



**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HLN-3-LED-18L-30-IL.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]LED-7762\_Scaled  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUE DATE]04/03/17  
[TEST DATE]04/28/16  
[MANUFACTURER]LSI INDUSTRIES, INC  
[LUMCAT] HLN-3-LED-18L-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	14298
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	154
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	18093.042
Maximum Candela Angle	55H 67.5V
Maximum Candela (<90 Degrees Vertical)	18093.042
Maximum Candela Angle (<90 Degrees Vertical)	55H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	985.066 (6.9% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HLN-3-LED-18L-30-IL.IES**

**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	632.0	N.A.	4.4
FM - Front-Medium (30-60)	6467.9	N.A.	45.2
FH - Front-High (60-80)	5960.1	N.A.	41.7
FVH - Front-Very High (80-90)	116.1	N.A.	0.8
BL - Back-Low (0-30)	277.9	N.A.	1.9
BM - Back-Medium (30-60)	625.5	N.A.	4.4
BH - Back-High (60-80)	214.5	N.A.	1.5
BVH - Back-Very High (80-90)	4.1	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	14298.1	N.A.	100.0
BUG Rating	B1-U0-G3		

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HLN-3-LED-18L-30-IL.IES**

**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<u><b>0.0</b></u>	<u><b>5.0</b></u>	<u><b>15.0</b></u>	<u><b>25.0</b></u>	<u><b>35.0</b></u>	<u><b>45.0</b></u>	<u><b>55.0</b></u>	<u><b>57.5</b></u>	<u><b>65.0</b></u>	<u><b>75.0</b></u>
<b>0.0</b>	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427
<b>2.5</b>	1271.996	1266.513	1248.237	1240.013	1224.479	1215.341	1194.324	1184.272	1174.220	1147.720
<b>5.0</b>	1398.099	1396.271	1390.788	1385.306	1372.513	1363.375	1331.392	1311.289	1277.478	1213.513
<b>7.5</b>	1360.633	1360.633	1365.202	1380.737	1388.047	1398.099	1393.530	1385.306	1358.806	1278.392
<b>10.0</b>	1269.254	1269.254	1279.306	1305.806	1335.961	1376.168	1405.409	1404.495	1401.754	1334.133
<b>12.5</b>	1181.530	1182.444	1194.324	1227.220	1264.685	1321.340	1380.737	1388.961	1410.892	1367.944
<b>15.0</b>	1109.341	1110.255	1125.789	1158.686	1208.944	1269.254	1337.789	1351.495	1402.668	1391.702
<b>17.5</b>	1068.220	1069.134	1086.496	1123.048	1176.048	1239.099	1313.116	1330.478	1395.357	1416.374
<b>20.0</b>	1089.238	1091.979	1112.082	1157.772	1205.289	1268.341	1341.444	1362.461	1428.254	1463.892
<b>22.5</b>	1232.703	1234.530	1252.806	1296.668	1330.478	1380.737	1446.530	1469.374	1525.115	1569.891
<b>25.0</b>	1529.684	1529.684	1553.443	1560.753	1572.633	1592.736	1658.529	1662.184	1709.701	1746.253
<b>27.5</b>	1929.011	1953.683	1955.511	1940.890	1926.269	1906.166	1947.286	1948.200	1970.131	1975.614
<b>30.0</b>	2353.009	2379.509	2390.475	2387.733	2361.233	2311.889	2314.630	2304.578	2286.303	2218.682
<b>32.5</b>	2798.939	2787.059	2808.990	2830.008	2829.094	2807.163	2746.853	2720.353	2631.715	2483.681
<b>35.0</b>	3145.265	3140.696	3192.782	3246.696	3285.989	3307.006	3211.972	3166.282	3004.541	2761.473
<b>37.5</b>	3469.661	3485.195	3544.591	3635.970	3717.298	3818.728	3688.056	3626.832	3381.023	3035.610
<b>40.0</b>	3844.314	3861.676	3924.728	4018.848	4146.779	4297.554	4192.468	4083.727	3747.453	3289.644
<b>42.5</b>	4326.796	4343.244	4414.519	4449.243	4621.036	4781.863	4659.415	4550.674	4080.986	3499.816
<b>45.0</b>	4956.397	4972.845	5045.035	5034.069	5162.913	5308.206	5122.707	4992.035	4386.192	3680.746
<b>47.5</b>	5775.153	5796.170	5884.808	5831.808	5920.445	5902.170	5585.998	5405.982	4704.191	3850.711
<b>50.0</b>	6882.666	6927.442	7119.338	7078.217	6974.959	6619.495	6056.600	5825.411	5000.259	4058.141
<b>52.5</b>	8539.367	8614.298	8827.211	8744.056	8480.885	7545.164	6610.357	6293.272	5355.723	4370.658
<b>55.0</b>	10456.499	10637.429	10844.860	10872.273	10481.171	8796.142	7311.234	6919.218	5864.704	4831.208
<b>57.5</b>	11360.237	11484.513	12180.821	12858.853	12786.663	10659.360	8408.695	7905.197	6663.357	5587.826
<b>60.0</b>	10174.138	10398.930	11647.167	13303.868	15283.138	13353.213	10077.276	9470.519	7940.835	6853.425
<b>62.5</b>	6032.841	6191.841	8485.454	11645.340	15251.155	15732.722	12682.491	12227.424	9835.122	8506.471
<b>65.0</b>	1720.667	1794.684	2787.059	6407.495	12756.508	16086.359	15636.774	15263.948	12125.993	9965.794
<b>67.5</b>	686.256	718.239	968.617	1834.890	7207.062	14053.176	18093.042	18089.387	13903.315	10422.689
<b>70.0</b>	464.205	482.481	568.377	948.514	2328.337	9420.261	16386.996	17260.579	14758.622	8629.833
<b>72.5</b>	374.654	391.102	439.533	693.567	1347.840	4048.090	12359.010	13532.316	11650.822	4887.863
<b>75.0</b>	295.154	304.292	349.982	589.395	1059.996	1956.424	6159.858	7260.975	6098.634	1503.185
<b>77.5</b>	225.706	239.413	277.792	515.378	924.755	1203.461	2264.372	2863.818	1729.804	540.964
<b>80.0</b>	157.172	166.310	208.344	434.050	779.463	836.118	859.876	985.066	722.808	289.671
<b>82.5</b>	94.120	99.603	137.068	358.206	593.963	574.774	386.533	353.637	336.275	186.413
<b>85.0</b>	61.224	64.879	95.034	297.896	471.516	309.775	156.258	164.482	168.137	120.620
<b>87.5</b>	38.379	41.121	65.793	222.051	232.103	106.913	68.534	67.620	69.448	69.448
<b>90.0</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><b>85.0</b></u>	<u><b>90.0</b></u>	<u><b>95.0</b></u>	<u><b>105.0</b></u>	<u><b>115.0</b></u>	<u><b>125.0</b></u>	<u><b>135.0</b></u>	<u><b>145.0</b></u>	<u><b>155.0</b></u>	<u><b>165.0</b></u>
<b>0.0</b>	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427	1108.427
<b>2.5</b>	1128.531	1118.479	1105.686	1079.186	1059.083	1037.152	1017.048	987.807	968.617	971.359
<b>5.0</b>	1151.375	1118.479	1083.755	1014.307	947.600	887.290	831.549	797.739	774.894	767.584
<b>7.5</b>	1173.306	1117.565	1059.083	943.945	843.428	773.066	735.601	707.273	682.601	667.067
<b>10.0</b>	1192.496	1112.082	1030.755	871.756	763.015	710.929	668.894	638.739	615.894	600.360
<b>12.5</b>	1210.772	1104.772	1003.341	806.877	712.756	657.015	618.636	593.050	572.033	561.067
<b>15.0</b>	1227.220	1096.548	974.100	757.532	675.291	625.032	582.998	563.808	551.015	543.705
<b>17.5</b>	1244.582	1091.065	945.773	721.894	649.705	606.757	567.464	549.188	540.964	531.826
<b>20.0</b>	1279.306	1106.600	938.462	701.791	649.705	596.705	566.550	540.050	525.429	520.860
<b>22.5</b>	1377.082	1176.048	982.324	710.015	676.205	609.498	570.205	532.740	508.981	506.240
<b>25.0</b>	1523.288	1288.444	1077.358	737.429	711.842	640.567	571.119	525.429	493.447	462.378
<b>27.5</b>	1706.046	1445.616	1188.841	776.721	747.480	675.291	581.170	511.722	423.085	359.119

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HLN-3-LED-18L-30-IL.IES**

**CANDELA TABULATION - (Cont.)**

30.0	1888.804	1582.684	1290.271	819.670	779.463	707.273	582.998	436.792	328.964	313.430
32.5	2088.010	1740.770	1400.840	858.963	807.790	731.946	542.791	363.688	317.085	323.482
35.0	2295.440	1893.373	1515.064	882.721	820.583	740.170	473.343	355.464	318.913	332.620
37.5	2489.164	2039.579	1611.926	890.945	812.359	695.394	456.895	339.016	289.671	290.585
40.0	2663.698	2165.682	1686.856	881.807	780.377	608.584	448.671	316.171	248.551	232.103
42.5	2811.732	2264.372	1738.029	854.394	715.498	537.309	411.205	295.154	224.792	195.551
45.0	2931.438	2343.871	1769.097	809.618	593.050	429.481	354.551	271.396	240.327	174.534
47.5	3056.628	2437.078	1808.390	750.222	431.309	311.602	275.965	239.413	228.447	165.396
50.0	3222.937	2584.198	1880.580	685.342	316.171	228.447	207.430	218.396	221.137	161.741
52.5	3476.971	2822.697	2035.924	639.653	240.327	181.844	161.741	192.810	199.206	165.396
55.0	3873.556	3226.592	2295.440	606.757	215.654	161.741	134.327	161.741	156.258	175.448
57.5	4541.536	3781.263	2674.663	551.015	202.861	148.948	116.965	134.327	121.534	126.103
60.0	5607.929	4462.037	2883.921	474.257	191.896	131.586	101.431	95.948	73.103	97.776
62.5	7106.545	4969.190	2719.439	396.585	169.051	108.741	100.517	59.396	49.345	76.758
65.0	7862.249	4950.000	2017.648	320.740	131.586	95.948	72.189	46.603	35.638	74.017
67.5	7516.836	4015.193	1203.461	221.137	97.776	72.189	47.517	39.293	34.724	56.655
70.0	4906.138	2523.888	598.532	142.551	72.189	43.862	29.241	31.983	26.500	42.034
72.5	2152.889	1006.083	222.051	91.379	53.000	25.586	21.931	21.017	17.362	28.327
75.0	540.050	342.671	134.327	67.620	33.810	19.190	13.707	13.707	6.397	10.965
77.5	256.775	170.879	93.207	48.431	20.103	12.793	7.310	4.569	1.828	2.741
80.0	158.999	113.310	68.534	31.983	10.965	5.483	4.569	2.741	0.914	0.000
82.5	106.000	76.758	49.345	18.276	5.483	5.483	4.569	1.828	0.000	0.000
85.0	67.620	53.000	34.724	10.052	5.483	4.569	3.655	1.828	0.000	0.000
87.5	38.379	28.327	17.362	5.483	6.397	6.397	5.483	2.741	0.914	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**

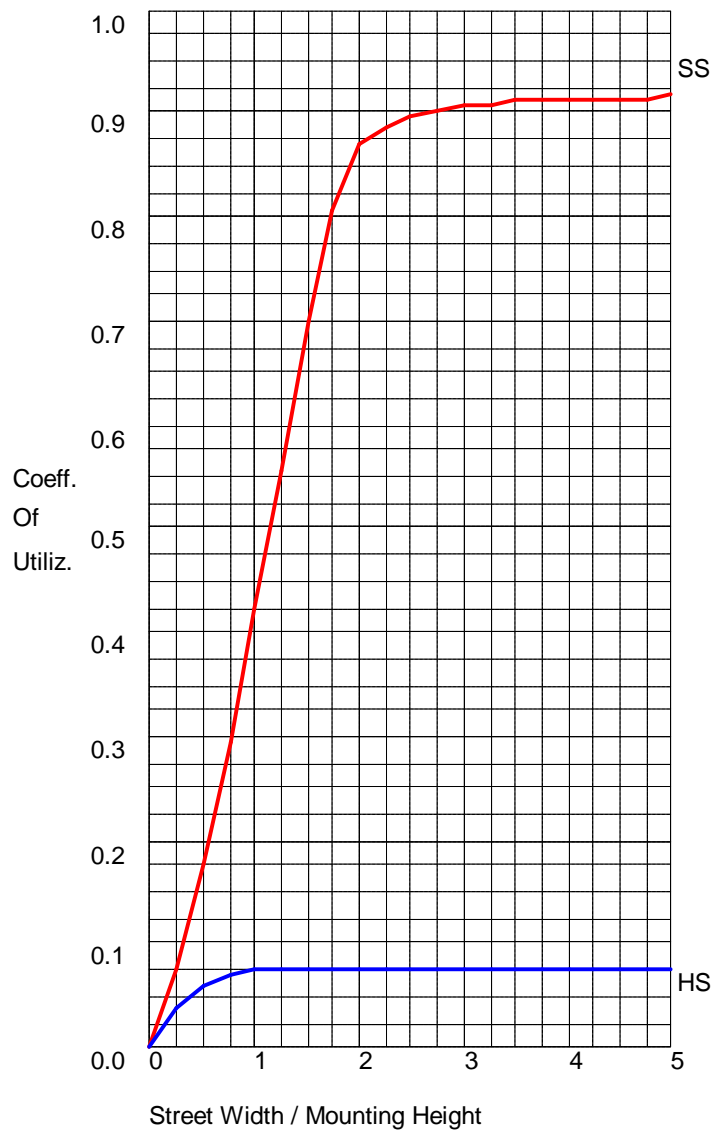
	<b>175.0</b>	<b>180.0</b>
0.0	1108.427	1108.427
2.5	964.048	965.876
5.0	762.101	760.273
7.5	664.325	662.498
10.0	596.705	593.050
12.5	556.498	553.757
15.0	540.964	536.395
17.5	528.171	523.602
20.0	515.378	509.895
22.5	500.757	496.188
25.0	437.705	432.223
27.5	332.620	328.051
30.0	315.258	312.516
32.5	338.102	333.533
35.0	357.292	353.637
37.5	297.896	293.327
40.0	224.792	217.482
42.5	169.051	167.224
45.0	151.689	147.120
47.5	137.982	135.241
50.0	125.189	119.706
52.5	131.586	127.017
55.0	128.844	122.448
57.5	79.500	67.620
60.0	61.224	51.172
62.5	53.000	41.121
65.0	64.879	49.345

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HLN-3-LED-18L-30-IL.IES**

**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	59.396	42.948
<b>70.0</b>	49.345	33.810
<b>72.5</b>	32.896	22.845
<b>75.0</b>	10.052	6.397
<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

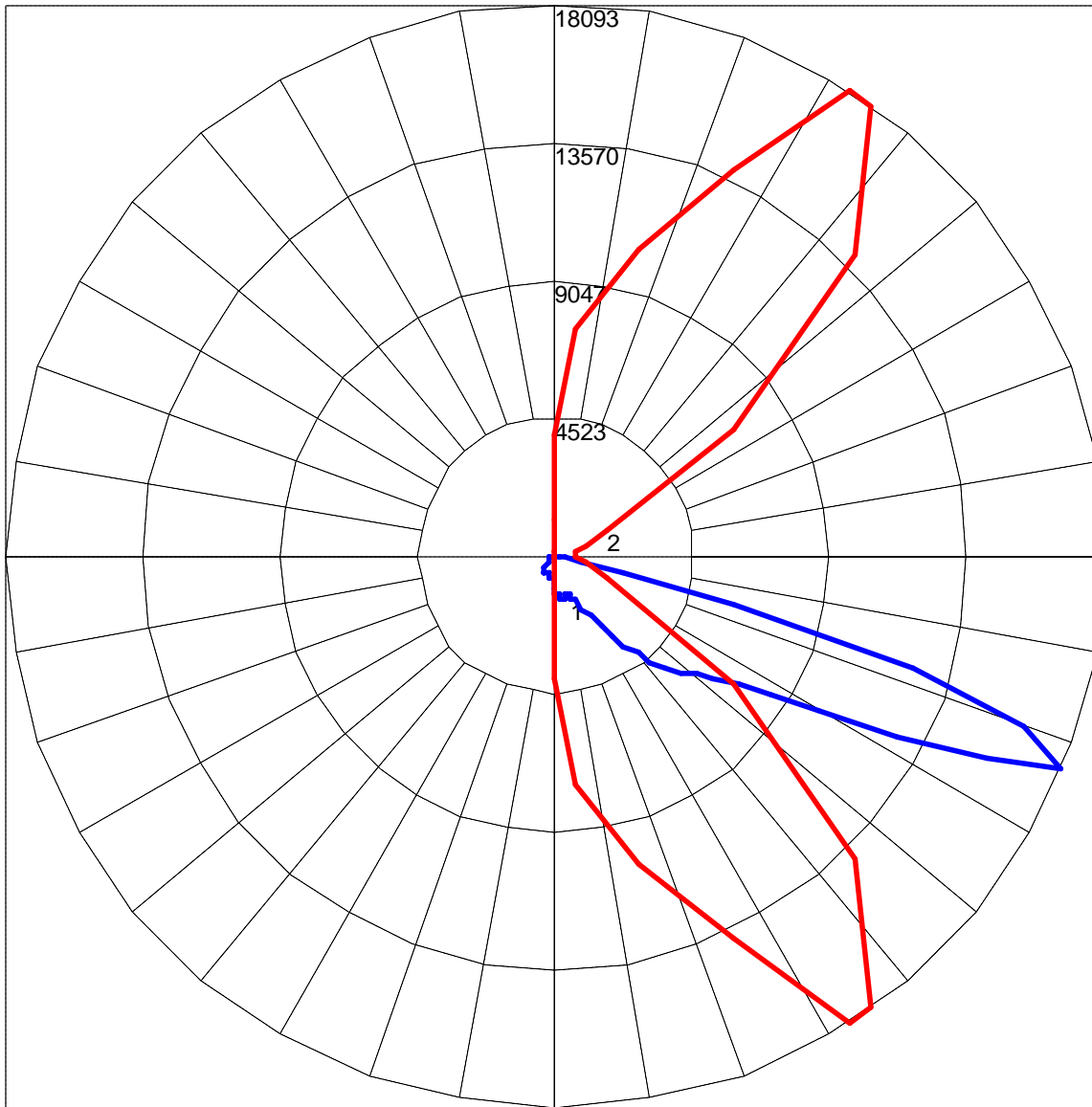
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

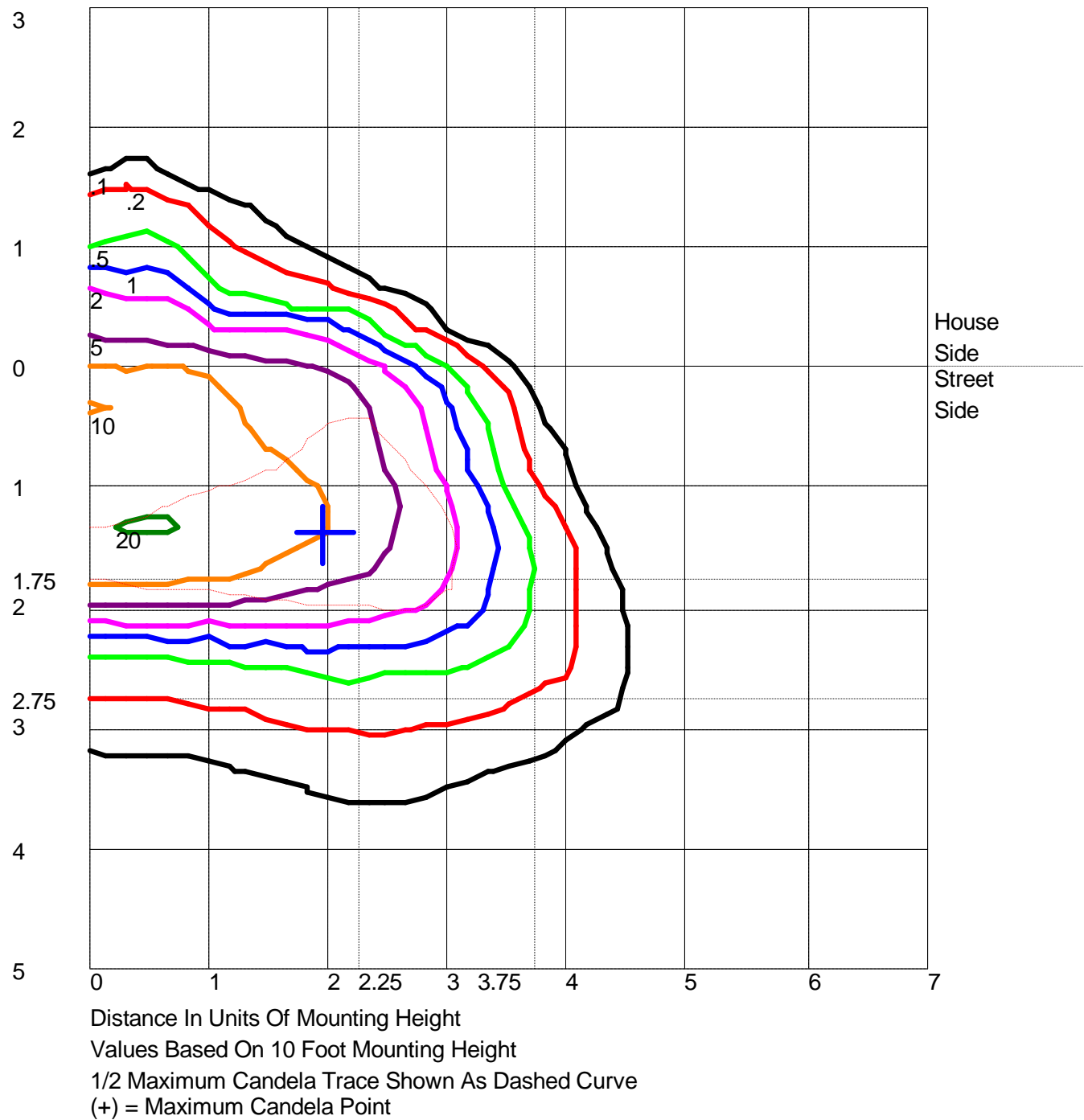
	Lumens	Percent Of Luminaire
Downward Street Side	13176.0	92.2
Downward House Side	1122.1	7.8
Downward Total	14298.1	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	14298.1	100.0

POLAR GRAPH



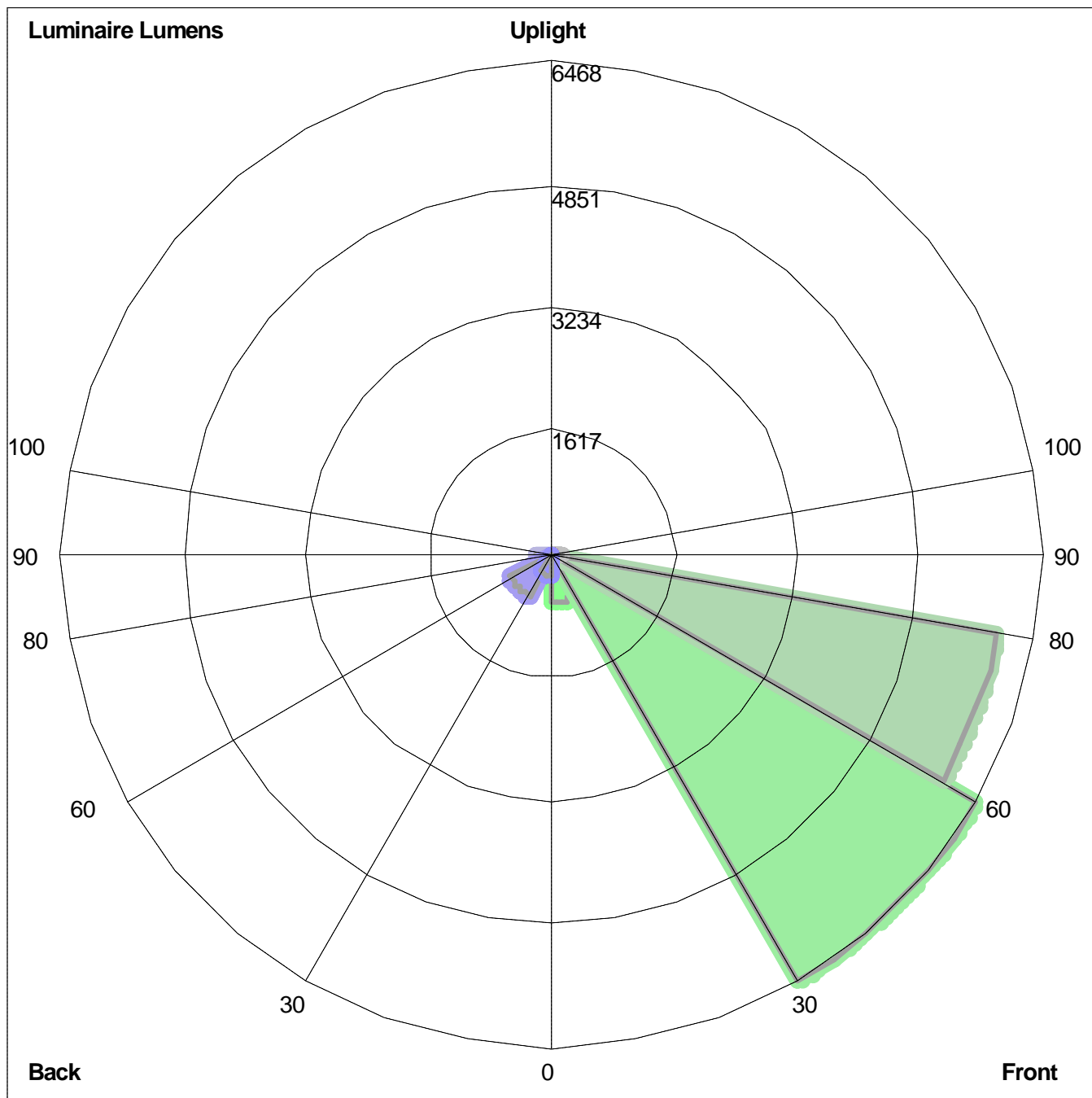
Maximum Candela = 18093.042 Located At Horizontal Angle = 55, Vertical Angle = 67.5  
# 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=632.0, Medium=6467.9, High=5960.1, Very High=116.1  
Back: Low=277.9, Medium=625.5, High=214.5, Very High=4.1  
Uplight: Low=0.0, High=0.0

BUG Rating : B1-U0-G3