



8165 E Kaiser Blvd. Anaheim, CA 92808  
www.lightlaboratory.com

Report No: L081913301



**Report No:** L081913301

**Issue Date: 8/28/2019**

**Report Prepared For:** HK Lighting Group  
3529 Old Conejo Rd #118

**Model Number:** MBL08-1A-180D

**Test:** Photometric/Electrical Test

**Standards Used:** Appropriate part or all test guidelines were used for test performed:

*IESNA LM79: 2008* Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products

*ANSI NEMA ANSLG C78.377: 2008* Specification of the Chromaticity of Solid State Lighting Products

*ANSI C82.77:2002:* Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

**Description of Sample:** Client submitted the sample. Received in working and undamaged condition. No modifications were necessary.

**Special Test Condition:** Fixture is tested with no special conditions.

**Sample Arrival Date:** 8/26/19

**Date of Tests:** 8/27/19 - 8/28/19

**Seasoning of Sample:** No seasoning was performed in accordance with IESNA LM-79.

#### Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S4	1/9/21
BK PRECISION	1747	PS-DC04	1/10/21
Fluke Digital Thermometer	52K/J	MT-TP05	1/10/21
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

### General Information

<b>Manufacturer:</b>	HK Lighting Group
<b>Model Number:</b>	MBL08-1A-180D
<b>Driver Model Number:</b>	HATCH RL12-60M-LED

### Photometric & Electrical Test Results

<b>Total Lumens:</b>	42.70
<b>Efficacy:</b>	11.80
<b>Input Voltage (VAC/60Hz):</b>	120.04
<b>Input Current (Amp):</b>	0.0531
<b>Input Power (W):</b>	3.62
<b>Input Power Factor:</b>	0.5686
<b>Current ATHD (%):</b>	55.7%

### Test Condition

<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	1:55
<b>Total Operating Time (Hours):</b>	2:35



FIG. 1 LUMINAIRE



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## Test Methods

### Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

### Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

### Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

Report Prepared by : Dennis Malonzo

Test Report Reviewed by:

Steve Kang  
Quality Assurance

*\*Attached are photometric data reports. Total number of pages: 13*



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## Photometric Test Report

### IES ROAD REPORT

PHOTOMETRIC FILENAME : L081913301.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L081913301  
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
[ISSUEDATE] 8/28/2019  
[MANUFAC] HK Lighting Group  
[LUMCAT] MBL08-1A-180D  
[LUMINAIRE] BOLLARD  
[BALLASTCAT] HATCH RL12-60M-LED  
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
[INPUT] 120.04VAC, 3.62W  
[TEST PROCEDURE] IESNA:LM-79-08

### CHARACTERISTICS

IES Classification	Type I
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	43
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	12
Total Luminaire Watts	3.62
Ballast Factor	1.00
Upward Waste Light Ratio	0.03
Maximum Candela	61.246
Maximum Candela Angle	5H 20V
Maximum Candela (<90 Degrees Vertical)	61.246
Maximum Candela Angle (<90 Degrees Vertical)	5H 20V
Maximum Candela At 90 Degrees Vertical	1.921 (4.5% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	5.152 (12.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L081913301.IES**

**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	13.6	N.A.	32.0
FM - Front-Medium (30-60)	23.5	N.A.	55.1
FH - Front-High (60-80)	3.1	N.A.	7.3
FVH - Front-Very High (80-90)	0.7	N.A.	1.7
BL - Back-Low (0-30)	0.1	N.A.	0.4
BM - Back-Medium (30-60)	0.4	N.A.	1.0
BH - Back-High (60-80)	< 0.05	N.A.	0.1
BVH - Back-Very High (80-90)	< 0.05	N.A.	0.0
UL - Uplight-Low (90-100)	0.4	N.A.	1.0
UH - Uplight-High (100-180)	0.8	N.A.	1.9
Total	42.6	N.A.	100.0
BUG Rating	B0-U1-G0		

**ZONAL LUMEN SUMMARY**

Zone	%
0-20	4.2
0-30	32.2
0-40	63.1
0-60	88.1
0-80	95.4
0-90	97.2
10-90	97.1
20-40	58.9
20-50	76.9
40-70	29.2
60-80	7.4
70-80	3.1
80-90	1.7
90-110	1.7
90-120	2.2
90-130	2.6
90-150	2.9
90-180	2.9
110-180	1.2
0-180	100

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L081913301.IES**

**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
<b>0.0</b>	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058
<b>5.0</b>	0.035	0.035	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052
<b>10.0</b>	0.070	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.070	0.070
<b>15.0</b>	3.283	3.144	2.969	2.689	2.270	1.799	1.432	1.100	0.838	0.664
<b>20.0</b>	61.089	61.246	61.194	61.019	60.600	60.286	60.356	60.408	59.814	56.950
<b>25.0</b>	59.343	59.570	59.413	58.906	58.644	58.732	58.679	58.697	58.609	58.505
<b>30.0</b>	58.051	58.208	57.771	57.177	56.933	56.741	56.007	55.064	54.156	52.899
<b>35.0</b>	49.039	48.987	48.917	48.271	47.170	47.048	46.157	45.389	44.359	42.822
<b>37.5</b>	42.962	42.979	42.490	42.019	40.988	40.412	39.678	38.805	37.792	36.203
<b>40.0</b>	36.954	36.692	36.238	35.469	34.771	33.880	33.112	32.343	31.173	29.968
<b>42.5</b>	31.820	31.191	30.335	29.217	28.431	27.646	26.458	25.532	24.712	23.664
<b>45.0</b>	26.510	25.899	25.113	24.589	23.122	21.778	20.555	19.612	18.826	18.005
<b>47.5</b>	21.166	21.062	20.643	19.979	18.564	16.975	15.822	15.089	14.338	13.814
<b>50.0</b>	17.289	17.010	16.504	15.630	14.338	13.028	12.050	11.439	10.618	10.339
<b>52.5</b>	13.866	13.517	12.906	11.980	10.636	9.361	8.522	8.121	7.387	7.178
<b>55.0</b>	13.203	12.522	11.037	9.483	8.068	6.566	6.008	5.554	5.030	4.838
<b>57.5</b>	12.050	11.544	10.845	8.837	6.794	5.257	4.576	4.174	3.842	3.702
<b>60.0</b>	10.793	10.374	10.164	8.522	6.619	4.872	3.825	3.563	3.336	3.196
<b>62.5</b>	9.675	9.343	9.029	7.964	6.235	4.558	3.545	3.213	3.021	2.899
<b>65.0</b>	8.592	8.260	8.086	7.440	5.920	4.576	3.371	2.969	2.812	2.689
<b>67.5</b>	7.719	7.475	7.248	6.601	5.239	4.209	3.109	2.794	2.620	2.480
<b>70.0</b>	6.986	6.863	6.549	5.955	4.436	3.510	2.882	2.602	2.410	2.270
<b>72.5</b>	6.636	6.497	6.008	5.449	3.755	3.056	2.637	2.375	2.235	2.043
<b>75.0</b>	6.287	6.322	5.885	4.995	3.405	2.707	2.323	2.148	2.008	1.834
<b>77.5</b>	5.798	5.903	5.554	4.785	3.144	2.340	2.096	1.904	1.746	1.589
<b>80.0</b>	5.065	5.152	4.803	4.174	2.882	2.061	1.799	1.642	1.502	1.380
<b>85.0</b>	3.074	3.039	2.829	2.480	1.886	1.484	1.292	1.170	1.065	0.961
<b>90.0</b>	1.921	1.886	1.764	1.589	1.327	1.118	0.995	0.873	0.786	0.699
<b>95.0</b>	1.537	1.484	1.415	1.310	1.118	1.013	0.873	0.803	0.733	0.664
<b>100.0</b>	1.222	1.205	1.170	1.065	0.943	0.856	0.786	0.716	0.681	0.611
<b>105.0</b>	1.013	0.995	0.961	0.891	0.803	0.751	0.699	0.646	0.611	0.559
<b>110.0</b>	0.838	0.856	0.821	0.768	0.716	0.664	0.629	0.594	0.541	0.506
<b>115.0</b>	0.733	0.733	0.699	0.664	0.629	0.576	0.559	0.524	0.489	0.454
<b>120.0</b>	0.629	0.629	0.611	0.594	0.559	0.541	0.506	0.489	0.454	0.419
<b>125.0</b>	0.559	0.559	0.559	0.541	0.506	0.472	0.437	0.437	0.419	0.384
<b>130.0</b>	0.489	0.489	0.472	0.472	0.437	0.419	0.402	0.367	0.367	0.349
<b>135.0</b>	0.384	0.384	0.384	0.367	0.367	0.349	0.349	0.332	0.314	0.314
<b>140.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>145.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>150.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>155.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>160.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>165.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>170.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>175.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>180.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>	<u>95</u>
<b>0.0</b>	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058
<b>5.0</b>	0.070	0.070	0.052	0.070	0.070	0.070	0.070	0.070	0.070	0.070
<b>10.0</b>	0.070	0.070	0.070	0.070	0.070	0.070	0.087	0.070	0.070	0.070

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L081913301.IES**

**CANDELA TABULATION - (Cont.)**

15.0	0.489	0.367	0.262	0.192	0.157	0.105	0.087	0.087	0.087	0.070
20.0	52.252	44.848	33.583	22.895	12.190	5.554	2.358	0.978	0.437	0.192
25.0	58.260	57.876	57.404	56.688	56.007	54.383	46.734	34.631	18.774	4.750
30.0	51.973	51.571	51.012	50.611	50.174	49.423	47.537	37.443	21.341	5.082
35.0	41.407	40.901	40.255	40.377	39.975	39.416	37.862	29.759	17.429	5.222
37.5	35.260	34.666	34.195	34.125	33.793	33.688	32.920	25.043	15.333	5.204
40.0	29.113	28.466	28.187	27.785	27.401	27.453	26.755	21.551	12.941	3.598
42.5	23.157	22.826	22.441	21.708	21.481	21.271	20.520	16.538	10.024	3.266
45.0	17.569	17.551	17.150	16.469	16.294	15.875	14.932	12.172	7.649	2.829
47.5	13.343	13.150	12.784	12.330	11.788	11.352	10.688	8.330	5.554	2.462
50.0	10.059	9.902	9.466	9.099	8.557	7.702	7.143	5.641	3.667	1.502
52.5	7.003	6.968	6.636	6.305	5.781	5.100	4.453	3.493	2.218	1.118
55.0	4.663	4.541	4.349	4.191	3.807	3.371	2.969	2.270	1.519	0.873
57.5	3.598	3.423	3.283	3.144	2.934	2.567	2.253	1.781	1.188	0.664
60.0	3.109	2.916	2.742	2.532	2.305	2.096	1.816	1.450	0.978	0.576
62.5	2.794	2.655	2.462	2.270	2.026	1.834	1.589	1.222	0.856	0.541
65.0	2.550	2.393	2.200	2.026	1.834	1.624	1.397	1.118	0.768	0.472
67.5	2.323	2.166	1.991	1.816	1.659	1.467	1.257	0.978	0.681	0.419
70.0	2.113	1.939	1.781	1.642	1.502	1.327	1.135	0.856	0.611	0.402
72.5	1.886	1.711	1.589	1.467	1.327	1.170	0.978	0.768	0.541	0.349
75.0	1.642	1.519	1.397	1.275	1.153	1.030	0.856	0.681	0.454	0.314
77.5	1.450	1.310	1.205	1.100	0.995	0.856	0.733	0.541	0.402	0.262
80.0	1.257	1.135	1.013	0.908	0.803	0.716	0.611	0.454	0.332	0.210
85.0	0.856	0.768	0.664	0.559	0.489	0.419	0.332	0.262	0.175	0.140
90.0	0.629	0.541	0.472	0.402	0.332	0.262	0.210	0.140	0.122	0.087
95.0	0.594	0.524	0.454	0.384	0.332	0.262	0.210	0.157	0.122	0.105
100.0	0.559	0.489	0.419	0.384	0.314	0.262	0.210	0.175	0.122	0.105
105.0	0.506	0.454	0.419	0.367	0.314	0.279	0.210	0.157	0.122	0.105
110.0	0.472	0.419	0.384	0.349	0.314	0.262	0.210	0.175	0.140	0.122
115.0	0.437	0.402	0.349	0.332	0.279	0.244	0.210	0.175	0.140	0.122
120.0	0.402	0.367	0.332	0.314	0.279	0.244	0.210	0.175	0.157	0.122
125.0	0.349	0.332	0.297	0.279	0.262	0.227	0.210	0.175	0.157	0.140
130.0	0.314	0.297	0.297	0.262	0.244	0.227	0.210	0.192	0.175	0.157
135.0	0.279	0.279	0.262	0.262	0.244	0.244	0.227	0.210	0.192	0.175
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert. Angles**      **Horizontal Angles**

	<u>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
0.0	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058
5.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : L081913301.IES**

**CANDELA TABULATION - (Cont.)**

40.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
60.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
62.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
72.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
77.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert. Horizontal Angles**  
**Angles**

	<b>150</b>	<b>155</b>	<b>160</b>	<b>165</b>	<b>170</b>	<b>175</b>	<b>180</b>
0.0	0.058	0.058	0.058	0.058	0.058	0.058	0.058
5.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000

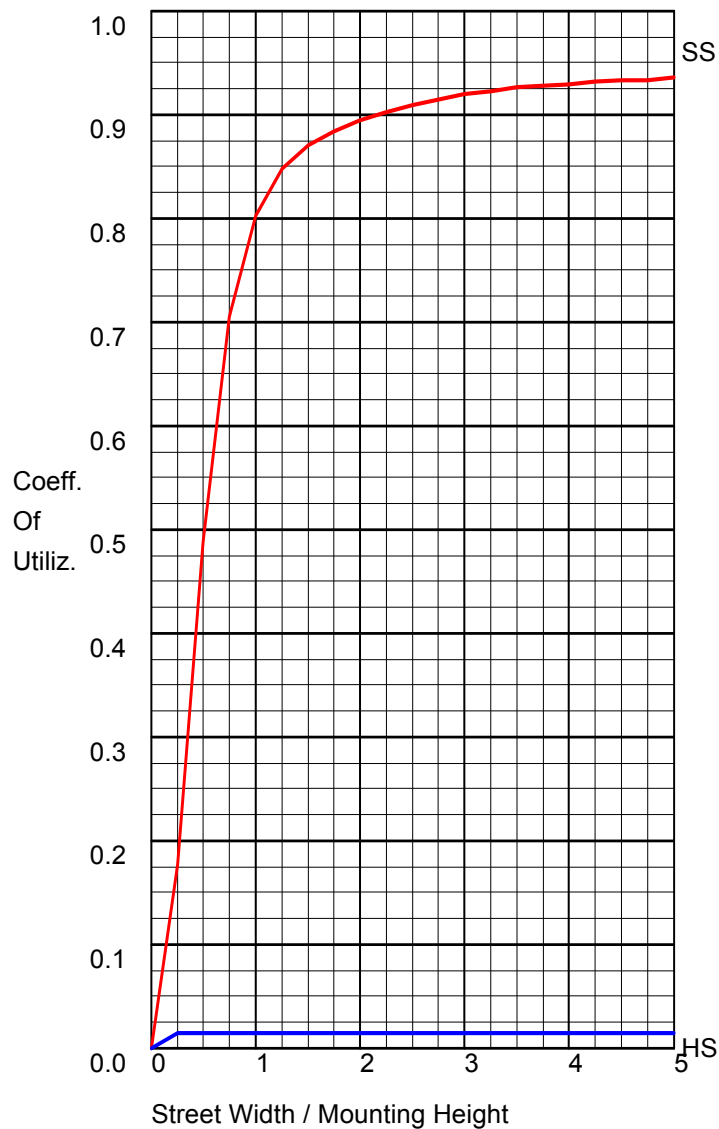


IES ROAD REPORT  
PHOTOMETRIC FILENAME : L081913301.IES

CANDELA TABULATION - (Cont.)

55.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
60.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
62.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
72.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
77.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

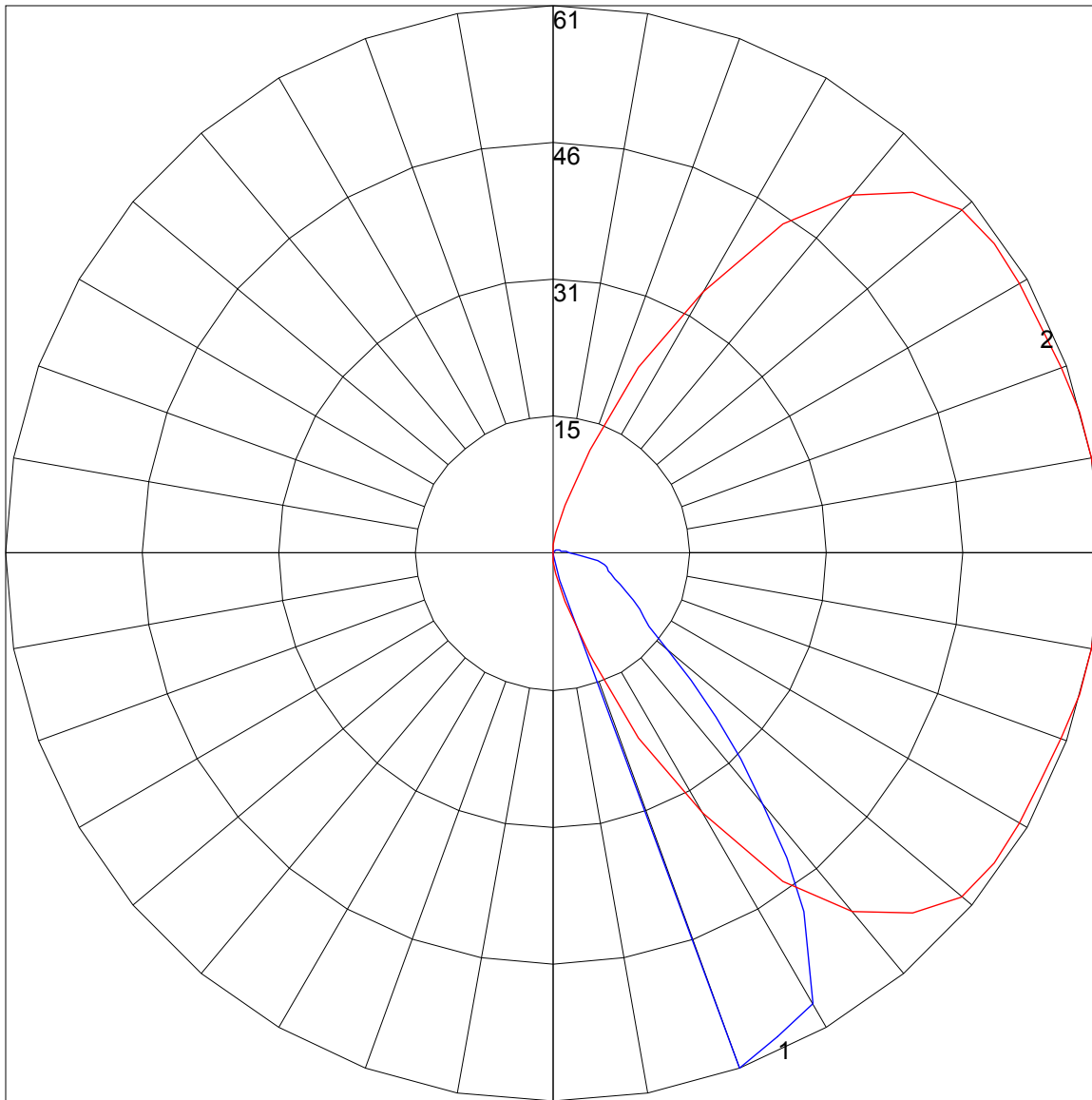
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

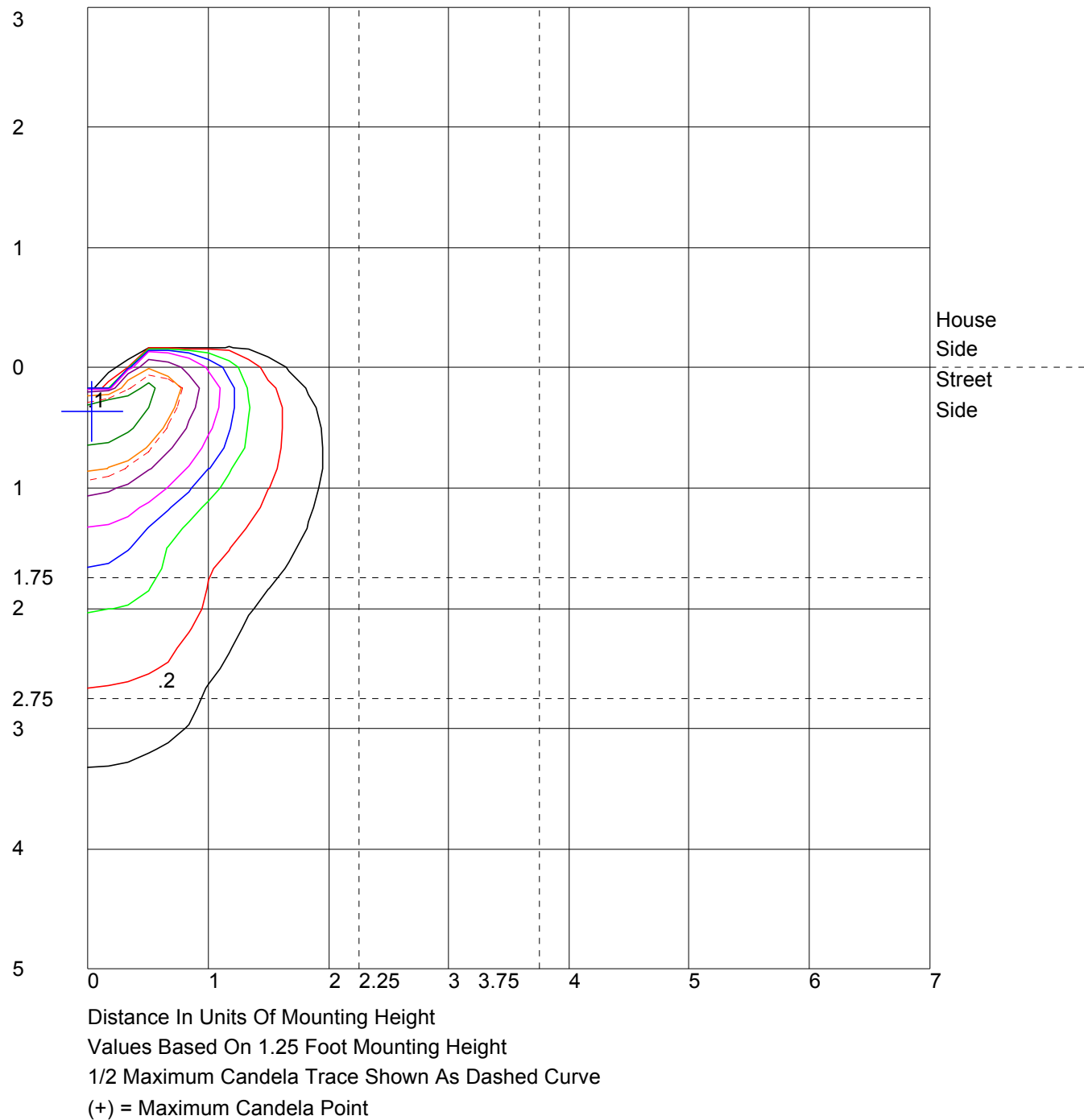
	Lumens	Percent Of Luminaire
Downward Street Side	40.9	95.7
Downward House Side	0.6	1.5
Downward Total	41.5	97.1
Upward Street Side	1.2	2.8
Upward House Side	0.0	0.1
Upward Total	1.2	2.8
Total Flux	42.7	99.9

POLAR GRAPH

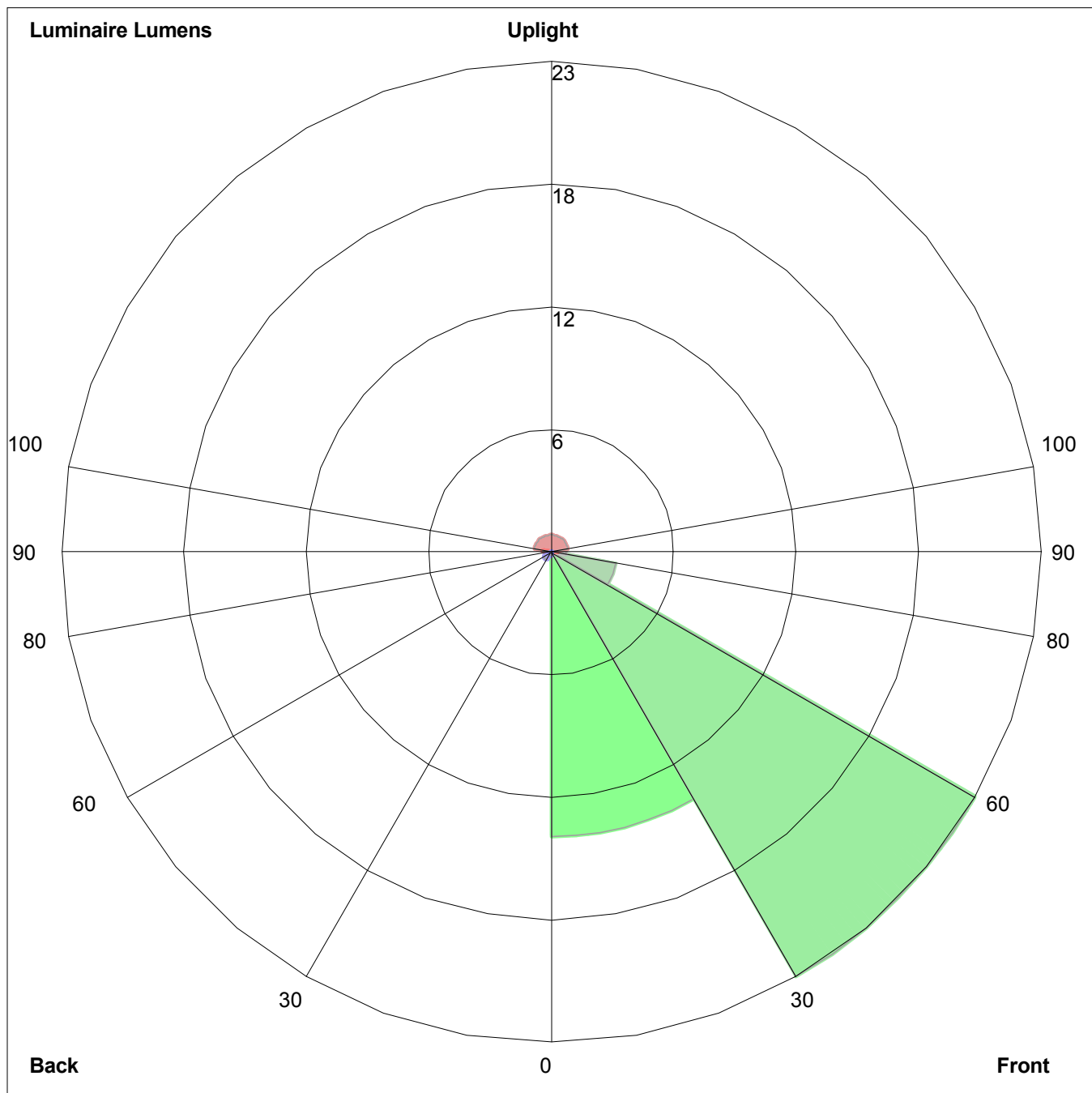


Maximum Candela = 61.246 Located At Horizontal Angle = 5, Vertical Angle = 20  
# 1 - Vertical Plane Through Horizontal Angles (5 - 185) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=13.6, Medium=23.5, High=3.1, Very High=0.7  
Back: Low=0.1, Medium=0.4, High=0.0, Very High=0.0  
Uplight: Low=0.4, High=0.8

BUG Rating : B0-U1-G0