



## Report of Test

**LLIA001574-005A-R02\***

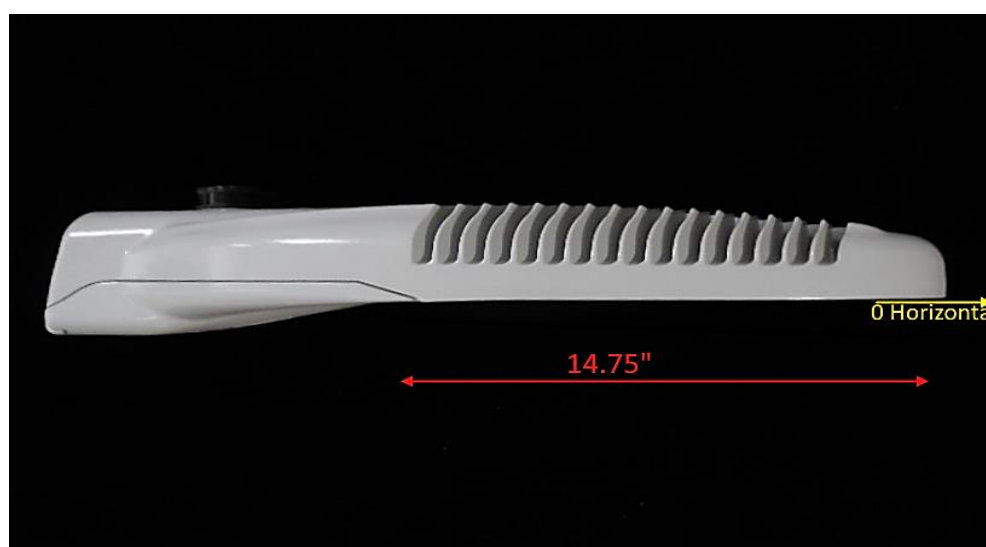
Roadway/Area Light Distribution Photometry Test Report

Catalog Number: NXT-60M-5-X-2ES-6-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.

60 white LEDs

Osram Optotronic OT180/UNV/800C/2DIM/P6 LED driver labeled as 600mA, 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	13829.2 Lumens
Input Current	0.9426 A	Total Efficacy	122.9 Lm/W
Input Power	112.5 W		
Frequency	60.00 Hz	Roadway Throw	Medium
Power Factor	0.995	Roadway Type	Type II
Current THD	4.4 %	IES BUG Rating	B3 - U0 - G3

\*This test report supersedes test report LLIA001574-005A-R01

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

Test date: 11/03/2021

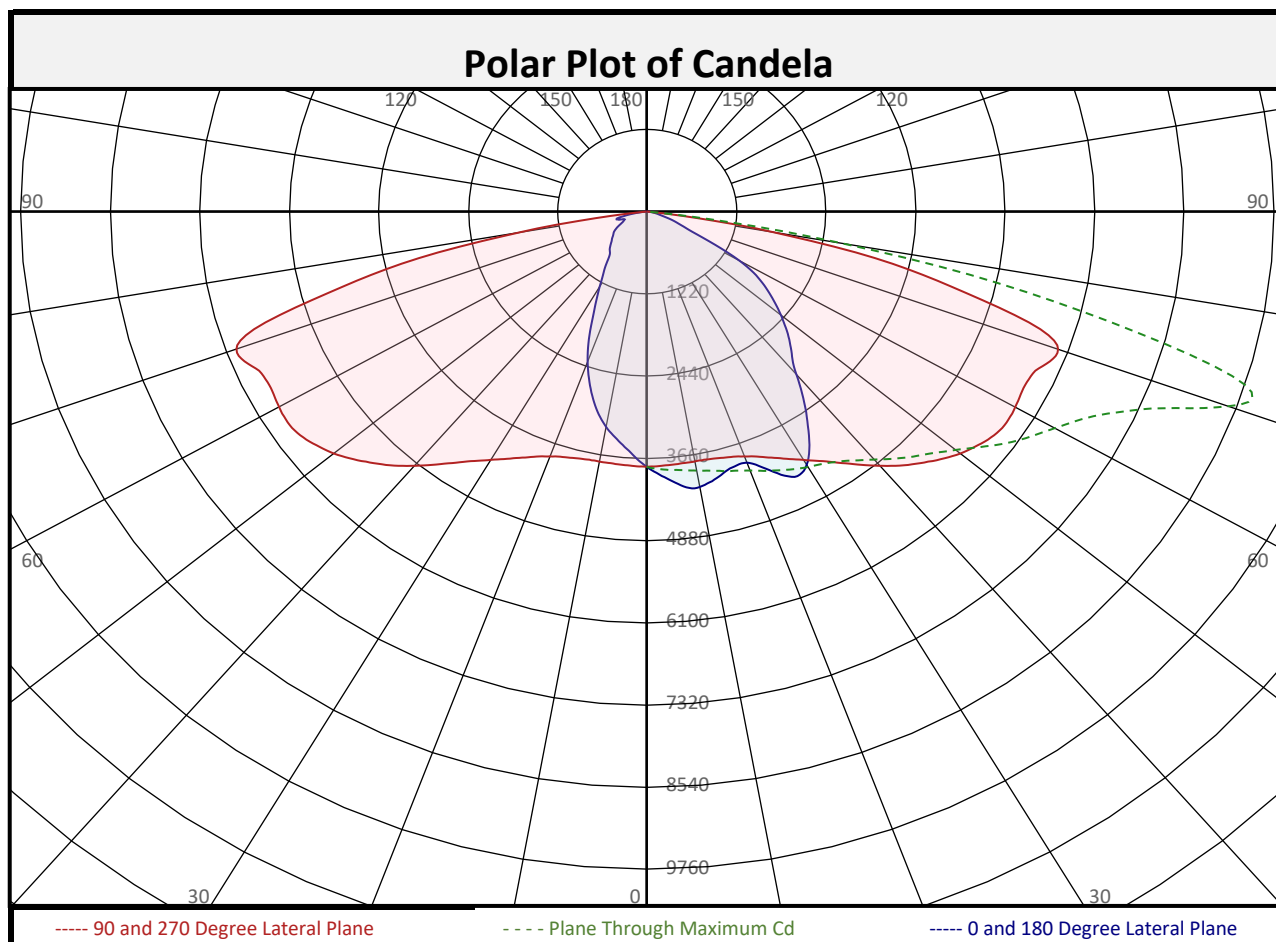
Report date: 11/11/2021

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



## Report of Test

### LLIA001574-005A-R02

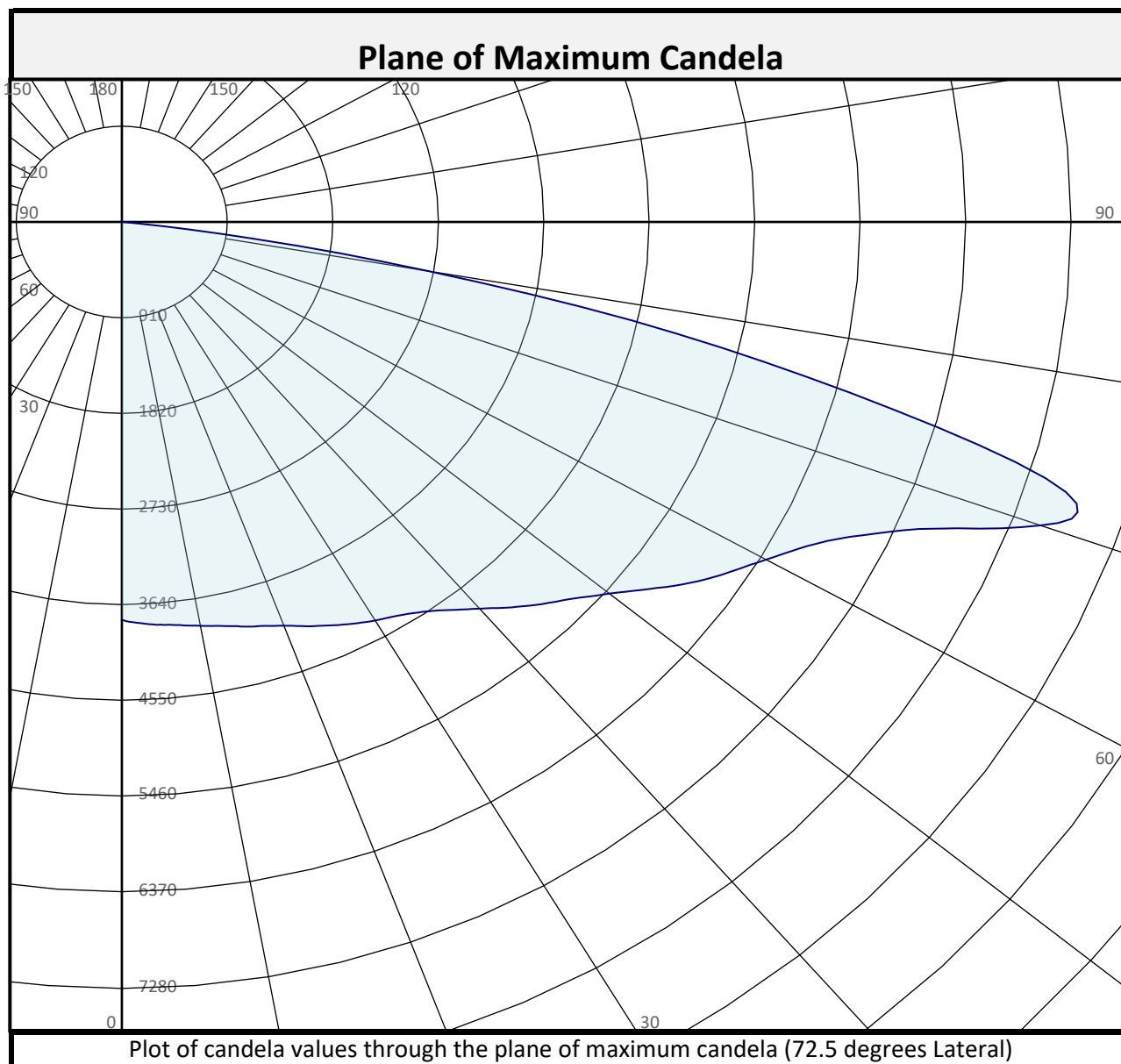


Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	358.6	2.6%		90-100	0.0	0.0%		0-20	1383	10.0%
10-20	1024	7.4%		100-110	0.0	0.0%		0-30	2975	21.5%
20-30	1592	11.5%		110-120	0.0	0.0%		0-40	5038	36.4%
30-40	2063	14.9%		120-130	0.0	0.0%		0-60	9946	71.9%
40-50	2372	17.2%		130-140	0.0	0.0%		0-80	13716	99.2%
50-60	2535	18.3%		140-150	0.0	0.0%		10-90	13471	97.4%
60-70	2351	17.0%		150-160	0.0	0.0%		20-50	6027	43.6%
70-80	1419	10.3%		160-170	0.0	0.0%		40-90	8791	63.6%
80-90	113.3	0.8%		170-180	0.0	0.0%		60-90	3884	28.1%
0-90	13829	100.0%		90-180	0.0	0.0%		0-180	13829	100.0%

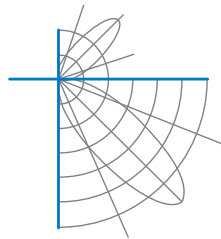


## Report of Test

### LLIA001574-005A-R02

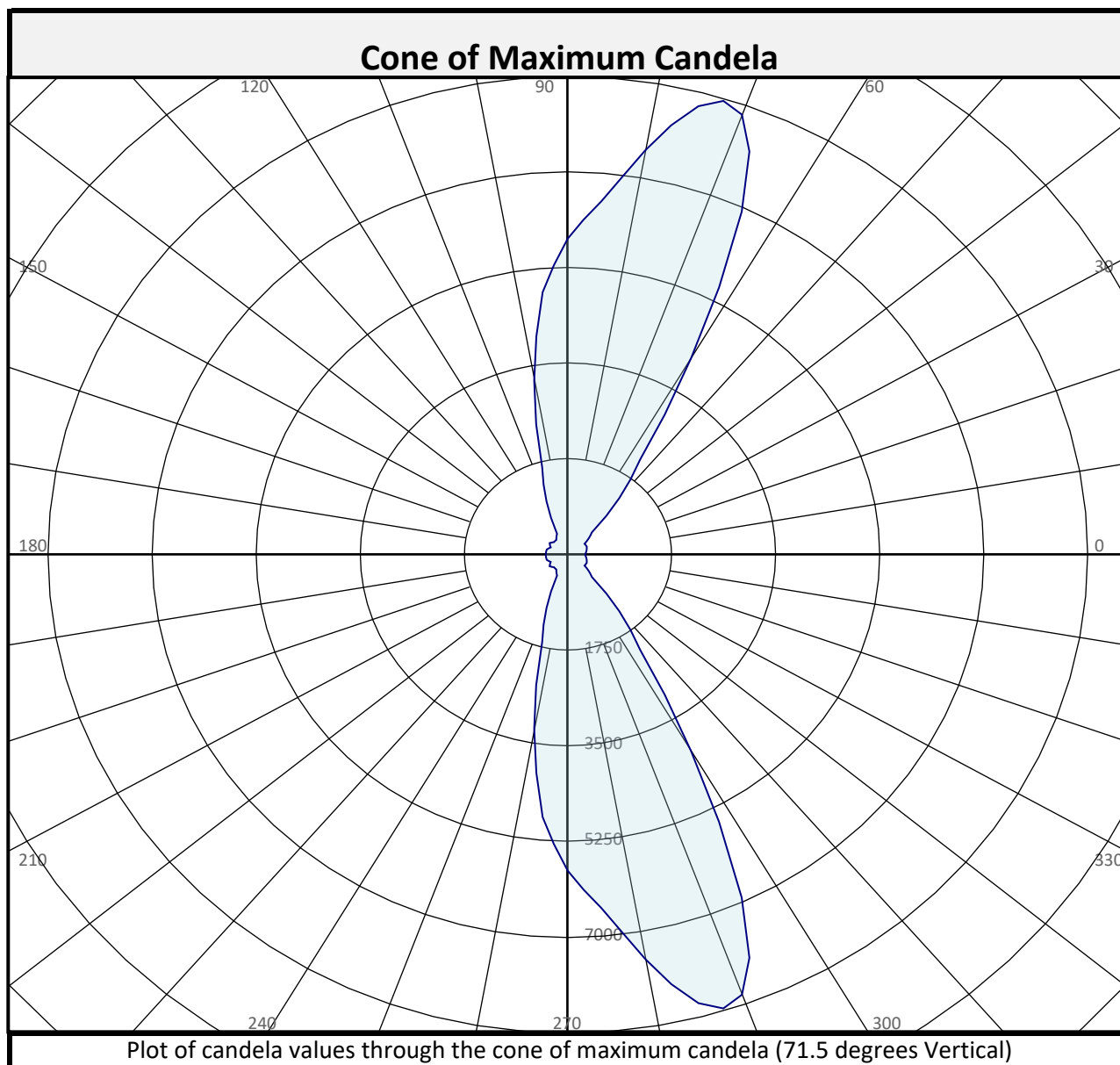


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	9211.2	66.6%	0.0	0.0%	9211.2	66.6%
House Side	4618.0	33.4%	0.0	0.0%	4618.0	33.4%
Total	13829.2	100.0%	0.0	0.0%	13829.2	100.0%



## Report of Test

### LLIA001574-005A-R02



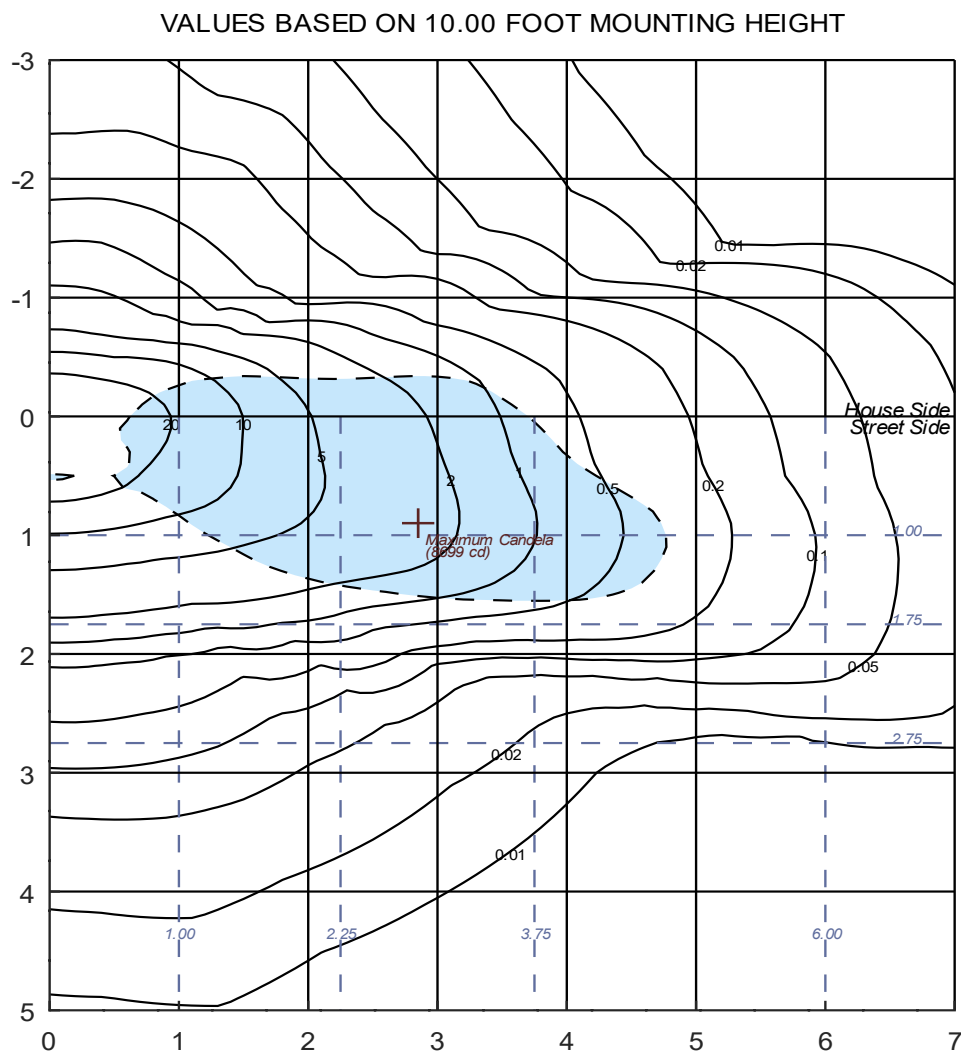
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	9211.2	66.6%	0.0	0.0%	9211.2	66.6%
House Side	4618.0	33.4%	0.0	0.0%	4618.0	33.4%
Total	13829.2	100.0%	0.0	0.0%	13829.2	100.0%



## Report of Test

### LLIA001574-005A-R02

#### Iso-Illuminance Plot



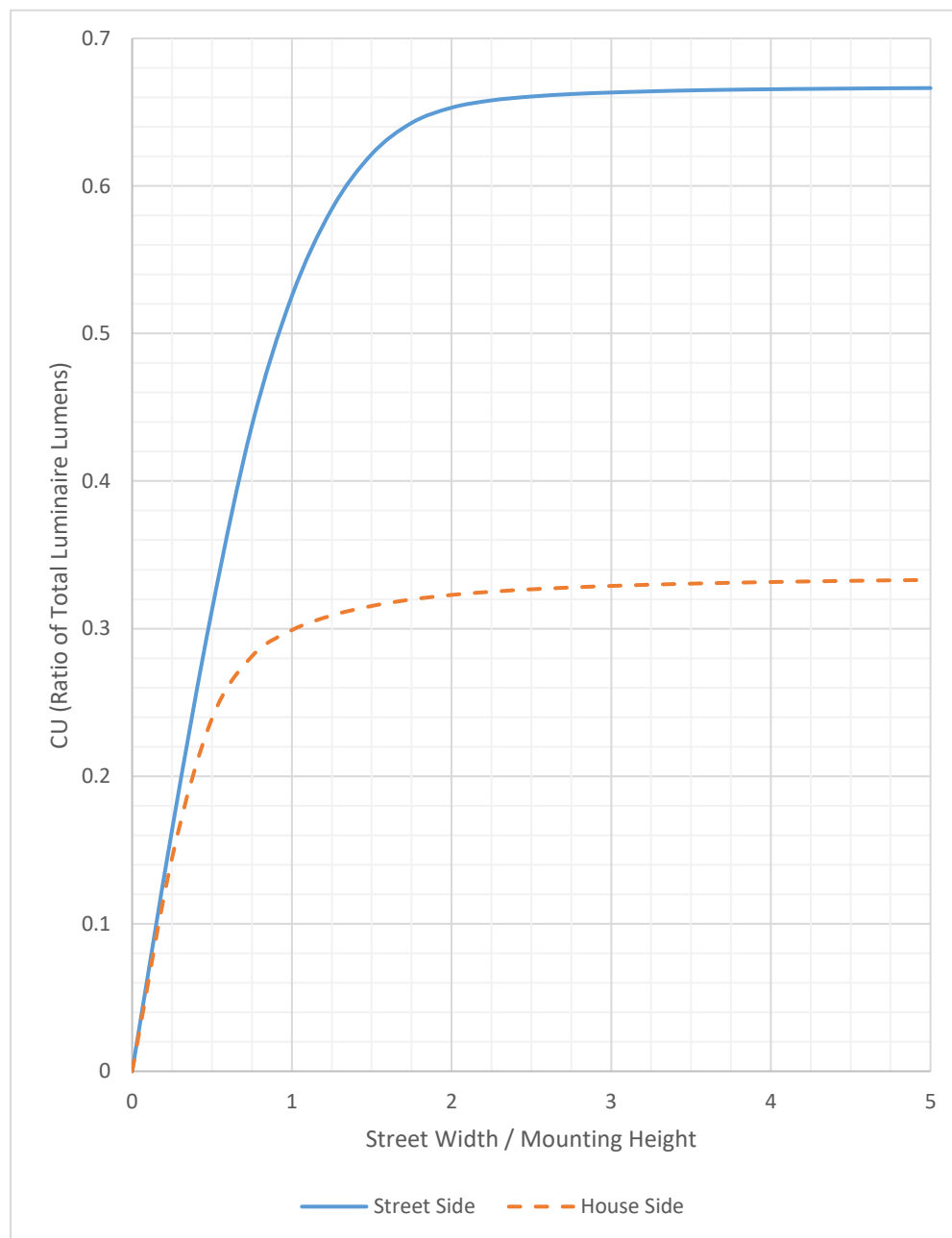
The isofootcandle values shown in the plot above are based on a mounting height of  $h = 10.0$  feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the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



## Report of Test

### LLIA001574-005A-R02

#### Coefficients of Utilization Plot

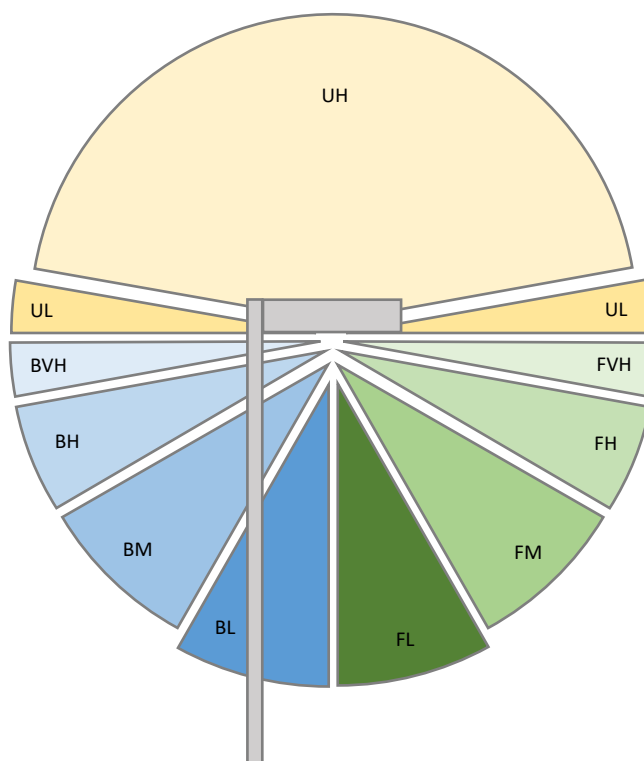




## Report of Test

### LLIA001574-005A-R02

#### LCS Tables and Bug Classification



#### Back Light

BL - Back Low (0°-30°)	1259.2 Lm
BM - Back Mid (30°-60°)	2295.0 Lm
BH - Back High (60°-80°)	1026.5 Lm
BVH - Back Very High (80°-90°)	37.3 Lm

#### Uplight

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

#### Forward Light

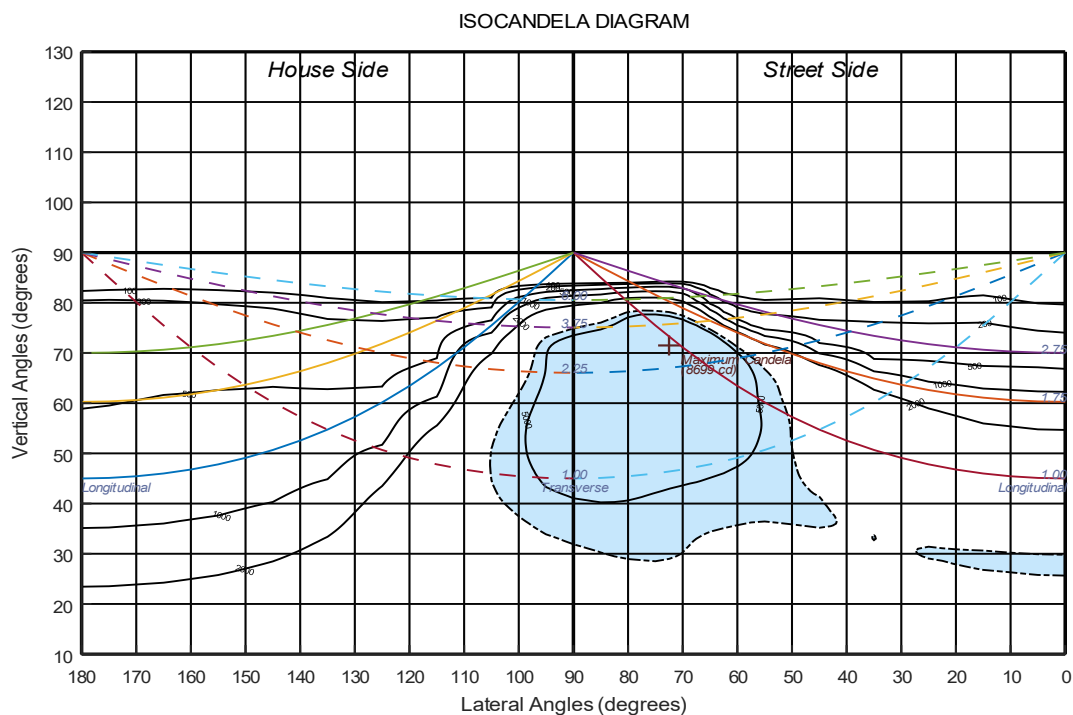
FL - Forward Low (0°-30°)	1716.0 Lm
FM - Forward Mid (30°-60°)	4675.3 Lm
FH - Forward High (60°-80°)	2743.9 Lm
FVH - Forward Very High (80°-90°)	76.0 Lm

BUG Ratings: B3 - U0 - G3



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## Iso-Candela Plot



Half-max Candela Contour Line



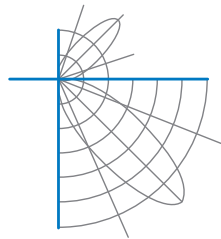


## Report of Test

**LLIA001574-005A-R02**

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	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	
	2.5	3904	3902	3899	3886	3872	3858	3849	3844	3836	3839	3834	3832	3826	3820	
	5	4017	4017	4013	3990	3965	3937	3908	3893	3885	3878	3867	3863	3855	3845	
	7.5	4127	4125	4120	4093	4053	4012	3969	3951	3940	3925	3913	3900	3884	3867	
	10	4149	4149	4150	4150	4125	4085	4028	4006	3989	3975	3956	3939	3922	3900	
	12.5	4098	4096	4100	4112	4123	4129	4085	4063	4042	4021	4002	3982	3960	3935	
	15	4017	4019	4022	4039	4067	4109	4118	4106	4096	4074	4055	4024	4004	3984	
	17.5	3965	3959	3957	3962	3991	4047	4110	4120	4120	4116	4103	4079	4054	4029	
	20	3964	3960	3942	3935	3941	3986	4074	4100	4124	4133	4135	4128	4110	4087	
	22.5	4111	4102	4036	3961	3930	3947	4042	4074	4109	4134	4166	4170	4171	4163	
	25	4309	4295	4225	4101	3971	3952	4023	4061	4096	4138	4184	4209	4230	4234	
	27.5	4425	4424	4391	4269	4095	3991	4035	4068	4108	4156	4205	4253	4289	4308	
	30	4337	4344	4382	4376	4246	4085	4085	4111	4147	4189	4240	4293	4346	4376	
	32.5	4106	4113	4198	4298	4348	4216	4165	4179	4208	4246	4287	4337	4395	4439	
	35	3797	3804	3920	4087	4314	4342	4274	4290	4314	4345	4379	4420	4473	4526	
	37.5	3485	3504	3633	3835	4163	4423	4401	4413	4446	4471	4503	4538	4593	4652	
	40	3157	3176	3342	3576	3950	4392	4512	4539	4569	4609	4649	4689	4741	4802	
	42.5	2916	2930	3069	3342	3744	4297	4623	4668	4711	4768	4817	4866	4918	4973	
	45	2743	2751	2870	3135	3565	4166	4705	4782	4851	4927	4991	5056	5099	5139	
	47.5	2560	2571	2678	2949	3411	4035	4775	4907	5009	5100	5182	5240	5280	5300	
	50	2368	2373	2476	2760	3247	3908	4826	5016	5169	5286	5380	5447	5486	5498	
	52.5	2170	2180	2277	2547	3065	3791	4876	5134	5340	5488	5595	5681	5718	5735	
	55	1974	1982	2079	2329	2848	3704	4924	5226	5484	5675	5826	5926	5978	5985	
	57.5	1758	1765	1857	2140	2618	3604	4902	5246	5557	5825	6019	6146	6204	6206	
	60	1438	1461	1562	1876	2367	3436	4830	5225	5610	5932	6173	6344	6419	6422	
	62.5	951	968	1089	1424	2032	3234	4755	5197	5650	6035	6340	6546	6661	6673	
	65	607	624	653	840	1415	2892	4609	5164	5738	6242	6598	6836	6993	7053	
	67.5	468	483	496	548	698	2042	4184	4892	5685	6478	7041	7374	7552	7622	
	70	366	375	391	420	415	968	3104	3980	5006	6187	7267	7979	8356	8438	
	72.5	250	260	290	315	309	438	1488	2315	3419	4816	6403	7628	8334	8546	
	75	180	188	219	229	230	263	427	697	1334	2449	4046	5494	6424	6897	
	77.5	137	142	172	157	167	174	211	239	337	719	1741	3233	4324	4900	
	80	93	98	128	105	104	120	117	128	151	216	443	1218	2214	2669	
	82.5	52	56	79	76	55	61	56	59	64	80	130	301	684	862	
	85	19	21	30	29	20	19	19	20	20	20	21	21	22	22	
	87.5	3	3	3	4	4	4	5	6	6	7	7	8	8	9	
	90	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	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783	3783
	2.5	3811	3803	3800	3795	3777	3770	3743	3720	3699	3680	3666	3654	3648	3644	3644
	5	3824	3815	3807	3794	3769	3753	3699	3656	3612	3577	3544	3526	3516	3502	3504
	7.5	3837	3827	3815	3796	3762	3733	3659	3589	3526	3478	3442	3411	3391	3377	3373
	10	3860	3840	3825	3800	3762	3719	3618	3532	3452	3390	3336	3297	3265	3245	3242
	12.5	3887	3860	3839	3811	3765	3712	3587	3482	3380	3295	3222	3162	3114	3083	3079
	15	3923	3895	3868	3839	3784	3717	3571	3439	3315	3200	3092	2996	2926	2882	2876
	17.5	3971	3939	3902	3872	3815	3736	3566	3414	3249	3087	2934	2803	2704	2654	2647
	20	4036	3995	3962	3927	3862	3775	3582	3392	3178	2959	2755	2587	2466	2403	2397
	22.5	4113	4078	4041	4005	3931	3836	3617	3379	3104	2819	2557	2351	2205	2128	2117
	25	4207	4180	4142	4104	4024	3921	3672	3380	3024	2660	2342	2089	1905	1813	1801
	27.5	4305	4290	4256	4216	4131	4023	3741	3381	2934	2488	2102	1800	1622	1545	1537
	30	4395	4395	4374	4339	4249	4140	3828	3384	2840	2299	1836	1545	1395	1329	1322
	32.5	4491	4496	4492	4464	4384	4272	3919	3396	2737	2080	1589	1342	1205	1146	1140
	35	4603	4624	4633	4614	4545	4421	4012	3397	2621	1849	1382	1161	1058	1013	1006
	37.5	4745	4781	4797	4792	4727	4592	4111	3383	2483	1629	1198	1007	916	872	868
	40	4911	4953	4975	4980	4920	4771	4217	3361	2307	1418	1021	866	814	797	794
	42.5	5069	5111	5143	5158	5108	4950	4296	3312	2098	1205	868	792	772	761	761
	45	5215	5255	5285	5314	5274	5101	4354	3236	1833	988	777	750	731	714	713
	47.5	5362	5397	5430	5469	5434	5227	4382	3086	1522	815	723	704	685	666	664
	50	5526	5544	5564	5600	5581	5340	4366	2867	1207	736	676	659	651	635	629
	52.5	5702	5695	5699	5721	5689	5424	4300	2531	912	691	633	621	652	606	590
	55	5903	5853	5824	5822	5782	5464	4183	2100	719	649	593	597	632	584	562
	57.5	6072	5978	5920	5896	5818	5442	3982	1630	625	605	552	569	579	543	527
	60	6245	6109	6009	5957	5800	5346	3717	1189	563	554	521	539	535	490	477
	62.5	6464	6279	6122	6031	5769	5215	3379	858	513	506	509	502	479	428	417
	65	6830	6592	6360	6187	5778	5088	2970	664	471	457	482	447	426	375	367
	67.5	7419	7125	6798	6507	5897	5008	2494	550	421	406	455	390	392	346	341
	70	8026	7606	7122	6705	5968	4961	1969	467	362	358	409	340	368	336	330
	72.5	7816	7219	6614	6131	5463	4580	1421	386	308	304	343	301	369	392	397
	75	6601	5974	5331	4840	4301	3606	764	273	241	245	289	276	389	436	434
	77.5	5133	4778	4134	3630	3189	2599	365	186	166	182	235	270	345	362	356
	80	2832	2711	2374	1976	1730	1369	145	110	103	122	164	190	221	231	230
	82.5	860	804	727	598	501	383	53	55	53	65	86	101	112	102	93
	85	22	22	22	21	21	20	19	18	18	20	27	34	23	8	3
	87.5	9	9	9	9	9	8	7	6	4	4	3	2	1	1	1
	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

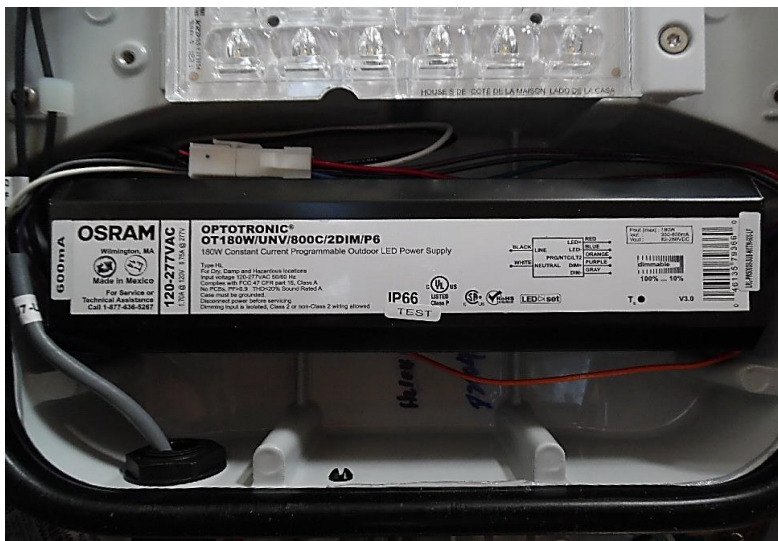
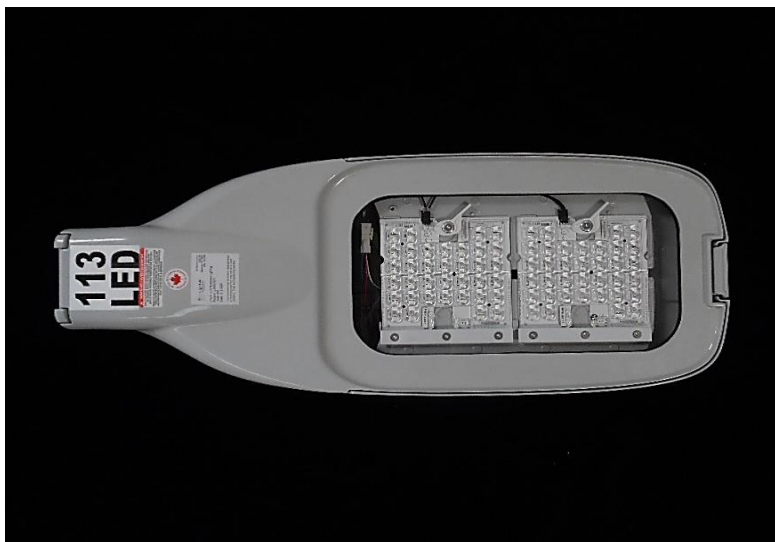
		Lateral (C-Plane) Angles														
		77.5	80	82.5	85	90	95	105	115	125	135	145	155	165	175	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0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

### LLIA001574-005A-R02

### Additional Pictures of Test Subject





## Report of Test

### LLIA001574-005A-R02

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 - 11/08/2021 - Changed Additional Pictures of Test Subject page to include photograph of LED driver
- R02 - 11/11/2021 - Revised Catalog Number and quantity of LEDs



## Report of Test

**LLIA001574-005B-R02\***

Integrating Sphere Report

Catalog Number: NXT-60M-5-X-2ES-6-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.

60 white LEDs

Osram Optotronic OT180/UNV/800C/2DIM/P6 LED driver labeled as 600mA, WH91-5U1-03 surge suppressor



### Performance Summary

Voltage	120.0 Vac
Current	0.9414 A
Power	112.5 W
Frequency	59.99 Hz
Power Factor	0.996
Current THD	4.4 %
Total Luminous Flux	13853.9 lm
Efficacy	123.1 lm/W
Chromaticity (x,y)	(0.4324, 0.4072)
(u',v')	(0.2463, 0.5219)
Duv	0.0019
CCT	3104 K
CRI (Ra)	73
R9	-27
TM-30: Rf	72
TM-30: Rg	96
TM-30: Rcs,h1	-15

Prepared For:

LED Roadway Lighting

84 Chain Lake Drive

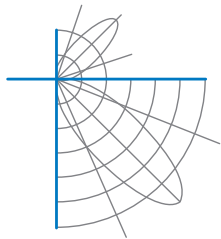
Suite 403

Halifax, Nova Scotia B3S 1A2, Canada

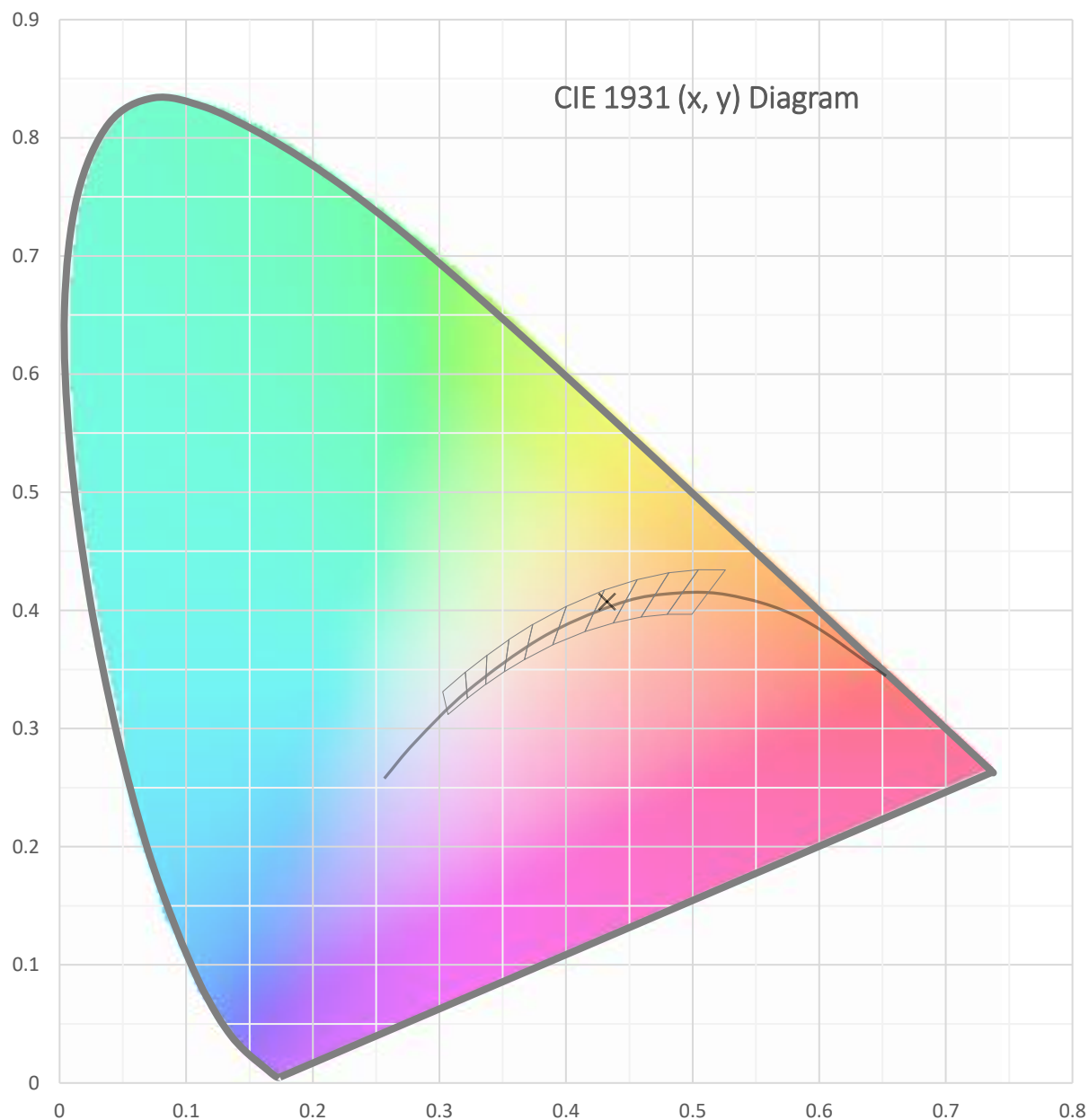
\*This test report supersedes test report LLIA001574-005B-R01

Test date: 11/02/2021

Report date: 11/11/2021



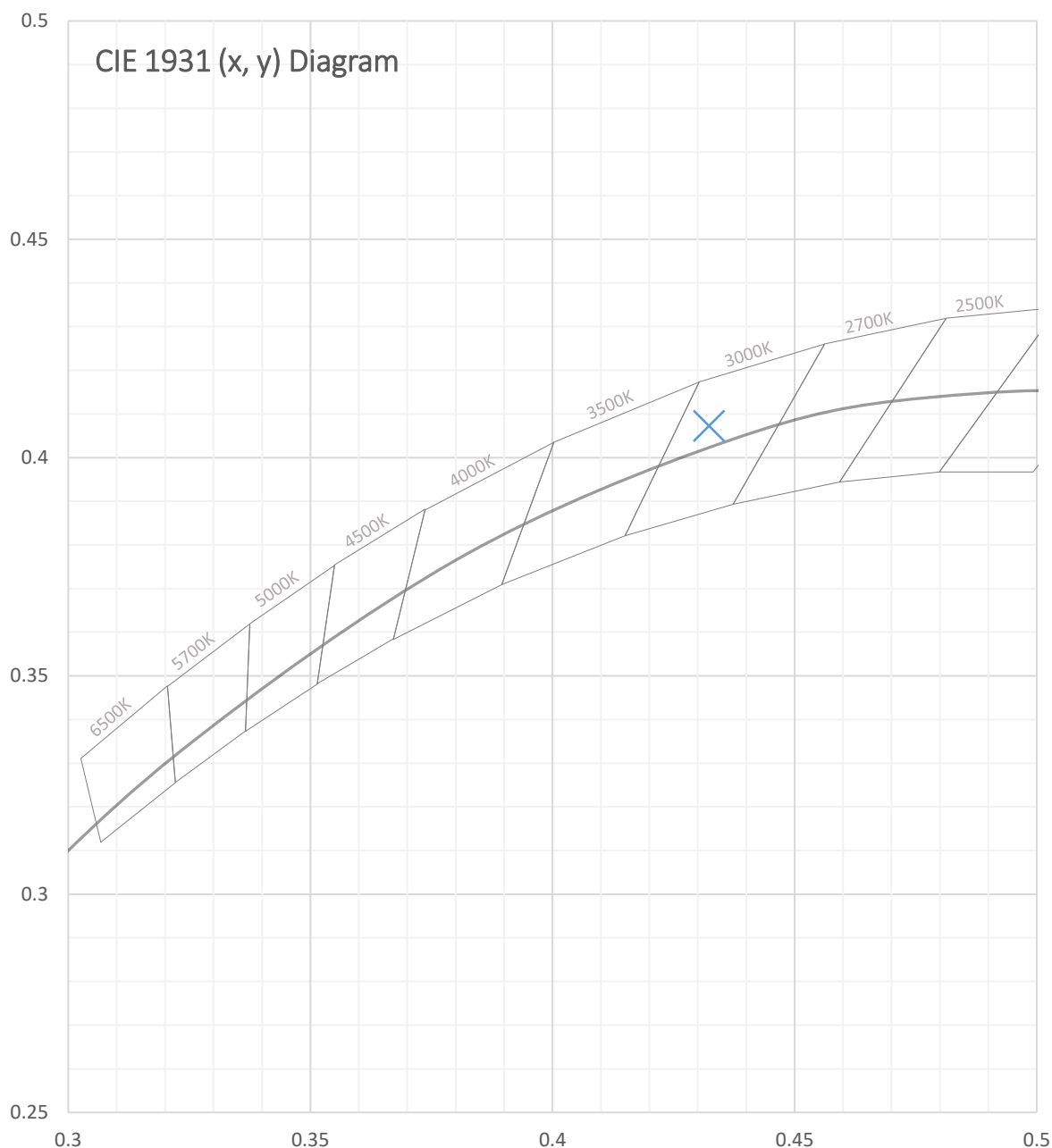
Test Report Number: LLIA001574-005B-R02







Test Report Number: LLIA001574-005B-R02





**Test Report Number: LLIA001574-005B-R02**

Total Radiant Flux	39.77 W
Total Luminous Flux	13853.9 Lm
Chromaticity CIE 1931 (x, y)	(0.4324, 0.4072)
Chromaticity CIE 1976 (u', v')	(0.2463, 0.5219)
Correlated Color Temperature (CCT)	3104 K
Color Rendering Index (Ra)	73
R1	70
R2	81
R3	91
R4	72
R5	69
R6	74
R7	80
R8	48
R9	-27
R10	55
R11	68
R12	49
R13	71
R14	95
TM-30: Rf	72
TM-30: Rg	96
TM-30: Rcs,h1	-15
Distance from Planckian Locus (Duv)	0.0019
Scotopic/Photopic Ratio $\frac{V_{\lambda}}{V_{\lambda}^0}$	1.225

**Electrical Data**

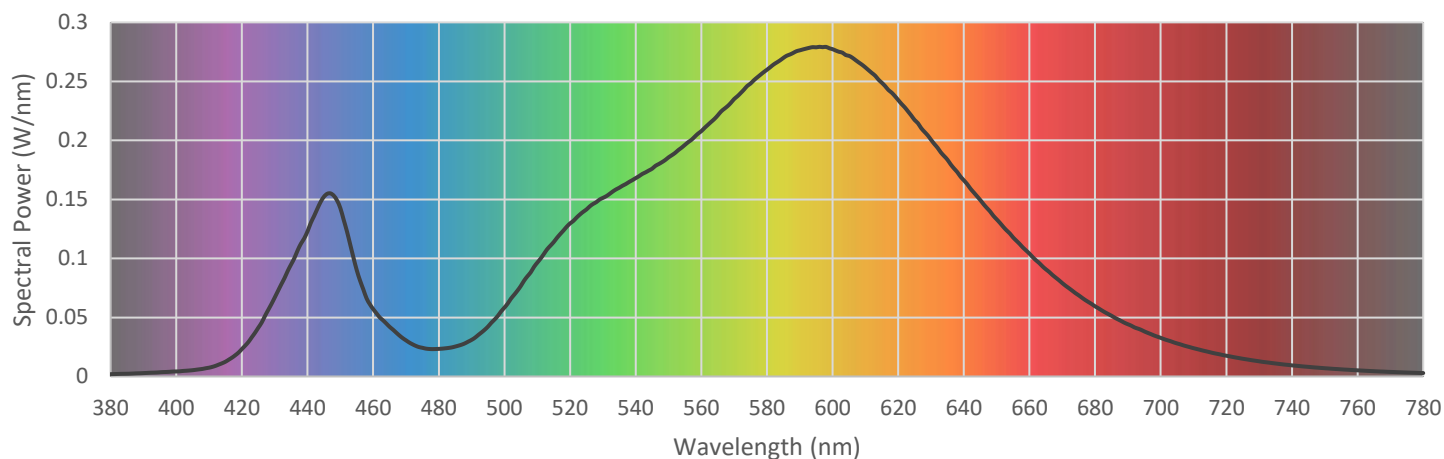
Voltage	120.0 Vac
Current	0.9414 A
Power	112.5 W
Frequency	59.99 Hz
Power Factor	0.996
Current THD	4.4 %



Test Report Number: LLIA001574-005B-R02

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

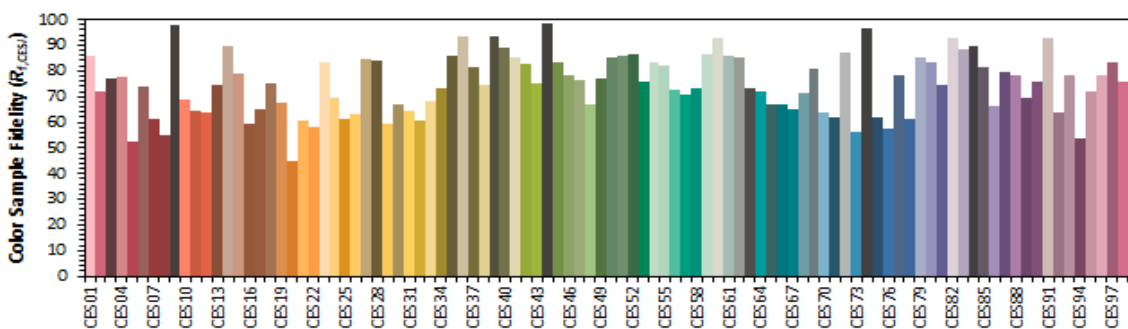
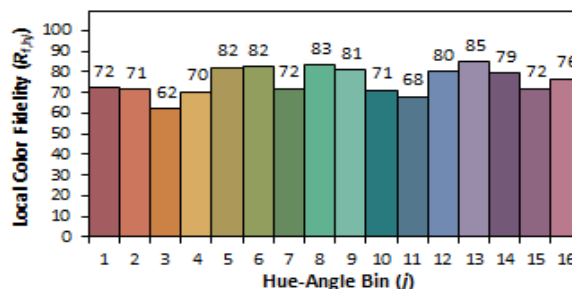
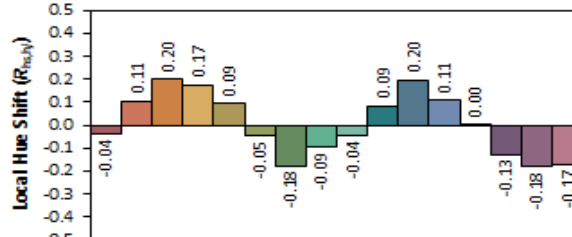
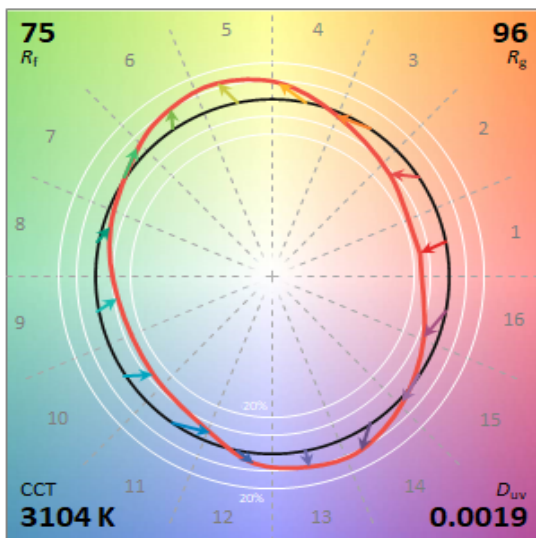
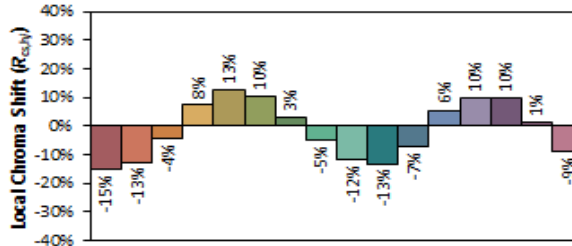
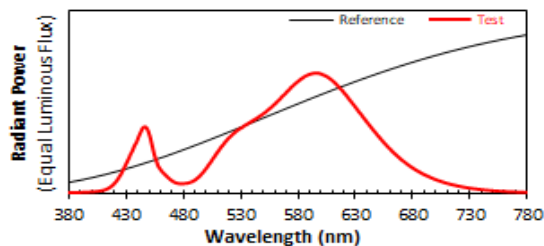
380	0.001950	480	0.023370	580	0.259858	680	0.059420
385	0.002305	485	0.025340	585	0.269883	685	0.051443
390	0.002857	490	0.031002	590	0.276302	690	0.044254
395	0.003565	495	0.042287	595	0.278857	695	0.038173
400	0.004245	500	0.058341	600	0.277292	700	0.032703
405	0.005322	505	0.076719	605	0.271640	705	0.027995
410	0.007454	510	0.096386	610	0.261831	710	0.023955
415	0.012529	515	0.113787	615	0.248847	715	0.020529
420	0.023257	520	0.129665	620	0.234205	720	0.017567
425	0.041354	525	0.141483	625	0.217279	725	0.014990
430	0.066917	530	0.151305	630	0.200565	730	0.012841
435	0.095004	535	0.159907	635	0.183657	735	0.010998
440	0.123035	540	0.168040	640	0.166186	740	0.009396
445	0.152309	545	0.176012	645	0.149521	745	0.008131
450	0.142579	550	0.185606	650	0.133165	750	0.006982
455	0.089995	555	0.196206	655	0.117820	755	0.006029
460	0.057053	560	0.207838	660	0.104045	760	0.005199
465	0.042056	565	0.221173	665	0.090783	765	0.004465
470	0.030602	570	0.235053	670	0.079123	770	0.003849
475	0.024288	575	0.248142	675	0.068768	775	0.003331
						780	0.002887





Test Report Number: LLIA001574-005B-R02

### IES TM-30 Details



Notes:

x 0.4324  
y 0.4071  
u' 0.2463  
v' 0.5219

CIE 13.3-1995  
(CRI)

R<sub>a</sub> 73  
R<sub>g</sub> -27



## Test Report Number: LLIA001574-005B-R02

Test Equipment Configuration:	LightLab International Allentown 2m Integrating Sphere Measurements acquired using a Labsphere CDS 2600 spectroradiometer Testing was performed using 4 $\pi$ geometry
Test Temperature:	25.7 °C
Test Procedure:	Tested in accordance with the applicable sections of: LM-79-19, LM-78-07, LM-58-13, ANSI_ANSLG 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 - 11/08/2021 - Edited to keep revision number consistent with 005A R02 - 11/11/2021 - Revised Catalog Number and quantity of LEDs



## Report of Test

**LLIA001574-005C-R02\***

Electrical Test Report

Catalog Number: NXT-60M-5-X-2ES-6-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.

60 white LEDs

Osram Optotronic OT180/UNV/800C/2DIM/P6 LED driver labeled as 600mA, WH91-5U1-03 surge suppressor



### Performance Summary

Voltage	277.0 Vac
Current	0.4225 A
Power	110.5 W
Frequency	60.00 Hz
Power Factor	0.944
Current THD	10.9 %

Ambient Temperature: 25.7 °C

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

Halifax, Nova Scotia B3S 1A2, Canada

\*This test report supersedes test report LLIA001574-005C-R01

R01 - 11/08/2021 - Edited to keep revision number consistent with 004A

R02 - 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