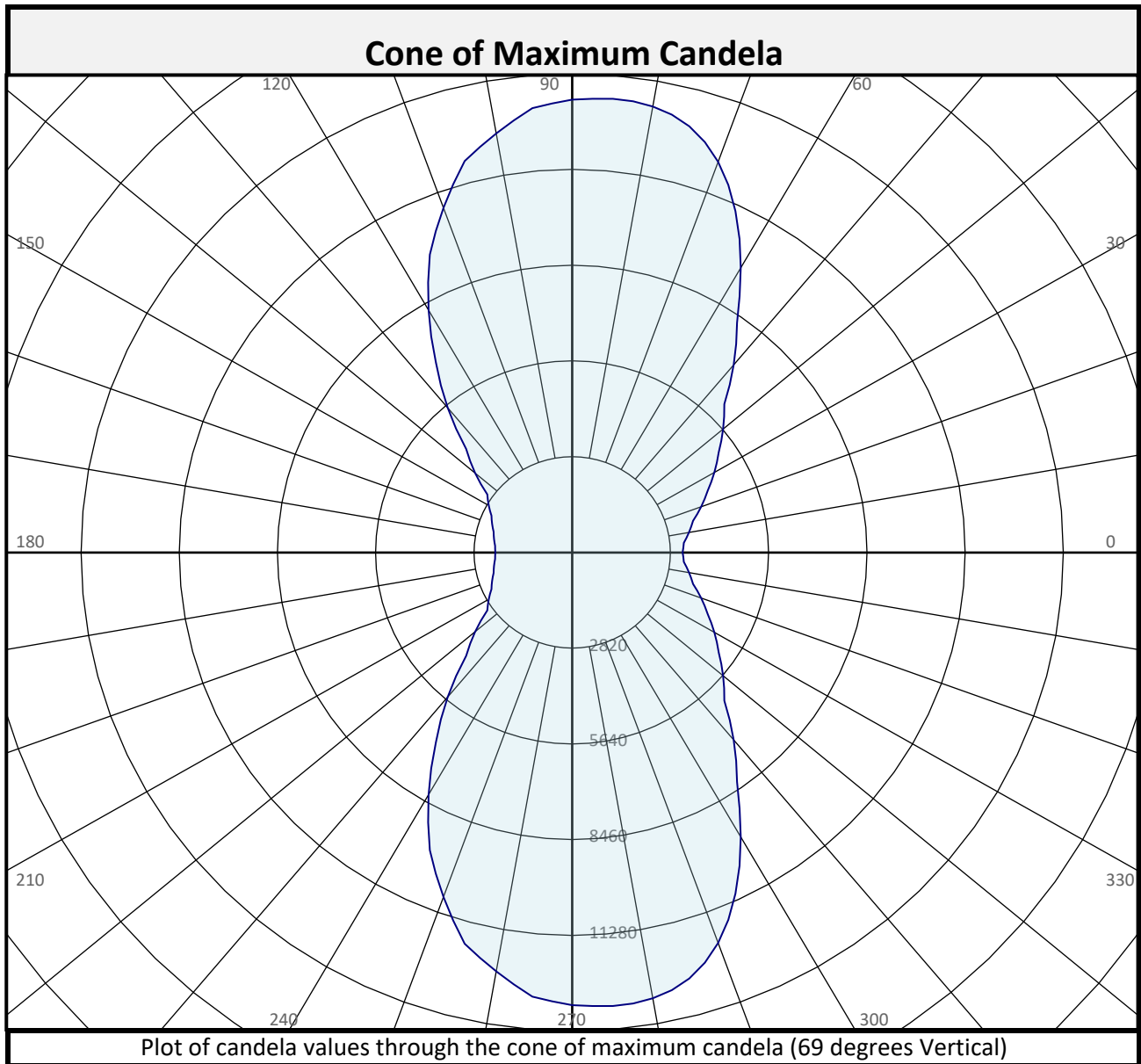
Report of Test  
LLIA002251-011



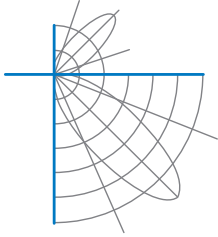
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	23126.6	58.9%	0.0	0.0%	23126.6	58.9%
House Side	16115.0	41.1%	0.0	0.0%	16115.0	41.1%
<b>Total</b>	<b>39241.5</b>	<b>100.0%</b>	<b>0.0</b>	<b>0.0%</b>	<b>39241.5</b>	<b>100.0%</b>



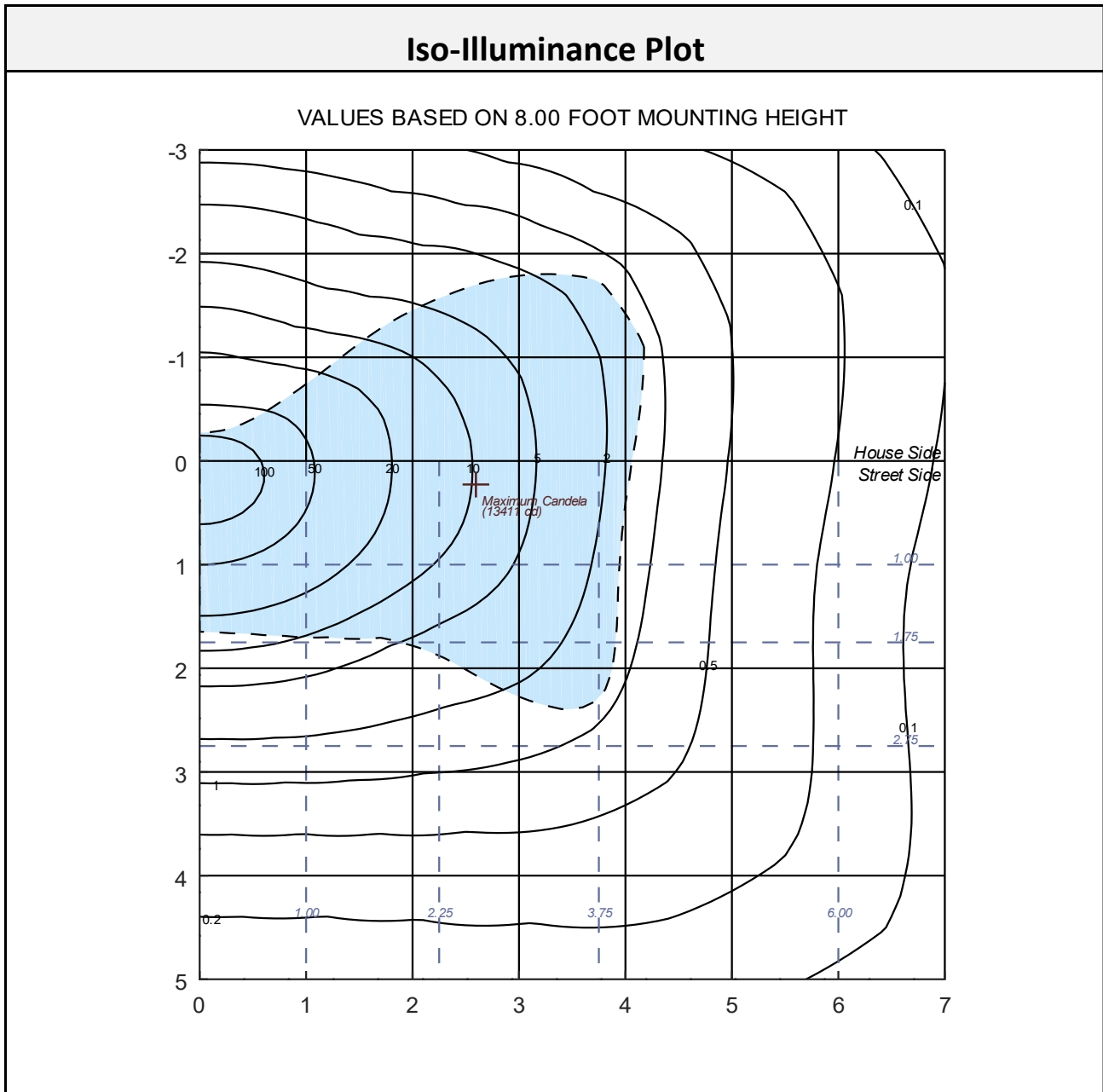
Report of Test  
LLIA002251-011



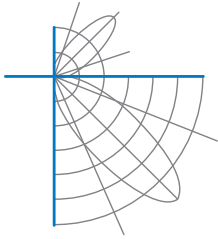
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	23126.6	58.9%	0.0	0.0%	23126.6	58.9%
House Side	16115.0	41.1%	0.0	0.0%	16115.0	41.1%
<b>Total</b>	<b>39241.5</b>	<b>100.0%</b>	<b>0.0</b>	<b>0.0%</b>	<b>39241.5</b>	<b>100.0%</b>



Report of Test  
LLIA002251-011

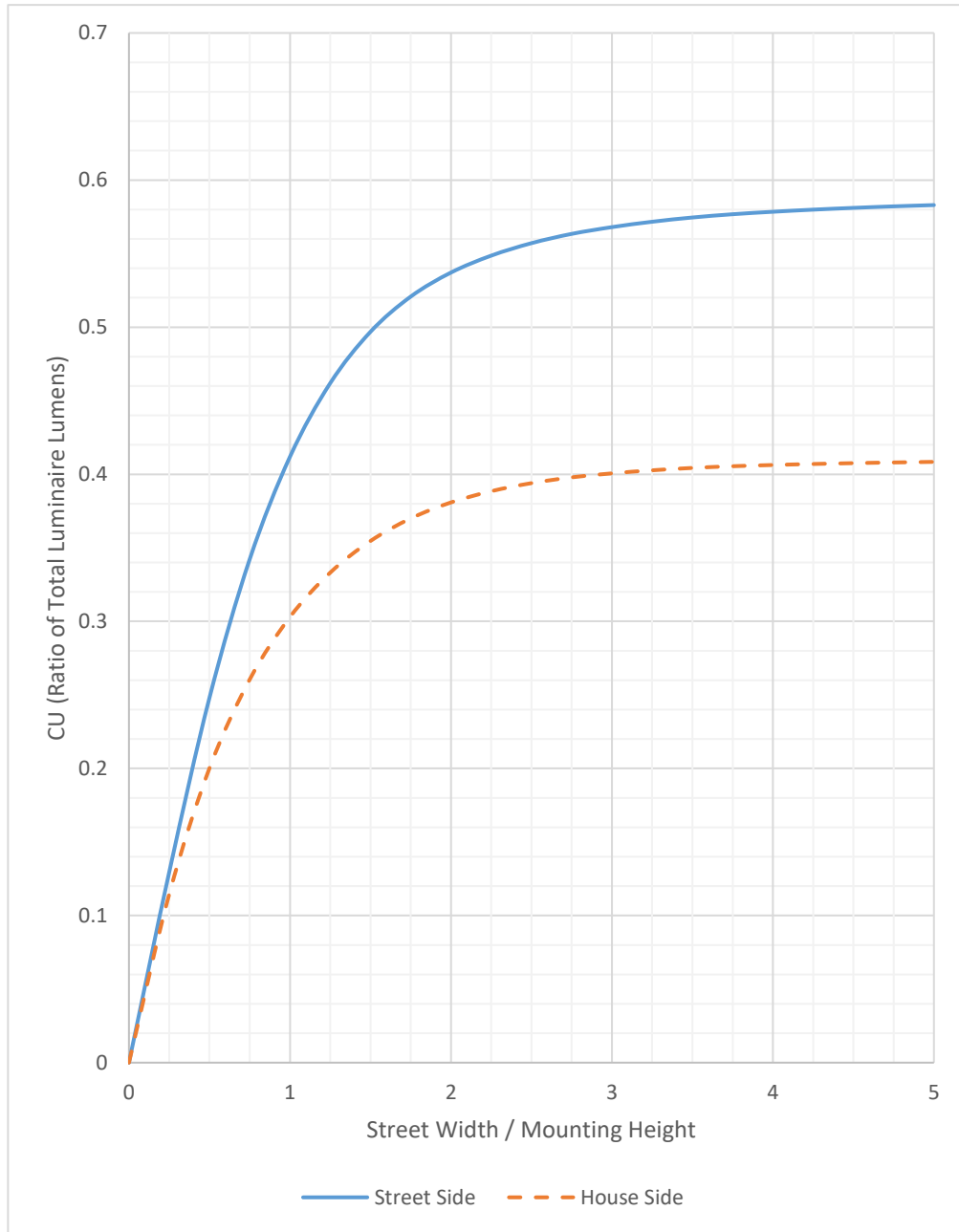


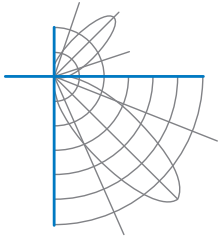
The isofootcandle values shown in the plot above are based on a mounting height of  $h = 8.0$  feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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



## Report of Test LLIA002251-011

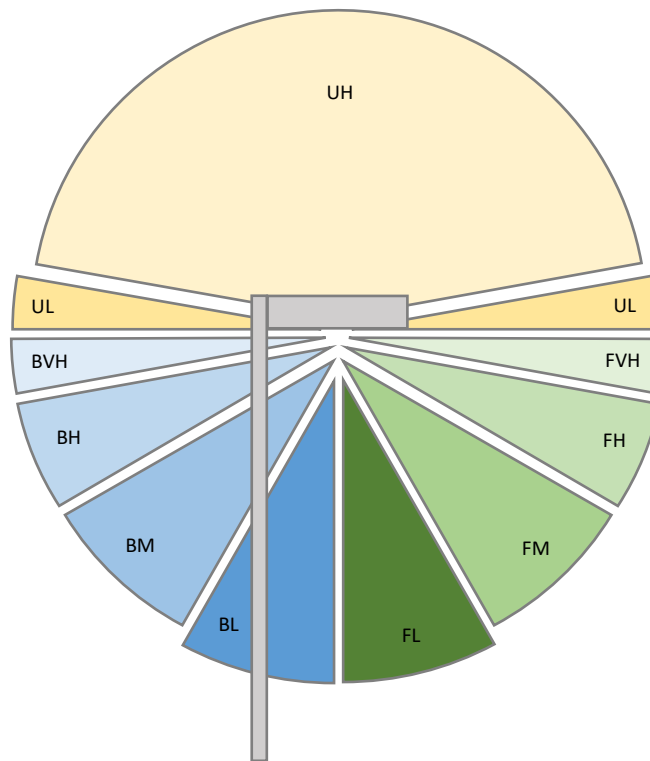
### Coefficients of Utilization Plot





Report of Test  
LLIA002251-011

LCS Tables and Bug Classification



**Back Light**

BL - Back Low (0°-30°)	3135.8 Lm
BM - Back Mid (30°-60°)	7281.6 Lm
BH - Back High (60°-80°)	5364.9 Lm
BVH - Back Very High (80°-90°)	332.7 Lm

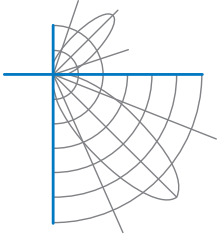
**Forward Light**

FL - Forward Low (0°-30°)	4443.4 Lm
FM - Forward Mid (30°-60°)	11348.6 Lm
FH - Forward High (60°-80°)	6784.2 Lm
FVH - Forward Very High (80°-90°)	550.3 Lm

**Uplight**

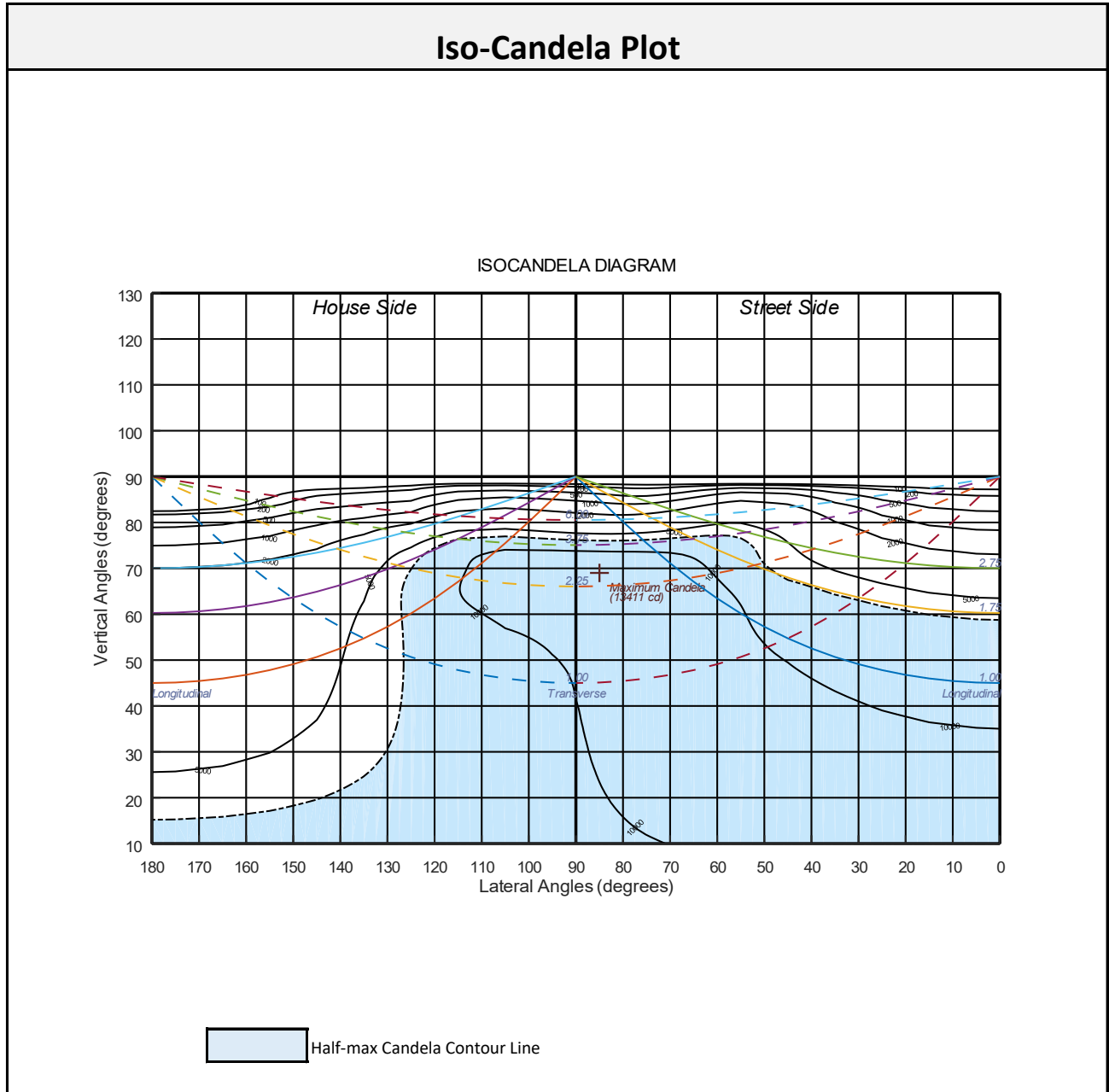
UL - Upward Low (90°-100°)	0.0 Lm
UH - Upward High (100°-180°)	0.0 Lm

BUG Rating: Asymmetrical Luminaire (Type I, II, III, and IV)      B5 - U0 - G5  
BUG Rating: Quadrilateral Symmetrical Luminaire (Type V, Type VS)      B5 - U0 - G4

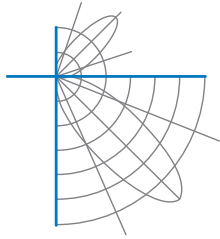


Report of Test  
LLIA002251-011

**Iso-Candela Plot**







## Report of Test

LLIA002251-011

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles															
	0	5	15	25	35	45	55	57.5	60	62.5	65	67.5	70	72.5	75	
0	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	
2.5	9836	9848	9836	9815	9786	9747	9695	9684	9672	9657	9640	9627	9613	9594	9581	
5	10156	10168	10149	10114	10065	9995	9906	9883	9858	9832	9806	9778	9748	9717	9690	
7.5	10420	10433	10412	10371	10311	10223	10106	10075	10041	10004	9968	9927	9886	9842	9803	
10	10618	10632	10610	10575	10513	10420	10288	10251	10212	10167	10124	10073	10022	9968	9917	
12.5	10751	10760	10749	10720	10669	10583	10448	10409	10368	10318	10267	10210	10153	10089	10027	
15	10824	10835	10829	10813	10780	10708	10582	10544	10500	10451	10397	10336	10274	10202	10131	
17.5	10857	10869	10869	10869	10856	10798	10691	10656	10612	10562	10508	10448	10382	10309	10232	
20	10847	10860	10873	10893	10898	10861	10772	10741	10700	10654	10603	10541	10475	10400	10320	
22.5	10797	10812	10838	10881	10910	10900	10832	10803	10767	10724	10677	10616	10550	10476	10395	
25	10708	10720	10762	10830	10897	10918	10873	10848	10815	10777	10731	10674	10609	10537	10458	
27.5	10573	10587	10644	10745	10852	10914	10893	10872	10844	10808	10768	10714	10655	10587	10505	
30	10402	10423	10492	10627	10780	10887	10895	10880	10858	10827	10788	10741	10684	10622	10542	
32.5	10211	10230	10315	10479	10678	10833	10880	10874	10856	10832	10797	10752	10699	10641	10567	
35	10003	10021	10118	10310	10553	10763	10850	10848	10838	10820	10788	10752	10703	10648	10579	
37.5	9783	9801	9909	10123	10404	10668	10803	10812	10808	10794	10769	10736	10691	10642	10578	
40	9546	9568	9683	9916	10237	10553	10737	10756	10761	10757	10738	10712	10673	10628	10567	
42.5	9304	9324	9445	9702	10055	10422	10661	10691	10703	10708	10698	10676	10644	10602	10550	
45	9052	9071	9198	9473	9864	10275	10574	10616	10637	10655	10649	10633	10609	10575	10530	
47.5	8792	8810	8941	9233	9663	10122	10478	10535	10571	10598	10600	10592	10576	10549	10514	
50	8502	8523	8667	8987	9454	9967	10383	10451	10505	10542	10559	10561	10556	10535	10511	
52.5	8155	8179	8350	8711	9232	9807	10295	10379	10451	10504	10535	10554	10560	10553	10541	
55	7709	7741	7952	8375	8977	9643	10220	10331	10427	10499	10553	10594	10615	10628	10630	
57.5	7089	7129	7406	7920	8635	9448	10159	10310	10441	10553	10637	10706	10753	10787	10809	
60	6280	6325	6661	7271	8117	9140	10099	10310	10502	10672	10811	10923	11003	11067	11111	
62.5	5361	5409	5775	6438	7351	8582	9959	10277	10575	10836	11061	11243	11385	11491	11566	
65	4465	4513	4887	5560	6431	7713	9555	10033	10494	10914	11286	11598	11848	12042	12176	
67.5	3648	3697	4072	4747	5569	6694	8776	9417	10075	10711	11290	11799	12223	12563	12816	
70	2853	2898	3268	3982	4870	5912	7941	8644	9390	10140	10852	11511	12085	12531	12865	
72.5	2139	2172	2479	3181	4206	5482	7498	8114	8719	9307	9862	10370	10775	11043	11234	
75	1566	1591	1824	2419	3478	5125	7178	7584	7896	8119	8257	8338	8351	8283	8210	
77.5	1123	1141	1307	1778	2747	4510	6308	6495	6513	6407	6209	5979	5734	5491	5298	
80	769	782	902	1266	2046	3601	4914	4923	4747	4483	4171	3871	3593	3351	3163	
82.5	494	501	585	852	1433	2557	3349	3249	3039	2781	2495	2229	1998	1816	1687	
85	262	266	317	489	849	1536	1859	1724	1550	1374	1182	1015	878	771	705	
87.5	81	82	97	149	255	450	518	471	415	358	303	261	225	202	190	
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

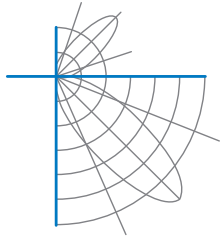
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.

**North America (issuing laboratory)**

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www.lightlabint.com



## Report of Test

LLIA002251-011

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles															
	77.5	80	82.5	85	90	95	105	115	125	135	145	155	165	175	180	
0	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	9479	
2.5	9568	9548	9534	9519	9479	9455	9385	9312	9255	9200	9148	9111	9086	9076	9067	
5	9660	9626	9598	9565	9494	9434	9296	9153	9027	8910	8806	8725	8668	8643	8632	
7.5	9759	9712	9668	9618	9519	9422	9212	8999	8798	8612	8446	8315	8226	8184	8170	
10	9862	9798	9742	9679	9547	9421	9137	8850	8570	8311	8083	7900	7774	7712	7701	
12.5	9960	9886	9817	9742	9579	9423	9069	8706	8344	8011	7715	7479	7317	7235	7220	
15	10055	9973	9888	9803	9617	9428	9008	8569	8128	7717	7352	7060	6860	6758	6742	
17.5	10148	10056	9962	9866	9656	9437	8956	8441	7922	7432	6996	6643	6404	6283	6268	
20	10229	10132	10030	9928	9693	9451	8911	8329	7733	7162	6650	6244	5973	5838	5821	
22.5	10301	10202	10095	9982	9734	9465	8875	8233	7564	6908	6324	5870	5579	5439	5419	
25	10365	10263	10154	10034	9769	9487	8852	8153	7415	6678	6022	5534	5232	5091	5073	
27.5	10415	10315	10206	10083	9812	9514	8839	8095	7290	6471	5753	5239	4932	4797	4780	
30	10453	10358	10247	10125	9849	9537	8839	8057	7189	6289	5516	4980	4680	4554	4539	
32.5	10482	10389	10283	10162	9881	9572	8855	8041	7108	6133	5307	4759	4474	4364	4350	
35	10499	10410	10307	10191	9915	9605	8882	8041	7046	5997	5125	4572	4310	4217	4206	
37.5	10506	10422	10324	10212	9949	9637	8918	8061	7001	5881	4968	4419	4184	4108	4099	
40	10500	10427	10334	10233	9981	9678	8969	8093	6968	5781	4830	4294	4089	4024	4017	
42.5	10494	10422	10342	10245	10010	9725	9032	8141	6945	5691	4711	4196	4016	3959	3952	
45	10478	10414	10342	10263	10041	9780	9113	8201	6931	5612	4611	4120	3961	3906	3900	
47.5	10469	10418	10359	10282	10093	9848	9213	8281	6927	5542	4524	4058	3915	3863	3856	
50	10480	10440	10394	10326	10167	9943	9336	8383	6934	5478	4444	4004	3873	3825	3817	
52.5	10522	10494	10459	10406	10271	10075	9508	8517	6951	5414	4365	3948	3827	3782	3775	
55	10625	10614	10586	10548	10431	10271	9745	8702	6984	5346	4276	3880	3766	3725	3718	
57.5	10813	10816	10803	10774	10691	10548	10090	8967	7031	5267	4170	3786	3672	3633	3628	
60	11129	11145	11140	11122	11056	10966	10595	9328	7094	5164	4029	3651	3533	3500	3495	
62.5	11610	11639	11648	11635	11601	11566	11241	9714	7156	5023	3834	3472	3291	3249	3245	
65	12261	12316	12340	12340	12320	12312	11800	9927	7156	4823	3592	3159	3027	2949	2933	
67.5	12984	13088	13137	13134	13079	12966	11976	9832	7006	4558	3206	2789	2623	2547	2536	
70	13096	13236	13309	13329	13267	13050	11860	9572	6666	4097	2803	2374	2133	2021	2001	
72.5	11375	11453	11516	11579	11647	11643	11191	9251	6018	3497	2343	1881	1581	1451	1435	
75	8153	8099	8090	8123	8267	8534	9000	7953	4752	2738	1836	1347	1084	1003	992	
77.5	5156	5060	5016	5034	5166	5453	6114	5667	3203	1964	1334	928	727	663	653	
80	3031	2958	2947	2983	3122	3350	3856	3490	1866	1260	892	594	460	417	413	
82.5	1611	1588	1616	1678	1817	1980	2320	1981	935	700	563	314	169	100	97	
85	688	708	755	812	915	1016	1195	967	457	363	254	111	27	0	0	
87.5	192	203	218	235	260	286	356	317	155	103	76	42	8	1	0	
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

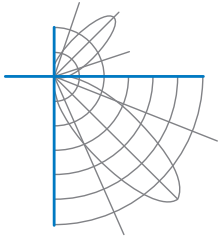
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.

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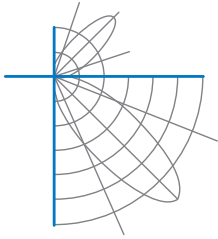


## Report of Test

LLIA002251-011

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles															
	0	5	15	25	35	45	55	57.5	60	62.5	65	67.5	70	72.5	75	
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	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	167.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

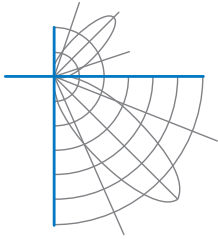


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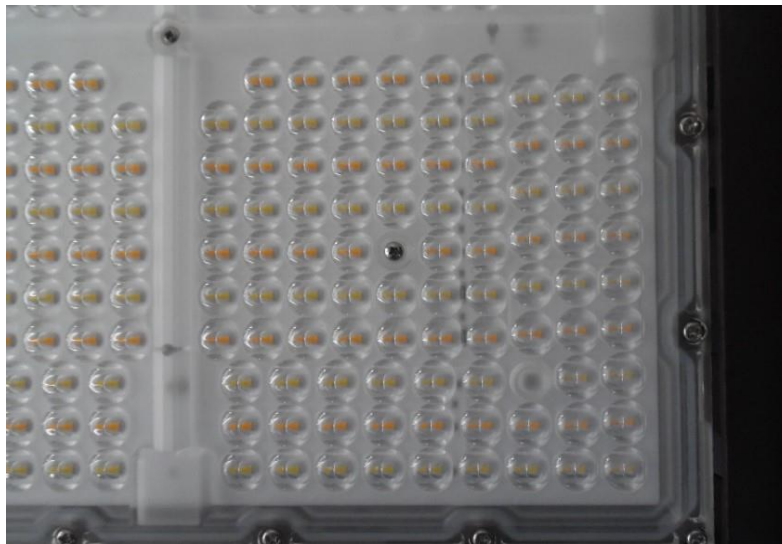
Luminous Intensity (Candela) Table

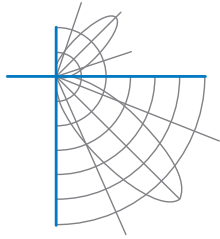
	Lateral (C-Plane) Angles															
	77.5	80	82.5	85	90	95	105	115	125	135	145	155	165	175	180	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



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**Additional Pictures of Test Subject**





## Report of Test

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Test Distance                    9.5 m  
Ambient Temperature        25.1 °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.