LightLab INTERNATIONAL ALLENTOWN LLC

NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA001821-007A

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: L6-16S-5-X-2ES-R-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.
16 white LEDs.
Osram OT100W/UNV/1250C/2DIM/P6 LED driver set at 1000mA, 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	7644.9 Lumens
Input Current	0.4608 A	Total Efficacy	139.6 Lm/W
Input Power	54.77 W		
Frequency	60.00 Hz	Roadway Throw	Short
Power Factor	0.991	Roadway Type	Type II
Current THD	3.7 %	IES BUG Rating	B2 - U0 - G2

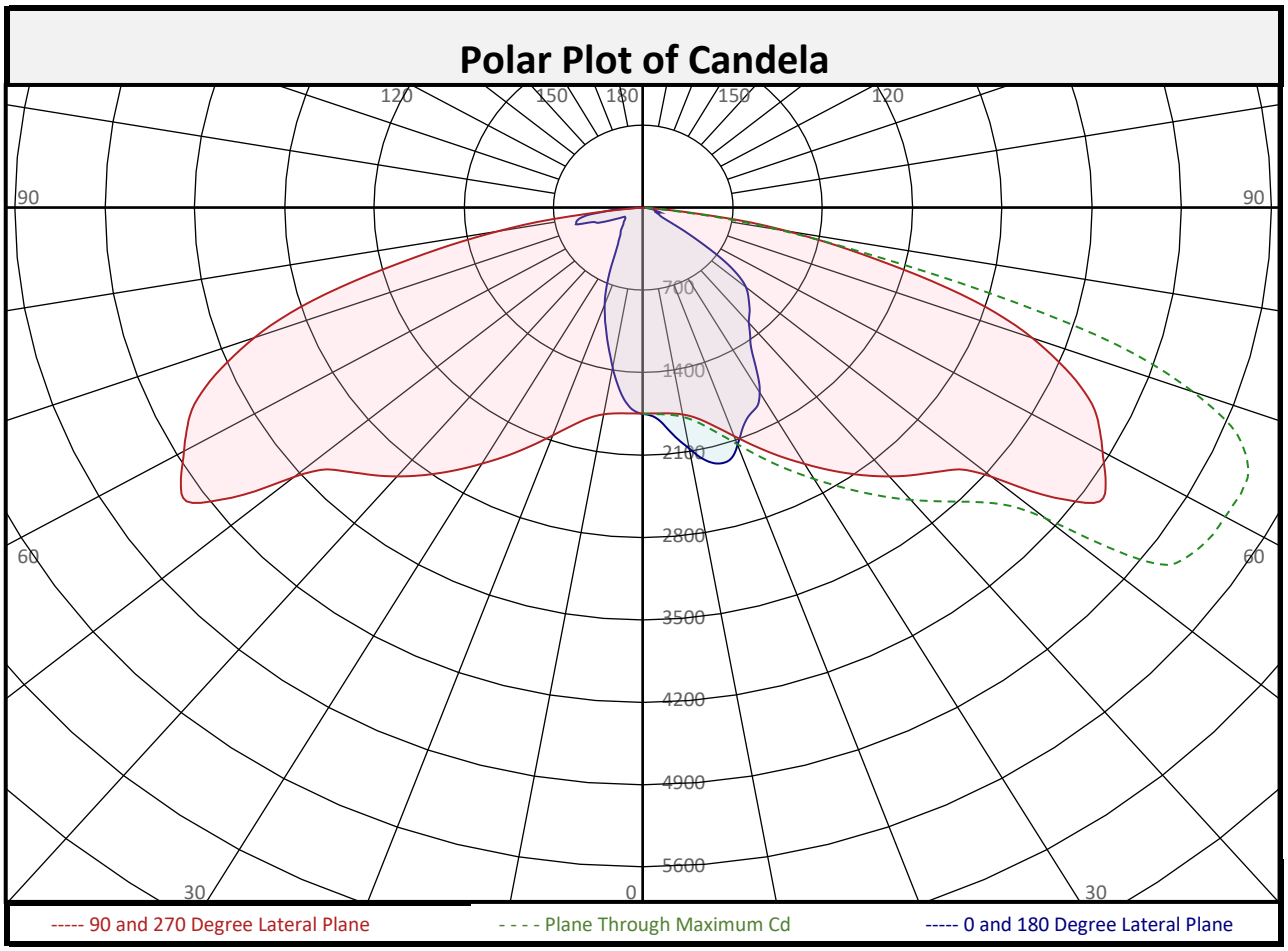
This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 07/27/2022
Report date: 07/29/2022

Signed: Michael L. Grather

Report of Test

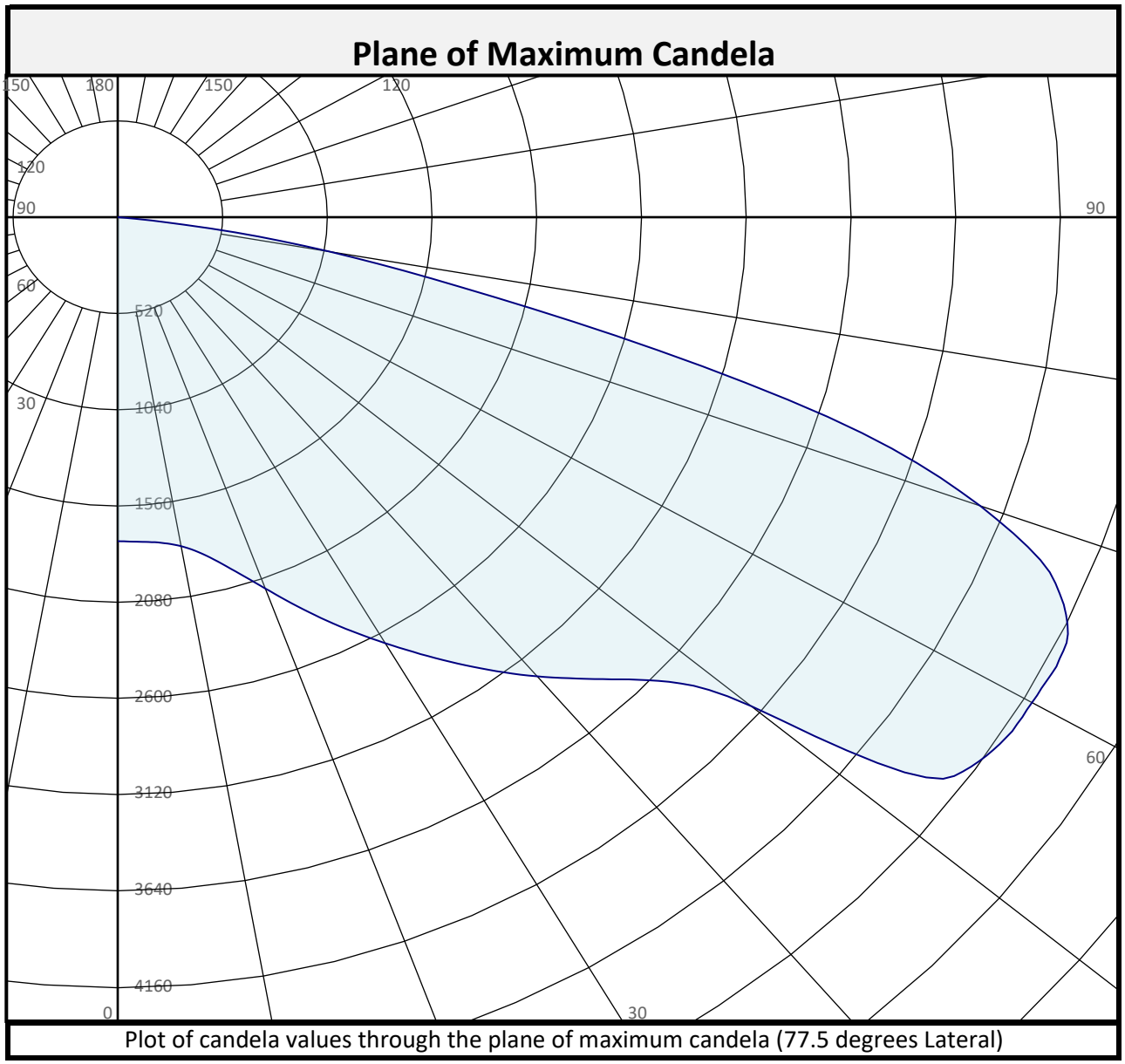
LLIA001821-007A



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	167.1	2.2%	90-100	0.0	0.0%	0-20	668.3	8.7%
10-20	501.2	6.6%	100-110	0.0	0.0%	0-30	1484	19.4%
20-30	816.0	10.7%	110-120	0.0	0.0%	0-40	2569	33.6%
30-40	1085	14.2%	120-130	0.0	0.0%	0-60	5588	73.1%
40-50	1354	17.7%	130-140	0.0	0.0%	0-80	7553	98.8%
50-60	1665	21.8%	140-150	0.0	0.0%	10-90	7478	97.8%
60-70	1298	17.0%	150-160	0.0	0.0%	20-50	3255	42.6%
70-80	666.7	8.7%	160-170	0.0	0.0%	40-90	5076	66.4%
80-90	91.8	1.2%	170-180	0.0	0.0%	60-90	2057	26.9%
0-90	7645	100.0%	90-180	0.0	0.0%	0-180	7645	100.0%

Report of Test

LLIA001821-007A

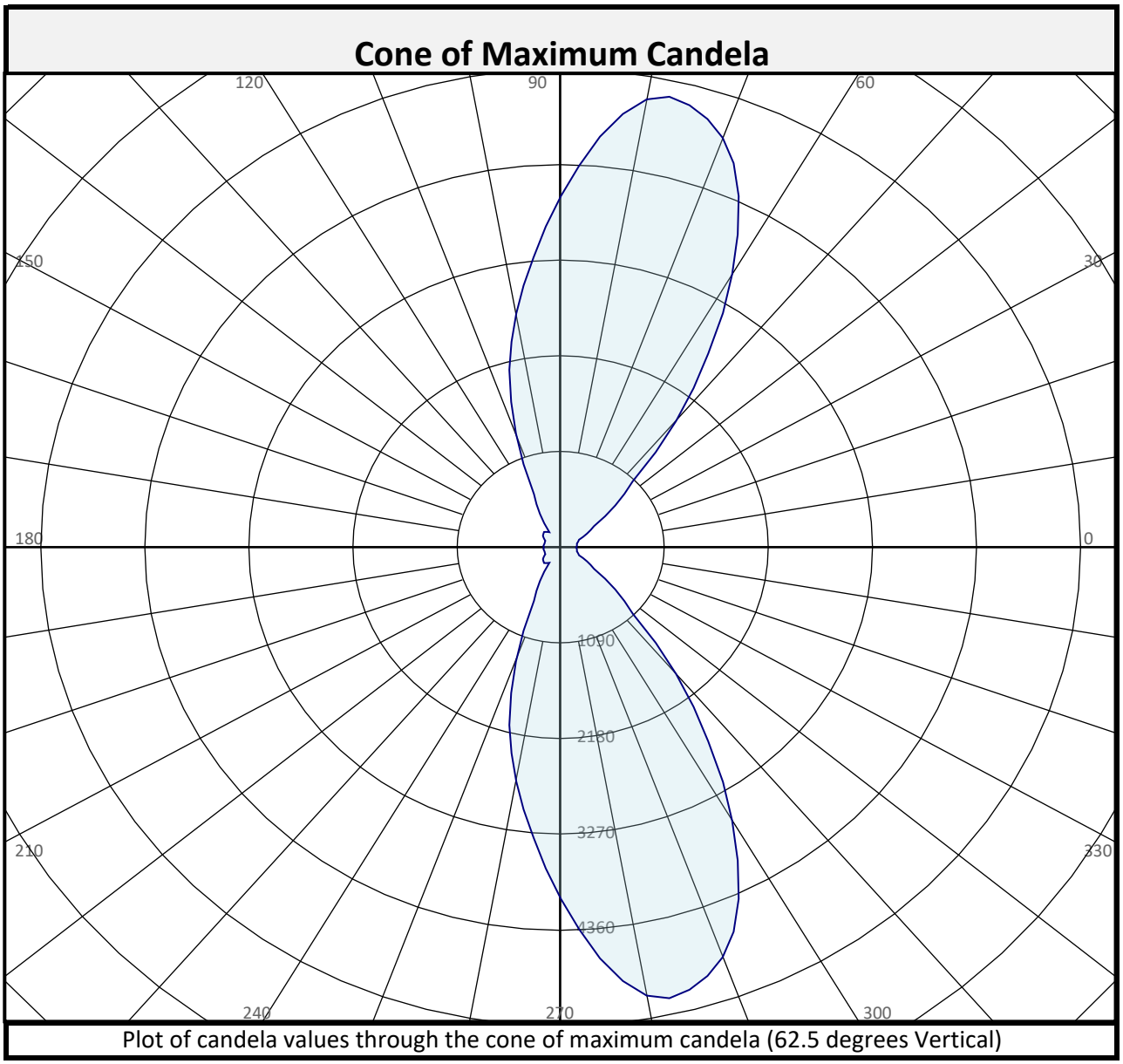


Plot of candela values through the plane of maximum candela (77.5 degrees Lateral)

Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	5222.2	68.3%	0.0	0.0%	5222.2	68.3%
House Side	2422.7	31.7%	0.0	0.0%	2422.7	31.7%
Total	7644.9	100.0%	0.0	0.0%	7644.9	100.0%

Report of Test

LLIA001821-007A



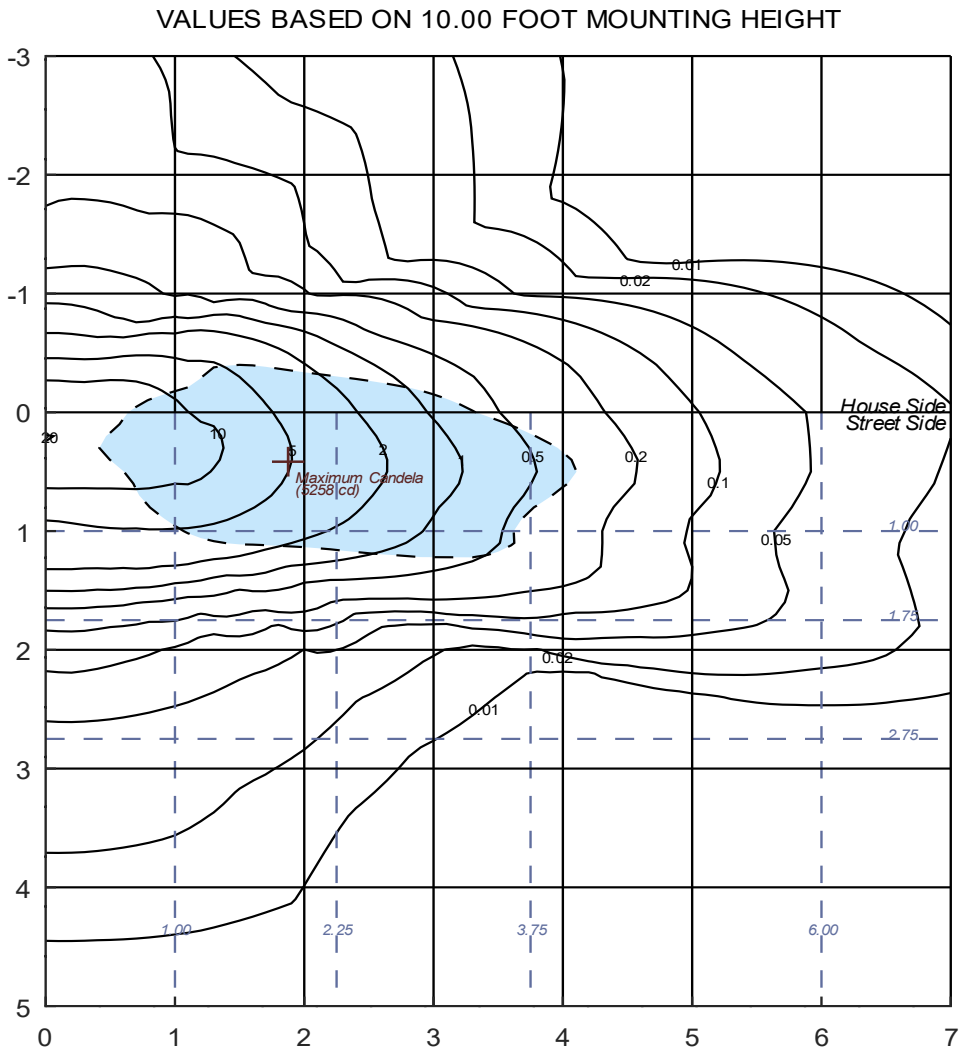
Plot of candela values through the cone of maximum candela (62.5 degrees Vertical)

Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	5222.2	68.3%	0.0	0.0%	5222.2	68.3%
House Side	2422.7	31.7%	0.0	0.0%	2422.7	31.7%
Total	7644.9	100.0%	0.0	0.0%	7644.9	100.0%

Report of Test

LLIA001821-007A

Iso-Illuminance Plot

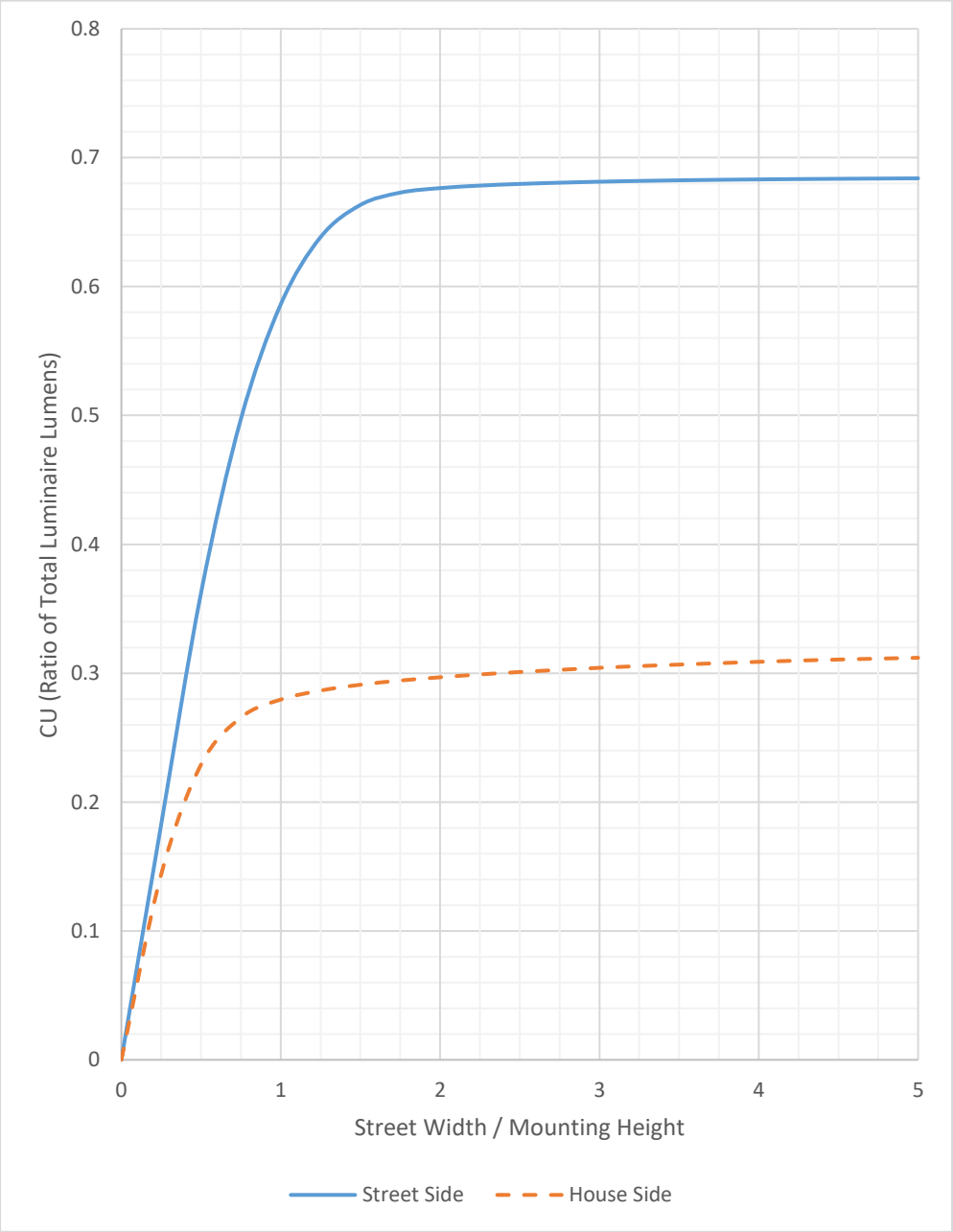


The isofootcandle values shown in the plot above are based on a mounting height of h = 10.0 feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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

Report of Test

LLIA001821-007A

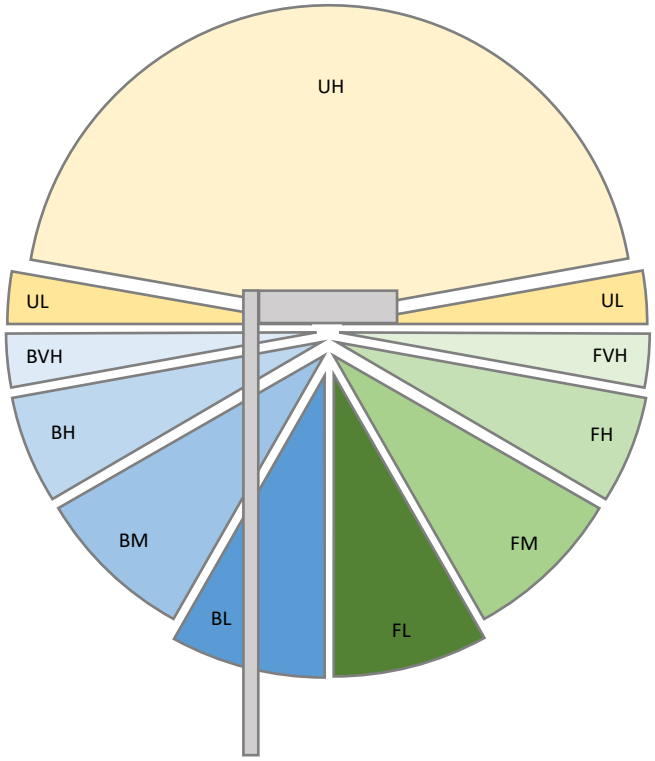
Coefficients of Utilization Plot



Report of Test

LLIA001821-007A

LCS Tables and Bug Classification



Back Light	
BL - Back Low (0°-30°)	563.2 Lm
BM - Back Mid (30°-60°)	1204.1 Lm
BH - Back High (60°-80°)	603.5 Lm
BVH - Back Very High (80°-90°)	51.9 Lm

Forward Light	
FL - Forward Low (0°-30°)	921.1 Lm
FM - Forward Mid (30°-60°)	2899.9 Lm
FH - Forward High (60°-80°)	1361.3 Lm
FVH - Forward Very High (80°-90°)	39.9 Lm

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

BUG Ratings: B2 - U0 - G2

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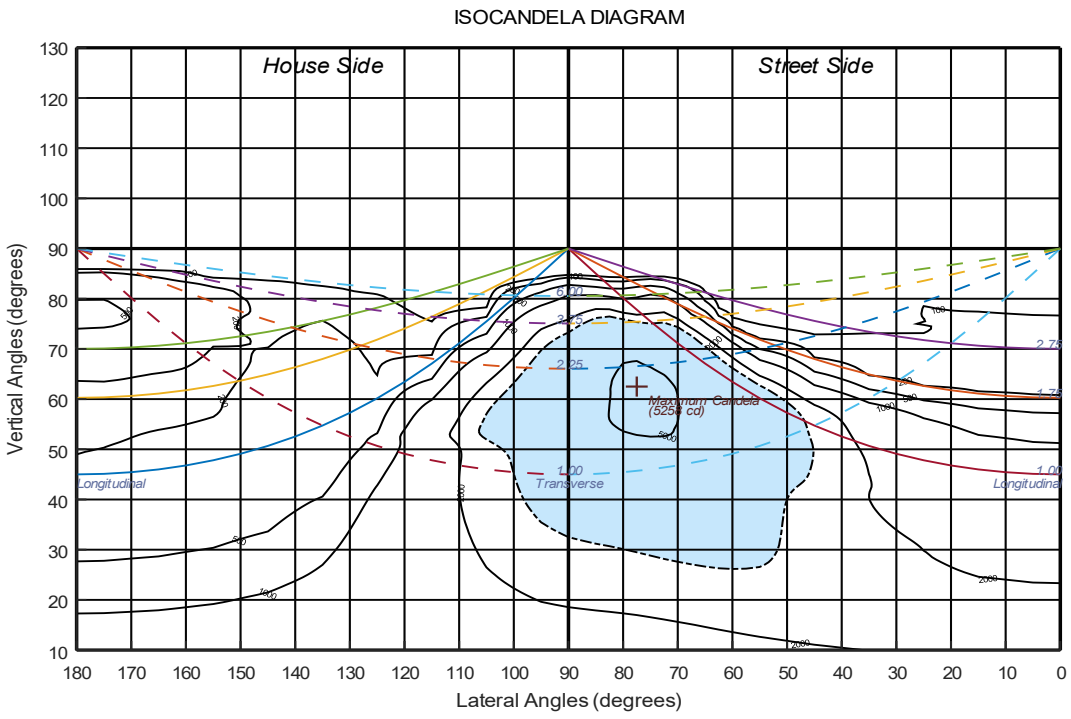
LLIA001821-007A

Iso-Candela Plot



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LLIA001821-007A

Luminous Intensity (Candela) Table

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	Lateral (C-Plane) Angles														
	0	5	15	25	35	45	55	57.5	60	62.5	65	67.5	70	72.5	75
0	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
2.5	1771	1771	1773	1770	1766	1765	1761	1760	1759	1759	1759	1757	1757	1757	1756
5	1844	1844	1840	1827	1813	1799	1783	1780	1777	1774	1772	1769	1769	1767	1764
7.5	1964	1963	1954	1933	1905	1868	1829	1819	1811	1804	1798	1792	1788	1784	1780
10	2074	2072	2061	2036	2005	1960	1903	1886	1871	1858	1844	1834	1826	1818	1810
12.5	2186	2183	2173	2143	2103	2055	1995	1977	1958	1939	1917	1900	1886	1874	1862
15	2249	2246	2245	2231	2208	2159	2096	2078	2060	2039	2016	1994	1974	1956	1940
17.5	2248	2248	2261	2275	2285	2273	2211	2194	2179	2158	2135	2111	2088	2063	2039
20	2154	2159	2199	2264	2330	2367	2342	2326	2307	2287	2265	2241	2215	2187	2157
22.5	2031	2037	2080	2179	2326	2440	2467	2460	2446	2425	2402	2379	2351	2322	2288
25	1953	1955	1989	2086	2267	2475	2574	2578	2575	2563	2540	2516	2488	2458	2424
27.5	1915	1917	1946	2026	2200	2469	2660	2678	2687	2687	2676	2652	2624	2594	2558
30	1823	1831	1895	1997	2156	2440	2721	2760	2788	2803	2802	2789	2763	2731	2694
32.5	1660	1673	1771	1938	2134	2416	2761	2828	2877	2907	2922	2919	2904	2874	2838
35	1482	1499	1612	1828	2106	2399	2791	2881	2957	3010	3037	3047	3040	3019	2984
37.5	1376	1390	1493	1709	2052	2395	2815	2926	3024	3101	3147	3171	3176	3163	3132
40	1288	1302	1422	1637	2003	2410	2848	2968	3083	3179	3247	3287	3302	3300	3276
42.5	1231	1247	1373	1631	2018	2489	2925	3040	3156	3262	3344	3403	3431	3434	3416
45	1176	1195	1333	1598	2000	2573	3097	3208	3316	3408	3485	3542	3573	3579	3565
47.5	1117	1134	1265	1544	1960	2605	3240	3370	3492	3603	3694	3760	3790	3786	3762
50	1050	1063	1165	1429	1874	2613	3467	3635	3790	3929	4048	4139	4185	4187	4161
52.5	931	943	1024	1280	1753	2542	3600	3862	4116	4356	4583	4773	4912	4989	4996
55	732	748	844	1111	1614	2459	3547	3823	4102	4362	4600	4819	4993	5110	5168
57.5	471	483	575	836	1331	2244	3518	3815	4105	4375	4627	4846	5018	5142	5220
60	243	252	309	465	854	1719	3279	3641	3985	4312	4606	4835	5006	5130	5218
62.5	158	167	173	209	423	1065	2696	3166	3596	4020	4416	4738	4965	5117	5215
65	141	147	143	144	183	573	1874	2458	2973	3471	3966	4397	4738	4984	5140
67.5	119	122	125	128	131	255	1078	1633	2246	2826	3396	3878	4257	4574	4841
70	103	105	108	115	119	144	493	835	1450	2115	2781	3353	3716	3950	4243
72.5	139	136	112	103	104	105	168	277	609	1265	1929	2679	3246	3411	3511
75	113	113	113	102	88	78	99	108	154	511	1072	1660	2386	2713	2647
77.5	93	95	100	101	64	66	72	77	81	124	501	847	1477	1938	1864
80	57	58	69	83	44	54	46	48	50	63	170	426	726	1169	1243
82.5	28	28	30	39	26	27	25	26	26	30	65	152	281	448	526
85	15	15	15	14	13	12	10	10	10	10	14	22	31	41	43
87.5	1	0	0	0	0	1	1	1	1	2	2	2	2	2	3
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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														
	77.5	80	82.5	85	90	95	105	115	125	135	145	155	165	175	180
0	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
2.5	1755	1755	1753	1752	1748	1748	1746	1744	1739	1735	1731	1728	1722	1719	1719
5	1762	1761	1760	1757	1752	1749	1742	1731	1714	1696	1677	1661	1647	1640	1640
7.5	1777	1775	1772	1769	1762	1755	1738	1712	1672	1632	1591	1554	1528	1515	1513
10	1805	1801	1796	1790	1782	1770	1739	1684	1616	1545	1481	1429	1395	1373	1371
12.5	1854	1845	1839	1833	1820	1801	1747	1658	1550	1452	1363	1296	1254	1233	1231
15	1927	1915	1906	1899	1880	1854	1768	1633	1484	1353	1251	1179	1131	1107	1104
17.5	2022	2007	1995	1985	1962	1929	1804	1620	1419	1264	1148	1067	1019	993	989
20	2133	2115	2099	2086	2059	2014	1848	1617	1370	1183	1055	965	910	880	877
22.5	2258	2234	2215	2199	2167	2109	1903	1619	1334	1114	966	865	798	761	756
25	2390	2360	2337	2319	2279	2209	1962	1627	1306	1047	875	748	672	633	628
27.5	2522	2490	2462	2442	2394	2311	2023	1642	1284	987	769	628	552	512	507
30	2658	2623	2592	2568	2510	2410	2080	1656	1263	915	656	514	451	422	418
32.5	2799	2761	2726	2697	2629	2511	2137	1668	1242	830	544	429	383	362	359
35	2944	2903	2863	2830	2749	2610	2193	1680	1209	735	454	368	341	323	322
37.5	3092	3051	3004	2963	2865	2707	2238	1697	1162	630	382	323	300	290	288
40	3238	3196	3145	3096	2978	2796	2273	1707	1097	525	325	286	276	270	270
42.5	3381	3339	3284	3227	3082	2871	2297	1704	1013	416	280	263	259	251	250
45	3532	3486	3424	3353	3181	2941	2313	1682	899	327	256	247	238	228	225
47.5	3716	3659	3583	3497	3291	3012	2327	1631	762	263	241	236	227	211	206
50	4111	4035	3937	3828	3560	3209	2393	1567	626	239	235	229	219	201	196
52.5	4928	4790	4615	4431	4045	3606	2706	1642	534	237	237	220	209	189	182
55	5176	5107	4966	4782	4346	3819	2751	1443	423	238	235	209	190	174	169
57.5	5233	5165	5008	4803	4273	3675	2602	1242	333	242	236	195	178	169	161
60	5245	5171	4991	4744	4134	3498	2392	985	255	246	237	190	186	179	161
62.5	5258	5183	4980	4697	4004	3314	2094	671	213	251	231	181	178	185	178
65	5207	5133	4903	4589	3831	3131	1735	410	199	250	220	176	196	225	226
67.5	5013	4975	4731	4378	3557	2899	1316	248	190	248	211	175	255	293	297
70	4561	4675	4480	4099	3224	2595	888	169	180	241	201	195	320	370	379
72.5	3877	4148	4056	3654	2794	2249	557	134	166	225	191	214	358	400	408
75	2781	3099	3261	3011	2215	1786	311	105	149	206	178	218	416	538	546
77.5	1748	1875	2172	2163	1638	1252	131	79	132	179	167	269	443	533	534
80	1066	1000	1145	1244	1128	715	61	58	111	140	150	265	403	495	494
82.5	462	376	378	458	573	284	31	41	70	101	128	193	314	387	379
85	38	32	34	44	59	33	11	17	26	33	42	71	151	227	217
87.5	3	3	3	3	3	4	4	5	5	6	5	5	6	7	7
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	5	15	25	35	45	55	57.5	60	62.5	65	67.5	70	72.5	75
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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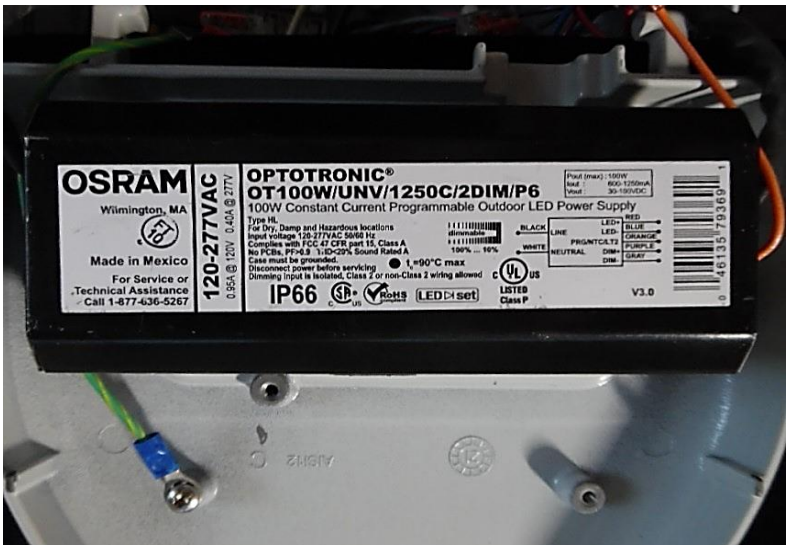
Luminous Intensity (Candela) Table

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	Lateral (C-Plane) Angles														
	77.5	80	82.5	85	90	95	105	115	125	135	145	155	165	175	180
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

LLIA001821-007A

Additional Pictures of Test Subject



Report of Test

LLIA001821-007A

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 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.

LightLab INTERNATIONAL ALLENTOWN LLC

NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA001821-007B

Integrating Sphere Report

Catalog Number: L6-16S-5-X-2ES-R-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.

16 white LEDs.

Osram OT100W/UNV/1250C/2DIM/P6 LED driver set at 1000mA, Littlefuse LSP10277SBX3472 suppressor.

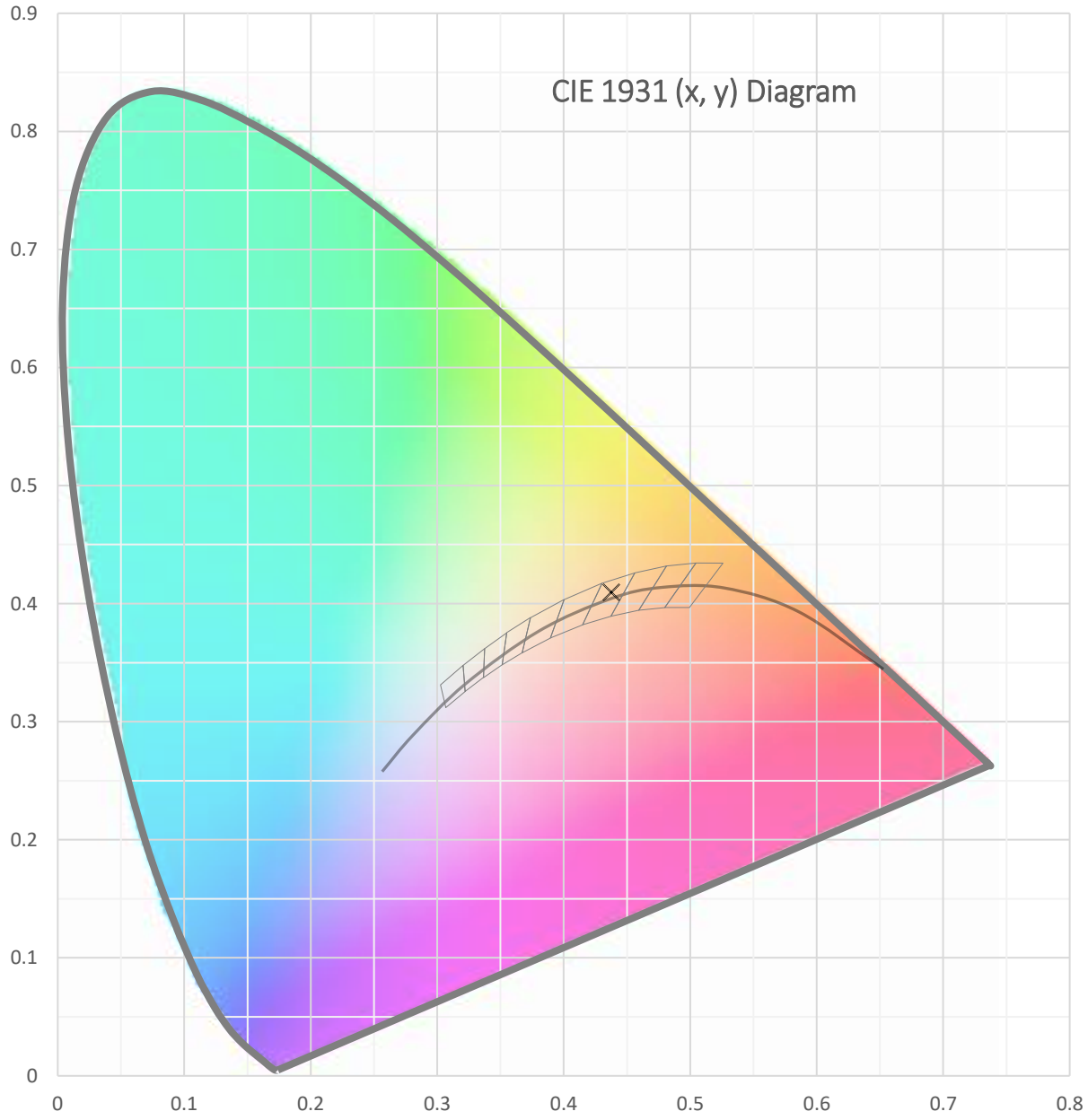
Performance Summary

Voltage	120.0	Vac
Current	0.4597	A
Power	54.53	W
Frequency	59.99	Hz
Power Factor	0.988	
Current THD	3.6	%
Total Luminous Flux	7615.5	lm
Efficacy	139.7	lm/W
Chromaticity (x,y)	(0.4376, 0.4096)	
(u',v')	(0.2487, 0.5236)	
Duv	0.0021	
CCT	3033	K
CRI (Ra)	71	
R9	-44	
TM-30: Rf	72	
TM-30: Rg	93	
TM-30: Rcs,h1	-18	

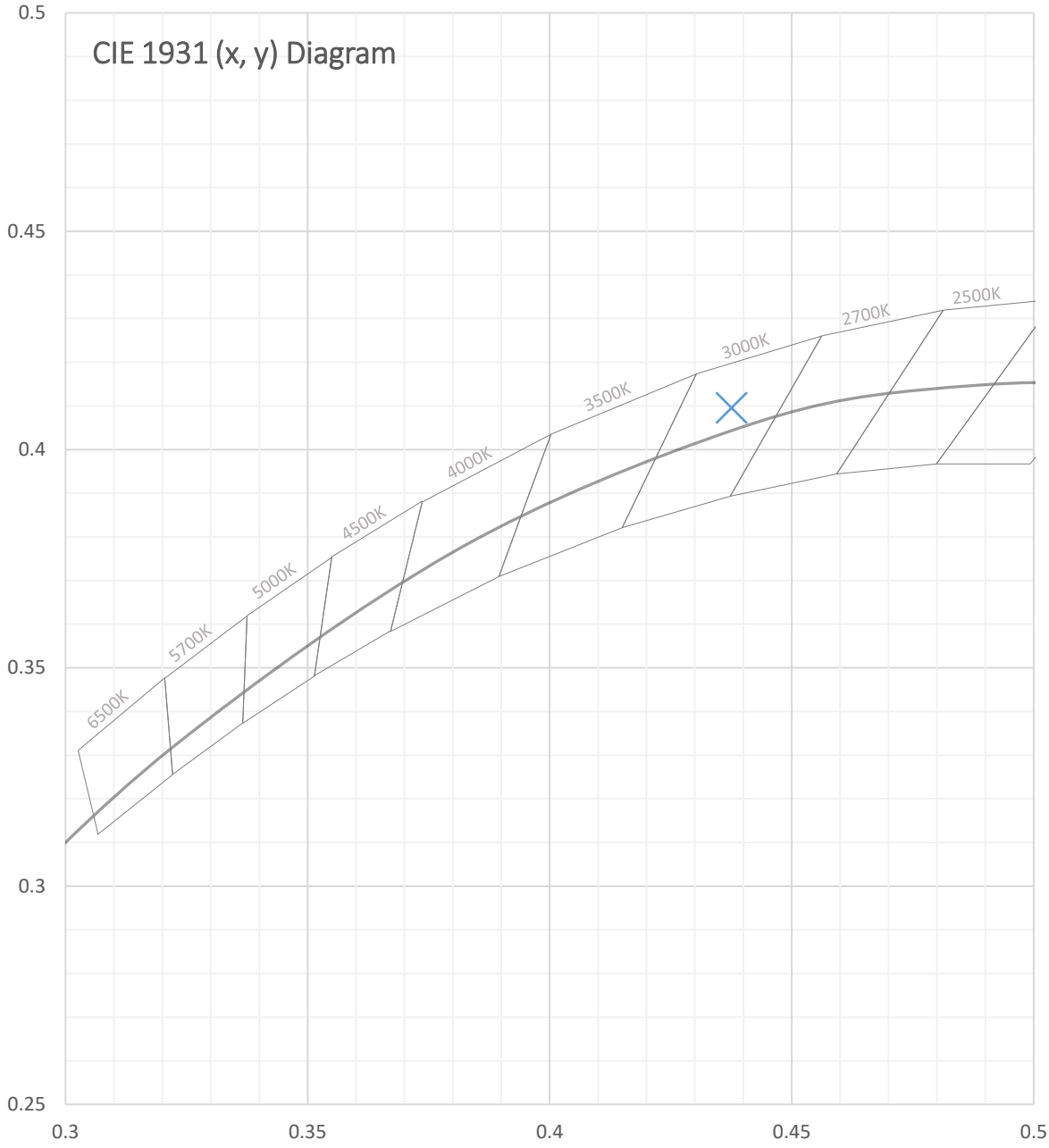
Prepared For:
LED Roadway Lighting
84 Chain Lake Drive
Suite 403
Halifax, Nova Scotia B3S 1A2, Canada

Test date: 07/28/2022
Report date: 07/29/2022

Test Report Number: LLIA001821-007B



Test Report Number: LLIA001821-007B



Test Report Number: LLIA001821-007B

Total Radiant Flux	21.35	W
Total Luminous Flux	7615.5	Lm
Chromaticity CIE 1931 (x, y)	(0.4376, 0.4096)	
Chromaticity CIE 1976 (u', v')	(0.2487, 0.5236)	
Correlated Color Temperature (CCT)	3033	K
Color Rendering Index (Ra)	71	
R1	66	
R2	81	
R3	95	
R4	67	
R5	66	
R6	75	
R7	76	
R8	40	
R9	-44	
R10	58	
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)	0.0021	
Scotopic/Photopic Ratio ǂ	1.213	

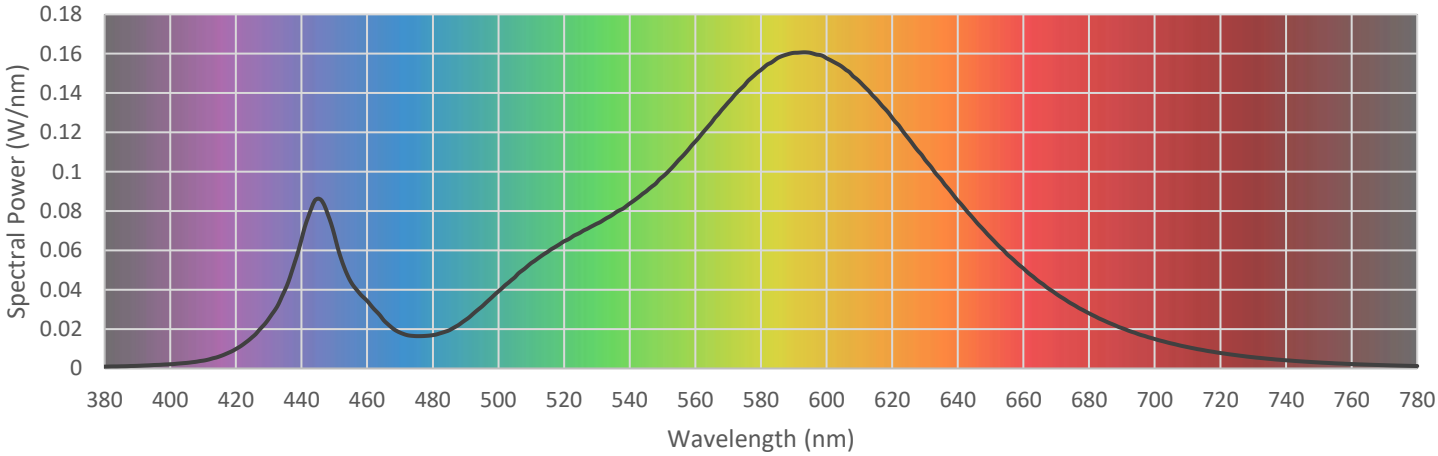
Electrical Data

Voltage	120.0	Vac
Current	0.4597	A
Power	54.53	W
Frequency	59.99	Hz
Power Factor	0.988	
Current THD	3.6	%

Test Report Number: LLIA001821-007B

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

380	0.000958	480	0.016950	580	0.151753	680	0.028021
385	0.001110	485	0.019413	585	0.157720	685	0.023987
390	0.001340	490	0.024679	590	0.160443	690	0.020520
395	0.001751	495	0.031520	595	0.160462	695	0.017465
400	0.002159	500	0.039193	600	0.157687	700	0.014978
405	0.002825	505	0.046348	605	0.153023	705	0.012745
410	0.003967	510	0.053589	610	0.145924	710	0.010874
415	0.006122	515	0.059258	615	0.137211	715	0.009267
420	0.009907	520	0.064662	620	0.127408	720	0.007868
425	0.015957	525	0.069119	625	0.116864	725	0.006717
430	0.025227	530	0.073602	630	0.106094	730	0.005713
435	0.040064	535	0.078391	635	0.095853	735	0.004869
440	0.065760	540	0.083838	640	0.085312	740	0.004161
445	0.086299	545	0.089988	645	0.075710	745	0.003561
450	0.067911	550	0.097399	650	0.066591	750	0.003050
455	0.044092	555	0.106051	655	0.058087	755	0.002604
460	0.034365	560	0.115348	660	0.050840	760	0.002250
465	0.024562	565	0.125144	665	0.043879	765	0.001931
470	0.018244	570	0.135170	670	0.037897	770	0.001670
475	0.016437	575	0.143988	675	0.032622	775	0.001434
						780	0.001238

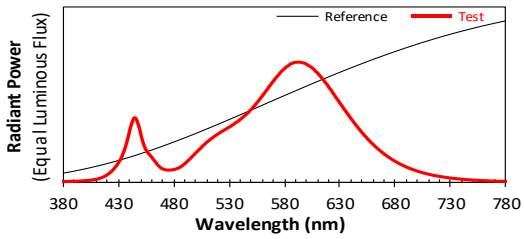


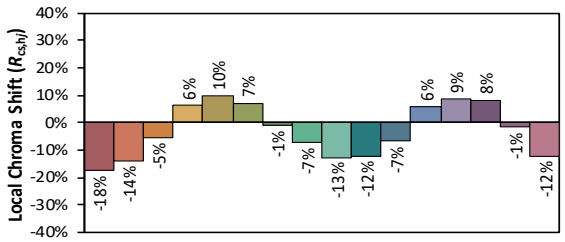
Test Report Number: LLIA001821-007B

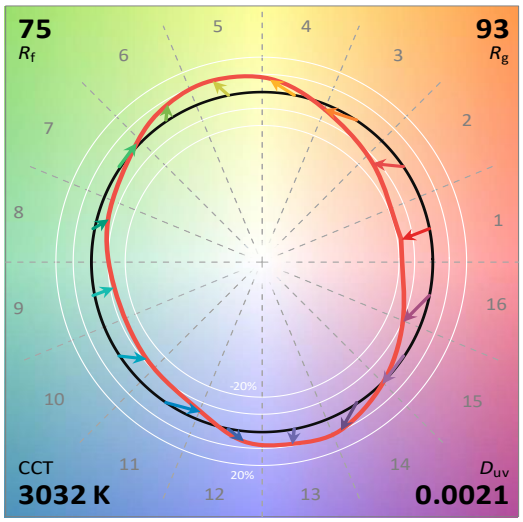
IES TM-30 Details

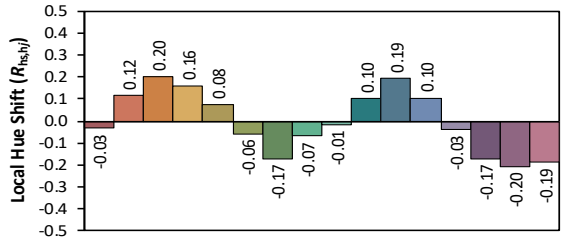
Source: LLIA001821-007B **Manufacturer:** LED Roadway Lighting

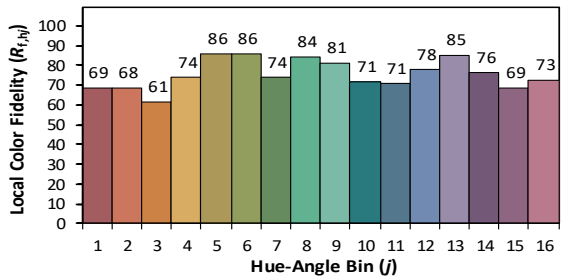
Date: 7/29/2022 **Model:** L6-16S-5-X-2ES-R-X-XX-3-XX-X-X-X

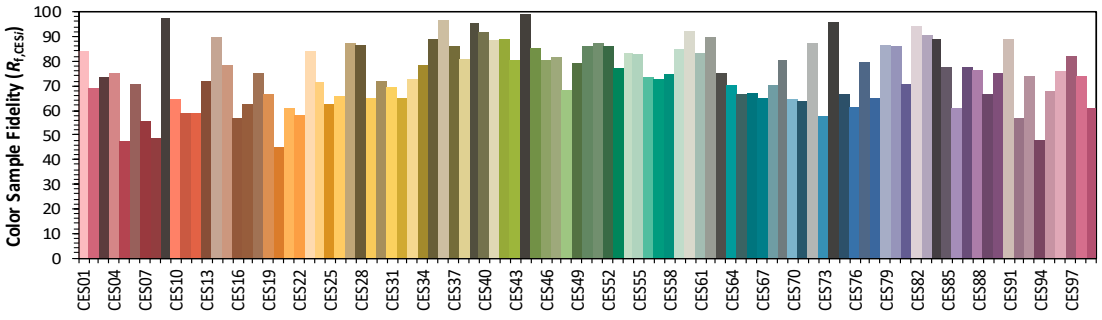












Notes:

x	0.4376
y	0.4095
u'	0.2487
v'	0.5236

CIE 13.3-1995 (CRI)

R_a	71
R_9	-44

Test Report Number: LLIA001821-007B

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:	25.6 °C
Test Procedure:	Tested in accordance with the applicable sections of: LM-79-19, LM-78-20, LM-58-20, ANSI_ANSLG 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.

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USA east coast LightLab Int'l Allentown LLC, 905 Harrison Street, Suite 135, Allentown, PA 18103, Ph: +1 484-273-0705, www.lightlaballentown.com (issuing laboratory)

Australasia & S.E. Asia LightLab International, 50 Redcliffe Gardens Drive, Clontarf, Queensland, 4019, Australia, Ph : +61 7 3283 7862, Fx : +61 7 3283 8751, www.lightlabint.com

LightLab INTERNATIONAL ALLENTOWN LLC

NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA001821-007C

Electrical Test Report

Catalog Number: L6-16S-5-X-2ES-R-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.

16 white LEDs.

Osram OT100W/UNV/1250C/2DIM/P6 LED driver set at 1000mA, Littlefuse LSP10277SBX3472 suppressor.

Performance Summary

Voltage	277.0	Vac
Current	0.2143	A
Power	54.44	W
Frequency	60.00	Hz
Power Factor	0.917	
Current THD	7.6	%
Ambient Temperature:	24.9	°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: 07/28/2020
Report date: 07/29/2022

Electrical Report Template V1-4