



Report of Test

LLIA001574-008A-R01*

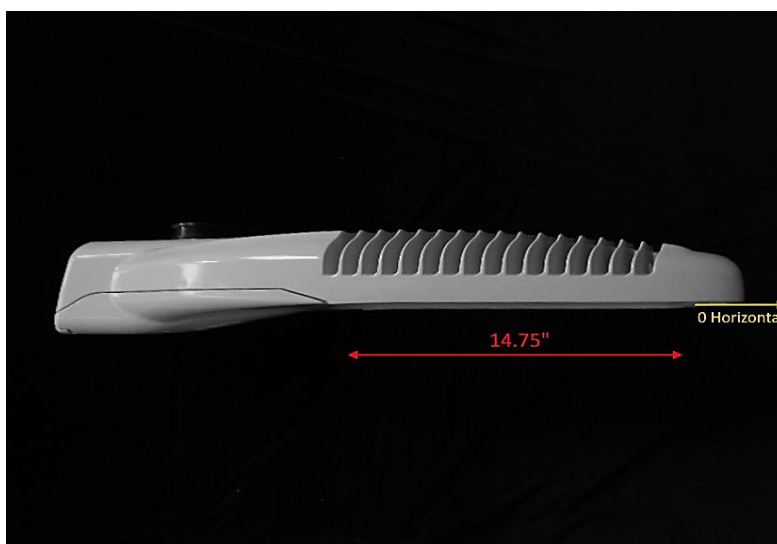
Roadway/Area Light Distribution Photometry Test Report

Catalog Number: NXT-48M-5-X-2ES-5-XX-4-XX-X-XX-X

Pole/arm mounted, grey painted cast aluminum housing and door/driver compartment cover, two circuit boards, two clear plastic lenses with optic below each LED and clear flat glass enclosure.

48 white LEDs

Osram Optotronic OT180/UNV/800C/2DIM/P6 LED driver labeled as 525mA, WH91-5U1-03 surge suppressor



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

Performance Summary			
Input Voltage	120.0 V	Luminous Flux	10118.6 Lumens
Input Current	0.6696 A	Total Efficacy	126.9 Lm/W
Input Power	79.71 W		
Frequency	60.00 Hz	Roadway Throw	Medium
Power Factor	0.992	Roadway Type	Type II
Current THD	5.3 %	IES BUG Rating	B2 - U0 - G2

*This test report supersedes test report LLIA001574-008A

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

Test date: 11/05/2021

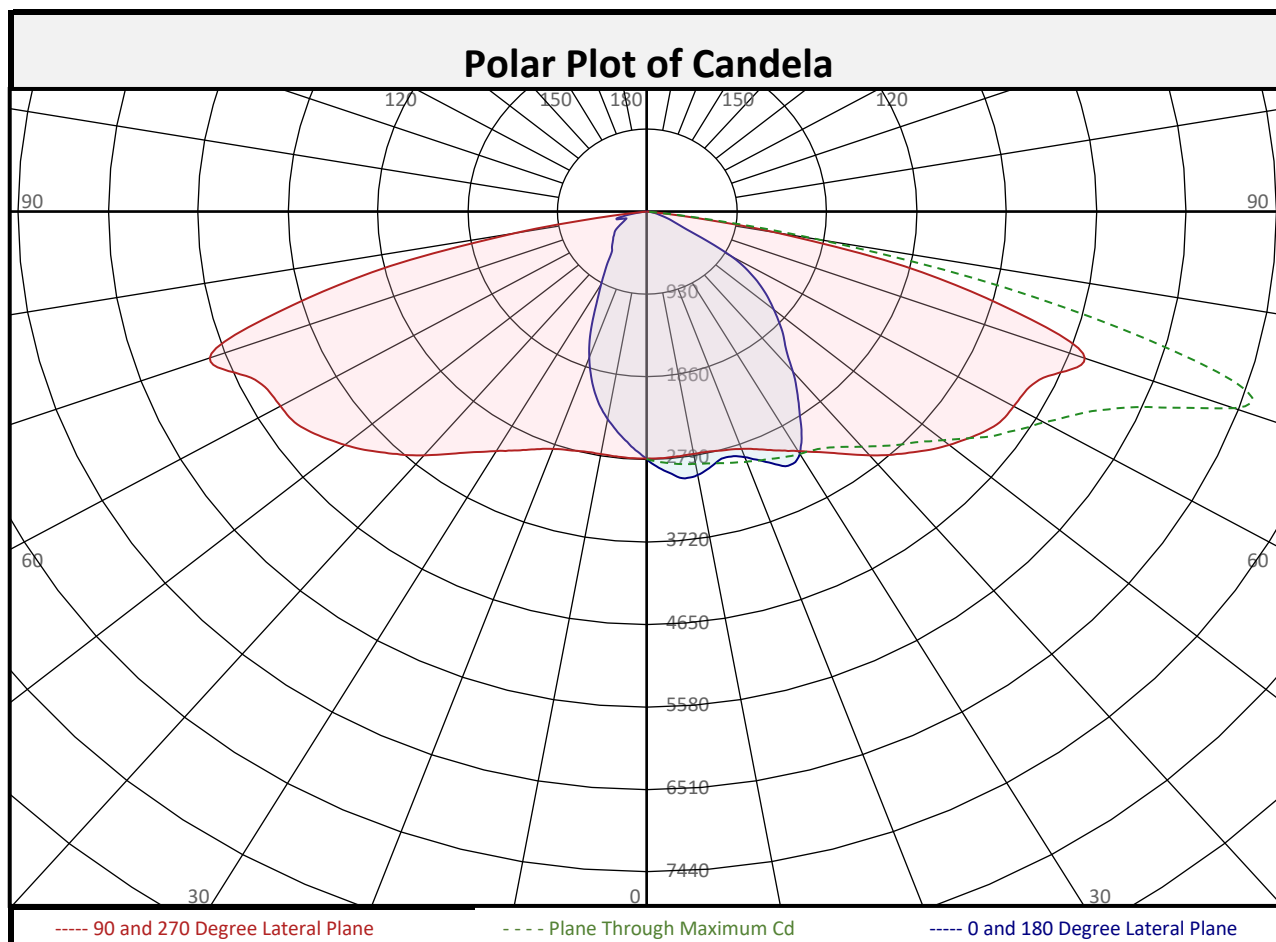
Report date: 11/11/2021

Signed: _____



Report of Test

LLIA001574-008A-R01

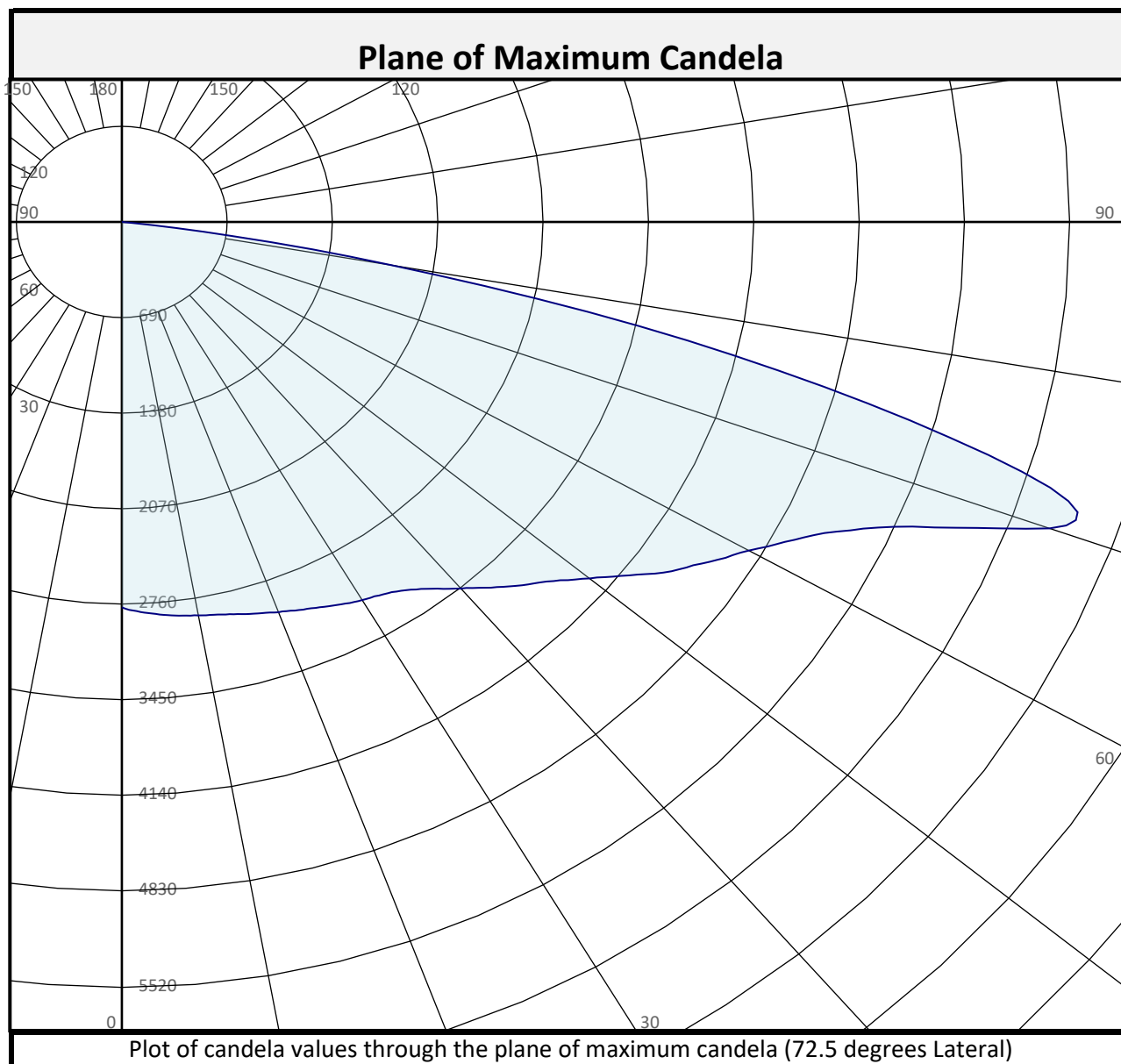


Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	264.1	2.6%		90-100	0.0	0.0%		0-20	1013	10.0%
10-20	748.8	7.4%		100-110	0.0	0.0%		0-30	2178	21.5%
20-30	1165	11.5%		110-120	0.0	0.0%		0-40	3677	36.3%
30-40	1499	14.8%		120-130	0.0	0.0%		0-60	7251	71.7%
40-50	1722	17.0%		130-140	0.0	0.0%		0-80	10040	99.2%
50-60	1852	18.3%		140-150	0.0	0.0%		10-90	9854	97.4%
60-70	1738	17.2%		150-160	0.0	0.0%		20-50	4386	43.3%
70-80	1050	10.4%		160-170	0.0	0.0%		40-90	6442	63.7%
80-90	79.0	0.8%		170-180	0.0	0.0%		60-90	2867	28.3%
0-90	10119	100.0%		90-180	0.0	0.0%		0-180	10119	100.0%



Report of Test

LLIA001574-008A-R01

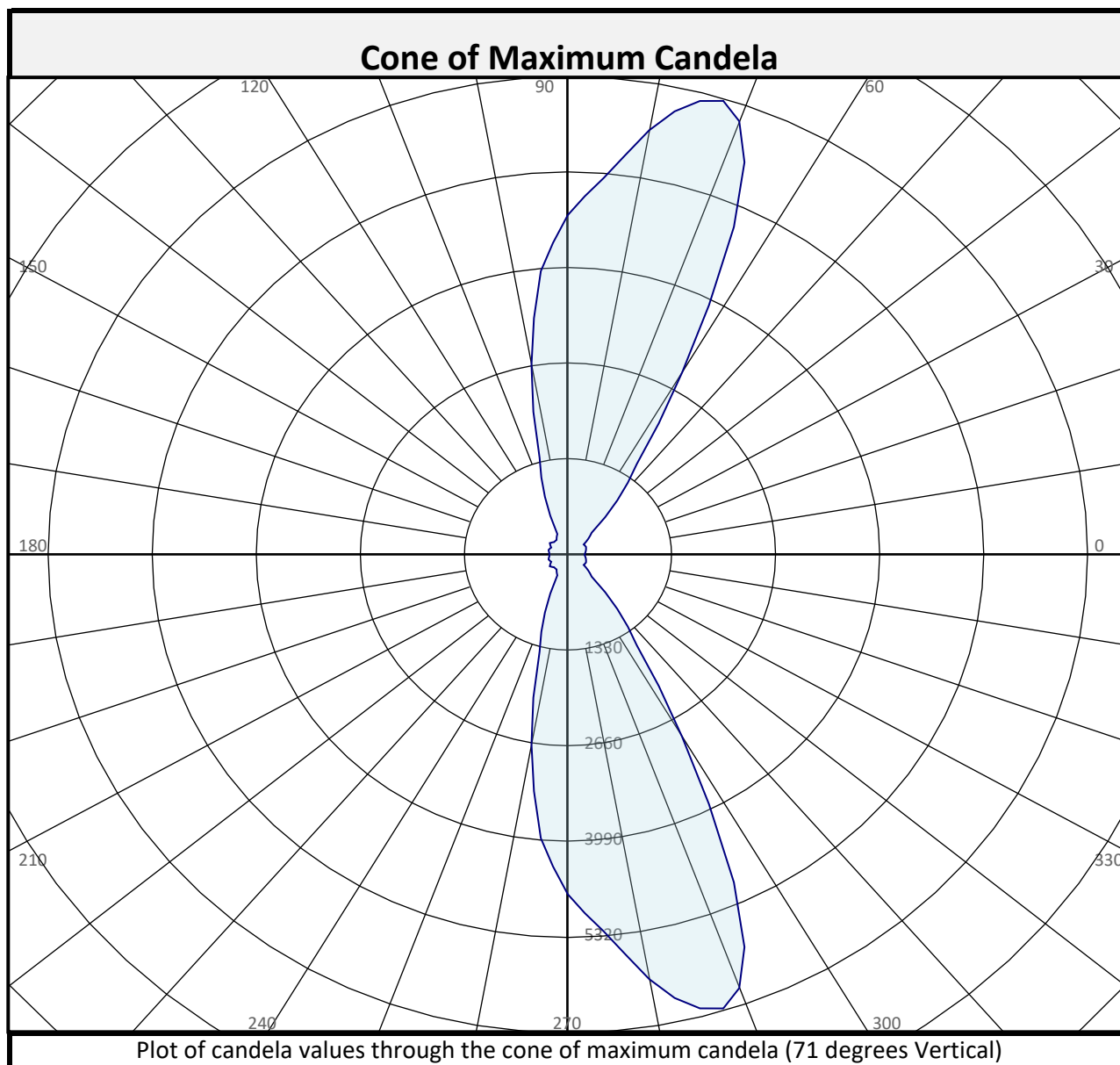


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	6686.6	66.1%	0.0	0.0%	6686.6	66.1%
House Side	3432.0	33.9%	0.0	0.0%	3432.0	33.9%
Total	10118.6	100.0%	0.0	0.0%	10118.6	100.0%



Report of Test

LLIA001574-008A-R01



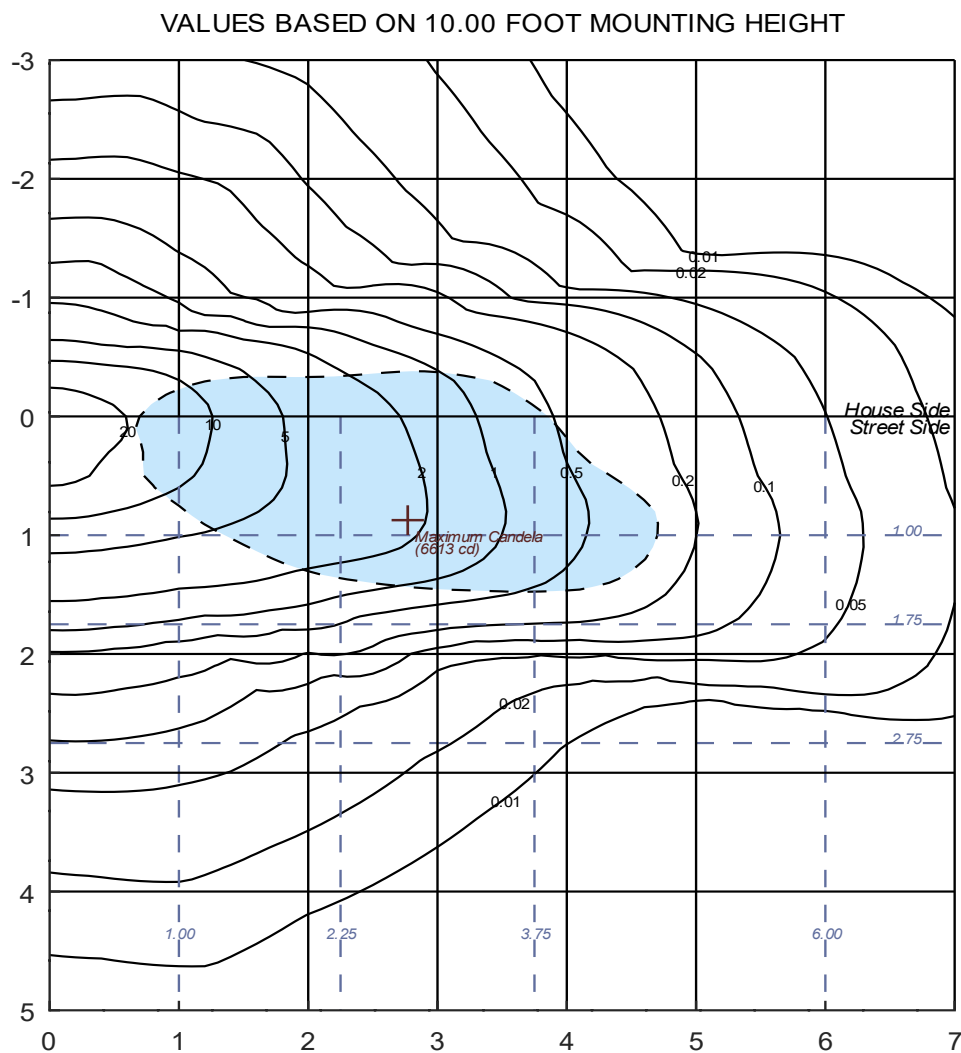
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	6686.6	66.1%	0.0	0.0%	6686.6	66.1%
House Side	3432.0	33.9%	0.0	0.0%	3432.0	33.9%
Total	10118.6	100.0%	0.0	0.0%	10118.6	100.0%



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Iso-Illuminance Plot



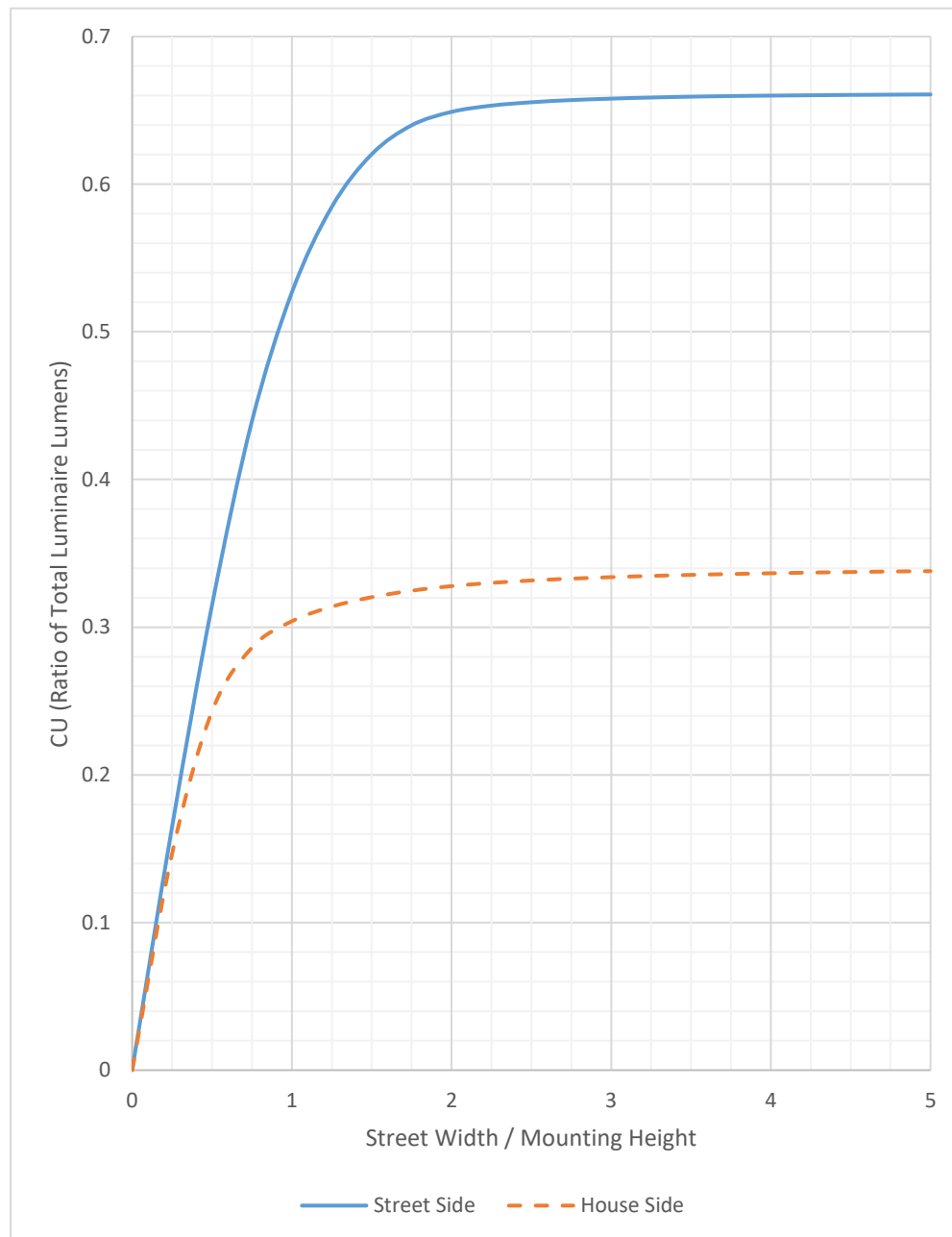
The isofootcandle values shown in the plot above are based on a mounting height of $h = 10.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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



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LLIA001574-008A-R01

Coefficients of Utilization Plot

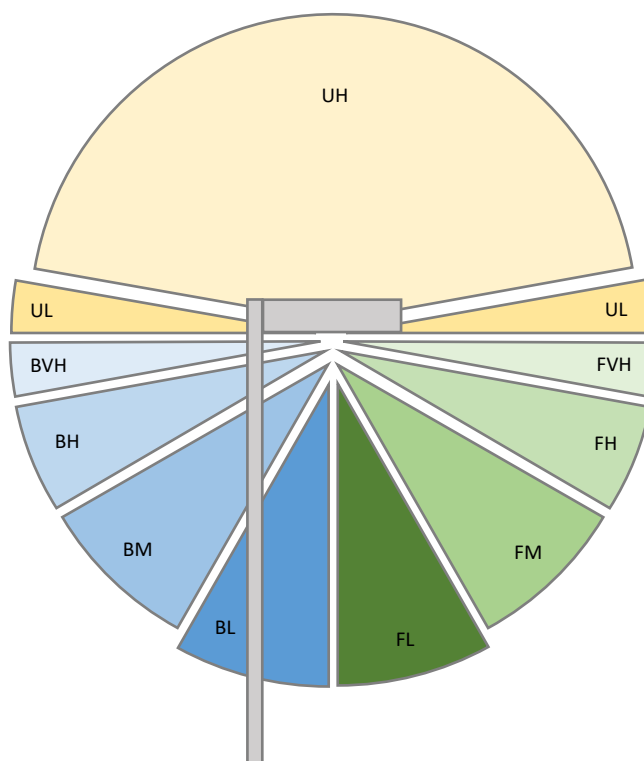




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LLIA001574-008A-R01

LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	925.0 Lm
BM - Back Mid (30°-60°)	1690.0 Lm
BH - Back High (60°-80°)	789.7 Lm
BVH - Back Very High (80°-90°)	27.3 Lm

Uplight

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

Forward Light

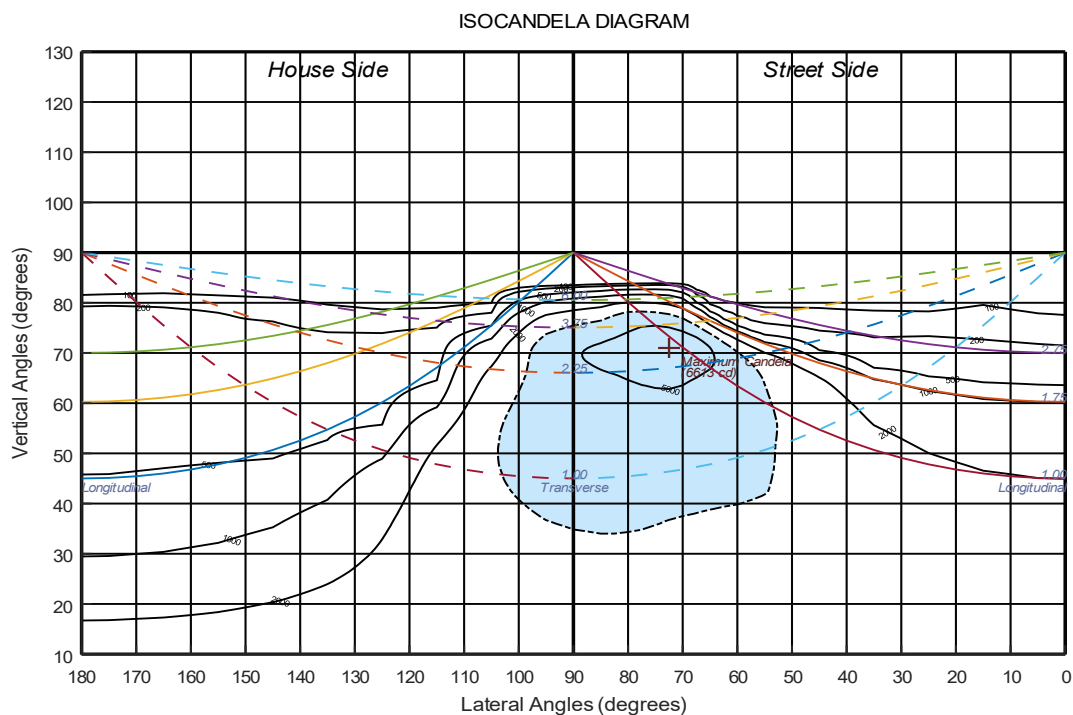
FL - Forward Low (0°-30°)	1253.1 Lm
FM - Forward Mid (30°-60°)	3383.2 Lm
FH - Forward High (60°-80°)	1998.7 Lm
FVH - Forward Very High (80°-90°)	51.7 Lm

BUG Ratings: B2 - U0 - G2



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LLIA001574-008A-R01

Iso-Candela Plot

 Half-max Candela Contour Line



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LLIA001574-008A-R01

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	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783
	2.5	2888	2892	2889	2877	2868	2857	2845	2842	2838	2832	2830	2823	2823	2819	2812
	5	2964	2964	2961	2944	2928	2910	2886	2886	2878	2871	2867	2859	2853	2846	2836
	7.5	3030	3026	3025	3012	2995	2963	2923	2917	2908	2901	2891	2886	2879	2867	2852
	10	3011	3012	3015	3015	3021	3005	2968	2957	2945	2936	2921	2910	2900	2885	2868
	12.5	2962	2957	2967	2976	2992	3004	2992	2988	2977	2966	2949	2937	2922	2903	2889
	15	2896	2892	2900	2914	2939	2967	2989	2995	2992	2984	2977	2966	2949	2931	2916
	17.5	2893	2885	2877	2870	2882	2921	2965	2977	2988	2992	2992	2990	2977	2964	2946
	20	2943	2934	2914	2882	2860	2879	2941	2956	2970	2988	2999	3003	3004	2999	2977
	22.5	3029	3023	2990	2934	2879	2861	2921	2938	2956	2982	2999	3018	3032	3033	3024
	25	3140	3132	3090	3019	2932	2884	2914	2935	2956	2983	3008	3035	3055	3069	3076
	27.5	3213	3210	3189	3109	3010	2932	2932	2947	2973	2998	3027	3060	3082	3112	3125
	30	3155	3149	3178	3163	3089	2998	2971	2984	3006	3028	3055	3090	3119	3152	3172
	32.5	2969	2978	3035	3107	3142	3077	3033	3039	3058	3074	3096	3124	3154	3188	3218
	35	2745	2750	2830	2952	3107	3144	3113	3118	3132	3148	3170	3188	3217	3246	3283
	37.5	2544	2556	2641	2768	2994	3175	3193	3206	3218	3239	3257	3285	3306	3338	3378
	40	2339	2352	2460	2599	2842	3146	3264	3286	3313	3331	3358	3386	3417	3456	3494
	42.5	2134	2144	2264	2443	2701	3073	3322	3363	3400	3441	3477	3509	3546	3582	3616
	45	1997	2004	2091	2295	2588	2977	3356	3422	3494	3548	3609	3640	3682	3710	3736
	47.5	1853	1864	1944	2150	2489	2881	3395	3498	3590	3665	3741	3781	3821	3838	3866
	50	1707	1715	1793	2004	2364	2798	3424	3569	3690	3793	3880	3938	3982	4004	4015
	52.5	1567	1576	1652	1843	2212	2718	3462	3653	3816	3941	4042	4116	4168	4192	4196
	55	1411	1422	1503	1690	2040	2654	3500	3722	3927	4087	4209	4304	4369	4397	4383
	57.5	1237	1248	1321	1544	1875	2571	3482	3733	3970	4177	4347	4468	4543	4567	4553
	60	1009	1031	1101	1335	1696	2437	3427	3707	3990	4255	4463	4621	4718	4745	4730
	62.5	637	650	733	987	1430	2290	3354	3670	4008	4320	4582	4775	4906	4970	4946
	65	400	408	423	544	940	2021	3238	3625	4060	4452	4765	4991	5161	5269	5272
	67.5	304	315	326	357	433	1343	2884	3391	3965	4603	5102	5432	5625	5764	5819
	70	241	249	265	283	274	611	2026	2638	3364	4282	5212	5882	6296	6470	6456
	72.5	175	183	204	221	213	291	862	1356	2084	3048	4296	5406	6092	6379	6325
	75	129	135	159	163	163	181	257	370	661	1324	2437	3664	4553	5059	5218
	77.5	101	105	128	112	118	123	146	163	193	330	821	1963	2933	3468	3738
	80	68	72	95	77	72	85	79	86	97	115	168	530	1389	1788	1971
	82.5	35	38	55	55	37	42	39	40	42	45	54	111	365	537	577
	85	12	14	20	19	13	13	13	13	13	13	14	14	15	15	16
	87.5	1	2	2	2	3	3	4	4	4	5	5	6	6	6	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

		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	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783	2783
	2.5	2809	2804	2802	2796	2778	2771	2753	2734	2721	2711	2695	2693	2692	2688	2688
	5	2825	2815	2809	2802	2775	2757	2723	2694	2665	2641	2612	2600	2593	2589	2583
	7.5	2839	2827	2818	2803	2773	2745	2694	2649	2603	2564	2529	2509	2495	2484	2478
	10	2857	2843	2828	2810	2769	2734	2670	2603	2543	2493	2445	2412	2390	2373	2370
	12.5	2873	2859	2841	2817	2773	2725	2648	2563	2485	2417	2355	2308	2276	2256	2250
	15	2899	2879	2861	2839	2787	2733	2634	2525	2430	2339	2255	2189	2142	2114	2109
	17.5	2930	2905	2891	2869	2810	2750	2631	2503	2377	2252	2145	2050	1986	1950	1945
	20	2965	2945	2928	2907	2843	2778	2640	2482	2325	2165	2021	1899	1813	1769	1765
	22.5	3011	2999	2979	2957	2893	2820	2659	2473	2271	2065	1878	1732	1630	1577	1571
	25	3071	3063	3044	3023	2960	2876	2693	2465	2215	1953	1728	1550	1417	1349	1342
	27.5	3129	3124	3114	3097	3032	2948	2739	2467	2151	1833	1558	1337	1196	1135	1129
	30	3184	3188	3186	3175	3113	3031	2795	2476	2082	1698	1364	1135	1021	974	968
	32.5	3240	3251	3260	3252	3207	3122	2862	2481	2012	1545	1171	981	886	840	835
	35	3313	3332	3346	3346	3314	3224	2929	2487	1933	1374	1015	851	768	733	729
	37.5	3412	3435	3452	3460	3442	3348	2998	2478	1838	1204	879	733	663	630	627
	40	3528	3557	3581	3589	3581	3479	3072	2468	1715	1045	745	627	584	567	565
	42.5	3646	3674	3701	3716	3715	3610	3138	2438	1566	889	630	568	551	540	540
	45	3765	3787	3813	3829	3836	3723	3188	2390	1367	726	558	538	523	511	510
	47.5	3884	3901	3927	3952	3968	3828	3220	2299	1135	596	520	507	495	482	482
	50	4023	4031	4054	4077	4085	3924	3222	2140	902	536	488	477	472	462	460
	52.5	4180	4172	4180	4195	4192	4019	3189	1915	679	502	456	450	476	444	432
	55	4352	4318	4303	4298	4291	4081	3132	1601	528	472	430	433	465	429	413
	57.5	4504	4449	4404	4386	4360	4094	3007	1238	453	440	402	414	428	400	387
	60	4673	4580	4503	4456	4381	4054	2830	892	410	405	380	397	394	357	346
	62.5	4877	4756	4633	4559	4405	3996	2600	630	375	370	374	370	353	314	305
	65	5200	5055	4884	4759	4478	3955	2319	479	344	334	355	330	315	277	270
	67.5	5765	5588	5341	5131	4691	3976	1978	396	307	297	336	287	287	251	245
	70	6323	6050	5695	5376	4819	4014	1569	338	264	263	299	248	263	231	227
	72.5	5995	5612	5186	4818	4329	3665	1080	278	227	226	252	216	258	268	274
	75	5094	4703	4237	3855	3471	2942	572	201	180	185	214	204	293	327	326
	77.5	3833	3718	3297	2876	2507	2035	247	135	124	138	180	206	266	269	265
	80	2047	2044	1877	1584	1351	1067	98	80	76	93	125	145	164	171	166
	82.5	574	562	527	447	350	265	37	39	39	48	64	74	79	75	71
	85	16	16	15	15	15	14	13	13	12	13	19	27	18	6	2
	87.5	7	7	7	7	7	7	5	4	3	3	2	1	1	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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Luminous Intensity (Candela) Table

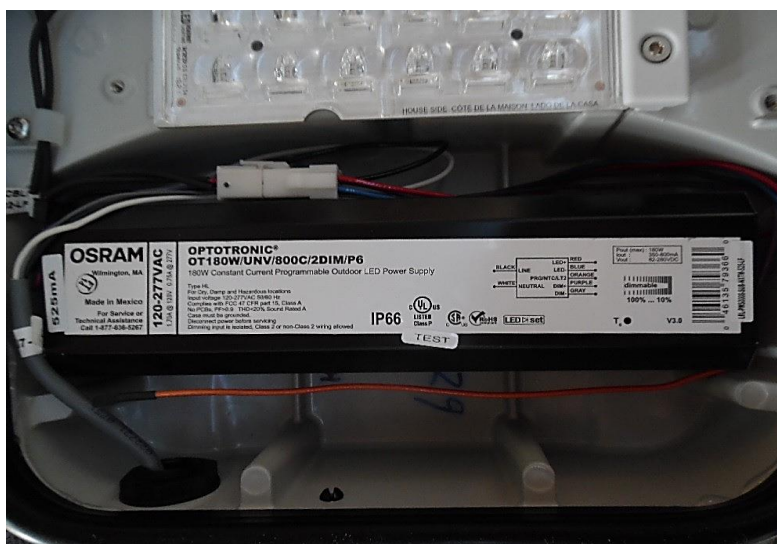
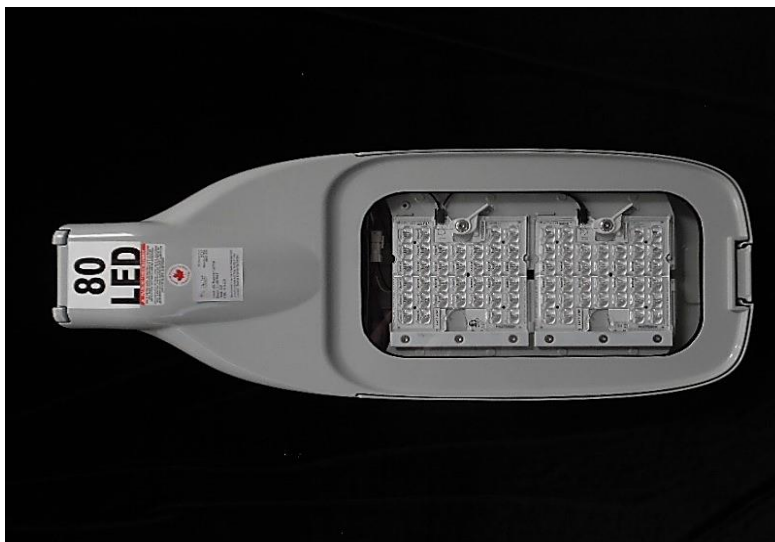
		Lateral (C-Plane) Angles														
		77.5	80	82.5	85	90	95	105	115	125	135	145	155	165	175	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0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

LLIA001574-008A-R01

Additional Pictures of Test Subject



Report of Test

LLIA001574-008A-R01

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-31-95 and LM-10-96.

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.

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-75-01.

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.

Revision

R01 - 11/11/2021 - Revised Catalog Number and quantity of LEDs



Report of Test

LLIA001574-008B-R01*

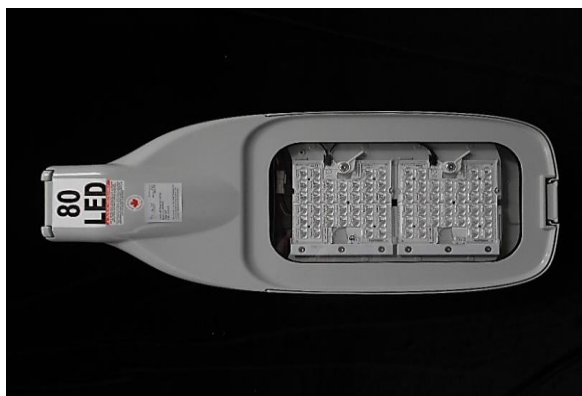
Integrating Sphere Report

Catalog Number: NXT-48M-5-X-2ES-5-XX-4-XX-X-XX-X

Pole/arm mounted, grey painted cast aluminum housing and door/driver compartment cover, two circuit boards, two clear plastic lenses with optic below each LED and clear flat glass enclosure.

48 white LEDs

Osram Optotronic OT180/UNV/800C/2DIM/P6 LED driver labeled as 525mA, WH91-5U1-03 surge suppressor



Performance Summary

Voltage	120.0 Vac
Current	0.6638 A
Power	79.06 W
Frequency	59.99 Hz
Power Factor	0.992
Current THD	5.5 %
Total Luminous Flux	10069.5 lm
Efficacy	127.4 lm/W
Chromaticity (x,y)	(0.4327, 0.4084)
(u',v')	(0.2460, 0.5224)
Duv	0.0023
CCT	3108 K
CRI (Ra)	73
R9	-27
TM-30: Rf	72
TM-30: Rg	97
TM-30: Rcs,h1	-15

Prepared For:

LED Roadway Lighting

84 Chain Lake Drive

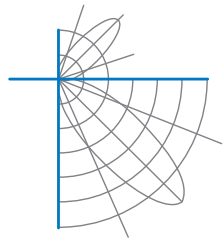
Suite 403

Halifax, Nova Scotia B3S 1A2, Canada

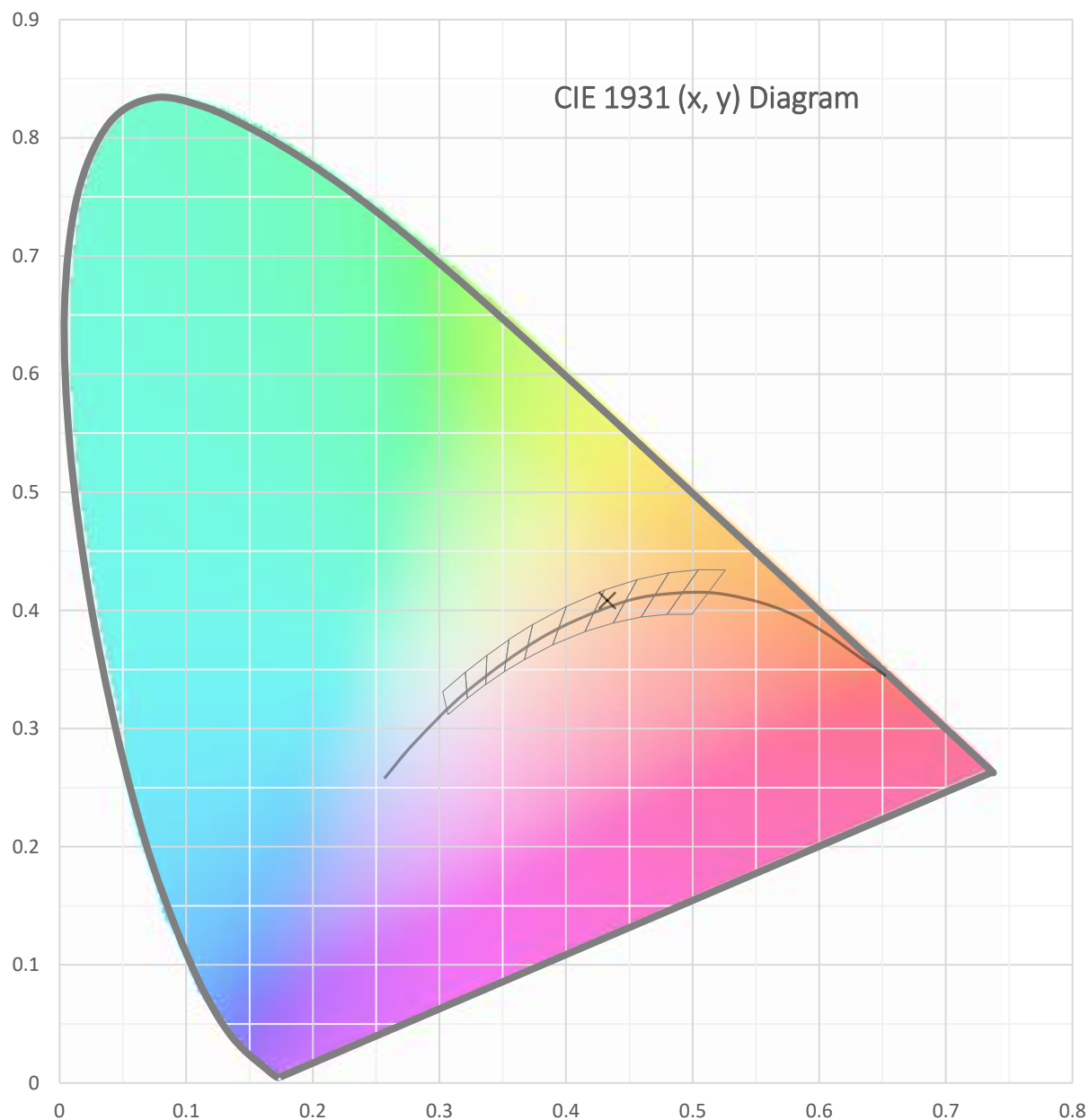
*This test report supersedes test report LLIA001574-008B

Test date: 11/05/2021

Report date: 11/11/2021

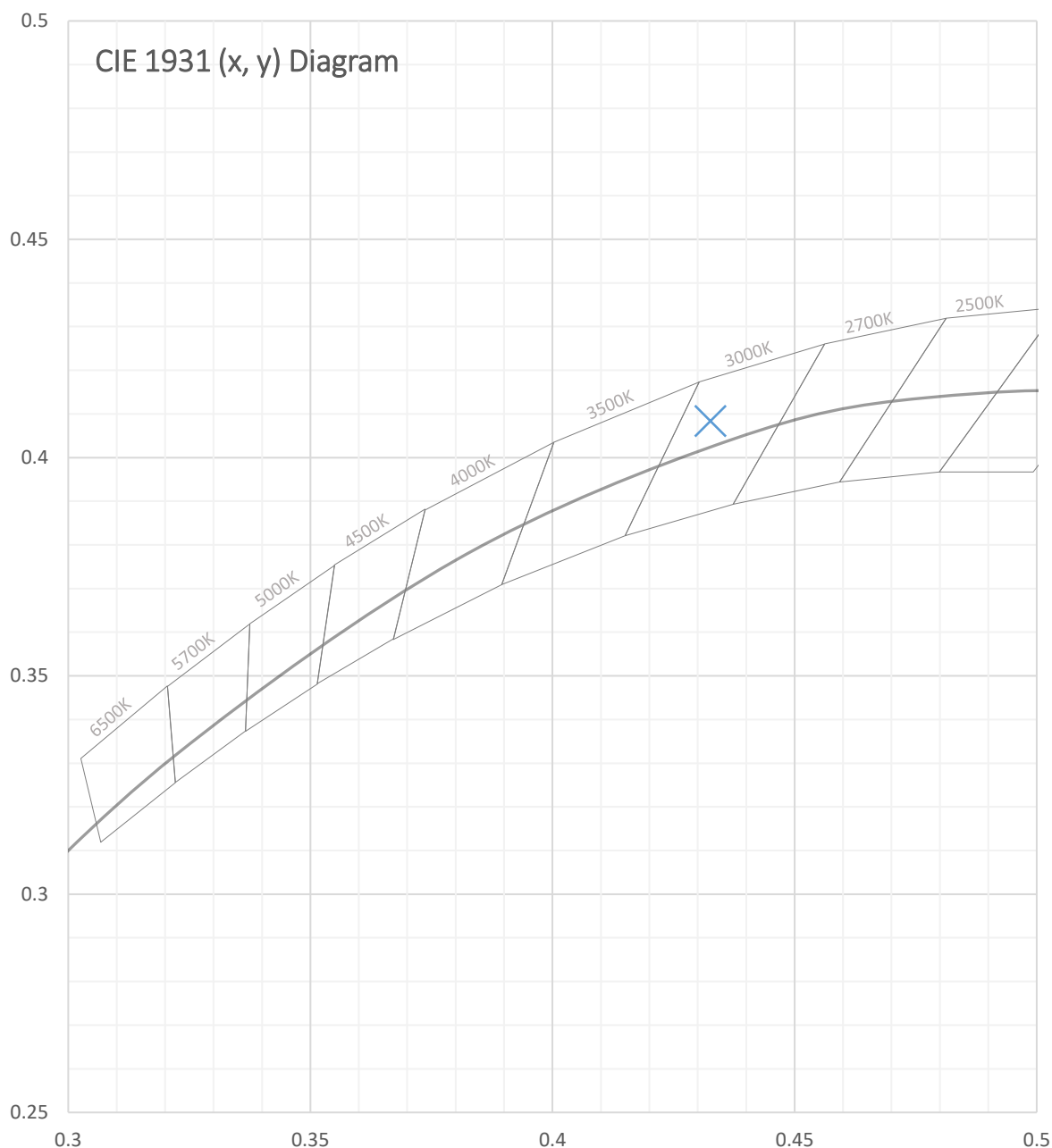


Test Report Number: LLIA001574-008B-R01





Test Report Number: LLIA001574-008B-R01





Test Report Number: LLIA001574-008B-R01

Total Radiant Flux	28.79 W
Total Luminous Flux	10069.5 Lm
Chromaticity CIE 1931 (x, y)	(0.4327, 0.4084)
Chromaticity CIE 1976 (u', v')	(0.2460, 0.5224)
Correlated Color Temperature (CCT)	3108 K
Color Rendering Index (Ra)	73
R1	70
R2	80
R3	91
R4	72
R5	69
R6	73
R7	80
R8	48
R9	-27
R10	55
R11	69
R12	49
R13	71
R14	94
TM-30: Rf	72
TM-30: Rg	97
TM-30: Rcs,h1	-15
Distance from Planckian Locus (Duv)	0.0023
Scotopic/Photopic Ratio $\frac{V(\lambda)}{V_m(\lambda)}$	1.223

Electrical Data

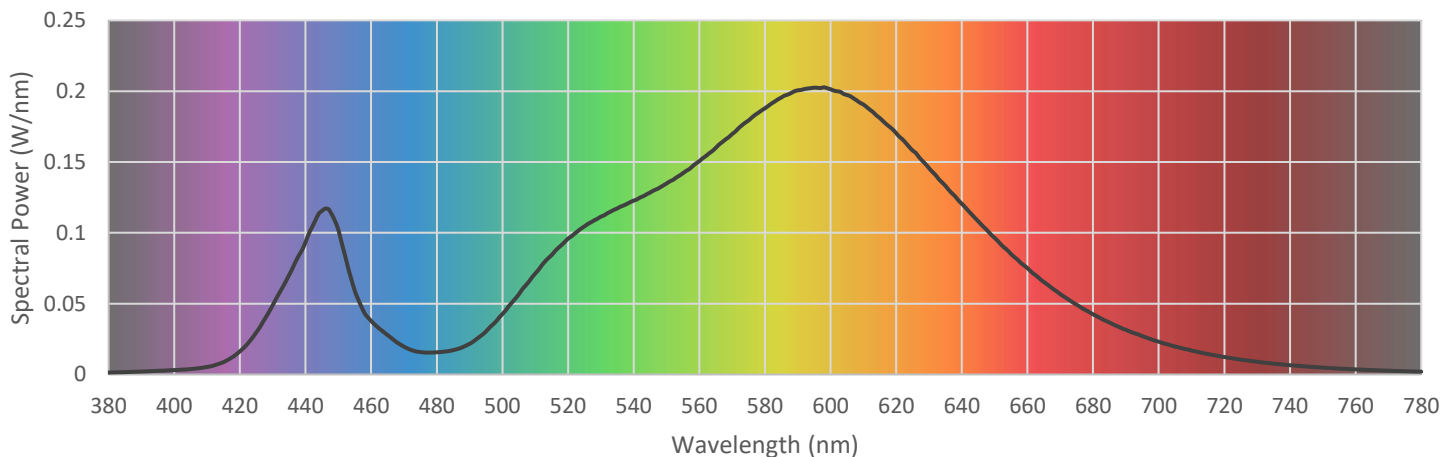
Voltage	120.0 Vac
Current	0.6638 A
Power	79.06 W
Frequency	59.99 Hz
Power Factor	0.992
Current THD	5.5 %



Test Report Number: LLIA001574-008B-R01

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

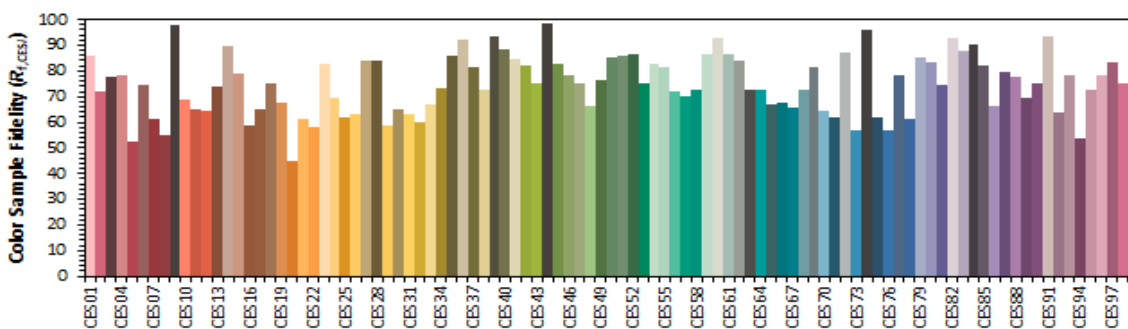
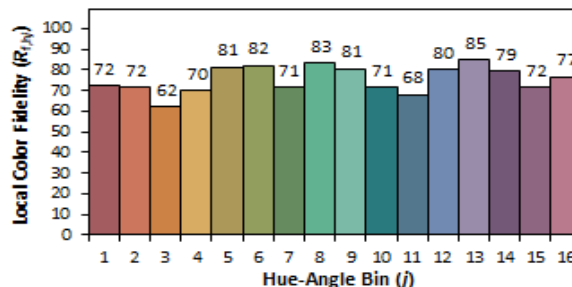
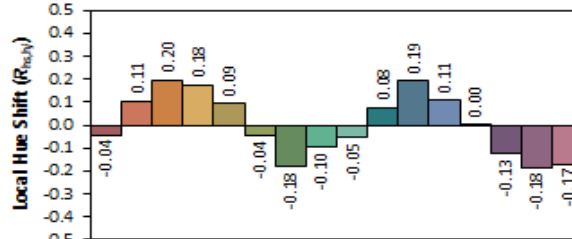
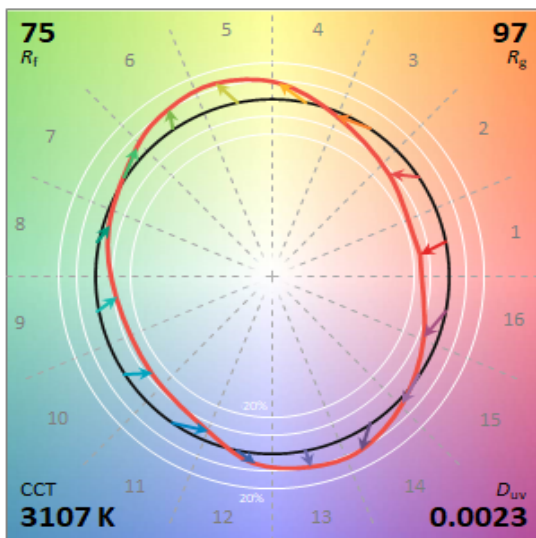
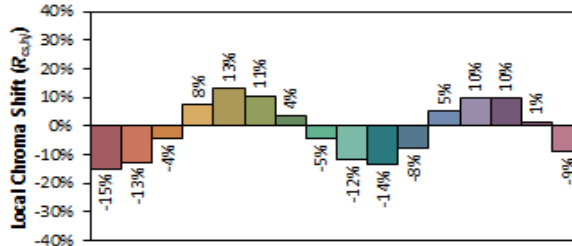
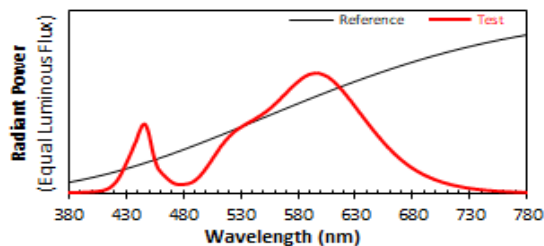
380	0.001412	480	0.015649	580	0.187932	680	0.042481
385	0.001655	485	0.017179	585	0.195543	685	0.036694
390	0.002071	490	0.021662	590	0.200610	690	0.031495
395	0.002585	495	0.030380	595	0.202464	695	0.027066
400	0.003095	500	0.042686	600	0.201363	700	0.023135
405	0.003806	505	0.056595	605	0.197301	705	0.019745
410	0.005332	510	0.071286	610	0.190606	710	0.016890
415	0.008741	515	0.084310	615	0.181045	715	0.014460
420	0.016334	520	0.095959	620	0.170319	720	0.012322
425	0.029787	525	0.104562	625	0.158125	725	0.010495
430	0.048953	530	0.111412	630	0.145661	730	0.008970
435	0.070246	535	0.117228	635	0.133201	735	0.007655
440	0.093483	540	0.122724	640	0.120473	740	0.006534
445	0.115522	545	0.128441	645	0.108187	745	0.005635
450	0.102088	550	0.134777	650	0.096409	750	0.004849
455	0.059115	555	0.142057	655	0.084971	755	0.004165
460	0.037749	560	0.150596	660	0.075049	760	0.003596
465	0.027744	565	0.159979	665	0.065278	765	0.003080
470	0.019626	570	0.169747	670	0.056716	770	0.002653
475	0.015826	575	0.179307	675	0.049250	775	0.002295
						780	0.001984





Test Report Number: LLIA001574-008B-R01

IES TM-30 Details



Notes:

x 0.4327
y 0.4083
u' 0.2460
v' 0.5224

CIE 13.3-1995
(CRI)

R_a 73
R_g -27



Test Report Number: LLIA001574-008B-R01

Test Equipment Configuration:	LightLab International Allentown 2m Integrating Sphere Measurements acquired using a Labsphere CDS 2600 spectroradiometer Testing was performed using 4 π geometry
Test Temperature:	25.0 °C
Test Procedure:	Tested in accordance with the applicable sections of: LM-79-19, LM-78-07, LM-58-13, ANSI_ANSI C78.377-2017, TM-30-18
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>
Revision:	R01 - 11/11/2021 - Revised Catalog Number and quantity of LEDs



Report of Test

LLIA001574-008C-R01*

Electrical Test Report

Catalog Number: NXT-48M-5-X-2ES-5-XX-4-XX-X-XX-X

Pole/arm mounted, grey painted cast aluminum housing and door/driver compartment cover, two circuit boards, two clear plastic lenses with optic below each LED and clear flat glass enclosure.

48 white LEDs

Osram Optotronic OT180/UNV/800C/2DIM/P6 LED driver labeled as 525mA, WH91-5U1-03 surge suppressor



Performance Summary

Voltage	277.0 Vac
Current	0.3106 A
Power	78.25 W
Frequency	60.00 Hz
Power Factor	0.910
Current THD	14.2 %

Ambient Temperature: 25.3 °C

Prepared For:
LED Roadway Lighting
84 Chain Lake Drive
Suite 403

Halifax, Nova Scotia B3S 1A2, Canada

*This test report supersedes test report LLIA001574-008C

R01 - 11/11/2021 - Revised Catalog Number and quantity of LEDs

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: 11/05/2021

Report date: 11/11/2021

Electrical Report Template V1-3