



Report of Test

LLIA001821-012A

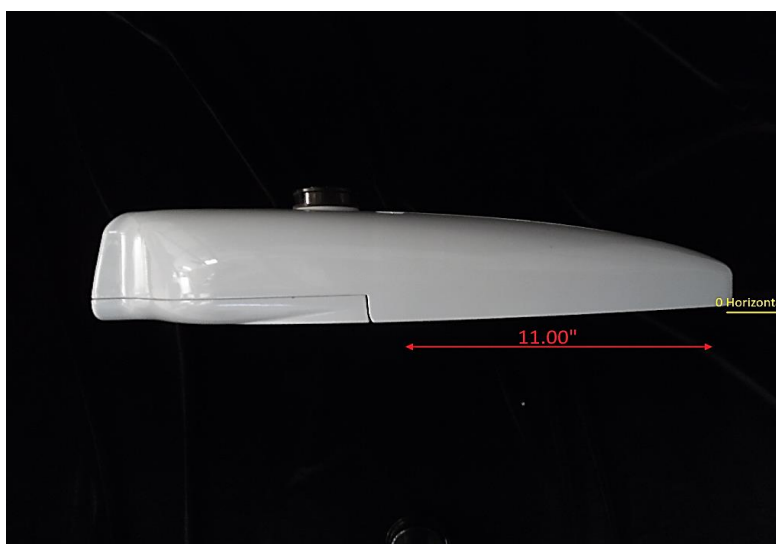
Roadway/Area Light Distribution Photometry Test Report

Catalog Number: L6-60M-5-X-2ES-J-X-XX-3-XX-X-X-X

Pole/arm mounted, gray painted cast aluminum housing and driver compartment cover, one circuit board, one clear plastic lens with optic below each LED, open bottom.

60 white LEDs

Osram OT180W/UNV/1800C/2DIM/P6/G2 LED driver set at 1400mA, Littlefuse LSP10277SBX3472 suppressor.



Prepared For:

LED Roadway Lighting

84 Chain Lake Drive

Suite 403

Halifax, Nova Scotia B3S 1A2, Canada

Performance Summary

Input Voltage	120.0 Vac	Luminous Flux	26080.5 Lumens
Input Current	1.496 A	Total Efficacy	146.2 Lm/W
Input Power	178.4 W		
Frequency	60.00 Hz	Roadway Throw	Medium
Power Factor	0.994	Roadway Type	Type II
Current THD	5.5 %	IES BUG Rating	B3 - U0 - G3

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

Test date: 08/01/2022

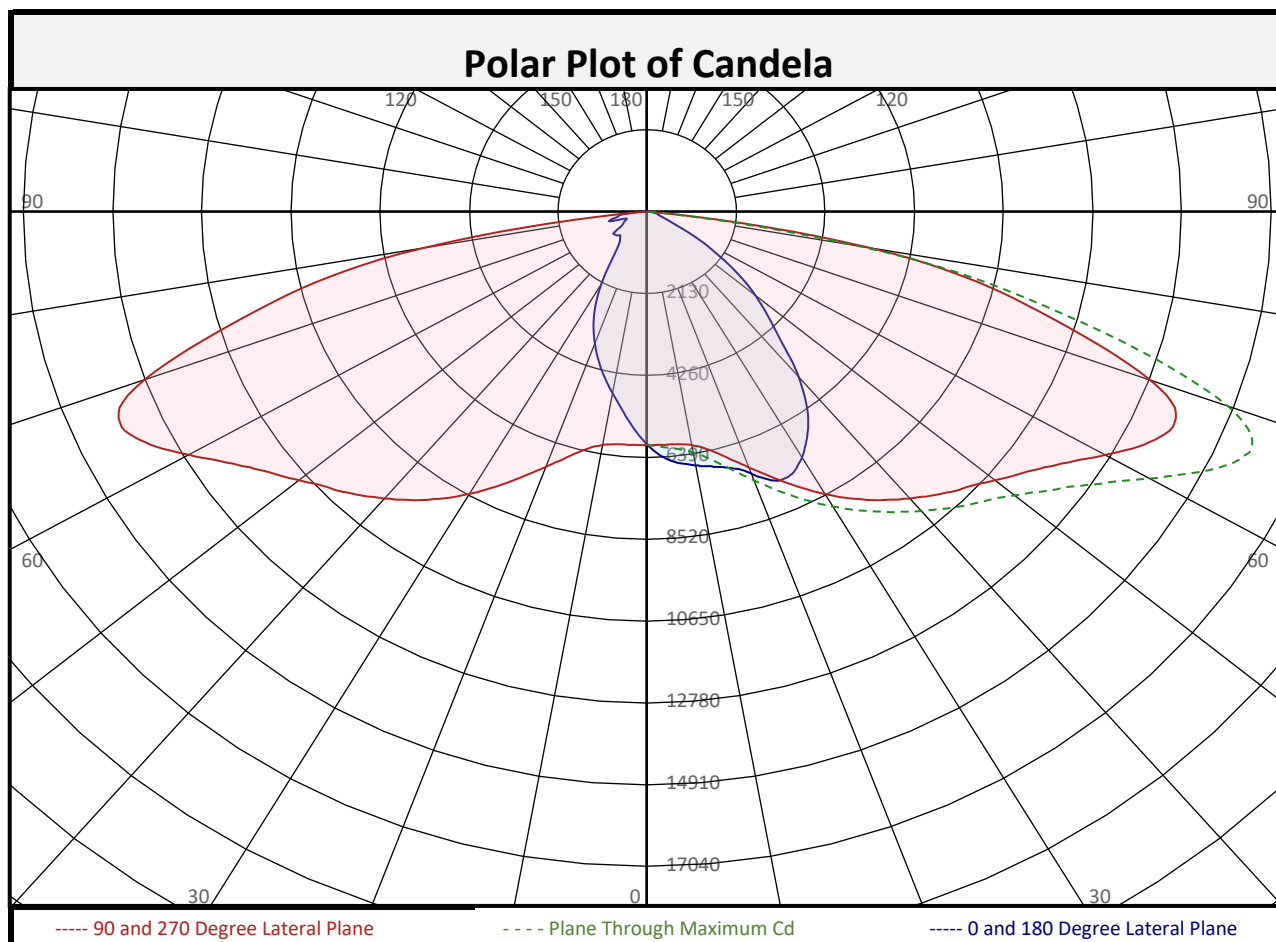
Report date: 08/02/2022

Signed: _____



Report of Test

LLIA001821-012A

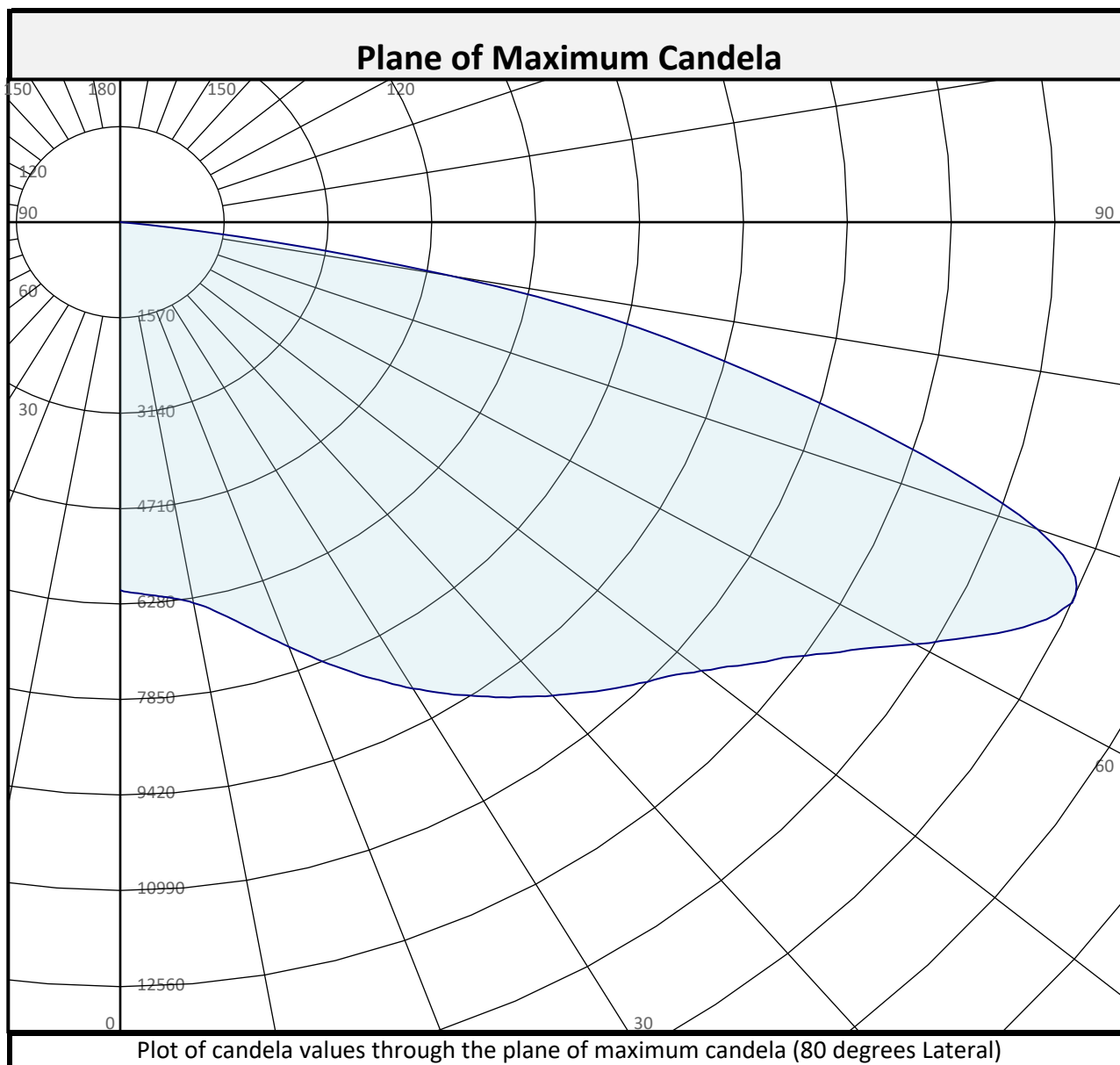


Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	570.8	2.2%		90-100	0.0	0.0%		0-20	2262	8.7%
10-20	1692	6.5%		100-110	0.0	0.0%		0-30	5154	19.8%
20-30	2892	11.1%		110-120	0.0	0.0%		0-40	9083	34.8%
30-40	3929	15.1%		120-130	0.0	0.0%		0-60	18616	71.4%
40-50	4581	17.6%		130-140	0.0	0.0%		0-80	25756	98.8%
50-60	4952	19.0%		140-150	0.0	0.0%		10-90	25510	97.8%
60-70	4606	17.7%		150-160	0.0	0.0%		20-50	11402	43.7%
70-80	2535	9.7%		160-170	0.0	0.0%		40-90	16998	65.2%
80-90	324.2	1.2%		170-180	0.0	0.0%		60-90	7464	28.6%
0-90	26081	100.0%		90-180	0.0	0.0%		0-180	26081	100.0%



Report of Test

LLIA001821-012A

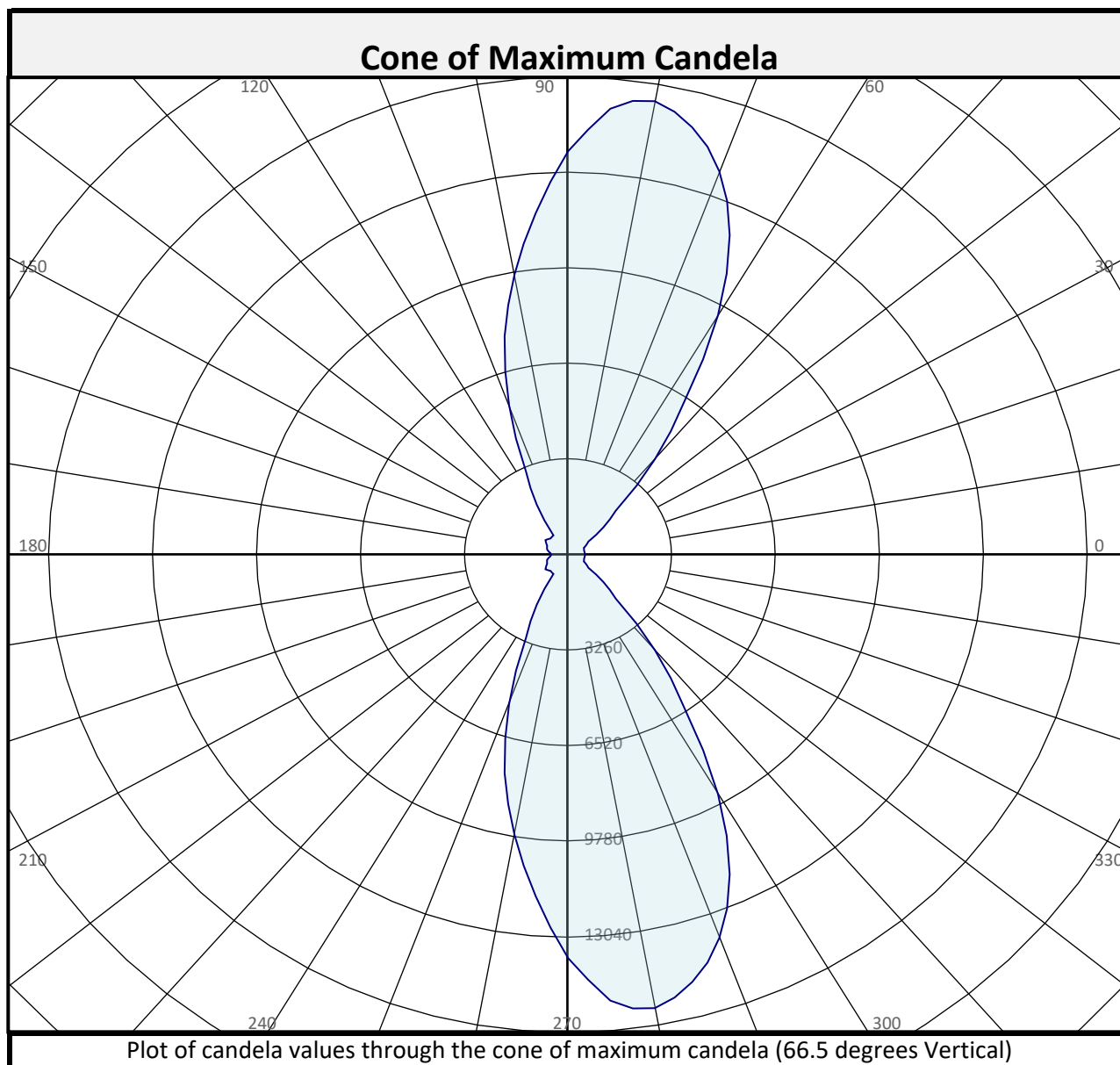


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	17072.5	65.5%	0.0	0.0%	17072.5	65.5%
House Side	9008.1	34.5%	0.0	0.0%	9008.1	34.5%
Total	26080.5	100.0%	0.0	0.0%	26080.5	100.0%



Report of Test

LLIA001821-012A

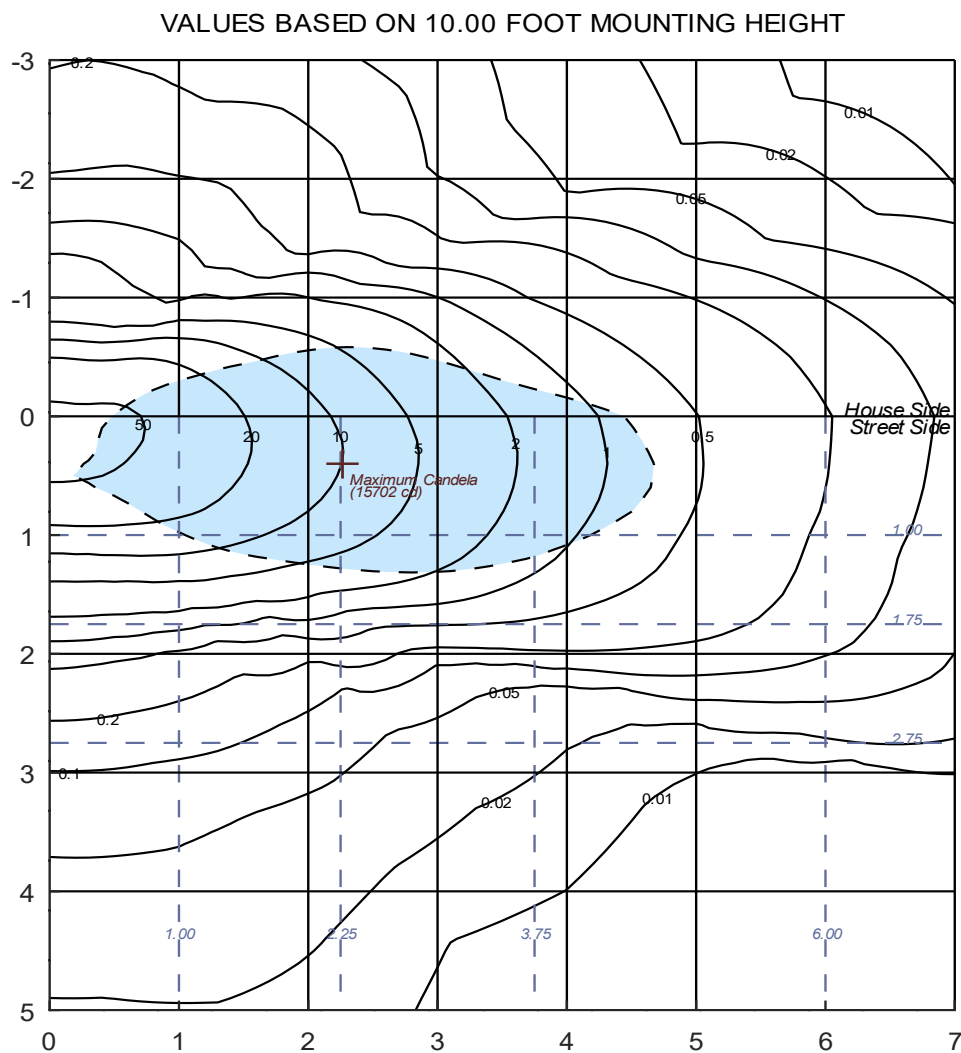


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	17072.5	65.5%	0.0	0.0%	17072.5	65.5%
House Side	9008.1	34.5%	0.0	0.0%	9008.1	34.5%
Total	26080.5	100.0%	0.0	0.0%	26080.5	100.0%



Report of Test LLIA001821-012A

Iso-Illuminance Plot



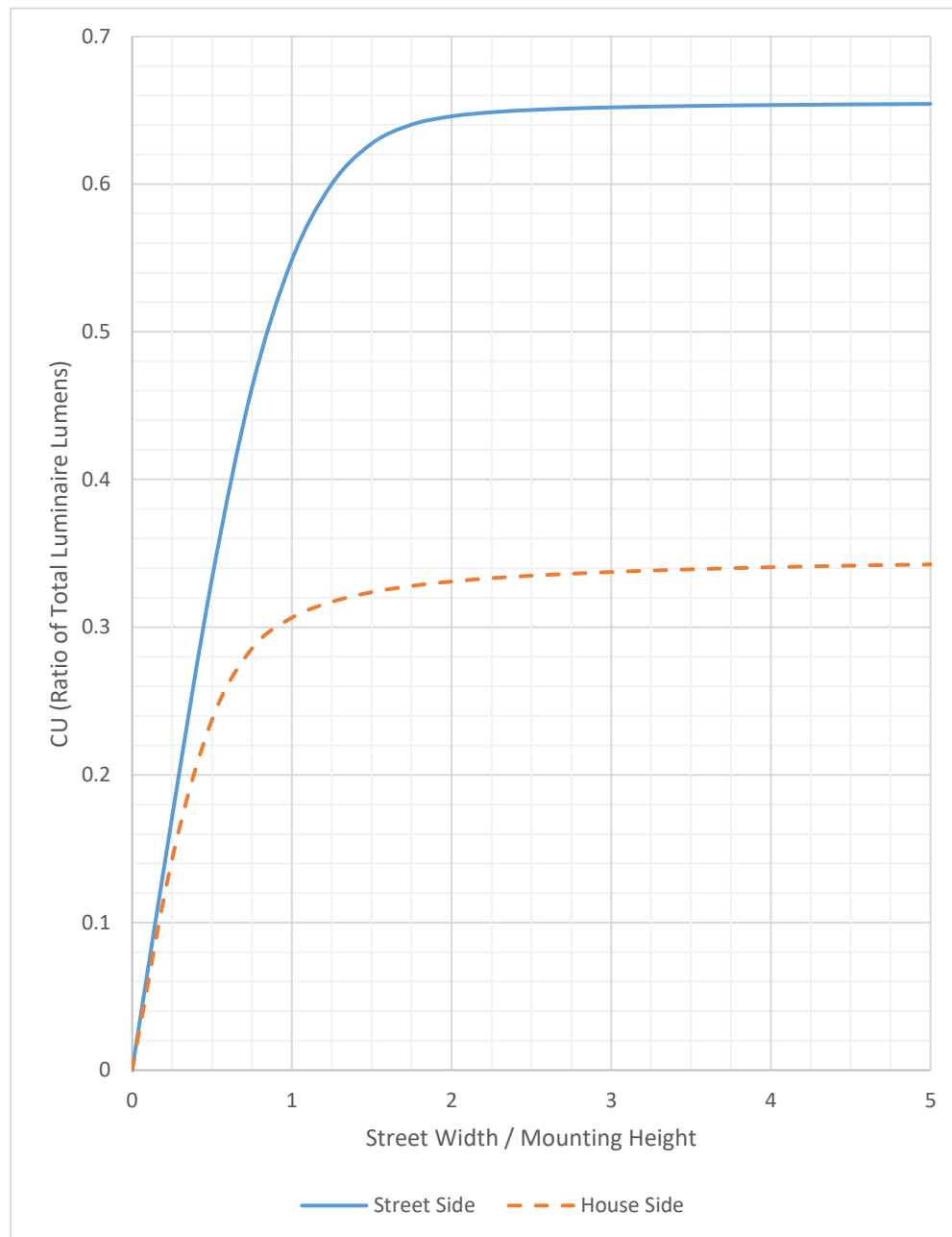
The isofootcandle values shown in the plot above are based on a mounting height of $h = 10.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.



Report of Test

LLIA001821-012A

Coefficients of Utilization Plot

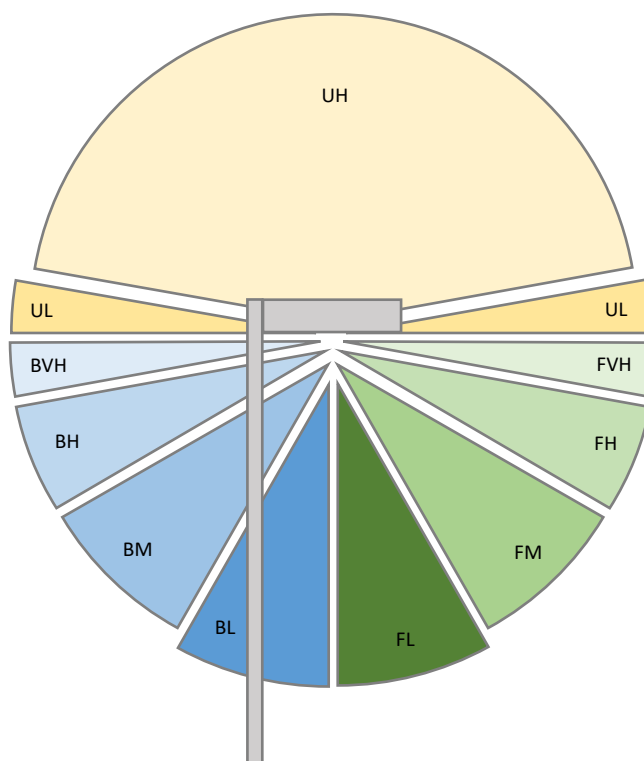




Report of Test

LLIA001821-012A

LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	2035.7 Lm
BM - Back Mid (30°-60°)	4333.2 Lm
BH - Back High (60°-80°)	2477.6 Lm
BVH - Back Very High (80°-90°)	161.6 Lm

Uplight

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

Forward Light


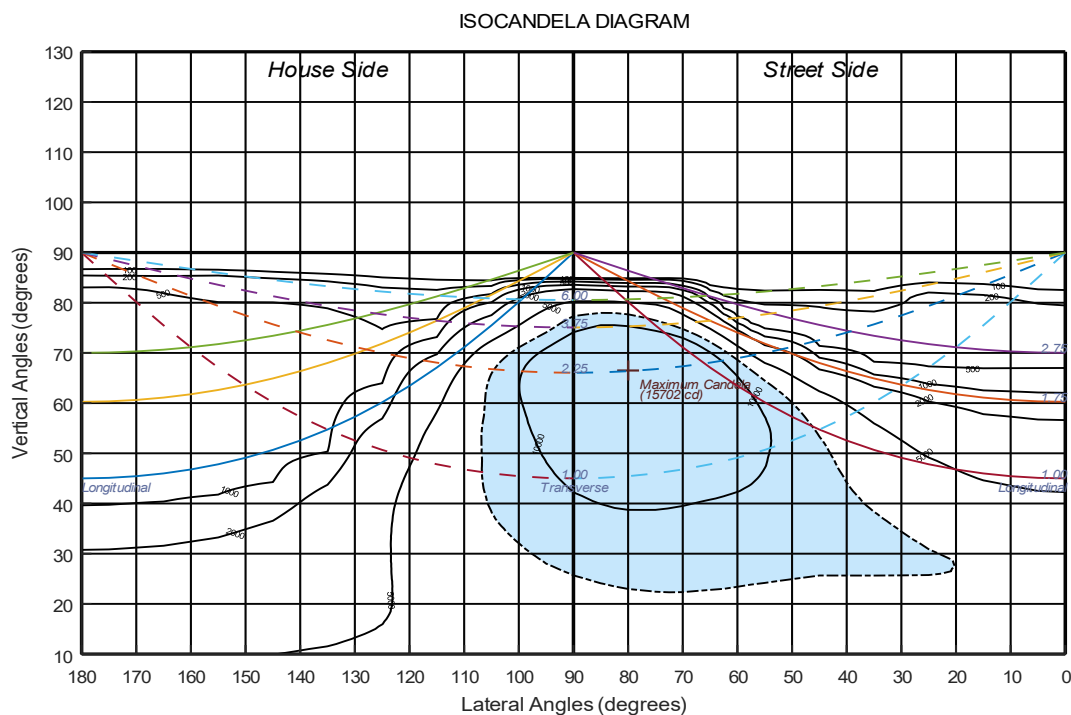
FL - Forward Low (0°-30°)	3118.4 Lm
FM - Forward Mid (30°-60°)	9128.8 Lm
FH - Forward High (60°-80°)	4662.7 Lm
FVH - Forward Very High (80°-90°)	162.7 Lm

BUG Ratings: B3 - U0 - G3



Report of Test
LLIA001821-012A

Iso-Candela Plot



Half-max Candela Contour Line



Report of Test

LLIA001821-012A

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.	0	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052
	2.5	6311	6301	6305	6290	6258	6236	6200	6192	6189	6177	6166	6155	6150	6140	6121
	5	6501	6508	6506	6483	6447	6404	6345	6333	6315	6299	6280	6260	6242	6224	6197
	7.5	6615	6617	6623	6610	6578	6538	6494	6477	6459	6440	6405	6385	6353	6321	6298
	10	6707	6707	6704	6696	6681	6671	6632	6628	6613	6589	6565	6540	6508	6470	6429
	12.5	6783	6782	6790	6790	6787	6809	6811	6811	6797	6772	6764	6742	6712	6681	6636
	15	6877	6889	6893	6901	6921	6969	7012	7018	7014	7009	7013	6994	6973	6943	6905
	17.5	7018	7002	7011	7019	7062	7133	7227	7241	7251	7273	7271	7275	7254	7234	7207
	20	7240	7243	7216	7201	7235	7328	7446	7481	7507	7526	7540	7555	7560	7550	7529
	22.5	7540	7545	7528	7495	7456	7543	7678	7726	7762	7790	7820	7842	7873	7877	7861
	25	7678	7694	7749	7781	7769	7782	7935	7981	8022	8064	8124	8152	8179	8199	8200
	27.5	7611	7624	7758	7936	8056	8069	8194	8241	8296	8359	8410	8473	8508	8533	8543
	30	7388	7411	7619	7904	8248	8389	8459	8517	8579	8644	8706	8782	8846	8871	8889
	32.5	7072	7103	7351	7725	8263	8659	8758	8811	8868	8931	9015	9075	9152	9199	9225
	35	6699	6741	7017	7462	8144	8828	9080	9110	9167	9226	9302	9366	9439	9509	9538
	37.5	6219	6267	6629	7130	7938	8854	9365	9409	9455	9543	9599	9669	9737	9818	9846
	40	5633	5691	6131	6757	7646	8785	9583	9679	9755	9831	9905	9980	10067	10108	10165
	42.5	4923	5002	5558	6347	7336	8665	9751	9913	10020	10126	10219	10291	10367	10437	10480
	45	4305	4358	4892	5892	7038	8542	9883	10103	10262	10404	10525	10620	10699	10782	10817
	47.5	3823	3871	4306	5369	6691	8400	10037	10309	10523	10706	10834	10943	11020	11099	11126
	50	3357	3401	3806	4800	6304	8235	10161	10499	10789	10999	11180	11328	11423	11498	11510
	52.5	2868	2909	3279	4205	5839	7978	10274	10705	11042	11322	11550	11715	11840	11933	11990
	55	2348	2375	2683	3546	5264	7566	10238	10766	11197	11574	11850	12098	12271	12411	12497
	57.5	1833	1849	2065	2808	4510	7010	9972	10630	11197	11689	12075	12420	12684	12917	13064
	60	1378	1390	1553	2083	3524	6207	9556	10350	11084	11723	12274	12771	13174	13486	13706
	62.5	921	932	1007	1359	2358	4908	8814	9848	10798	11661	12412	13068	13610	14096	14440
	65	633	627	617	739	1236	3126	7522	8856	10128	11285	12310	13175	13895	14501	14977
	67.5	471	472	474	491	585	1593	5470	7094	8768	10341	11702	12849	13789	14537	15065
	70	365	366	376	403	418	743	3146	4623	6467	8379	10121	11644	12784	13684	14303
	72.5	290	296	302	339	359	402	1413	2364	3868	5717	7490	9159	10559	11482	12193
	75	283	288	294	275	302	289	482	758	1657	3151	4832	6240	7598	8638	9308
	77.5	274	277	310	254	225	223	295	346	464	1140	2475	3863	5161	6251	7042
	80	184	195	252	238	154	188	187	203	236	333	906	1867	3066	4009	4583
	82.5	101	106	160	172	96	102	97	103	109	128	199	582	1021	1510	1680
	85	38	40	46	47	36	35	35	36	36	38	43	58	71	73	67
	87.5	6	6	6	6	7	11	15	17	18	19	21	22	23	25	26
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Report of Test

LLIA001821-012A

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.	0	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052	6052
	2.5	6121	6109	6097	6080	6071	6029	5974	5928	5872	5824	5789	5765	5747	5741	5728
	5	6180	6166	6145	6119	6077	6016	5905	5799	5699	5597	5515	5461	5420	5392	5396
	7.5	6264	6243	6201	6163	6101	6012	5844	5674	5509	5358	5240	5152	5099	5061	5058
	10	6398	6360	6315	6258	6162	6052	5808	5561	5326	5137	4988	4886	4822	4781	4767
	12.5	6596	6544	6490	6421	6293	6155	5817	5470	5168	4930	4762	4636	4555	4503	4492
	15	6850	6793	6737	6659	6497	6316	5876	5424	5037	4740	4533	4385	4282	4229	4218
	17.5	7166	7096	7029	6947	6773	6550	5995	5423	4949	4575	4311	4121	3996	3932	3926
	20	7483	7426	7362	7275	7065	6815	6159	5478	4894	4419	4083	3850	3702	3633	3619
	22.5	7818	7782	7710	7623	7390	7118	6366	5572	4869	4269	3846	3561	3396	3319	3309
	25	8164	8136	8067	7983	7747	7442	6598	5694	4852	4116	3587	3258	3071	2985	2973
	27.5	8533	8491	8426	8348	8109	7775	6864	5835	4835	3953	3313	2926	2701	2595	2578
	30	8879	8859	8800	8700	8476	8111	7126	5981	4814	3775	3009	2549	2278	2155	2138
	32.5	9204	9194	9136	9045	8822	8424	7377	6128	4787	3564	2654	2129	1837	1699	1678
	35	9527	9521	9469	9383	9150	8718	7597	6254	4743	3309	2257	1700	1424	1323	1311
	37.5	9866	9842	9798	9713	9445	9003	7797	6349	4673	3000	1842	1330	1162	1110	1103
	40	10169	10166	10106	10014	9744	9256	7963	6385	4559	2641	1439	1096	1015	991	990
	42.5	10482	10485	10425	10334	10024	9510	8077	6380	4378	2222	1135	971	950	942	939
	45	10811	10797	10756	10655	10302	9738	8160	6323	4116	1773	962	917	902	887	885
	47.5	11136	11097	11037	10947	10546	9941	8200	6203	3761	1341	902	870	871	917	920
	50	11519	11476	11416	11315	10866	10177	8244	6040	3345	1025	865	841	927	957	953
	52.5	11979	11949	11856	11691	11212	10418	8304	5838	2903	912	838	880	967	984	974
	55	12517	12457	12355	12177	11592	10688	8337	5537	2392	865	829	903	965	955	936
	57.5	13135	13099	12983	12791	12084	10995	8287	5126	1895	821	844	870	836	758	735
	60	13838	13884	13758	13525	12651	11343	8289	4697	1489	800	866	810	751	677	655
	62.5	14641	14716	14612	14292	13242	11673	8247	4225	1165	793	886	782	724	640	614
	65	15299	15459	15356	15004	13673	11800	8009	3611	908	787	882	752	700	591	568
	67.5	15445	15658	15637	15292	13689	11526	7430	2790	746	775	861	704	667	537	522
	70	14600	14762	14755	14465	12810	10556	6397	1904	638	762	816	622	615	545	534
	72.5	12631	12738	12707	12491	11141	8933	4949	1157	559	731	724	568	666	755	753
	75	9912	10297	10440	10409	9421	7259	3342	683	493	664	631	632	872	935	923
	77.5	7518	8036	8291	8328	7710	5793	2010	443	415	562	597	665	747	805	790
	80	4853	5067	5359	5420	5367	4094	1037	309	333	456	504	507	597	691	682
	82.5	1758	1753	1911	2046	2268	1794	331	203	228	325	362	375	461	590	576
	85	65	62	63	67	77	83	72	82	102	149	187	231	224	247	240
	87.5	28	29	30	31	33	35	37	37	37	36	42	50	63	67	67
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Report of Test

LLIA001821-012A

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



Report of Test

LLIA001821-012A

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



Report of Test

LLIA001821-012A

Additional Pictures of Test Subject



Report of Test

LLIA001821-012A

Test Distance 9.5 m
Ambient Temperature 25.4 °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.



Report of Test

LLIA001821-012B

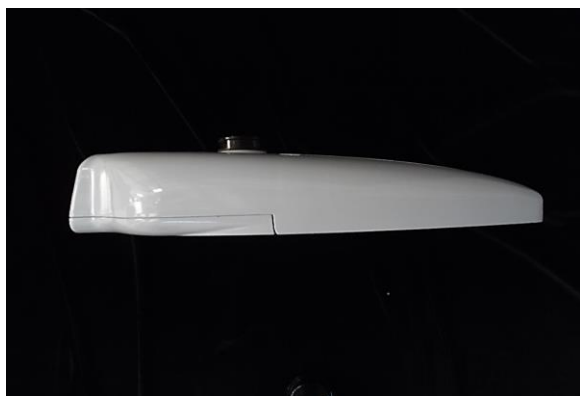
Integrating Sphere Report

Catalog Number: L6-60M-5-X-2ES-J-X-XX-3-XX-X-X-X

Pole/arm mounted, gray painted cast aluminum housing and driver compartment cover, one circuit board, one clear plastic lens with optic below each LED, open bottom.

60 white LEDs

Osram OT180W/UNV/1800C/2DIM/P6/G2 LED driver set at 1400mA, Littlefuse LSP10277SBX3472 suppressor.



Performance Summary

Voltage	120.0 Vac
Current	1.506 A
Power	178.7 W
Frequency	59.99 Hz
Power Factor	0.989
Current THD	5.6 %
Total Luminous Flux	26203.3 lm
Efficacy	146.6 lm/W
Chromaticity (x,y)	(0.4370, 0.4082)
(u',v')	(0.2489, 0.5230)
Duv	0.0016
CCT	3032 K
CRI (Ra)	71
R9	-42
TM-30: Rf	72
TM-30: Rg	93
TM-30: Rcs,h1	-18

Prepared For:

LED Roadway Lighting

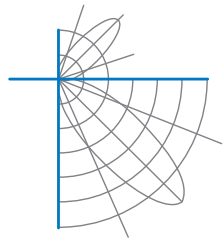
84 Chain Lake Drive

Suite 403

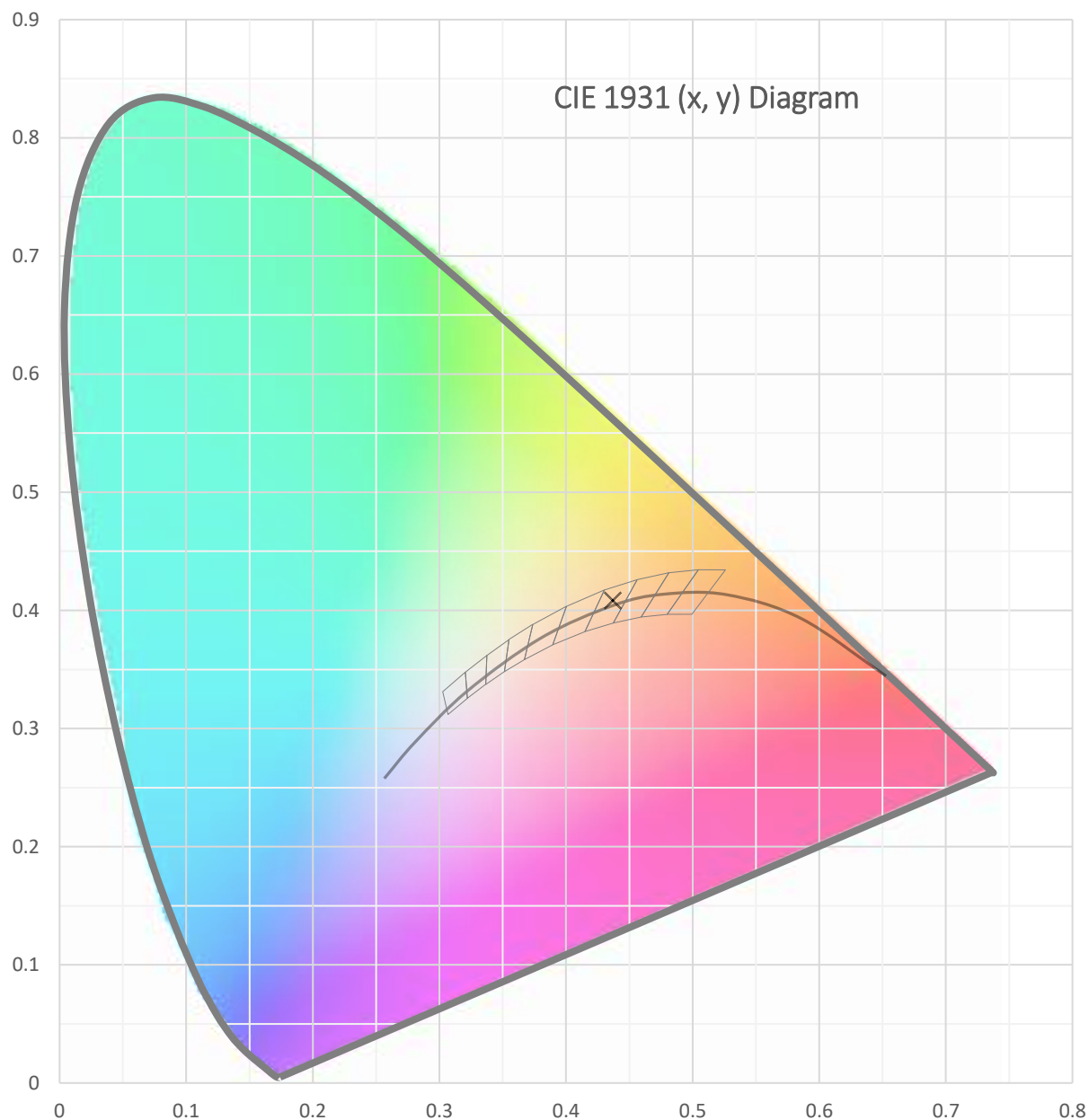
Halifax, Nova Scotia B3S 1A2, Canada

Test date: 08/01/2022

Report date: 08/02/2022

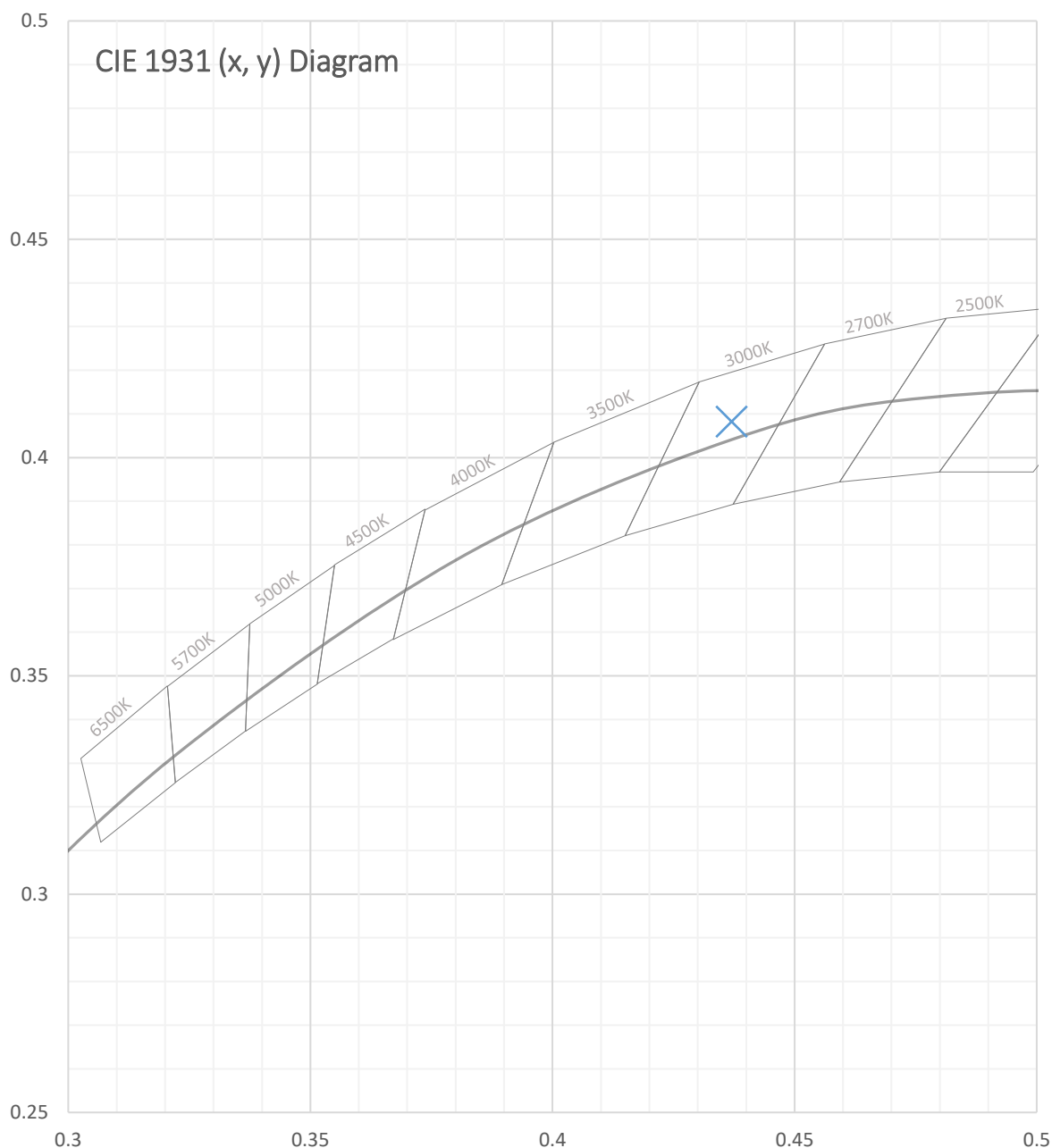


Test Report Number: LLIA001821-012B





Test Report Number: LLIA001821-012B





Test Report Number: LLIA001821-012B

Total Radiant Flux	73.80 W
Total Luminous Flux	26203.3 Lm
Chromaticity CIE 1931 (x, y)	(0.4370, 0.4082)
Chromaticity CIE 1976 (u', v')	(0.2489, 0.5230)
Correlated Color Temperature (CCT)	3032 K
Color Rendering Index (Ra)	71
R1	66
R2	81
R3	95
R4	67
R5	66
R6	75
R7	76
R8	40
R9	-42
R10	59
R11	62
R12	52
R13	69
R14	97
TM-30: Rf	72
TM-30: Rg	93
TM-30: Rcs,h1	-18
Distance from Planckian Locus (Duv)	0.0016
Scotopic/Photopic Ratio $\frac{V_{\lambda}}{V_{\lambda}^{\text{scot}}}$	1.217

Electrical Data

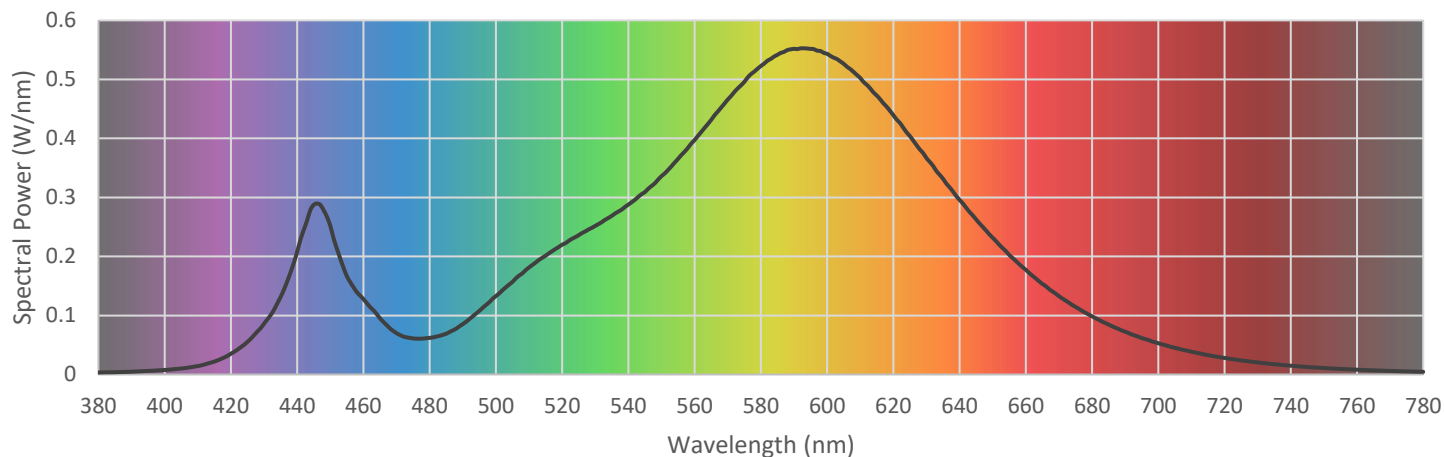
Voltage	120.0 Vac
Current	1.506 A
Power	178.7 W
Frequency	59.99 Hz
Power Factor	0.989
Current THD	5.6 %



Test Report Number: LLIA001821-012B

Summary Spectral Power Distribution (wavelength - nm, spectral power - W/nm)

380	0.003385	480	0.061974	580	0.522630	680	0.098448
385	0.003883	485	0.069094	585	0.541631	685	0.084564
390	0.004688	490	0.085385	590	0.551782	690	0.072407
395	0.006045	495	0.107795	595	0.551701	695	0.061726
400	0.007582	500	0.132798	600	0.543334	700	0.052959
405	0.010088	505	0.156901	605	0.526472	705	0.045133
410	0.014224	510	0.181340	610	0.502436	710	0.038548
415	0.021952	515	0.201247	615	0.472603	715	0.032871
420	0.035194	520	0.219924	620	0.439416	720	0.027982
425	0.055447	525	0.236030	625	0.403974	725	0.023824
430	0.086163	530	0.251807	630	0.366651	730	0.020422
435	0.131484	535	0.268857	635	0.331665	735	0.017378
440	0.208117	540	0.287935	640	0.295759	740	0.014854
445	0.287505	545	0.309122	645	0.262710	745	0.012743
450	0.251719	550	0.336099	650	0.231726	750	0.010941
455	0.166278	555	0.365355	655	0.202499	755	0.009375
460	0.127615	560	0.397271	660	0.177410	760	0.008100
465	0.095123	565	0.431375	665	0.153452	765	0.006956
470	0.069960	570	0.465859	670	0.132742	770	0.005983
475	0.061052	575	0.495759	675	0.114564	775	0.005191
						780	0.004484





Test Report Number: LLIA001821-012B

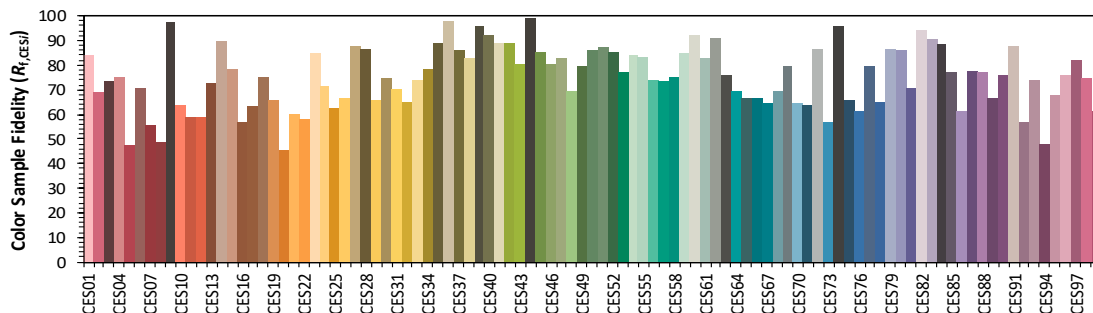
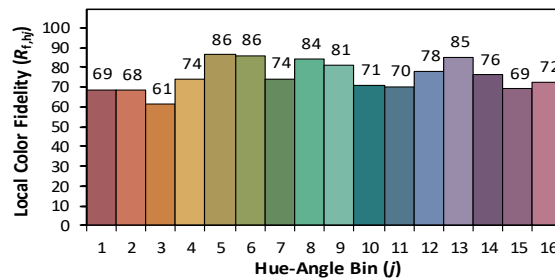
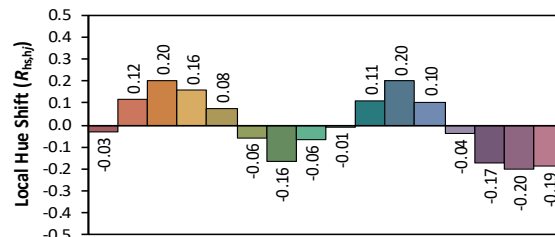
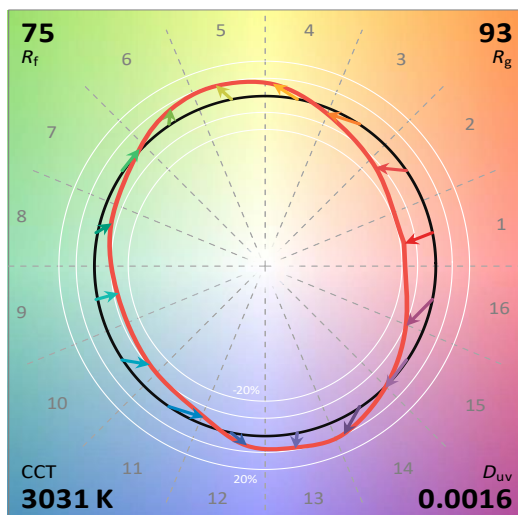
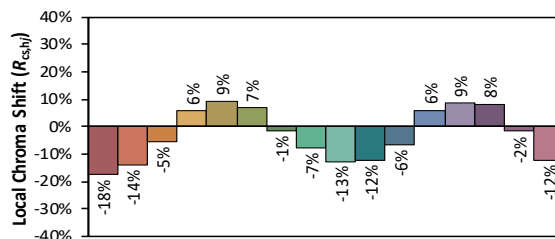
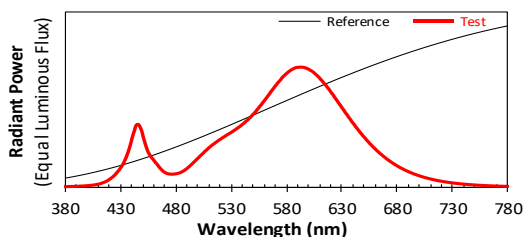
IES TM-30 Details

Source: LLIA001821-012B

Manufacturer: LED Roadway Lighting

Date: 8/2/2022

Model: L6-60M-5-X-2ES-J-X-XX-3-XX-X-X-X



Notes:

x 0.4370
y 0.4081
u' 0.2489
v' 0.5230

CIE 13.3-1995
(CRI)
R_a 71
R_g -43

Test Report Number: LLIA001821-012B

Test Equipment Configuration: LightLab International Allentown 2m Integrating Sphere
Measurements acquired using a Labsphere CDS 2600 spectroradiometer
Testing was performed using 4π geometry

Test Temperature: 24.9 °C

Test Procedure: Tested in accordance with the applicable sections of:
LM-79-19, LM-78-20, LM-58-20, ANSI/ANSI C78.377-2017, TM-30-20

Significance: 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.

Notes: The measurements 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

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.

Sphere Report Template V2-18



Report of Test

LLIA001821-012C

Electrical Test Report

Catalog Number: L6-60M-5-X-2ES-J-X-XX-3-XX-X-X-X

Pole/arm mounted, gray painted cast aluminum housing and driver compartment cover, one circuit board, one clear plastic lens with optic below each LED, open bottom.

60 white LEDs

Osram OT180W/UNV/1800C/2DIM/P6/G2 LED driver set at 1400mA, Littlefuse LSP10277SBX3472 suppressor.



Performance Summary

Voltage	277.0 Vac
Current	0.6509 A
Power	174.6 W
Frequency	60.00 Hz
Power Factor	0.969
Current THD	10.7 %

Ambient Temperature: 25.5 °C

Prepared For:

LED Roadway Lighting

84 Chain Lake Drive

Suite 403

Halifax, Nova Scotia B3S 1A2, Canada

Tested in accordance with the applicable sections of IES LM-79-19. 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. 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. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Test date: 08/01/2022

Report date: 08/02/2022

Electrical Report Template V1-4