



## IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-5W-LED-27L-30-IL.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST]LED-7766\_Scaled  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUE DATE]04/03/17  
[TEST DATE]04/29/16  
[MANUFACTURER]LSI INDUSTRIES, INC  
[LUMCAT] HLN-5W-LED-27L-30-IL  
[ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[OTHER]TEST PROCEDURE: IESNA LM-79-08  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Outdoor  
[OTHER]SCALED FROM ORIGINAL TEST DATA

### CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	14093
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	58
Total Luminaire Watts	241
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	13037.575
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	13037.575
Maximum Candela Angle (<90 Degrees Vertical)	50H 70V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	368.078 (2.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1080.7	N.A.	7.7
FM - Front-Medium (30-60)	5726.0	N.A.	40.6
FH - Front-High (60-80)	5035.9	N.A.	35.7
FVH - Front-Very High (80-90)	43.7	N.A.	0.3
BL - Back-Low (0-30)	487.2	N.A.	3.5
BM - Back-Medium (30-60)	1070.9	N.A.	7.6
BH - Back-High (60-80)	644.3	N.A.	4.6
BVH - Back-Very High (80-90)	4.0	N.A.	0.0
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	14092.7	N.A.	100.0
BUG Rating	B2-U0-G3		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u>0</u>	<u>5</u>	<u>15</u>	<u>25</u>	<u>35</u>	<u>45</u>	<u>50</u>	<u>55</u>	<u>65</u>	<u>75</u>
0.0	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723
2.5	1612.871	1608.107	1599.768	1595.003	1586.665	1580.709	1573.562	1572.371	1561.650	1544.973
5.0	1736.755	1731.990	1721.270	1711.740	1696.255	1679.578	1666.475	1658.136	1631.930	1596.195
7.5	1874.933	1870.168	1858.256	1842.771	1821.330	1796.315	1778.447	1762.961	1721.270	1666.475
10.0	2014.302	2010.729	2000.008	1988.096	1965.464	1935.684	1913.051	1891.610	1832.050	1754.623
12.5	2157.245	2154.863	2157.245	2139.377	2121.509	2091.730	2067.906	2040.508	1964.272	1861.830
15.0	2306.144	2303.761	2312.100	2318.056	2294.232	2268.026	2247.776	2212.040	2117.936	1985.714
17.5	2464.572	2465.763	2487.205	2496.734	2496.734	2477.675	2444.322	2401.439	2289.467	2125.083
20.0	2624.192	2634.912	2657.545	2684.942	2701.619	2689.707	2659.927	2609.897	2478.866	2279.938
22.5	2804.061	2799.297	2835.032	2880.297	2919.607	2919.607	2893.401	2836.223	2681.369	2438.366
25.0	2983.931	2979.166	3025.623	3088.756	3147.124	3163.801	3144.742	3094.712	2894.592	2600.368
27.5	3184.051	3181.669	3232.890	3310.317	3386.553	3423.480	3407.995	3359.156	3119.727	2764.752
30.0	3388.936	3385.362	3447.304	3537.834	3634.321	3689.115	3678.395	3616.453	3337.714	2931.519
32.5	3604.541	3602.159	3671.248	3768.925	3882.088	3971.427	3947.604	3872.559	3566.423	3103.050
35.0	3845.161	3852.308	3913.059	4008.354	4132.238	4233.489	4214.430	4126.282	3789.175	3282.920
37.5	4094.120	4103.650	4162.018	4254.931	4384.770	4497.933	4490.786	4380.006	4014.310	3479.466
40.0	4356.182	4365.711	4431.227	4509.845	4651.597	4758.804	4757.613	4638.494	4239.445	3670.056
42.5	4632.538	4644.450	4708.774	4795.731	4907.703	5016.101	5022.057	4902.938	4468.154	3867.794
45.0	4888.644	4900.556	4969.645	5064.940	5175.721	5285.310	5294.840	5167.382	4702.818	4083.399
47.5	5139.985	5148.323	5236.471	5321.046	5454.459	5595.019	5610.505	5453.268	4943.439	4308.534
50.0	5411.576	5405.620	5486.621	5580.725	5723.668	5908.302	5936.891	5761.786	5194.780	4562.258
52.5	5673.638	5661.726	5742.727	5849.934	6019.083	6257.321	6291.866	6109.614	5491.386	4851.717
55.0	5923.788	5913.067	6022.657	6173.938	6346.660	6667.090	6707.591	6519.383	5821.346	5182.868
57.5	6151.305	6152.496	6272.807	6494.368	6768.342	7201.935	7230.523	7018.492	6245.409	5579.534
60.0	6302.586	6314.498	6532.486	6876.740	7290.083	7859.472	7946.429	7664.116	6764.768	6077.451
62.5	6277.571	6306.160	6690.914	7288.892	7959.532	8751.673	8885.086	8531.303	7416.349	6636.120
65.0	5978.583	6003.598	6514.618	7485.438	8857.689	10185.866	10378.839	9865.436	8511.053	7606.939
67.5	4360.947	4390.726	5162.617	6837.431	9113.795	12352.640	12818.396	11883.311	9571.212	8235.888
70.0	1443.722	1355.574	2208.466	4370.476	7753.456	12119.167	13037.575	12020.298	8680.202	6593.237
72.5	356.166	368.078	466.946	1097.086	4197.754	9242.443	10097.718	88974.425	5429.444	3474.701
75.0	214.414	219.179	239.429	324.004	888.628	3801.087	4994.660	3834.441	1972.611	1181.660
77.5	127.457	127.457	140.560	170.340	285.886	780.229	1272.191	1167.366	677.787	441.931
80.0	66.707	67.898	76.236	92.913	128.649	219.179	331.151	368.078	343.063	268.018
82.5	34.545	34.545	39.309	51.221	67.898	102.442	125.075	153.664	212.032	200.120
85.0	14.294	15.485	17.868	23.824	34.545	52.412	65.515	79.810	121.501	166.767
87.5	8.338	8.338	10.721	14.294	19.059	28.589	35.736	48.839	86.957	142.943
90.0	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>85</u>	<u>90</u>	<u>95</u>	<u>105</u>	<u>115</u>	<u>125</u>	<u>135</u>	<u>145</u>	<u>155</u>	<u>165</u>
0.0	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723	1524.723
2.5	1534.253	1529.488	1523.532	1502.091	1498.517	1490.179	1481.840	1475.884	1469.928	1466.355
5.0	1565.224	1549.738	1534.253	1493.752	1468.737	1441.340	1416.325	1397.266	1379.398	1367.486
7.5	1611.680	1586.665	1558.077	1494.943	1447.296	1399.648	1355.574	1318.647	1292.441	1267.426
10.0	1676.004	1637.886	1597.386	1506.855	1435.384	1365.104	1301.971	1250.750	1215.014	1185.234
12.5	1760.579	1705.784	1645.033	1524.723	1427.046	1336.515	1257.897	1195.955	1149.498	1120.910
15.0	1852.300	1779.638	1705.784	1548.547	1423.472	1315.074	1223.352	1159.028	1106.616	1074.453
17.5	1953.552	1860.639	1768.917	1574.753	1424.663	1303.162	1207.867	1136.395	1038.718	902.922
20.0	2058.376	1945.213	1833.241	1606.915	1433.002	1301.971	1204.293	1023.232	737.347	590.830
22.5	2164.392	2027.405	1896.374	1646.225	1452.061	1317.456	1136.395	715.905	537.227	486.006
25.0	2273.982	2114.362	1963.081	1689.107	1484.223	1342.471	864.804	546.756	483.623	460.991
27.5	2388.336	2207.275	2039.317	1740.329	1531.870	1260.279	625.375	497.917	470.520	444.314

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**CANDELA TABULATION - (Cont.)**

30.0	2509.837	2310.909	2127.465	1805.844	1586.665	981.541	530.080	488.388	459.799	431.211
32.5	2638.486	2424.072	2226.334	1888.036	1645.033	721.861	508.638	482.432	449.079	414.534
35.0	2779.046	2549.147	2335.924	1983.331	1591.430	582.492	506.256	477.667	438.358	399.049
37.5	2931.519	2690.898	2466.954	2094.112	1371.060	545.565	505.065	472.902	427.637	383.563
40.0	3110.197	2852.900	2623.000	2231.099	1091.130	546.756	507.447	471.711	413.343	337.107
42.5	3288.876	3041.108	2790.958	2382.380	831.451	553.903	513.403	464.564	345.445	262.062
45.0	3505.672	3248.375	2986.313	2545.573	684.934	565.815	520.550	401.431	254.915	204.885
47.5	3734.381	3474.701	3224.551	2664.692	655.155	582.492	512.212	295.415	195.355	169.149
50.0	3983.339	3724.851	3465.172	2563.441	673.022	597.977	430.020	212.032	160.811	142.943
52.5	4275.181	4019.075	3753.440	2273.982	700.420	611.080	300.180	164.384	136.987	123.884
55.0	4623.008	4365.711	4085.782	1901.139	733.773	556.286	203.693	138.178	117.928	106.016
57.5	5016.101	4757.613	4470.536	1564.032	776.656	390.710	153.664	119.119	101.251	86.957
60.0	5503.298	5240.045	4976.792	1391.310	843.363	234.664	129.840	102.442	81.001	66.707
62.5	6067.922	5830.875	5522.357	1467.546	862.422	151.281	109.589	82.192	63.133	63.133
65.0	6938.682	6700.444	6334.748	1631.930	745.685	114.354	90.530	75.045	77.427	113.163
67.5	7408.011	7156.670	6682.576	1624.783	657.537	122.693	113.163	197.738	139.369	157.237
70.0	5660.535	5524.739	4818.364	1189.999	550.330	152.472	171.531	181.061	146.516	262.062
72.5	2820.738	2798.105	2004.773	418.108	284.694	153.664	156.046	237.047	260.871	279.930
75.0	918.407	896.966	552.712	147.708	114.354	65.515	162.002	258.488	163.193	97.678
77.5	325.195	291.842	173.914	70.280	45.265	27.397	101.251	106.016	23.824	5.956
80.0	207.267	172.723	102.442	39.309	16.677	7.147	20.250	9.530	1.191	0.000
82.5	145.325	109.589	65.515	15.485	4.765	2.382	4.765	1.191	0.000	0.000
85.0	94.104	63.133	29.780	1.191	1.191	1.191	1.191	0.000	0.000	0.000
87.5	54.795	22.633	3.574	1.191	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

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

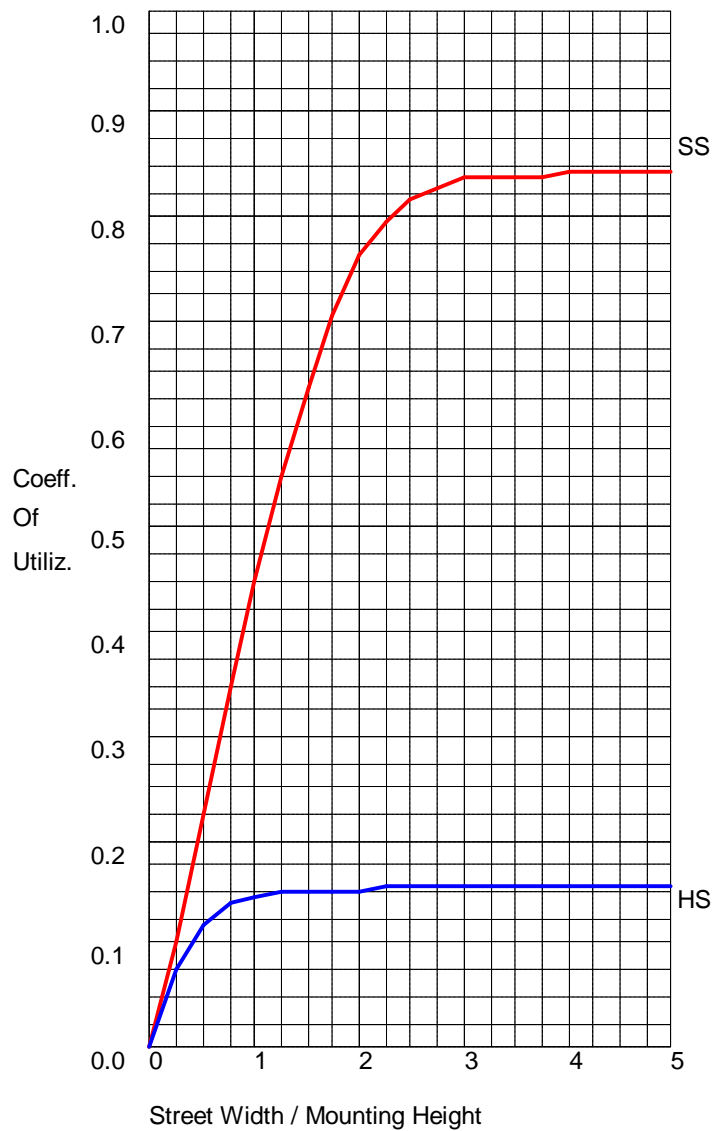
	<b>175</b>	<b>180</b>
0.0	1524.723	1524.723
2.5	1456.825	1454.443
5.0	1354.383	1352.001
7.5	1257.897	1253.132
10.0	1170.940	1166.175
12.5	1106.616	1100.660
15.0	1056.586	1051.821
17.5	839.789	830.259
20.0	553.903	547.947
22.5	469.329	465.755
25.0	449.079	445.505
27.5	431.211	427.637
30.0	413.343	409.769
32.5	394.284	390.710
35.0	377.607	372.842
37.5	354.975	350.210
40.0	297.798	294.224
42.5	233.473	232.282
45.0	189.399	188.208
47.5	159.619	159.619
50.0	136.987	138.178
52.5	117.928	116.737
55.0	100.060	98.869
57.5	78.619	77.427
60.0	59.560	58.368
62.5	65.515	61.942
65.0	98.869	82.192

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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	120.310	101.251
<b>70.0</b>	204.885	185.826
<b>72.5</b>	175.105	154.855
<b>75.0</b>	53.604	38.118
<b>77.5</b>	0.000	0.000
<b>80.0</b>	0.000	0.000
<b>82.5</b>	0.000	0.000
<b>85.0</b>	0.000	0.000
<b>87.5</b>	0.000	0.000
<b>90.0</b>	0.000	0.000

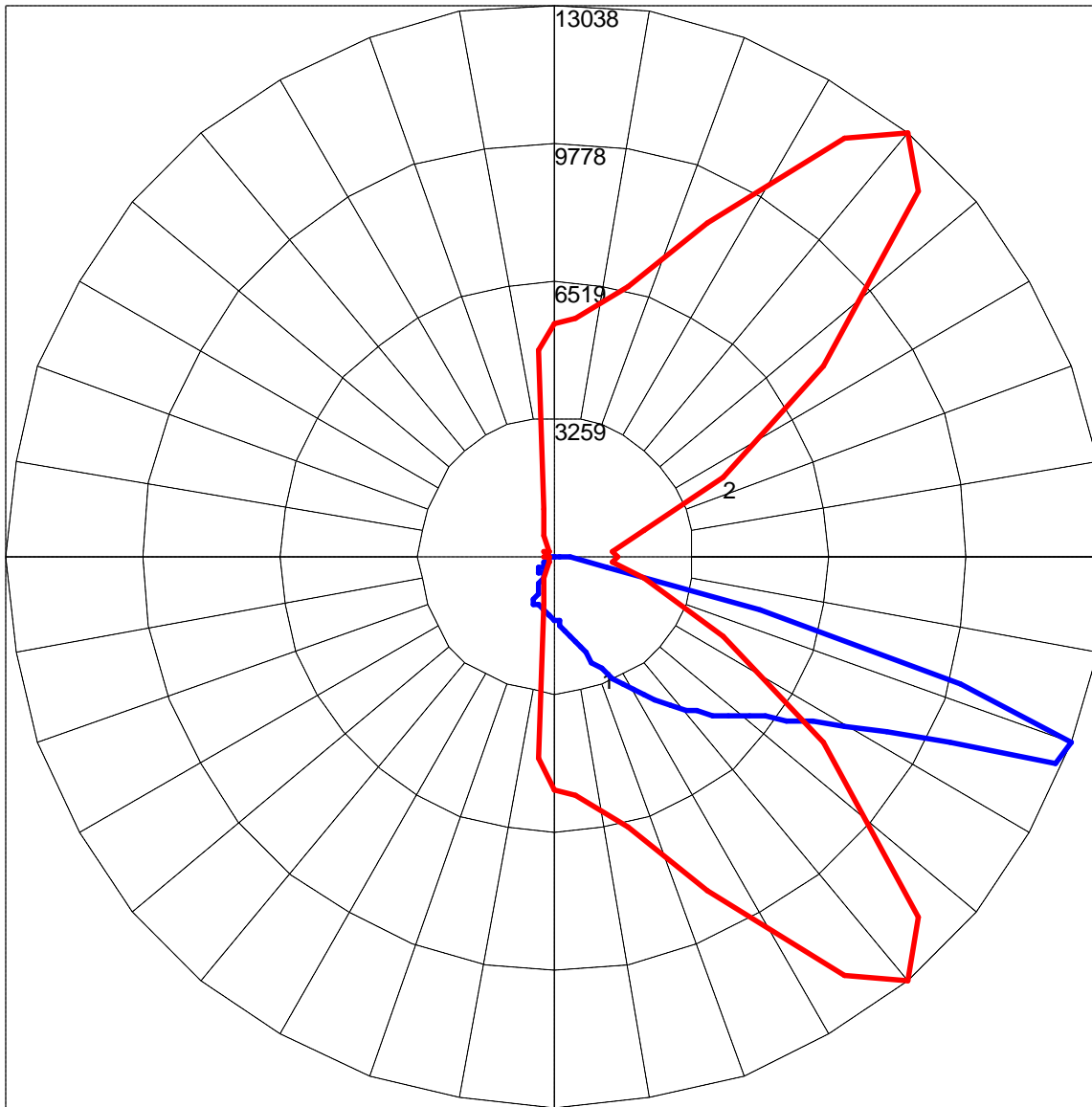
### COEFFICIENTS OF UTILIZATION



### FLUX DISTRIBUTION

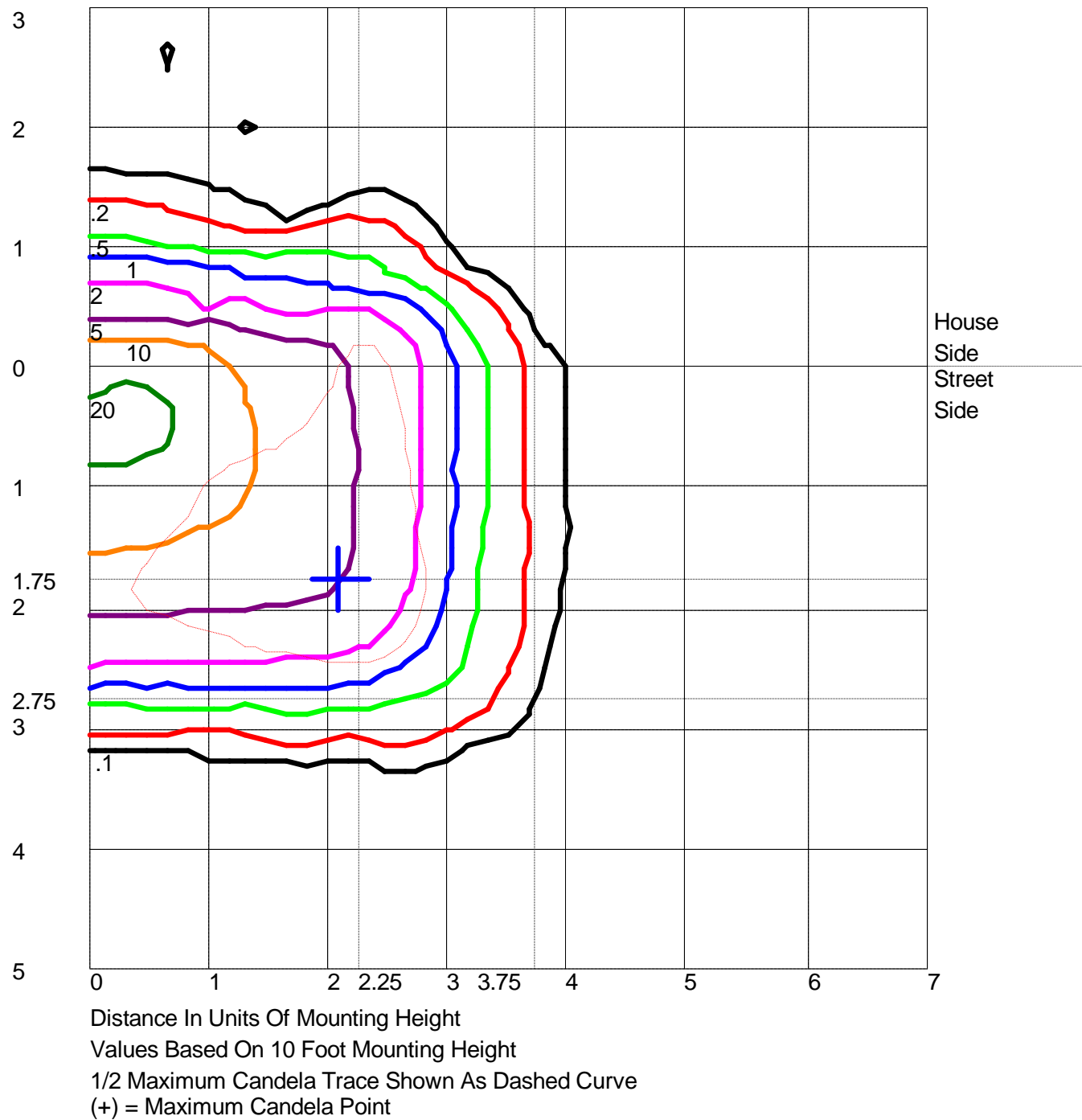
	Lumens	Percent Of Luminaire
Downward Street Side	11886.3	84.3
Downward House Side	2206.4	15.7
Downward Total	14092.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	14092.7	100.0

POLAR GRAPH



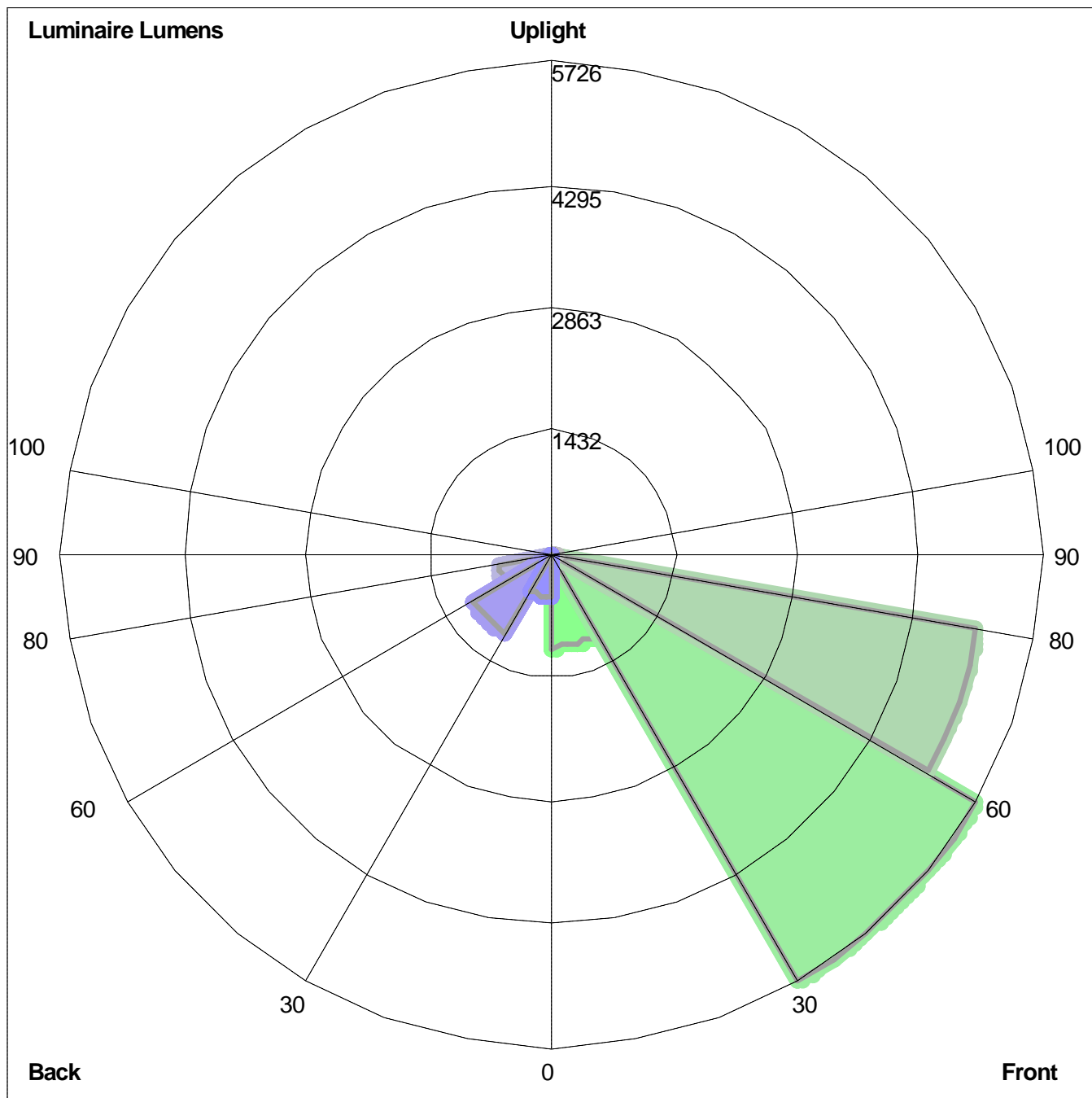
Maximum Candela = 13037.575 Located At Horizontal Angle = 50, Vertical Angle = 70  
# 1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1080.7, Medium= 5726.0, High=5035.9, Very High=43.7  
Back: Low=487.2, Medium=1070.9, High=644.3, Very High=4.0  
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G3