



## IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-FT-LED-27L-50-IL.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST]LED-7771\_Scaled  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUE DATE]04/03/2017  
[TEST DATE]05/02/16  
[MANUFACT]LSI INDUSTRIES, INC  
[LUMCAT] HLN-FT-LED-27L-50-IL  
[ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[OTHER]TEST PROCEDURE: IESNA LM-79-08  
[OTHER]SCALED FROM ORIGINAL TEST DATA  
[\_SEARCH\_SOURCETYPE] LED  
[\_SEARCH\_APPLICATION] Outdoor

### CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20722
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	241
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	19783.27
Maximum Candela Angle	45H 67.5V
Maximum Candela (<90 Degrees Vertical)	19783.27
Maximum Candela Angle (<90 Degrees Vertical)	45H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	2403.591 (11.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HLN-FT-LED-27L-50-IL.IES**

**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1805.0	N.A.	8.7
FM - Front-Medium (30-60)	7520.8	N.A.	36.3
FH - Front-High (60-80)	8940.8	N.A.	43.1
FVH - Front-Very High (80-90)	209.3	N.A.	1.0
BL - Back-Low (0-30)	709.7	N.A.	3.4
BM - Back-Medium (30-60)	1194.3	N.A.	5.8
BH - Back-High (60-80)	338.2	N.A.	1.6
BVH - Back-Very High (80-90)	3.9	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	20722.0	N.A.	100.0
BUG Rating	B2-U0-G4		

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HLN-FT-LED-27L-50-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>42.5</b></u>	<u><b>45.0</b></u>	<u><b>55.0</b></u>	<u><b>65.0</b></u>	<u><b>75.0</b></u>
<b>0.0</b>	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234
<b>2.5</b>	3524.375	3536.068	3537.738	3536.068	3524.375	3516.024	3497.650	3477.606	3437.519	3412.464
<b>5.0</b>	3579.496	3591.188	3592.858	3607.891	3617.913	3637.957	3634.616	3636.287	3596.199	3549.430
<b>7.5</b>	3554.441	3572.815	3581.166	3607.891	3639.627	3678.045	3684.726	3729.825	3729.825	3713.121
<b>10.0</b>	3606.221	3626.265	3631.276	3659.671	3701.429	3748.198	3759.890	3826.703	3863.450	3881.824
<b>12.5</b>	3728.154	3749.868	3753.209	3774.923	3811.670	3860.110	3871.802	3946.966	4018.790	4053.867
<b>15.0</b>	3881.824	3913.560	3913.560	3933.604	3963.669	4013.779	4012.109	4087.273	4167.448	4229.250
<b>17.5</b>	4045.515	4075.581	4068.900	4093.954	4119.009	4169.119	4162.438	4230.921	4309.426	4401.293
<b>20.0</b>	4209.206	4237.602	4235.932	4239.272	4262.657	4302.744	4304.415	4364.546	4436.370	4531.578
<b>22.5</b>	4359.535	4384.590	4382.920	4381.249	4391.271	4412.986	4414.656	4474.787	4541.600	4636.808
<b>25.0</b>	4496.502	4519.886	4509.864	4509.864	4501.512	4508.194	4504.853	4553.292	4626.786	4721.995
<b>27.5</b>	4625.116	4646.830	4628.457	4611.754	4590.039	4583.358	4580.018	4615.094	4690.259	4790.478
<b>30.0</b>	4742.039	4758.742	4732.017	4698.610	4658.523	4645.160	4641.819	4658.523	4735.357	4838.917
<b>32.5</b>	4832.236	4845.598	4808.851	4763.753	4715.313	4691.929	4693.599	4696.940	4768.764	4870.653
<b>35.0</b>	4907.400	4914.082	4870.653	4808.851	4762.082	4742.039	4743.709	4737.028	4792.148	4897.378
<b>37.5</b>	4980.894	4990.916	4929.114	4857.291	4810.522	4800.500	4812.192	4795.489	4822.214	4919.093
<b>40.0</b>	5082.784	5089.465	5020.982	4939.136	4890.697	4884.016	4909.071	4900.719	4873.994	4952.499
<b>42.5</b>	5264.849	5253.157	5179.662	5089.465	5041.026	5054.388	5067.751	5074.432	4985.905	5012.630
<b>45.0</b>	5552.144	5547.133	5460.276	5363.398	5313.288	5335.002	5355.046	5366.738	5171.311	5126.212
<b>47.5</b>	6038.207	6033.196	5944.669	5837.769	5801.021	5792.670	5819.395	5836.098	5498.694	5395.134
<b>50.0</b>	6804.884	6803.213	6778.159	6607.786	6545.984	6504.226	6540.973	6564.358	6043.218	5759.263
<b>52.5</b>	7903.954	7920.658	7952.394	7823.779	7641.714	7529.803	7578.242	7614.989	6801.543	6283.744
<b>55.0</b>	9261.925	9308.694	9472.385	9527.505	9139.991	8926.190	9001.355	8989.662	7850.504	7053.762
<b>57.5</b>	10446.181	10512.994	10948.948	11346.484	11172.771	10743.498	10815.322	10710.092	9176.738	7887.251
<b>60.0</b>	11394.923	11486.791	12144.897	13026.826	13345.857	13010.123	13227.264	12829.728	10628.246	8835.993
<b>62.5</b>	11967.843	12131.534	13110.342	14626.993	15645.888	15675.954	15809.579	14977.760	11999.579	9380.517
<b>65.0</b>	11209.518	11520.197	12993.420	15690.986	17817.304	18231.543	18179.763	16699.860	12916.585	9398.891
<b>67.5</b>	8717.400	8998.014	11328.110	15321.846	18747.672	19746.523	19783.270	17595.151	12575.840	8211.293
<b>70.0</b>	5572.188	5844.450	7750.285	12823.047	17366.317	19415.800	19629.601	16586.278	10257.435	5836.098
<b>72.5</b>	1981.000	2138.010	3350.662	7239.167	13952.183	16509.443	16696.519	12998.431	7070.465	3258.794
<b>75.0</b>	868.566	942.060	1484.915	2697.567	7300.969	11486.791	11660.504	8805.927	3646.309	1266.103
<b>77.5</b>	634.722	698.194	1097.400	1727.111	2667.501	5460.276	5695.791	4630.127	1538.365	709.886
<b>80.0</b>	472.701	542.854	918.676	1416.431	1757.177	2325.085	2403.591	1915.857	770.018	462.679
<b>82.5</b>	347.427	414.239	763.336	1134.147	1053.972	945.401	856.874	434.283	387.514	290.636
<b>85.0</b>	243.867	282.284	444.305	492.744	370.811	317.361	260.570	136.966	162.021	170.373
<b>87.5</b>	61.802	65.142	101.890	167.032	81.846	61.802	63.472	65.142	70.153	78.505
<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>	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234	3307.234
<b>2.5</b>	3380.728	3375.717	3330.618	3262.135	3227.058	3156.905	3116.817	3076.730	3036.642	3009.917
<b>5.0</b>	3469.255	3430.837	3337.299	3158.575	3013.257	2834.533	2692.556	2555.590	2430.316	2343.459
<b>7.5</b>	3609.562	3532.727	3384.068	3075.059	2781.083	2455.370	2151.372	1900.824	1725.441	1621.881
<b>10.0</b>	3774.923	3659.671	3445.870	2989.873	2510.491	2032.779	1668.650	1466.541	1361.311	1301.179
<b>12.5</b>	3958.658	3803.319	3514.353	2892.994	2231.548	1697.045	1418.102	1286.146	1192.609	1117.444
<b>15.0</b>	4152.416	3961.999	3587.847	2791.105	1982.670	1504.958	1299.509	1147.510	1058.983	1013.884
<b>17.5</b>	4329.470	4100.636	3642.968	2669.171	1797.264	1399.728	1195.949	1070.675	1005.533	962.104
<b>20.0</b>	4479.798	4215.888	3673.034	2560.601	1673.661	1344.608	1127.466	1035.598	965.445	918.676
<b>22.5</b>	4610.083	4306.085	3683.056	2478.755	1591.815	1281.135	1099.071	997.181	923.687	875.248
<b>25.0</b>	4706.962	4382.920	3684.726	2423.634	1560.079	1237.707	1070.675	955.423	883.599	838.501
<b>27.5</b>	4785.467	4433.029	3676.374	2390.228	1555.068	1217.663	1033.928	917.006	801.754	694.853

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HLN-FT-LED-27L-50-IL.IES**

**CANDELA TABULATION - (Cont.)**

30.0	4843.928	4459.754	3664.682	2375.195	1556.738	1199.290	1000.522	830.149	616.348	487.733
32.5	4877.334	4458.084	3656.331	2371.854	1543.376	1179.246	947.071	644.744	442.635	390.855
35.0	4894.038	4446.392	3659.671	2368.514	1518.321	1154.191	806.765	487.733	390.855	347.427
37.5	4905.730	4433.029	3678.045	2360.162	1473.222	1090.719	631.381	439.294	352.438	298.987
40.0	4920.763	4429.689	3713.121	2346.800	1408.080	940.390	546.195	395.866	302.328	262.240
42.5	4959.180	4453.073	3764.901	2318.404	1286.146	716.567	472.701	339.075	265.581	285.625
45.0	5041.026	4534.919	3856.769	2278.317	1080.697	542.854	379.163	280.614	238.856	305.669
47.5	5236.453	4716.984	4013.779	2218.185	796.743	410.899	292.306	228.834	287.295	185.406
50.0	5508.715	4969.202	4230.921	2097.922	524.480	322.372	238.856	192.087	232.174	148.658
52.5	5963.043	5401.815	4529.908	1897.484	380.833	268.922	198.768	168.702	170.373	131.955
55.0	6540.973	5894.559	4873.994	1638.584	327.383	240.526	170.373	145.318	136.966	151.999
57.5	7110.552	6370.601	5174.651	1386.366	298.987	212.131	143.648	123.604	145.318	141.977
60.0	7573.231	6692.972	5172.981	1150.851	270.592	170.373	123.604	126.944	108.571	81.846
62.5	7643.384	6639.522	4660.193	915.335	230.504	135.296	118.593	90.197	66.813	58.461
65.0	7170.684	6003.130	3594.529	765.007	185.406	118.593	98.549	58.461	48.439	60.132
67.5	5759.263	4610.083	2243.240	542.854	128.615	115.252	68.483	48.439	70.153	61.802
70.0	3673.034	2916.379	1080.697	310.680	90.197	81.846	51.780	63.472	50.110	41.758
72.5	1473.222	1074.016	466.019	155.340	68.483	48.439	51.780	46.769	38.417	28.395
75.0	668.128	512.788	213.801	93.538	48.439	33.406	31.736	33.406	13.363	5.011
77.5	429.272	324.042	138.637	58.461	26.725	21.714	18.374	8.352	3.341	3.341
80.0	252.218	193.757	95.208	31.736	15.033	15.033	6.681	3.341	1.670	1.670
82.5	168.702	125.274	56.791	15.033	10.022	6.681	5.011	1.670	0.000	0.000
85.0	100.219	61.802	20.044	5.011	3.341	1.670	1.670	0.000	0.000	0.000
87.5	41.758	16.703	5.011	1.670	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**

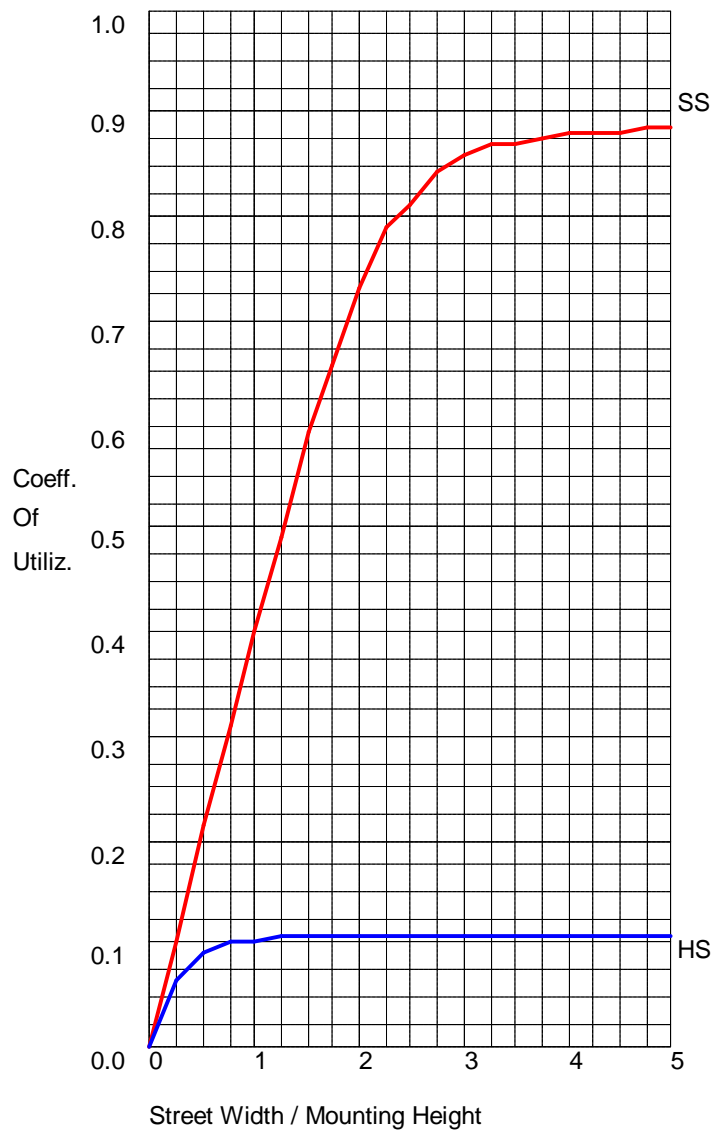
	<b>175.0</b>	<b>180.0</b>
0.0	3307.234	3307.234
2.5	3021.609	3003.235
5.0	2300.031	2320.075
7.5	1578.452	1588.474
10.0	1277.795	1277.795
12.5	1080.697	1072.345
15.0	992.170	985.489
17.5	945.401	938.720
20.0	900.302	893.621
22.5	860.215	853.534
25.0	811.776	803.424
27.5	633.051	623.029
30.0	429.272	420.921
32.5	370.811	367.470
35.0	332.394	329.053
37.5	277.273	273.932
40.0	248.878	248.878
42.5	283.954	260.570
45.0	187.076	180.395
47.5	157.010	155.340
50.0	140.307	138.637
52.5	135.296	133.626
55.0	165.362	165.362
57.5	133.626	123.604
60.0	73.494	66.813
62.5	48.439	45.099
65.0	73.494	73.494

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HLN-FT-LED-27L-50-IL.IES**

**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	55.121	53.450
<b>70.0</b>	36.747	36.747
<b>72.5</b>	23.384	21.714
<b>75.0</b>	1.670	0.000
<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

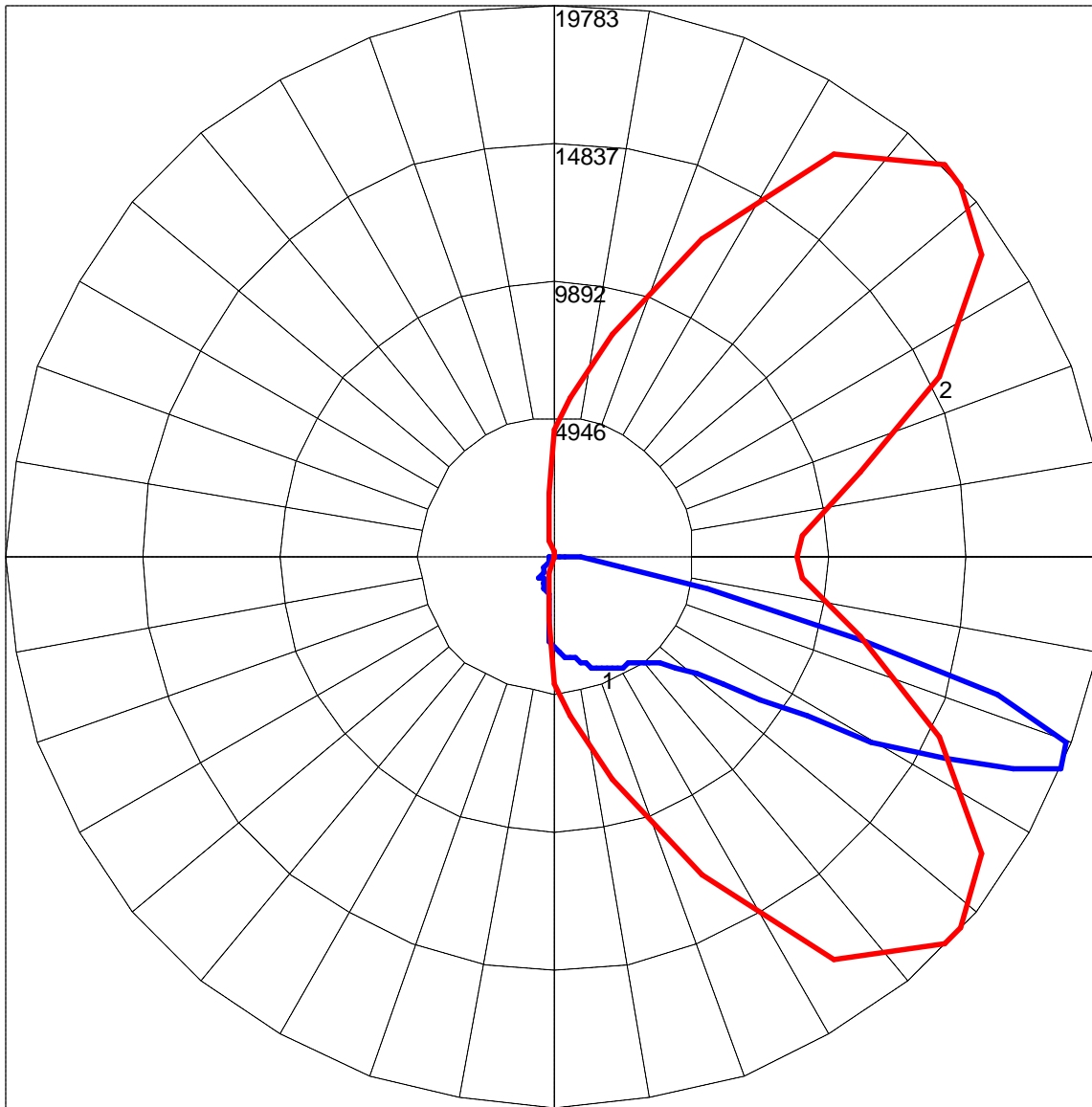
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

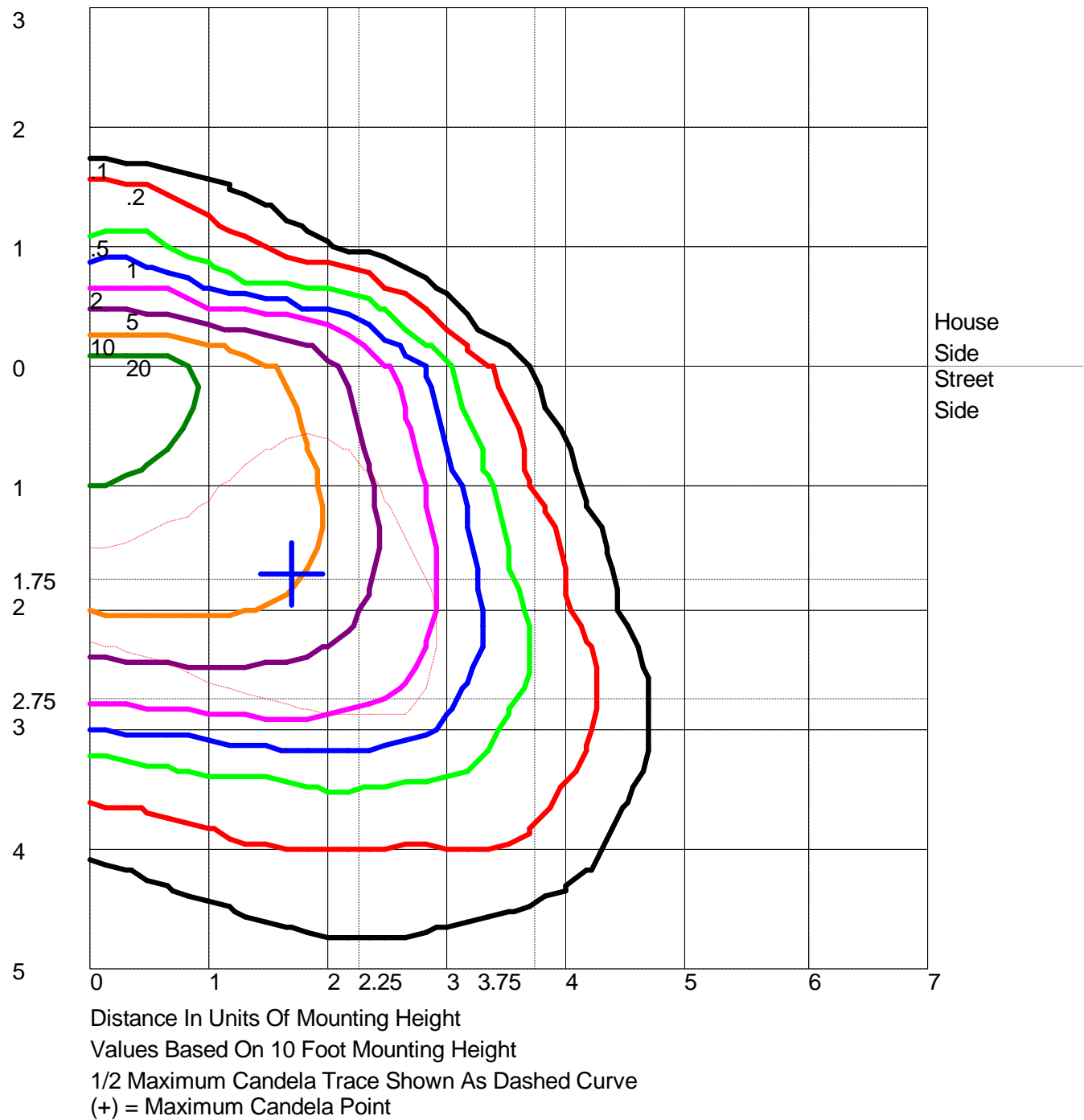
	Lumens	Percent Of Luminaire
Downward Street Side	18475.9	89.2
Downward House Side	2246.1	10.8
Downward Total	20722.0	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	20722.0	100.0

POLAR GRAPH



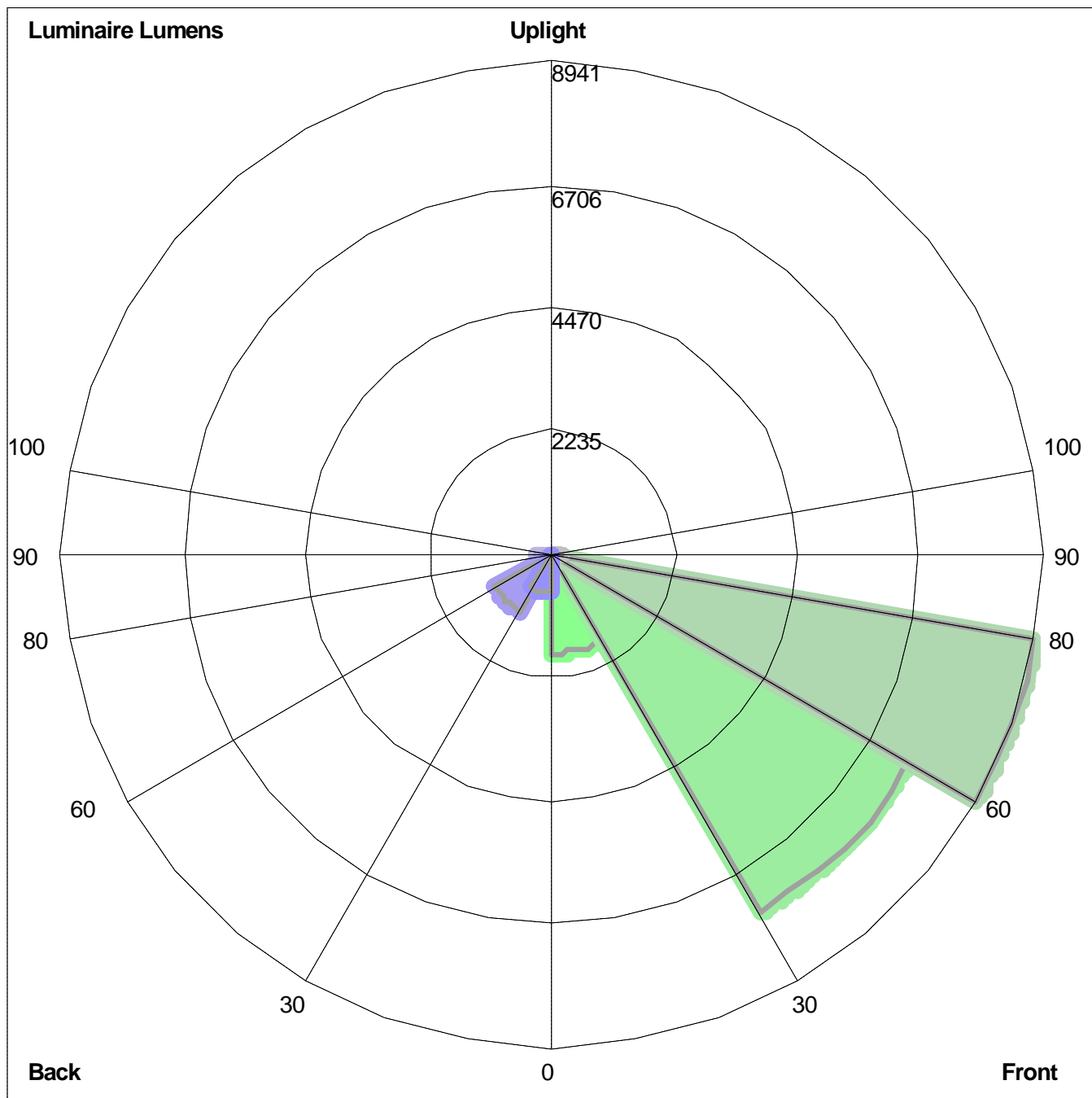
Maximum Candela = 19783.27 Located At Horizontal Angle = 45, Vertical Angle = 67.5  
# 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low= 1805.0, Medium=7520.8, High=8940.8, Very High=209.3  
Back: Low=709.7, Medium=1194.3, High=338.2, Very High=3.9  
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G4