

Report of Test

LLIA001878-002A

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: L6 16S 5 X G2S 4 X XX 3 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, clear glass enclosure.

16 white LEDs.

Osram OT100W/UNV/1250C/2DIM/P6 LED driver set at 900mA, Littlefuse LSP10277SBX3472 suppressor.

Client states LED string current at 450mA



Prepared For:

LED Roadway Lighting

84 Chain Lake Drive

Suite 403

Halifax, Nova Scotia B3S 1A2, Canada

Performance Summary

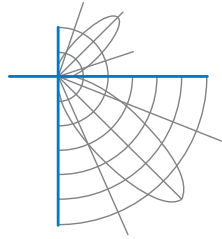
Input Voltage	120.0 Vac	Luminous Flux	6416.1 Lumens
Input Current	0.4113 A	Total Efficacy	131.4 Lm/W
Input Power	48.83 W		
Frequency	60.00 Hz	Roadway Throw	Short
Power Factor	0.990	Roadway Type	Type II
Current THD	3.6 %	IES BUG Rating	B2 - U0 - G1

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

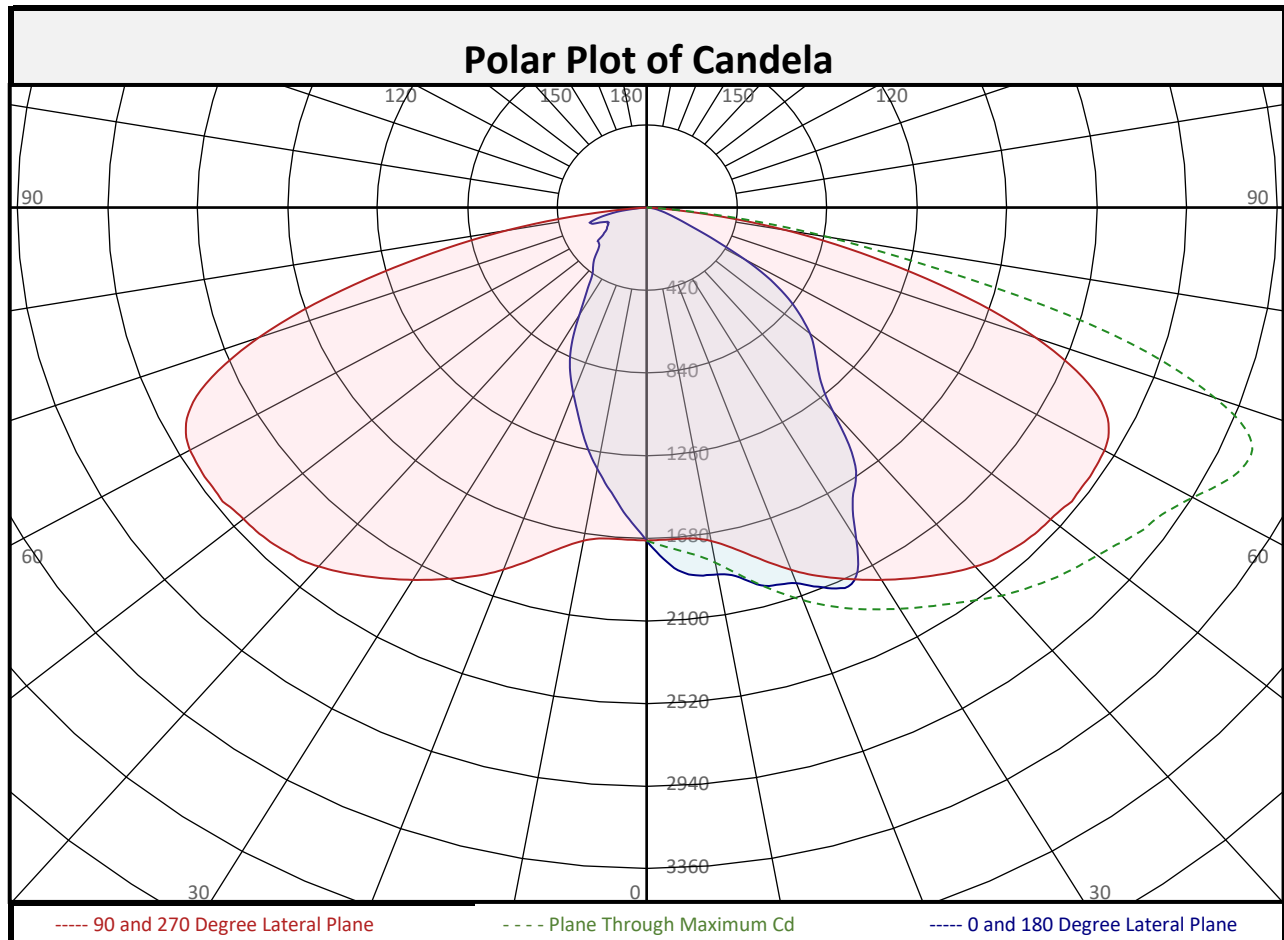
Test date: 09/01/2022

Report date: 09/01/2022

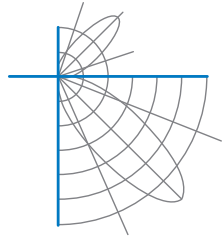
Signed: _____



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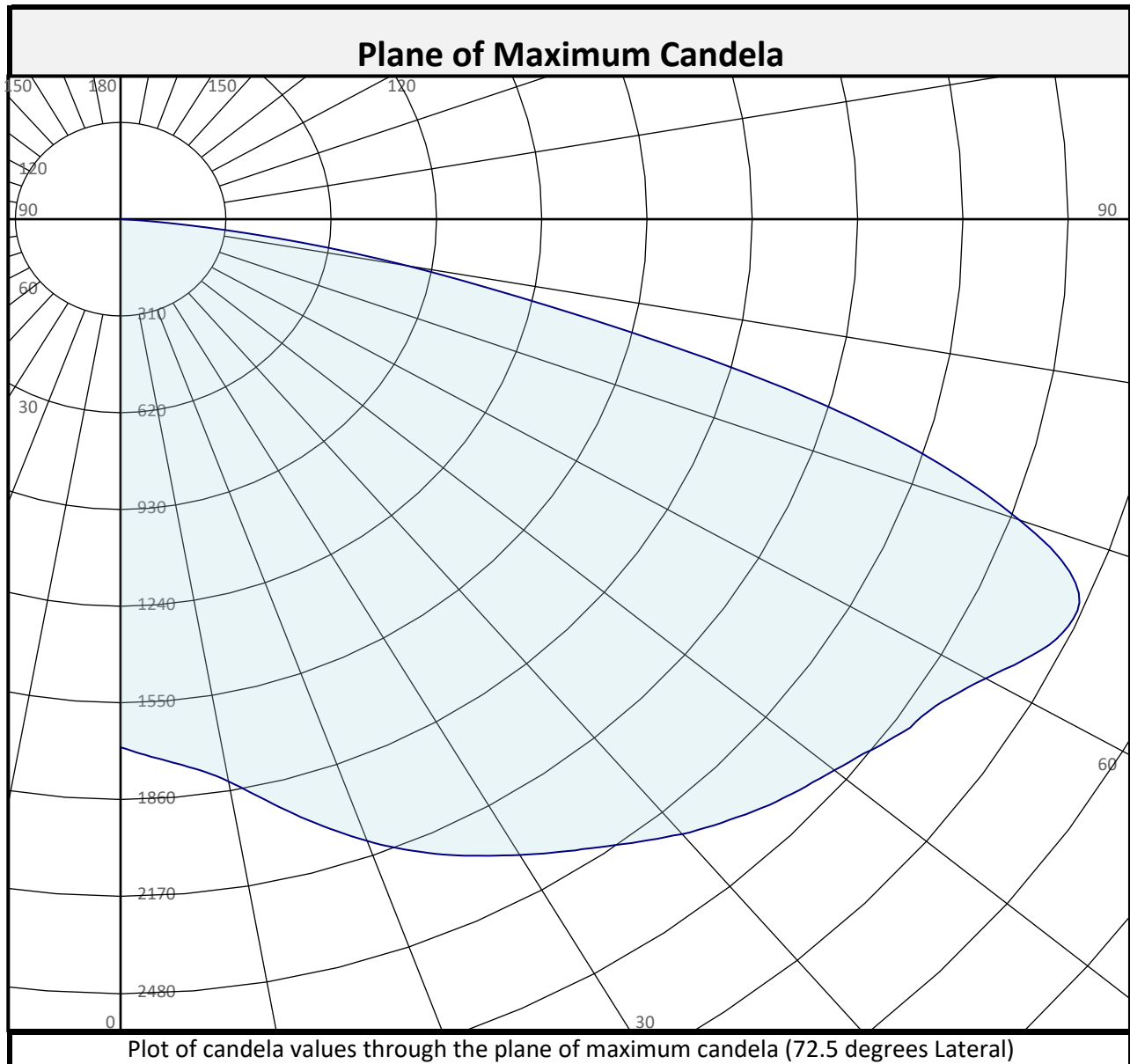


Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	160.7	2.5%		90-100	0.0	0.0%		0-20	638.0	9.9%
10-20	477.3	7.4%		100-110	0.0	0.0%		0-30	1438	22.4%
20-30	800.3	12.5%		110-120	0.0	0.0%		0-40	2475	38.6%
30-40	1037	16.2%		120-130	0.0	0.0%		0-60	4811	75.0%
40-50	1152	18.0%		130-140	0.0	0.0%		0-80	6351	99.0%
50-60	1184	18.5%		140-150	0.0	0.0%		10-90	6255	97.5%
60-70	1030	16.1%		150-160	0.0	0.0%		20-50	2989	46.6%
70-80	509.3	7.9%		160-170	0.0	0.0%		40-90	3941	61.4%
80-90	65.5	1.0%		170-180	0.0	0.0%		60-90	1605	25.0%
0-90	6416	100.0%		90-180	0.0	0.0%		0-180	6416	100.0%

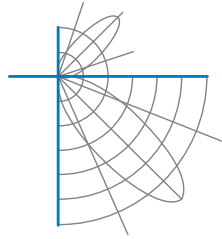


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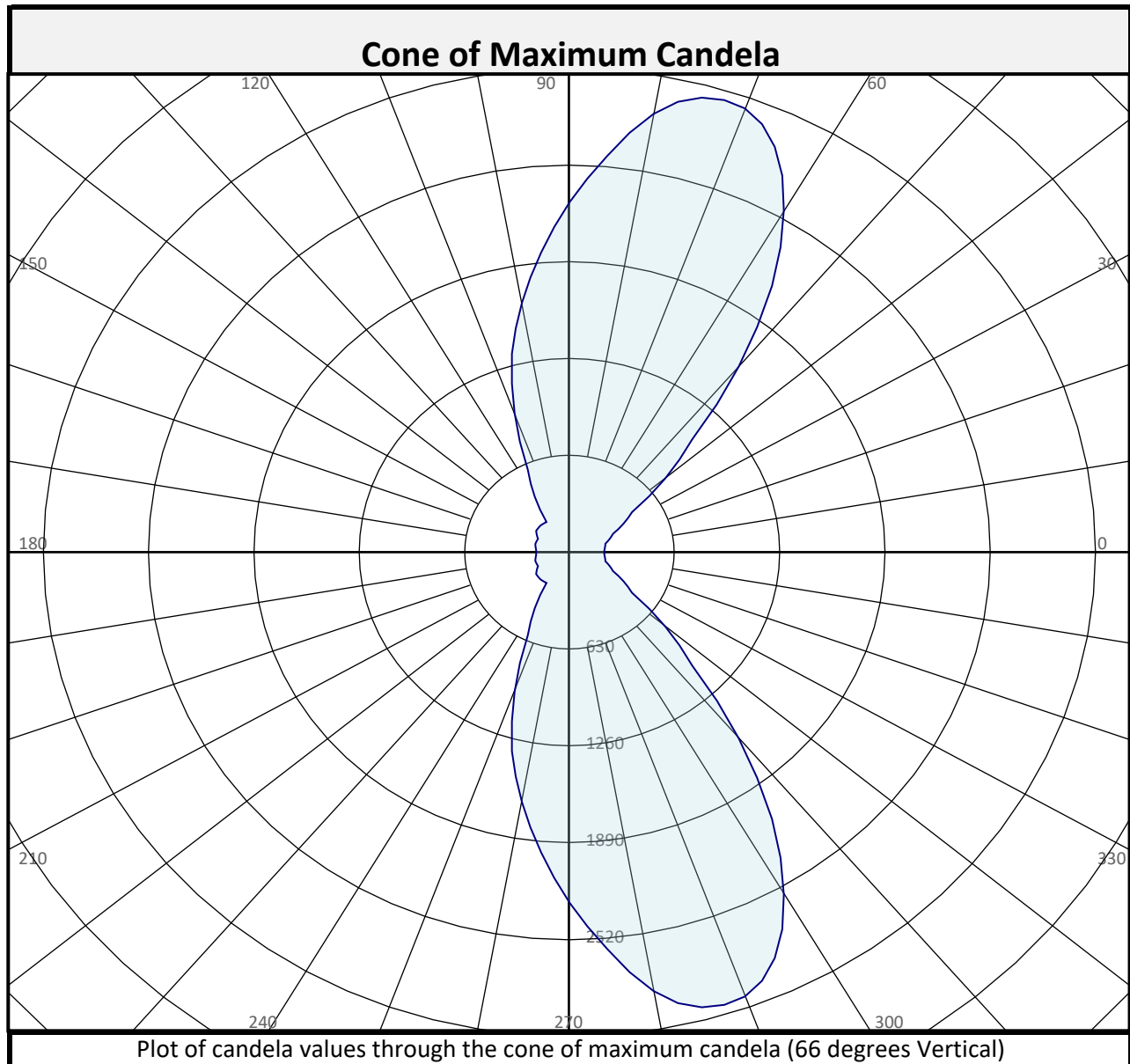
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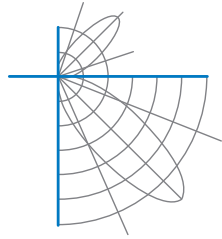
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	4284.2	66.8%	0.0	0.0%	4284.2	66.8%
House Side	2131.9	33.2%	0.0	0.0%	2131.9	33.2%
Total	6416.1	100.0%	0.0	0.0%	6416.1	100.0%



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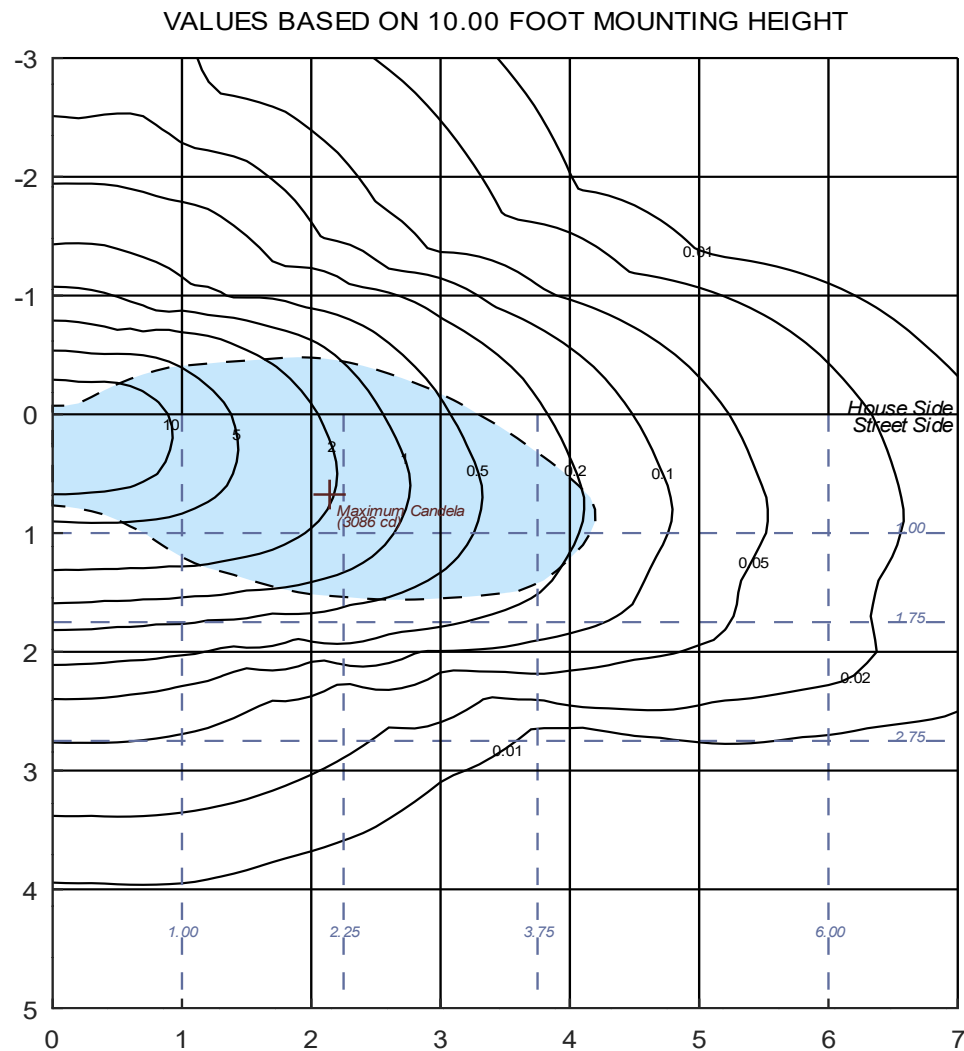


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	4284.2	66.8%	0.0	0.0%	4284.2	66.8%
House Side	2131.9	33.2%	0.0	0.0%	2131.9	33.2%
Total	6416.1	100.0%	0.0	0.0%	6416.1	100.0%

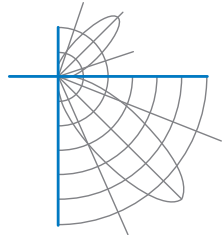


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Iso-Illuminance Plot

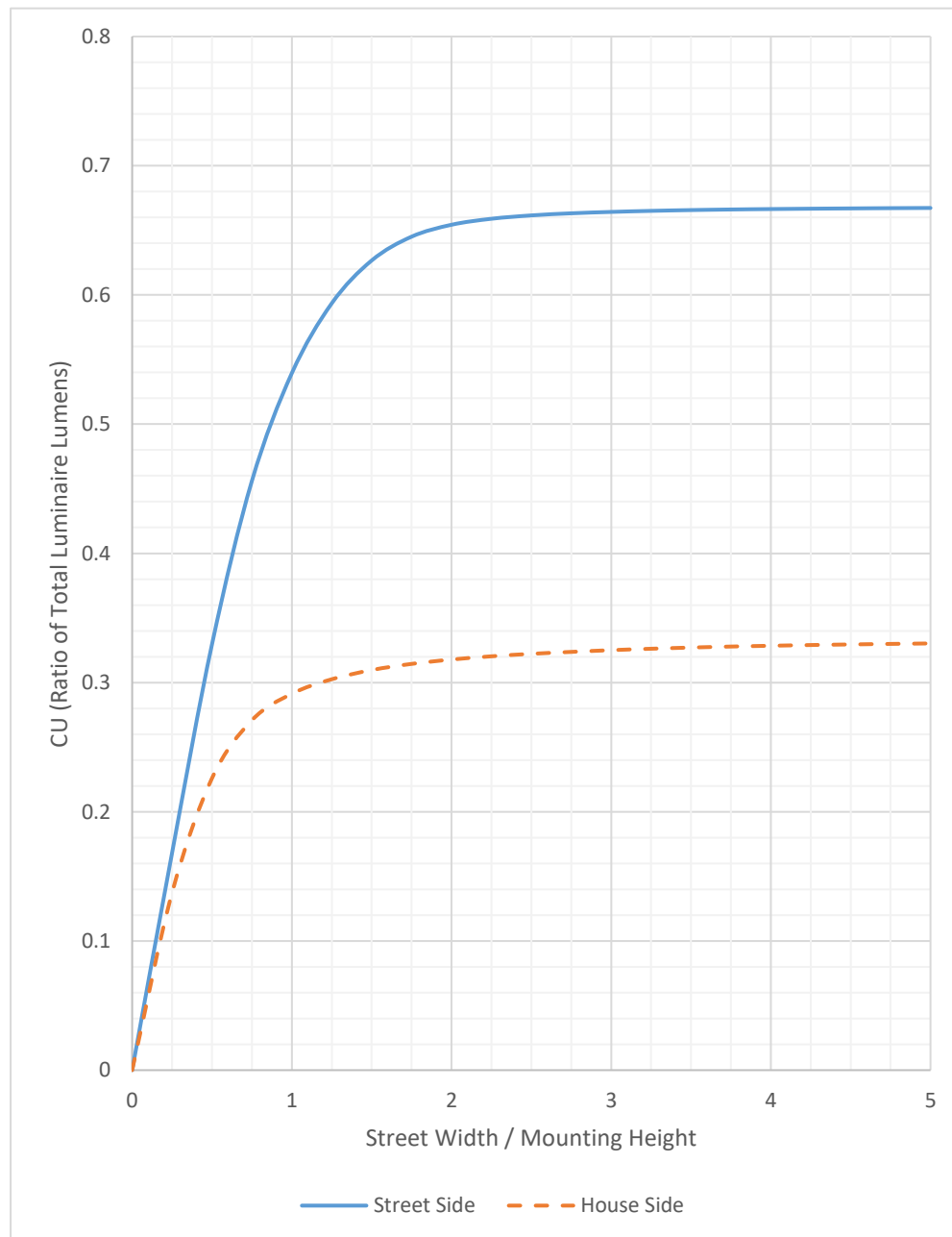


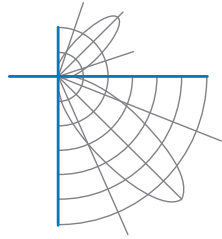
The isofootcandle values shown in the plot above are based on a mounting height of $h = 10.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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



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Coefficients of Utilization Plot

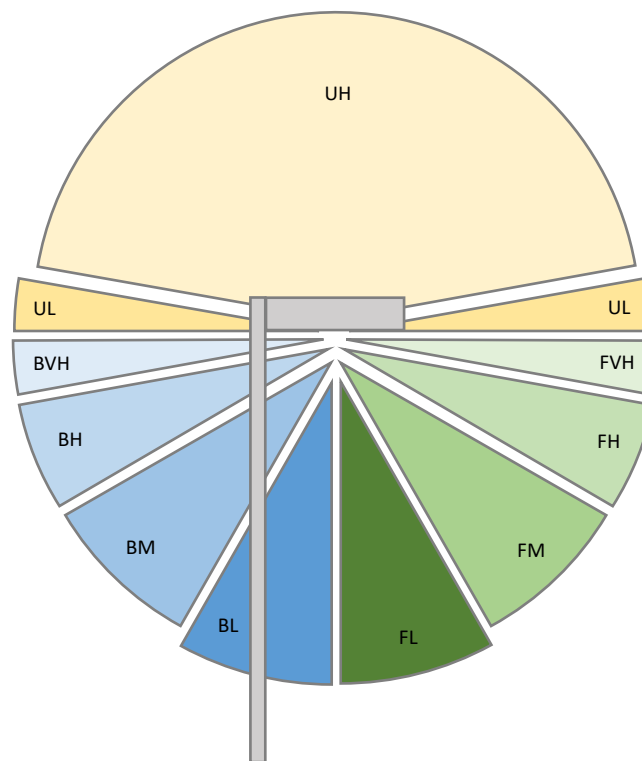




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LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	568.1 Lm
BM - Back Mid (30°-60°)	1079.3 Lm
BH - Back High (60°-80°)	459.6 Lm
BVH - Back Very High (80°-90°)	24.9 Lm

Uplight

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

Forward Light


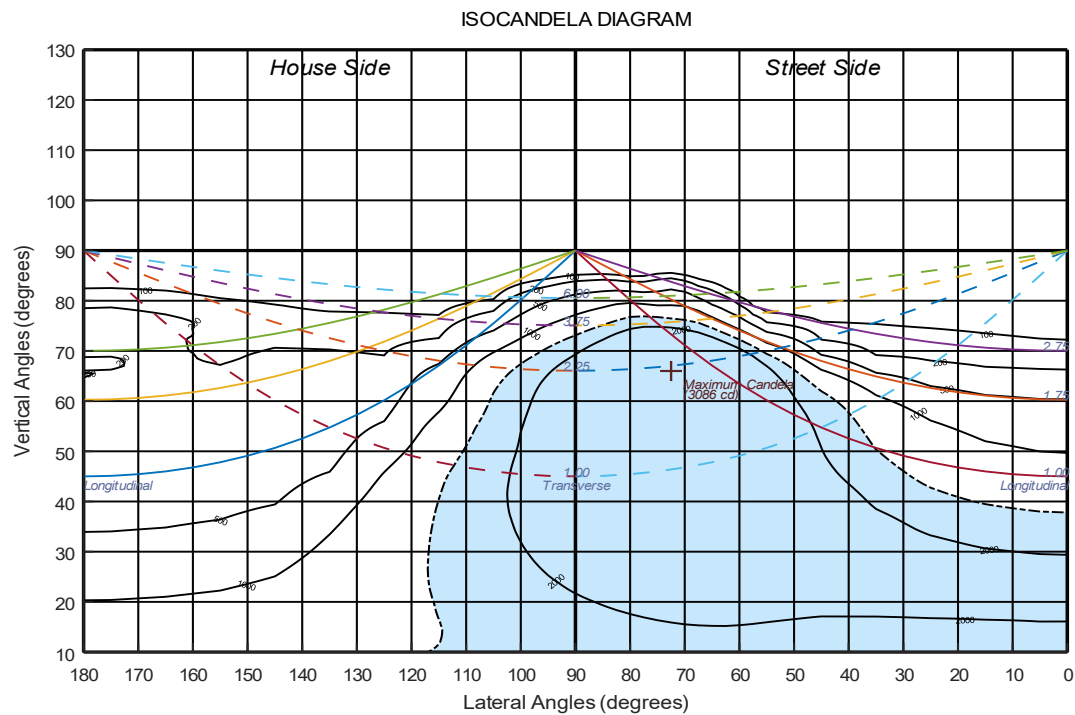
FL - Forward Low (0°-30°)	870.2 Lm
FM - Forward Mid (30°-60°)	2293.7 Lm
FH - Forward High (60°-80°)	1079.6 Lm
FVH - Forward Very High (80°-90°)	40.6 Lm

BUG Ratings: B2 - U0 - G1

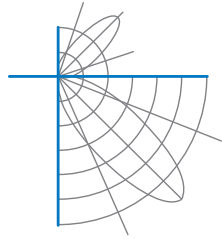


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Iso-Candela Plot



Half-max Candela Contour Line



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Luminous Intensity (Candela) Table

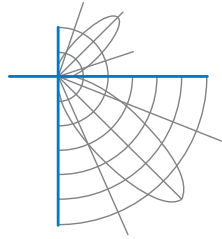
		Lateral (C-Plane) Angles														
		0	5	15	25	35	45	55	57.5	60	62.5	65	67.5	70	72.5	75
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692
	2.5	1785	1785	1783	1777	1770	1760	1745	1743	1740	1737	1731	1727	1723	1719	1714
	5	1856	1857	1855	1848	1838	1821	1796	1791	1785	1779	1770	1762	1755	1748	1737
	7.5	1885	1886	1883	1881	1878	1867	1846	1840	1833	1823	1813	1802	1791	1781	1767
	10	1892	1893	1892	1891	1896	1896	1889	1886	1882	1874	1866	1855	1842	1829	1814
	12.5	1917	1917	1911	1906	1911	1923	1935	1936	1936	1934	1928	1921	1911	1897	1881
	15	1981	1980	1969	1954	1944	1957	1981	1987	1991	1995	1994	1991	1983	1973	1958
	17.5	2009	2010	2010	2015	2013	2010	2032	2039	2048	2056	2059	2060	2056	2048	2035
	20	2030	2029	2029	2042	2071	2089	2091	2095	2103	2113	2120	2125	2124	2120	2111
	22.5	2084	2086	2082	2082	2109	2158	2155	2157	2162	2169	2176	2183	2187	2186	2179
	25	2133	2137	2138	2146	2166	2206	2228	2223	2222	2225	2230	2238	2244	2247	2242
	27.5	2110	2116	2154	2197	2233	2260	2292	2288	2286	2283	2284	2288	2294	2300	2299
	30	1951	1963	2047	2177	2284	2327	2347	2350	2349	2346	2343	2344	2348	2353	2353
	32.5	1784	1794	1868	2049	2279	2381	2402	2405	2404	2402	2399	2398	2400	2404	2406
	35	1695	1705	1757	1891	2191	2416	2459	2458	2460	2459	2456	2454	2452	2457	2463
	37.5	1567	1582	1669	1793	2052	2399	2516	2522	2520	2520	2520	2516	2516	2514	2517
	40	1345	1364	1503	1695	1939	2329	2556	2574	2585	2584	2583	2582	2578	2573	2570
	42.5	1199	1213	1328	1558	1850	2229	2582	2612	2634	2641	2636	2633	2630	2623	2615
	45	1121	1132	1217	1425	1752	2136	2578	2636	2665	2685	2686	2680	2678	2669	2658
	47.5	1057	1068	1146	1323	1649	2069	2545	2636	2689	2713	2726	2722	2718	2710	2693
	50	990	999	1072	1242	1556	2013	2497	2605	2687	2734	2756	2760	2755	2747	2730
	52.5	903	906	980	1162	1472	1969	2443	2566	2669	2742	2780	2798	2798	2792	2778
	55	804	802	867	1058	1380	1921	2407	2531	2650	2744	2810	2842	2850	2841	2823
	57.5	684	682	737	922	1261	1848	2374	2496	2618	2725	2809	2858	2878	2875	2863
	60	528	530	590	761	1096	1712	2358	2490	2618	2734	2836	2909	2944	2944	2928
	62.5	359	362	401	547	880	1489	2337	2501	2649	2782	2899	2983	3024	3027	3009
	65	239	240	262	348	586	1189	2206	2421	2616	2792	2927	3025	3075	3083	3058
	67.5	172	175	186	216	309	784	1923	2212	2461	2679	2841	2952	3022	3046	3028
	70	128	130	143	161	172	398	1401	1782	2103	2366	2565	2697	2777	2818	2825
	72.5	97	100	111	125	133	186	787	1125	1479	1794	2065	2266	2390	2456	2462
	75	74	75	85	94	104	111	281	539	820	1122	1436	1691	1826	1916	1958
	77.5	56	57	65	66	77	81	105	177	393	580	826	1107	1263	1304	1359
	80	41	42	50	45	49	57	64	74	141	275	392	602	817	855	813
	82.5	25	26	31	30	29	34	38	41	57	101	171	242	387	463	406
	85	12	12	14	14	15	17	19	20	25	33	48	70	110	146	128
	87.5	4	4	5	4	5	5	7	7	7	8	8	9	10	10	10
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

North America (issuing laboratory)

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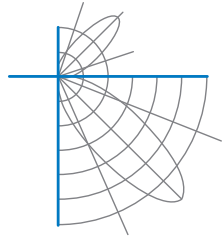


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Luminous Intensity (Candela) Table

		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.	0	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692
	2.5	1709	1705	1701	1696	1689	1682	1668	1652	1641	1629	1619	1611	1606	1600	1601
	5	1728	1722	1714	1705	1689	1675	1644	1616	1591	1569	1550	1533	1519	1513	1512
	7.5	1755	1743	1732	1719	1695	1672	1626	1582	1543	1503	1471	1450	1436	1427	1428
	10	1799	1783	1767	1750	1719	1685	1621	1556	1493	1444	1404	1375	1357	1346	1345
	12.5	1864	1845	1823	1804	1763	1721	1635	1540	1456	1386	1337	1303	1279	1267	1264
	15	1941	1919	1895	1871	1822	1772	1665	1537	1427	1337	1271	1224	1195	1178	1176
	17.5	2019	1998	1972	1946	1889	1831	1701	1548	1408	1290	1201	1142	1106	1088	1086
	20	2097	2076	2051	2019	1956	1890	1737	1559	1395	1244	1130	1063	1028	1010	1010
	22.5	2168	2148	2121	2088	2020	1945	1771	1575	1380	1200	1063	993	960	938	936
	25	2229	2209	2183	2150	2075	1995	1805	1587	1364	1158	1002	925	885	859	857
	27.5	2289	2270	2243	2208	2129	2044	1833	1593	1346	1118	939	846	796	762	758
	30	2347	2329	2300	2265	2184	2092	1857	1593	1323	1074	864	752	683	644	640
	32.5	2401	2383	2356	2317	2235	2136	1878	1590	1299	1023	776	642	575	545	542
	35	2455	2436	2406	2369	2286	2179	1896	1582	1269	956	672	545	495	474	470
	37.5	2510	2490	2459	2423	2336	2219	1909	1568	1229	876	570	469	431	421	418
	40	2562	2543	2511	2472	2380	2254	1911	1548	1178	775	479	411	398	394	393
	42.5	2605	2586	2553	2511	2415	2275	1905	1520	1114	658	413	381	372	369	369
	45	2642	2619	2587	2543	2436	2283	1882	1481	1034	539	371	356	345	339	338
	47.5	2674	2647	2610	2565	2453	2286	1848	1415	922	442	351	334	318	309	308
	50	2703	2671	2627	2575	2459	2273	1804	1337	788	378	333	311	304	293	292
	52.5	2749	2710	2659	2601	2475	2266	1760	1254	663	340	319	303	302	288	287
	55	2792	2745	2685	2620	2475	2248	1717	1158	544	319	311	295	292	271	262
	57.5	2838	2788	2721	2644	2473	2217	1657	1020	442	303	296	278	266	247	235
	60	2900	2843	2760	2668	2463	2179	1592	880	364	290	281	252	243	222	216
	62.5	2968	2895	2793	2674	2426	2120	1513	761	309	275	267	232	226	211	210
	65	3004	2909	2778	2628	2337	2017	1399	650	260	257	252	215	213	202	200
	67.5	2965	2845	2684	2503	2167	1849	1223	495	220	233	233	197	221	193	196
	70	2778	2656	2482	2283	1926	1617	967	322	189	204	207	175	219	216	216
	72.5	2434	2329	2156	1960	1626	1339	668	202	163	172	172	146	236	271	272
	75	1957	1878	1727	1564	1286	1026	410	136	135	139	138	156	247	271	268
	77.5	1411	1407	1306	1182	961	733	225	95	102	105	114	150	196	227	222
	80	854	905	879	793	654	482	112	64	68	70	89	109	146	169	167
	82.5	365	386	419	412	352	231	50	42	40	43	49	64	85	101	99
	85	96	91	112	125	110	69	25	21	19	18	18	22	26	33	33
	87.5	10	10	11	11	10	10	9	7	5	2	1	0	0	0	0
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

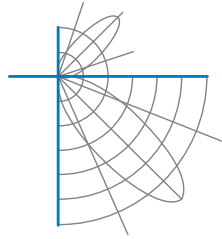


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Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles														
		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

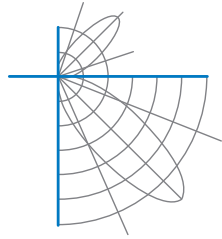


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LLIA001878-002A

Luminous Intensity (Candela) Table

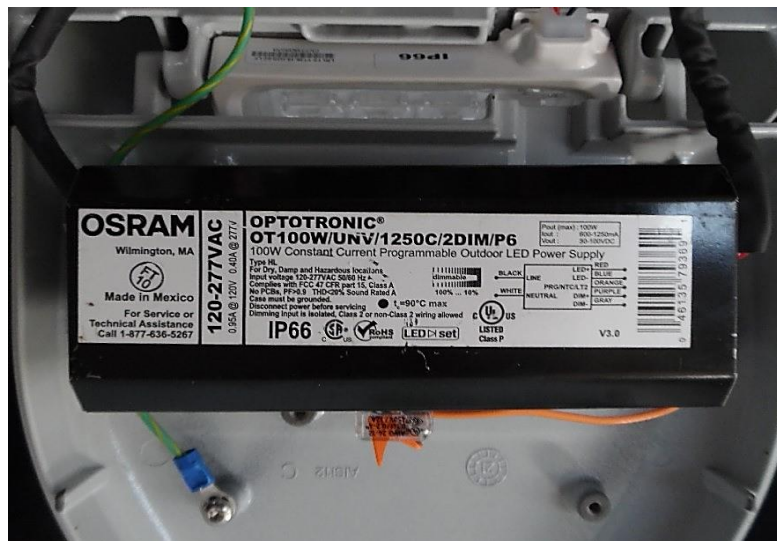
		Lateral (C-Plane) Angles														
		77.5	80	82.5	85	90	95	105	115	125	135	145	155	165	175	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	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

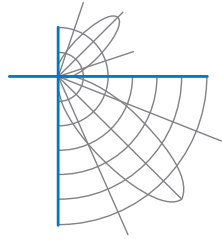


Report of Test

LLIA001878-002A

Additional Pictures of Test Subject





Report of Test

LLIA001878-002A

Test Distance 9.5 m
Ambient Temperature 25.2 °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.

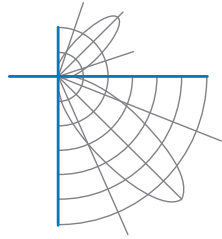
This report is free of erasures and corrections.

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

LLIA001878-002B

Integrating Sphere Report

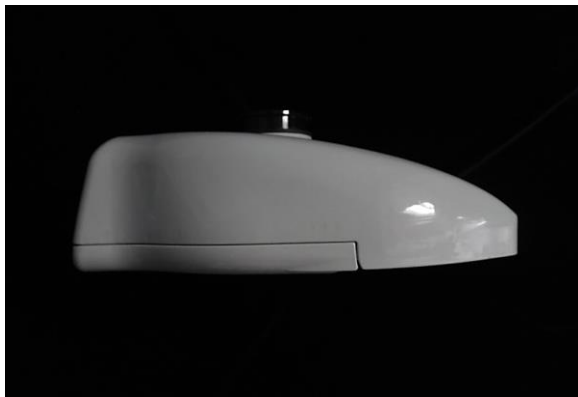
Catalog Number: L6 16S 5 X G2S 4 X XX 3 X X X

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

16 white LEDs.

Osram OT100W/UNV/1250C/2DIM/P6 LED driver set at 900mA, Littlefuse LSP10277SBX3472 suppressor.

Client states LED string current at 450mA



Performance Summary

Voltage	120.0 Vac
Current	0.4113 A
Power	48.81 W
Frequency	59.99 Hz
Power Factor	0.989
Current THD	2.9 %
Total Luminous Flux	6448.1 lm
Efficacy	132.1 lm/W
Chromaticity (x,y)	(0.4371, 0.4055)
(u',v')	(0.2500, 0.5220)
Duv	0.0005
CCT	3009 K
CRI (Ra)	71
R9	-44
TM-30: Rf	71
TM-30: Rg	94
TM-30: Rcs,h1	-18

Prepared For:

LED Roadway Lighting

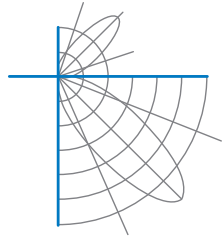
84 Chain Lake Drive

Suite 403

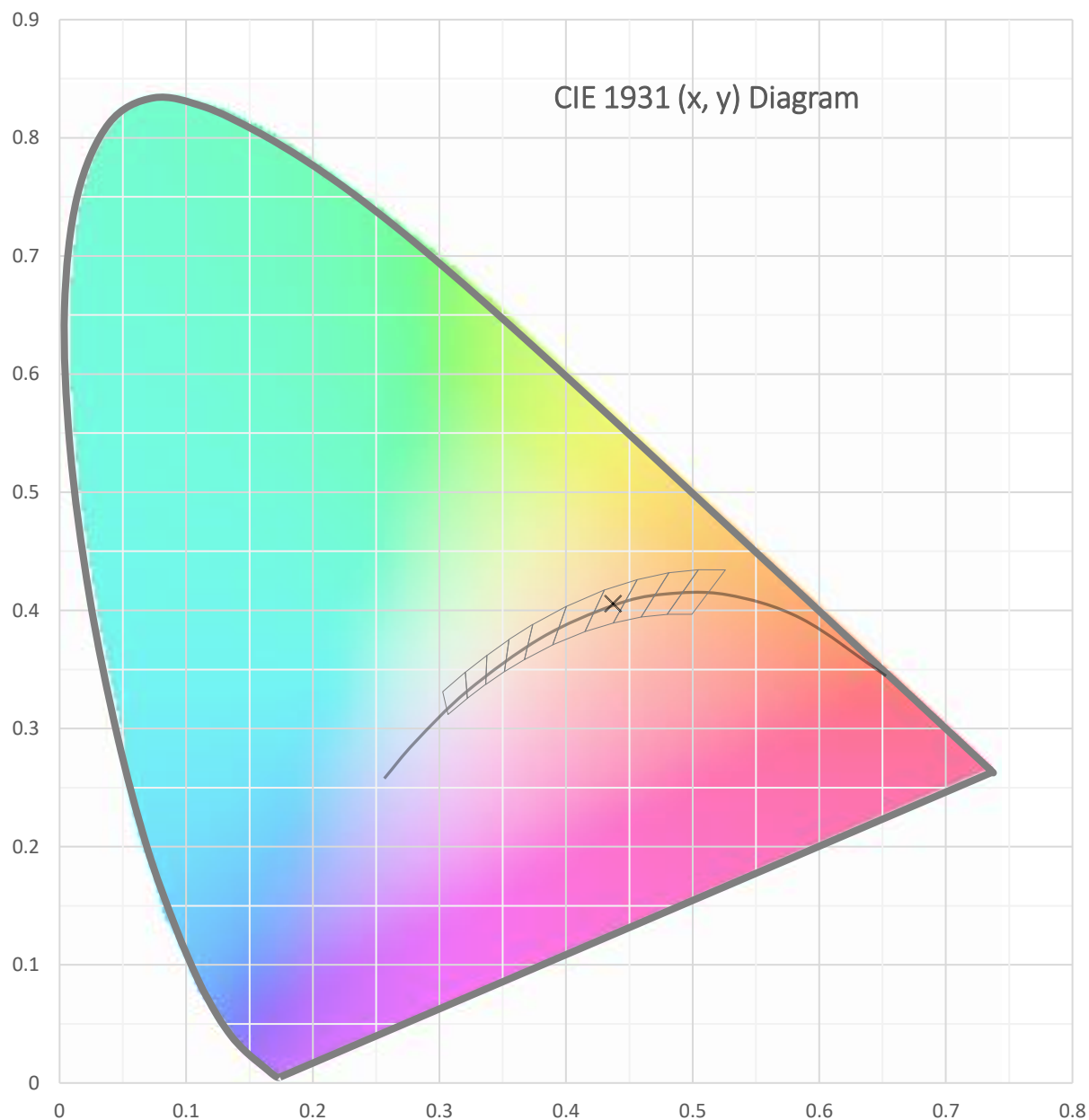
Halifax, Nova Scotia B3S 1A2, Canada

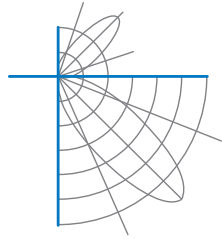
Test date: 09/01/2022

Report date: 09/01/2022

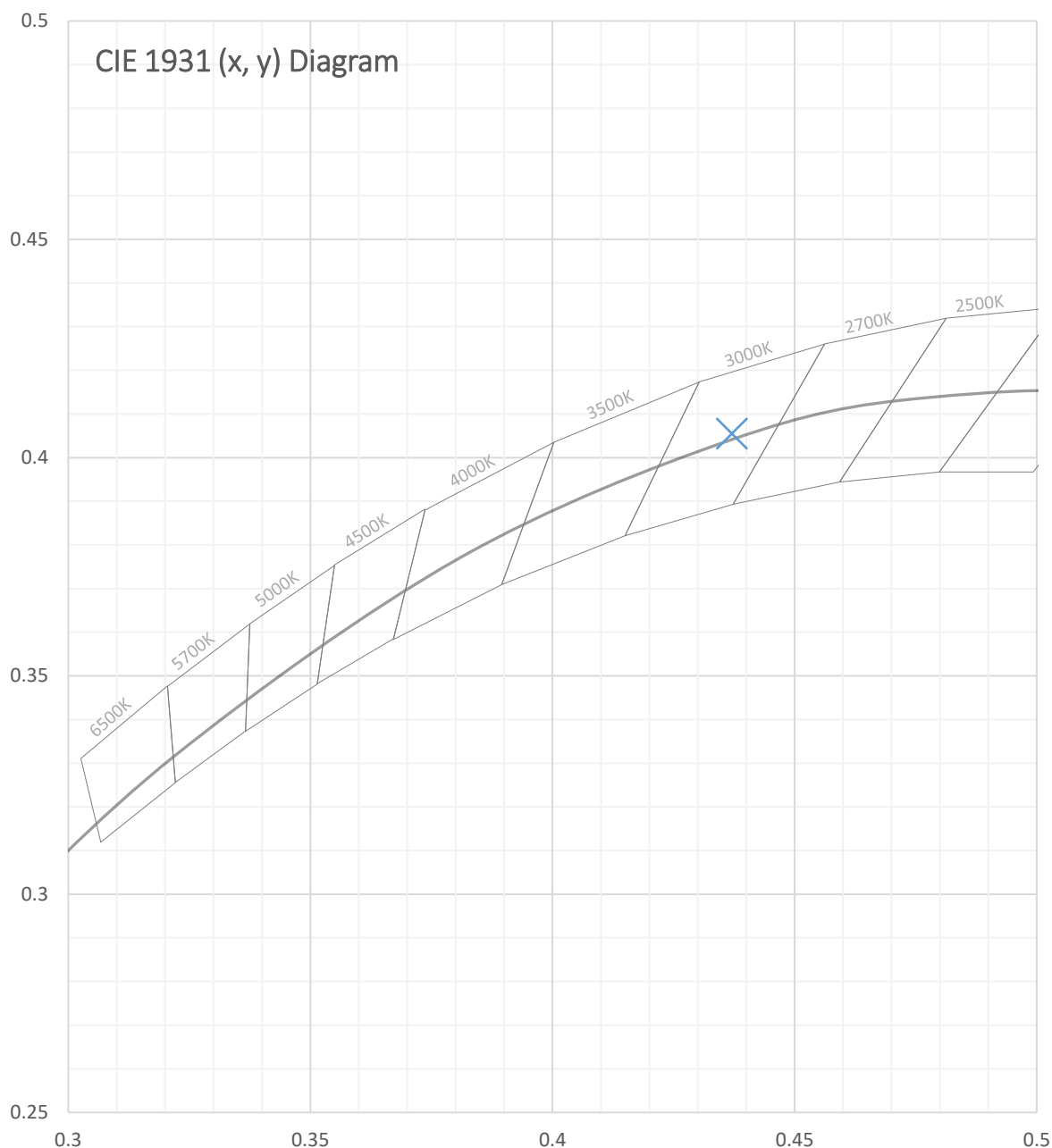


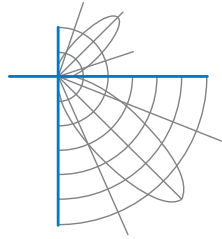
Test Report Number: LLIA001878-002B





Test Report Number: LLIA001878-002B



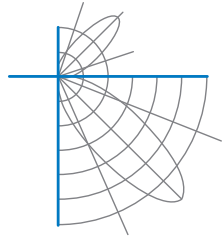


Test Report Number: LLIA001878-002B

Total Radiant Flux	18.15 W
Total Luminous Flux	6448.1 Lm
Chromaticity CIE 1931 (x, y)	(0.4371, 0.4055)
Chromaticity CIE 1976 (u', v')	(0.2500, 0.5220)
Correlated Color Temperature (CCT)	3009 K
Color Rendering Index (Ra)	71
R1	66
R2	82
R3	95
R4	67
R5	66
R6	76
R7	76
R8	39
R9	-44
R10	59
R11	63
R12	54
R13	69
R14	97
TM-30: Rf	71
TM-30: Rg	94
TM-30: Rcs,h1	-18
Distance from Planckian Locus (Duv)	0.0005
Scotopic/Photopic Ratio ‡	1.213

Electrical Data

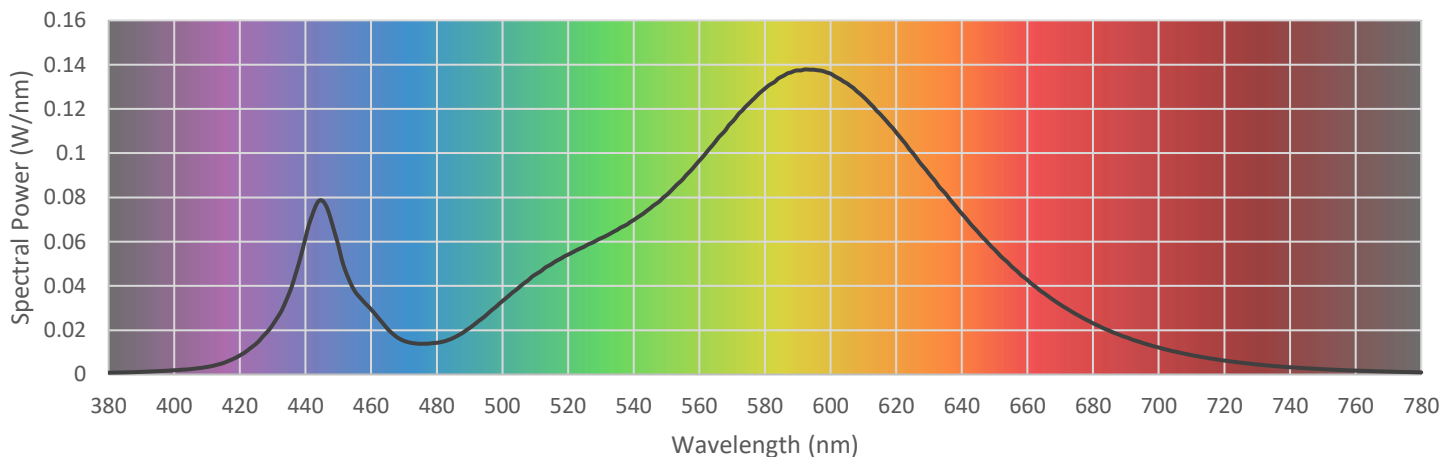
Voltage	120.0 Vac
Current	0.4113 A
Power	48.81 W
Frequency	59.99 Hz
Power Factor	0.989
Current THD	2.9 %

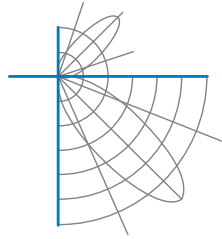


Test Report Number: LLIA001878-002B

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

380	0.000819	480	0.014309	580	0.129190	680	0.023105
385	0.000936	485	0.016475	585	0.134483	685	0.019764
390	0.001167	490	0.020977	590	0.137393	690	0.016829
395	0.001512	495	0.026748	595	0.137701	695	0.014274
400	0.001908	500	0.033160	600	0.135933	700	0.012181
405	0.002433	505	0.039260	605	0.131544	705	0.010307
410	0.003401	510	0.045127	610	0.125454	710	0.008739
415	0.005185	515	0.049926	615	0.117829	715	0.007405
420	0.008611	520	0.054157	620	0.109341	720	0.006281
425	0.013970	525	0.057785	625	0.100159	725	0.005335
430	0.022472	530	0.061549	630	0.090703	730	0.004523
435	0.036635	535	0.065359	635	0.081782	735	0.003837
440	0.061873	540	0.069758	640	0.072644	740	0.003266
445	0.078622	545	0.075054	645	0.064239	745	0.002797
450	0.058289	550	0.081031	650	0.056433	750	0.002392
455	0.037656	555	0.088239	655	0.049033	755	0.002047
460	0.029338	560	0.096598	660	0.042666	760	0.001753
465	0.020566	565	0.105394	665	0.036759	765	0.001502
470	0.015177	570	0.114086	670	0.031569	770	0.001289
475	0.013854	575	0.122253	675	0.027092	775	0.001114
						780	0.000961





Test Report Number: LLIA001878-002B

IES TM-30 Details

Source: LLIA001878-002B

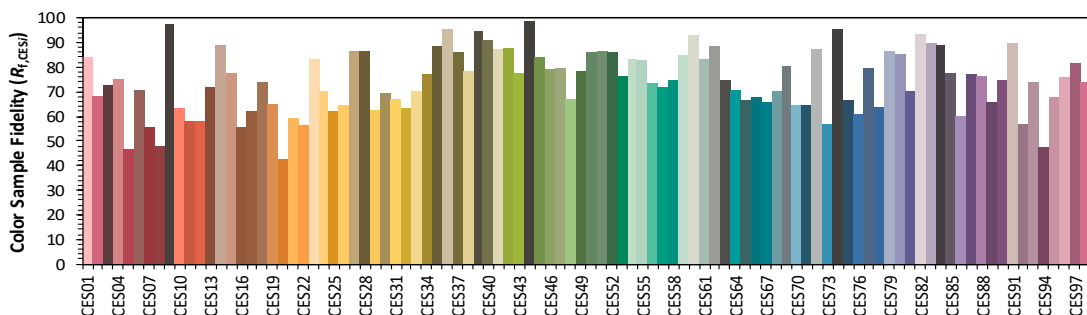
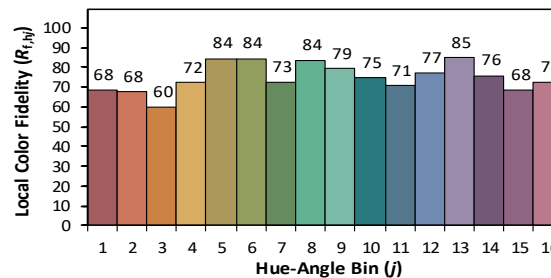
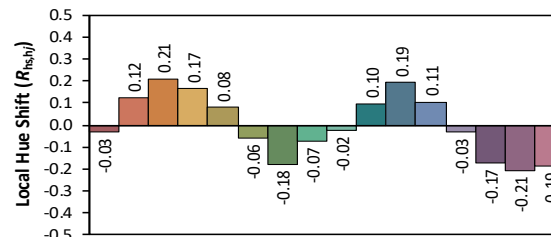
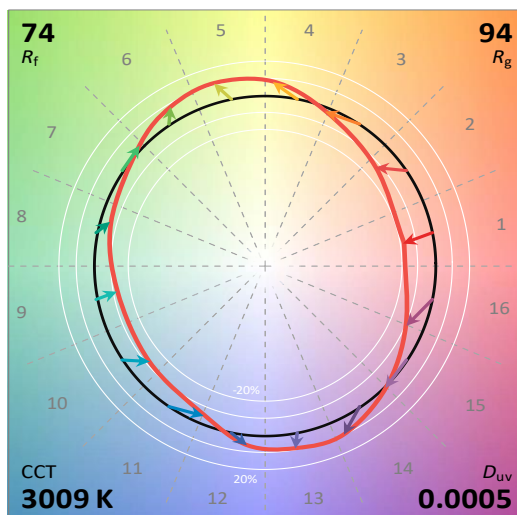
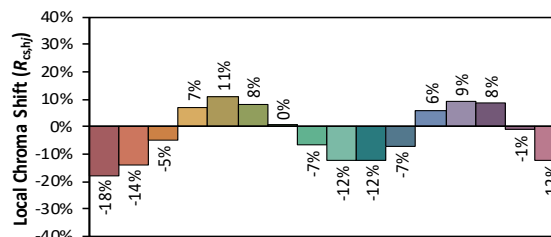
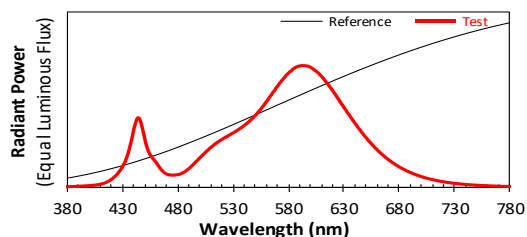
Manufacturer:

LED Roadway Lighting

Date: 9/1/2022

Model:

L 616S 5 X G2S 4 X XX 3 X X X



Notes:

x 0.4371

y 0.4054

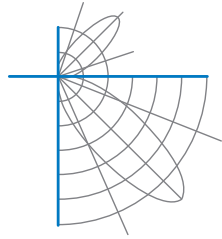
u' 0.2501

v' 0.5219

CIE 13.3-1995
(CRI)

R_a 71

R₉ -44



Test Report Number: LLIA001878-002B

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:	25.1 °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:	<p>The measurements and other derived quantities contained in this report are based on the absolute data as measured.</p> <p>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.</p> <p>This report is free of erasures and corrections</p> <p>This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with ‡ are not covered.</p> <p>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.</p>

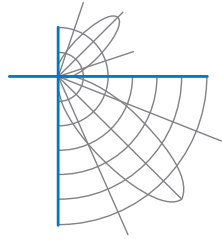
Sphere Report Template V2-18

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Clontarf - Queensland, 4019, Australia
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Fx : +61 7 3283 8751
www.lightlabint.com



Report of Test

LLIA001878-002C

Electrical Test Report

Catalog Number: L6 16S 5 X G2S 4 X XX 3 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, clear glass enclosure.

16 white LEDs.

Osram OT100W/UNV/1250C/2DIM/P6 LED driver set at 900mA, Littlefuse LSP10277SBX3472 suppressor.

Client states LED string current at 450mA



Performance Summary

Voltage	277.0 Vac
Current	0.1957 A
Power	48.78 W
Frequency	60.00 Hz
Power Factor	0.900
Current THD	6.5 %

Ambient Temperature: 25.3 °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: 09/01/2022

Report date: 09/01/2022

Electrical Report Template V1-4

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