

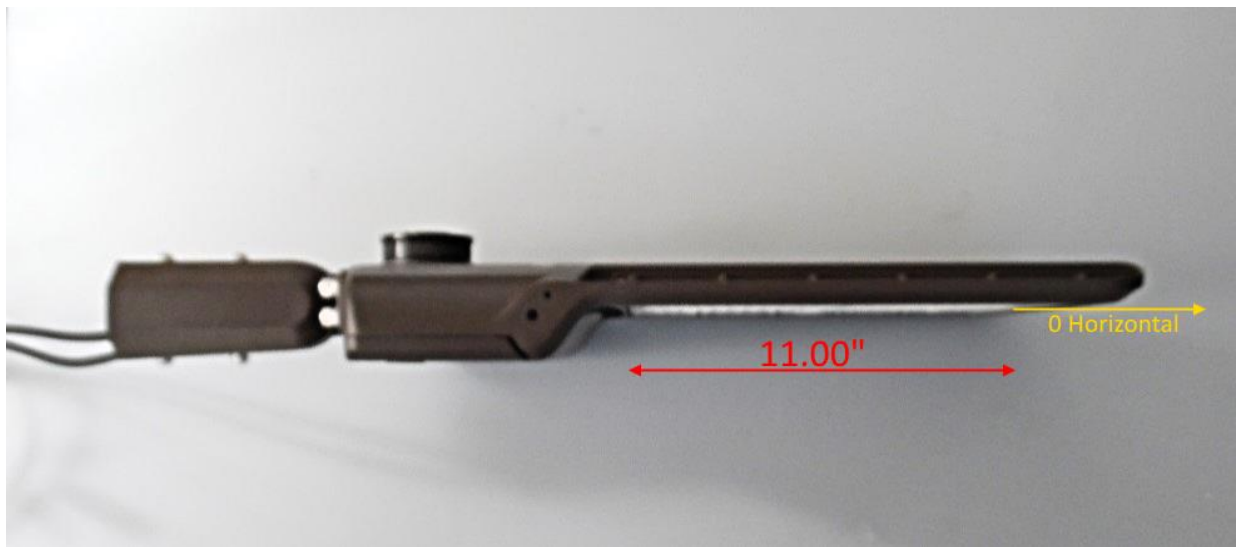


## Report of Test

LLIA002251-017

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: ARL-300PCS-T5 -250W Setting - 4000K Setting  
Pole mounted, cast aluminum housing, white LED board with  
frosted plastic enclosure with clear optic sections below LEDs.  
728 white LEDs, 364 CW LEDs and 364 WW LEDs  
One Sosen SS-320NH-E260BH LED driver



Prepared For:  
Topaz Lighting Corp  
925 Waverly Avenue  
Holtsville, NY 11742, USA

Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	39821.1 Lumens
Input Current	2.053 A	Total Efficacy	163.1 Lm/W
Input Power	244.2 W		
Frequency	60.00 Hz		
Power Factor	0.992	Roadway Type	Area Light
Current THD	10.2 %		

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

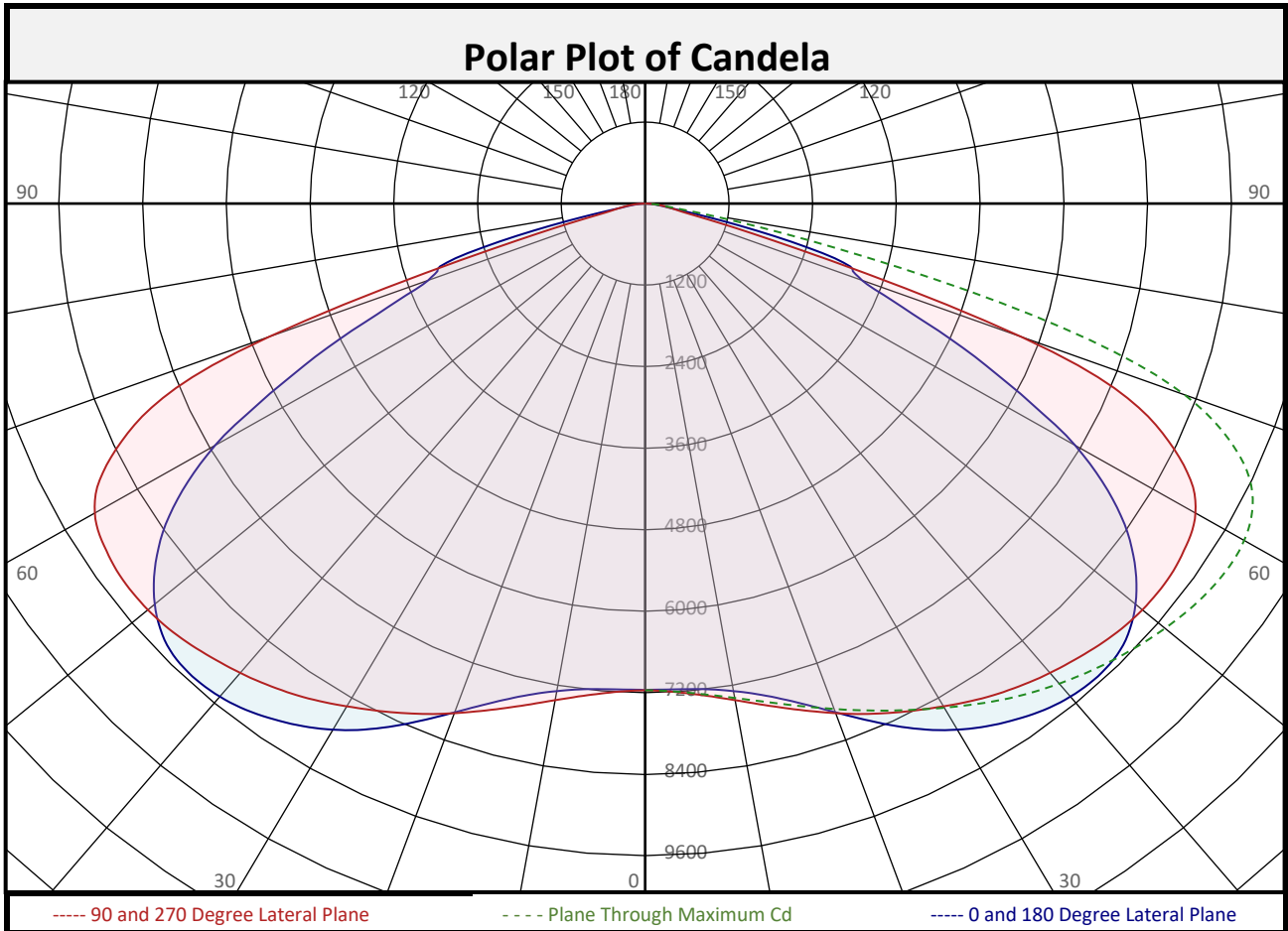
Test date: 11/09/2023  
Report date: 11/10/2023

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



Report of Test

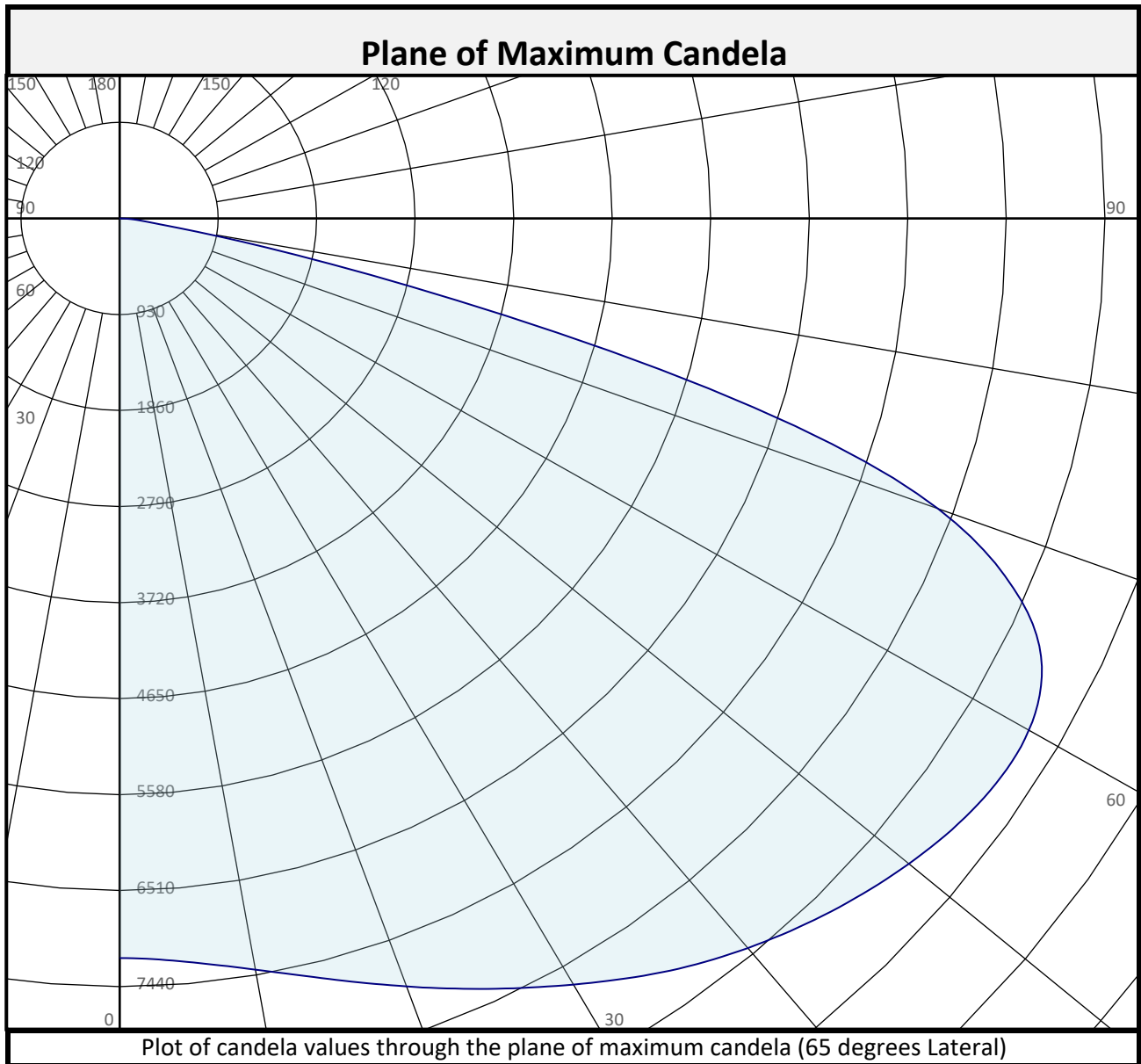
LLIA002251-017



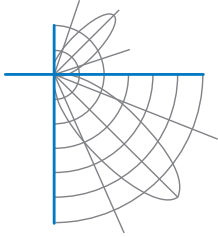
Zonal Flux Summary								
Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	693.1	1.7%	90-100	0.0	0.0%	0-20	2860	7.2%
10-20	2167	5.4%	100-110	0.0	0.0%	0-30	6731	16.9%
20-30	3871	9.7%	110-120	0.0	0.0%	0-40	12441	31.2%
30-40	5710	14.3%	120-130	0.0	0.0%	0-60	28189	70.8%
40-50	7371	18.5%	130-140	0.0	0.0%	0-80	39545	99.3%
50-60	8377	21.0%	140-150	0.0	0.0%	10-90	39128	98.3%
60-70	7640	19.2%	150-160	0.0	0.0%	20-50	16952	42.6%
70-80	3715	9.3%	160-170	0.0	0.0%	40-90	27380	68.8%
80-90	275.7	0.7%	170-180	0.0	0.0%	60-90	11632	29.2%
0-90	39821	100.0%	90-180	0.0	0.0%	0-180	39821	100.0%



Report of Test  
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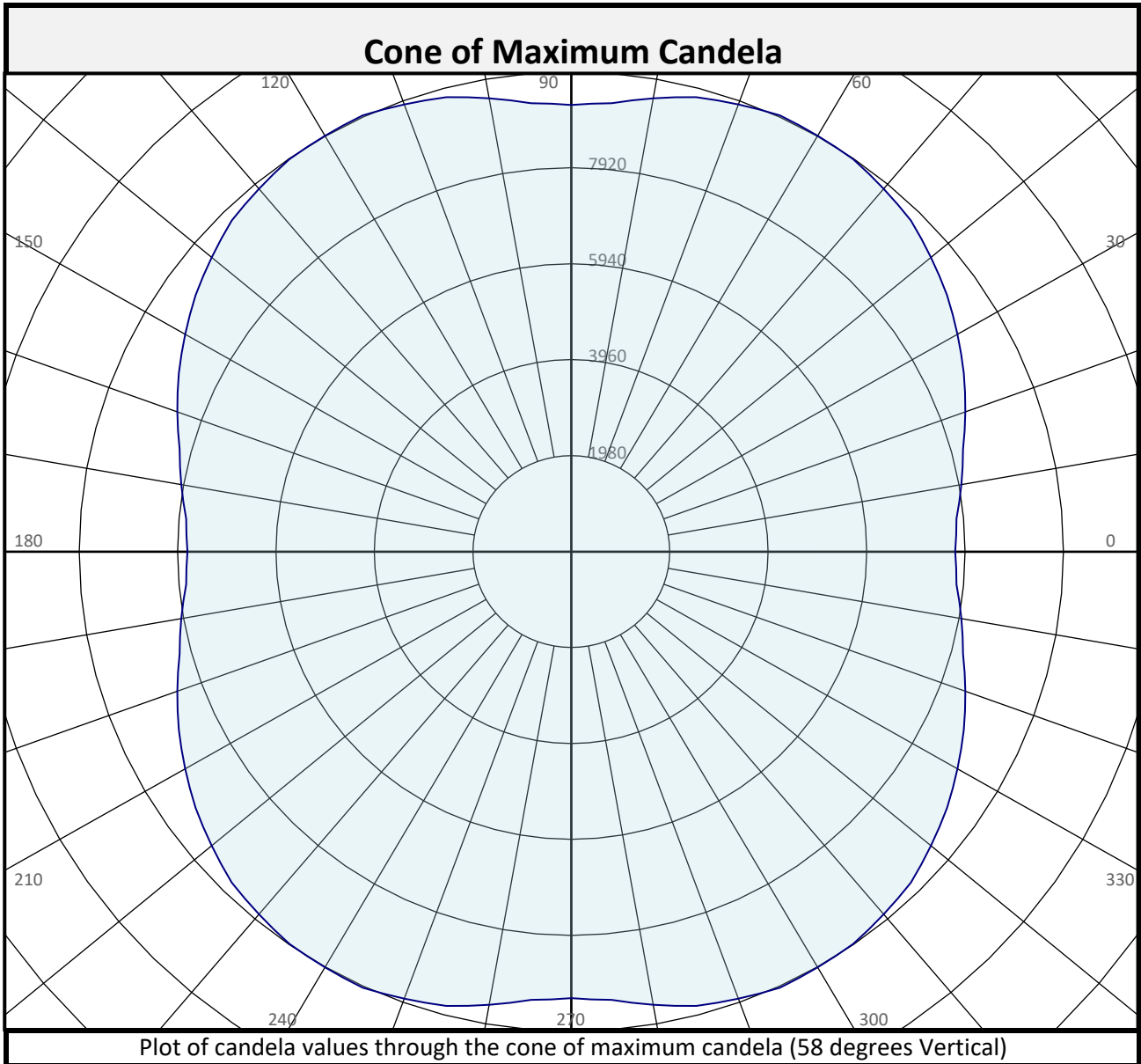


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	19910.5	50.0%	0.0	0.0%	19910.5	50.0%
House Side	19910.5	50.0%	0.0	0.0%	19910.5	50.0%
<b>Total</b>	<b>39821.1</b>	<b>100.0%</b>	<b>0.0</b>	<b>0.0%</b>	<b>39821.1</b>	<b>100.0%</b>



Report of Test

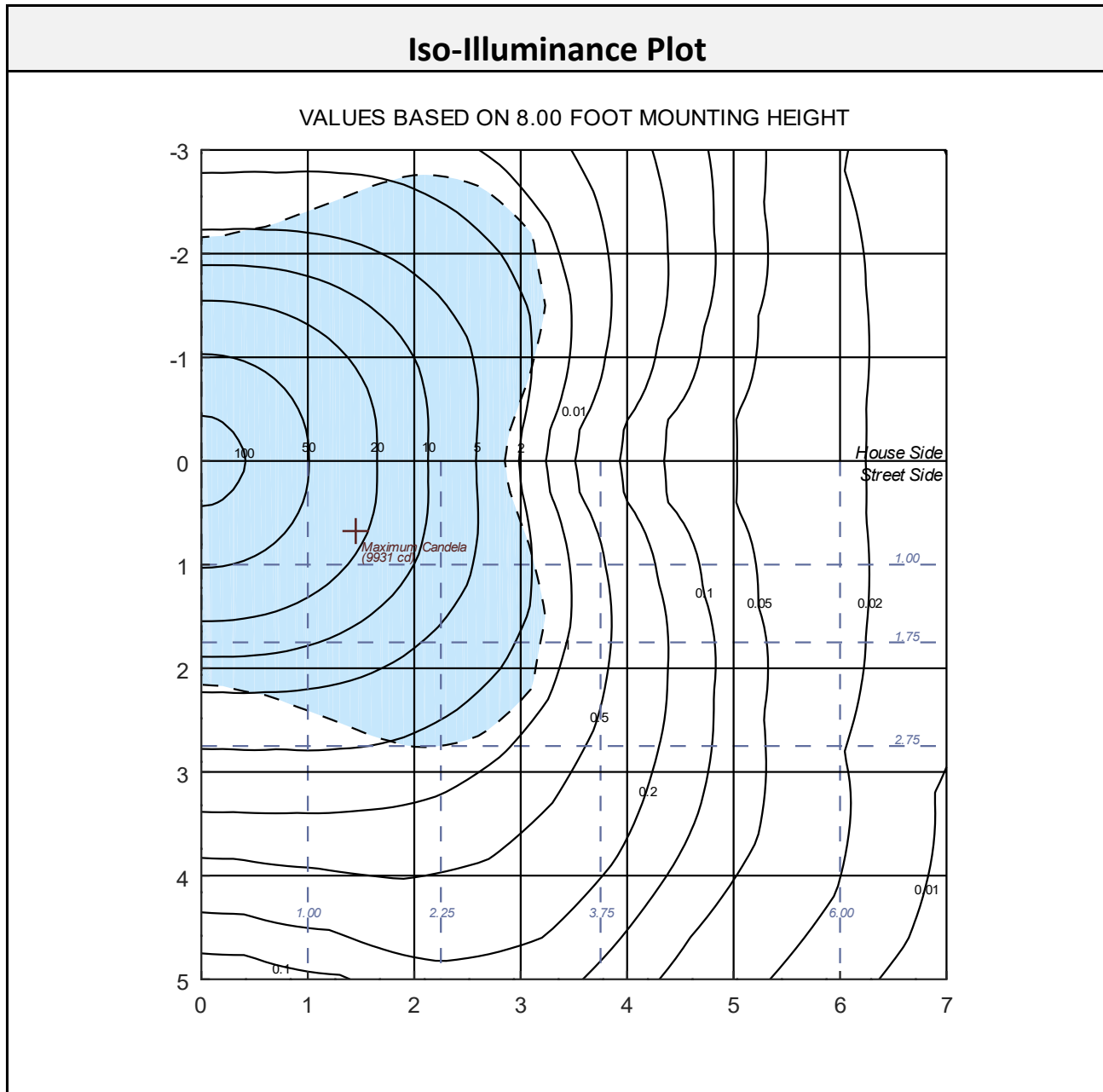
LLIA002251-017



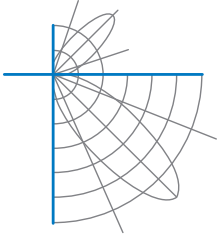
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	19910.5	50.0%	0.0	0.0%	19910.5	50.0%
House Side	19910.5	50.0%	0.0	0.0%	19910.5	50.0%
<b>Total</b>	<b>39821.1</b>	<b>100.0%</b>	<b>0.0</b>	<b>0.0%</b>	<b>39821.1</b>	<b>100.0%</b>



Report of Test  
LLIA002251-017

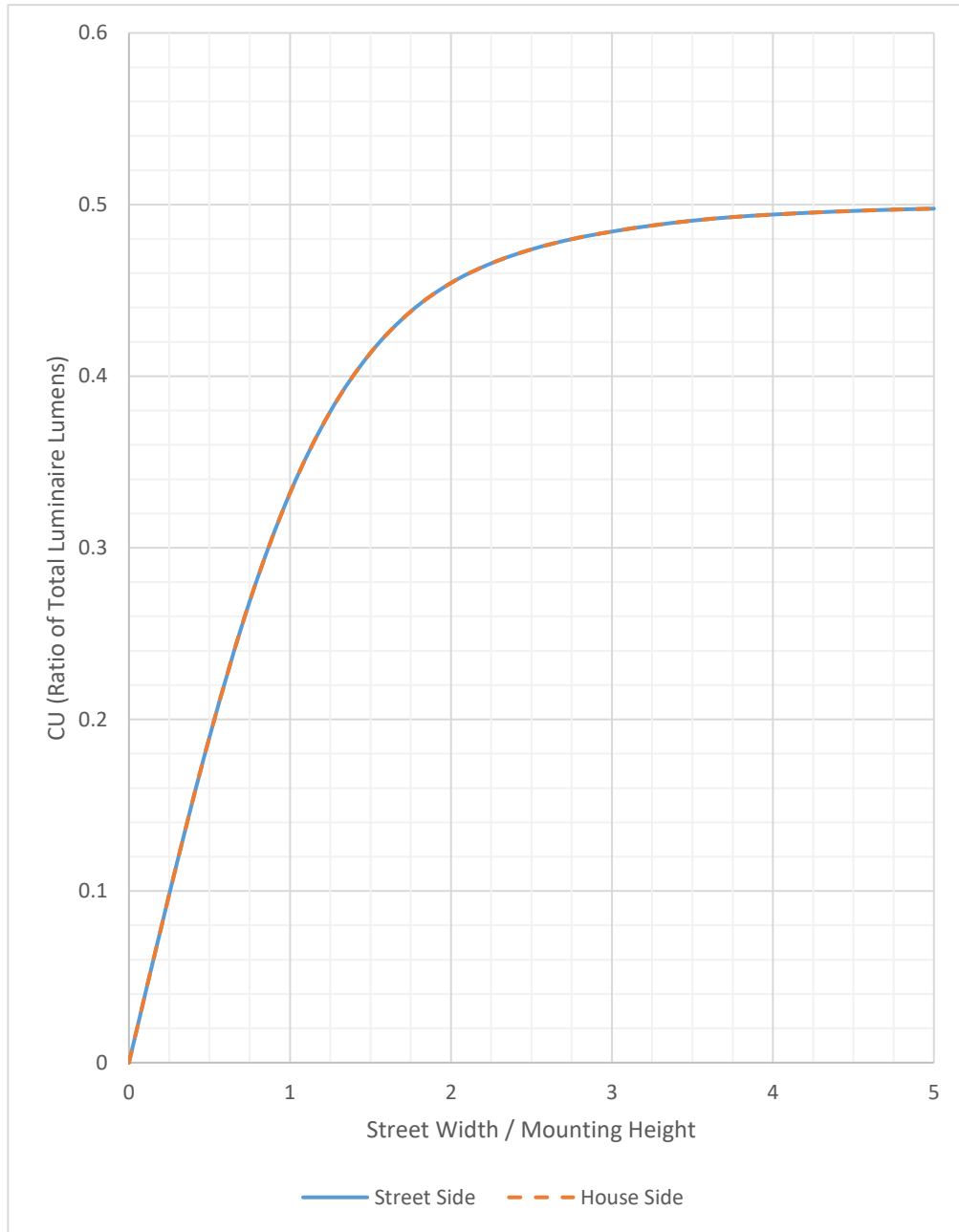


The isofootcandle values shown in the plot above are based on a mounting height of  $h = 8.0$  feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.



## Report of Test LLIA002251-017

### Coefficients of Utilization Plot

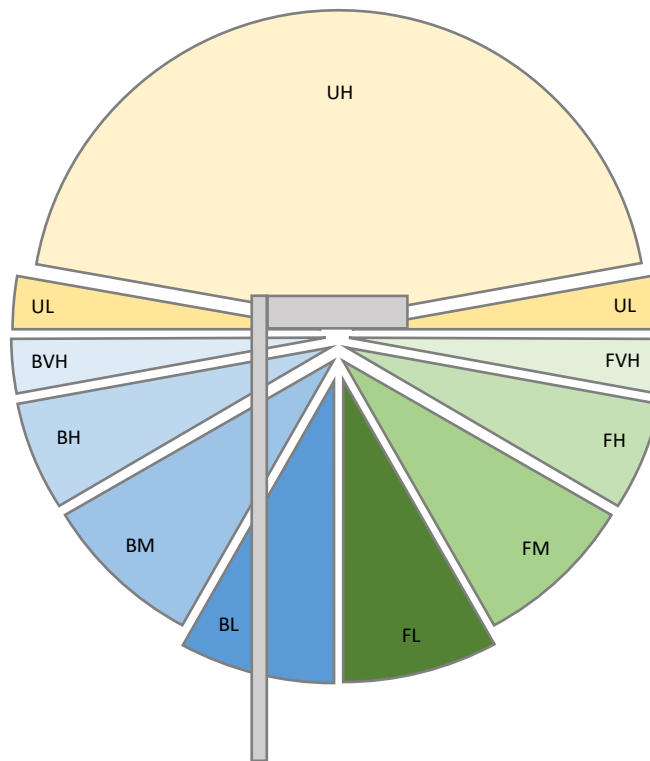




## Report of Test

LLIA002251-017

### LCS Tables and Bug Classification



#### Back Light

BL - Back Low (0°-30°)	3365.5 Lm
BM - Back Mid (30°-60°)	10729.2 Lm
BH - Back High (60°-80°)	5678.0 Lm
BVH - Back Very High (80°-90°)	137.9 Lm

#### Forward Light

FL - Forward Low (0°-30°)	3365.5 Lm
FM - Forward Mid (30°-60°)	10729.2 Lm
FH - Forward High (60°-80°)	5678.0 Lm
FVH - Forward Very High (80°-90°)	137.9 Lm

#### Uplight

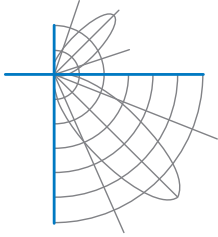
UL - Upward Low (90°-100°)	0.0 Lm
UH - Upward High (100°-180°)	0.0 Lm

BUG Rating: Asymmetrical Luminaire (Type I, II, III, and IV)

B5 - U0 - G5

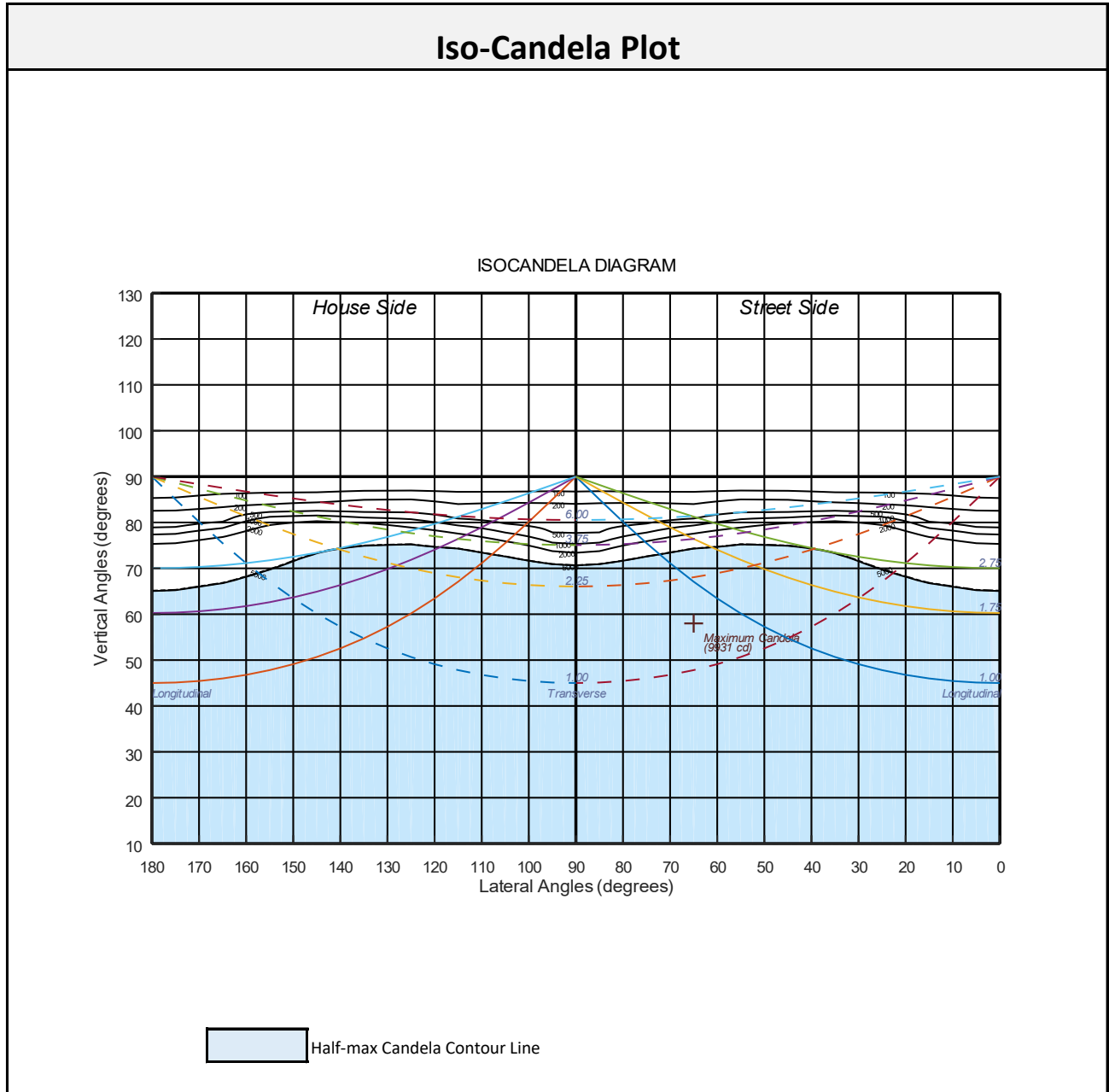
BUG Rating: Quadrilateral Symmetrical Luminaire (Type V, Type VS)

B5 - U0 - G3



Report of Test  
LLIA002251-017

**Iso-Candela Plot**







## Report of Test

LLIA002251-017

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	0	5	15	25	35	45	55	65	75	85	90	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	7164	7164	7164	7164	7164	7164	7164	7164	7164	7164	7164
	2.5	7160	7166	7166	7171	7174	7177	7180	7181	7183	7185	7187
	5	7175	7180	7184	7193	7203	7213	7221	7228	7233	7237	7240
	7.5	7213	7219	7225	7238	7250	7265	7283	7298	7309	7316	7317
	10	7288	7294	7301	7316	7330	7346	7366	7389	7410	7420	7423
	12.5	7397	7400	7407	7421	7435	7451	7474	7499	7526	7545	7549
	15	7549	7550	7555	7561	7568	7580	7601	7626	7659	7681	7686
	17.5	7739	7744	7742	7735	7729	7733	7746	7767	7798	7827	7832
	20	7969	7973	7962	7941	7917	7904	7904	7916	7946	7975	7984
	22.5	8223	8227	8209	8174	8133	8097	8074	8073	8096	8122	8132
	25	8483	8481	8458	8421	8366	8304	8252	8234	8244	8265	8273
	27.5	8729	8726	8698	8666	8605	8520	8442	8397	8394	8406	8409
	30	8942	8946	8920	8895	8837	8736	8640	8569	8549	8549	8546
	32.5	9120	9126	9107	9100	9052	8950	8836	8741	8706	8688	8683
	35	9268	9271	9266	9272	9243	9144	9024	8914	8864	8820	8810
	37.5	9394	9390	9400	9413	9401	9314	9191	9076	9012	8940	8920
	40	9474	9479	9504	9526	9534	9463	9345	9226	9147	9041	9020
	42.5	9511	9519	9569	9606	9636	9590	9484	9365	9269	9131	9108
	45	9492	9506	9590	9651	9708	9693	9609	9495	9381	9214	9194
	47.5	9384	9416	9538	9650	9749	9772	9716	9615	9484	9292	9261
50	9170	9221	9391	9586	9749	9822	9798	9725	9575	9346	9302	
52.5	8855	8908	9136	9432	9689	9836	9860	9820	9647	9366	9314	
55	8435	8490	8774	9177	9542	9798	9896	9891	9700	9354	9291	
57.5	7859	7914	8279	8805	9290	9692	9893	9929	9712	9304	9231	
60	7109	7170	7624	8279	8929	9496	9824	9910	9648	9176	9104	
62.5	6062	6134	6717	7603	8434	9184	9665	9805	9448	8892	8809	
65	5021	5100	5727	6710	7826	8722	9361	9550	9036	8376	8274	
67.5	3996	4065	4679	5805	7004	8098	8826	9044	8432	7621	7480	
70	3309	3355	3792	4896	6201	7235	7984	8222	7316	5998	5738	
72.5	3084	3113	3318	4125	5277	6204	6809	6686	5085	3121	2778	
75	2164	2237	2864	3626	4462	4953	5160	4276	2688	1264	1119	
77.5	945	1003	1640	2982	3718	3711	3127	2049	1115	531	516	
80	333	339	546	1683	2267	1866	1313	743	466	371	365	
82.5	202	205	238	423	516	441	425	288	288	264	258	
85	111	115	144	159	169	197	201	161	168	171	166	
87.5	39	40	52	57	59	66	74	70	72	74	73	
90	0	0	0	0	0	0	0	0	0	0	0	



## Report of Test

LLIA002251-017

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	0	5	15	25	35	45	55	65	75	85	90	
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
	92.5	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	



## Report of Test

LLIA002251-017

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	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	7164	7164	7164	7164	7164	7164	7164	7164	7164	7164	7164
	2.5	7187	7185	7183	7181	7180	7177	7174	7171	7166	7166	7160
	5	7240	7237	7233	7228	7221	7213	7203	7193	7184	7180	7175
	7.5	7317	7316	7309	7298	7283	7265	7250	7238	7225	7219	7213
	10	7423	7420	7410	7389	7366	7346	7330	7316	7301	7294	7288
	12.5	7549	7545	7526	7499	7474	7451	7435	7421	7407	7400	7397
	15	7686	7681	7659	7626	7601	7580	7568	7561	7555	7550	7549
	17.5	7832	7827	7798	7767	7746	7733	7729	7735	7742	7744	7739
	20	7984	7975	7946	7916	7904	7904	7917	7941	7962	7973	7969
	22.5	8132	8122	8096	8073	8074	8097	8133	8174	8209	8227	8223
	25	8273	8265	8244	8234	8252	8304	8366	8421	8458	8481	8483
	27.5	8409	8406	8394	8397	8442	8520	8605	8666	8698	8726	8729
	30	8546	8549	8549	8569	8640	8736	8837	8895	8920	8946	8942
	32.5	8683	8688	8706	8741	8836	8950	9052	9100	9107	9126	9120
	35	8810	8820	8864	8914	9024	9144	9243	9272	9266	9271	9268
	37.5	8920	8940	9012	9076	9191	9314	9401	9413	9400	9390	9394
	40	9020	9041	9147	9226	9345	9463	9534	9526	9504	9479	9474
	42.5	9108	9131	9269	9365	9484	9590	9636	9606	9569	9519	9511
	45	9194	9214	9381	9495	9609	9693	9708	9651	9590	9506	9492
	47.5	9261	9292	9484	9615	9716	9772	9749	9650	9538	9416	9384
50	9302	9346	9575	9725	9798	9822	9749	9586	9391	9221	9170	
52.5	9314	9366	9647	9820	9860	9836	9689	9432	9136	8908	8855	
55	9291	9354	9700	9891	9896	9798	9542	9177	8774	8490	8435	
57.5	9231	9304	9712	9929	9893	9692	9290	8805	8279	7914	7859	
60	9104	9176	9648	9910	9824	9496	8929	8279	7624	7170	7109	
62.5	8809	8892	9448	9805	9665	9184	8434	7603	6717	6134	6062	
65	8274	8376	9036	9550	9361	8722	7826	6710	5727	5100	5021	
67.5	7480	7621	8432	9044	8826	8098	7004	5805	4679	4065	3996	
70	5738	5998	7316	8222	7984	7235	6201	4896	3792	3355	3309	
72.5	2778	3121	5085	6686	6809	6204	5277	4125	3318	3113	3084	
75	1119	1264	2688	4276	5160	4953	4462	3626	2864	2237	2164	
77.5	516	531	1115	2049	3127	3711	3718	2982	1640	1003	945	
80	365	371	466	743	1313	1866	2267	1683	546	339	333	
82.5	258	264	288	288	425	441	516	423	238	205	202	
85	166	171	168	161	201	197	169	159	144	115	111	
87.5	73	74	72	70	74	66	59	57	52	40	39	
90	0	0	0	0	0	0	0	0	0	0	0	



## Report of Test

LLIA002251-017

Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	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
	92.5	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	



Report of Test  
LLIA002251-017

**Additional Pictures of Test Subject**





## Report of Test

### LLIA002251-017

Test Distance                    9.5 m  
Ambient Temperature        25.1 °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.