



## IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-2-LED-27L-50-IL.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST]LED-8625\_Scaled  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUE DATE]4/03/17  
[TEST DATE]03/01/17  
[MANUFACTURER]LSI INDUSTRIES, INC  
[LUMCAT] HLN-2-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 II
Longitudinal Classification	Medium
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	19960
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	239
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	20620.386
Maximum Candela Angle	80H 67.5V
Maximum Candela (<90 Degrees Vertical)	20620.386
Maximum Candela Angle (<90 Degrees Vertical)	80H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1632.246 (8.2% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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**LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1894.7	N.A.	9.5
FM - Front-Medium (30-60)	9018.9	N.A.	45.2
FH - Front-High (60-80)	5934.8	N.A.	29.7
FVH - Front-Very High (80-90)	86.2	N.A.	0.4
BL - Back-Low (0-30)	954.2	N.A.	4.8
BM - Back-Medium (30-60)	1470.6	N.A.	7.4
BH - Back-High (60-80)	596.2	N.A.	3.0
BVH - Back-Very High (80-90)	4.9	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	19960.5	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>55</u>	<u>65</u>	<u>75</u>	<u>80</u>
<b>0.0</b>	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593
<b>2.5</b>	3762.706	3757.961	3758.910	3761.757	3765.553	3760.808	3761.757	3752.267	3744.675	3738.032
<b>5.0</b>	3826.287	3822.491	3825.338	3829.134	3835.777	3831.032	3828.185	3810.155	3796.869	3785.481
<b>7.5</b>	3894.614	3890.818	3896.512	3907.900	3912.644	3905.053	3899.359	3876.583	3858.553	3840.522
<b>10.0</b>	3974.328	3972.430	3980.022	3995.206	4002.798	3990.461	3980.971	3957.246	3935.420	3915.491
<b>12.5</b>	4072.073	4069.226	4082.512	4099.593	4107.185	4095.798	4101.491	4077.767	4058.787	4032.216
<b>15.0</b>	4146.094	4145.145	4171.716	4209.675	4234.349	4241.940	4262.818	4240.043	4216.318	4183.104
<b>17.5</b>	4179.308	4183.104	4217.267	4278.002	4348.226	4416.553	4458.308	4445.971	4407.063	4370.053
<b>20.0</b>	4214.420	4219.165	4256.175	4337.787	4443.124	4573.134	4677.522	4671.828	4623.430	4577.879
<b>22.5</b>	4256.175	4259.022	4300.777	4421.298	4544.665	4690.808	4892.941	4936.594	4857.828	4807.533
<b>25.0</b>	4263.767	4263.767	4332.094	4481.083	4644.308	4799.941	5064.706	5221.288	5136.829	5081.788
<b>27.5</b>	4272.308	4279.900	4361.512	4532.328	4729.716	4903.380	5198.512	5528.757	5449.992	5394.002
<b>30.0</b>	4349.175	4358.665	4441.226	4612.992	4828.410	5022.951	5339.910	5830.533	5830.533	5757.462
<b>32.5</b>	4508.604	4515.247	4593.063	4746.798	4958.420	5178.584	5507.880	6094.349	6226.258	6144.645
<b>35.0</b>	4758.186	4757.237	4822.716	4951.778	5133.982	5383.563	5712.859	6326.849	6643.809	6563.145
<b>37.5</b>	5094.124	5087.482	5128.288	5238.369	5388.308	5642.635	5963.390	6547.962	7089.829	7020.554
<b>40.0</b>	5488.900	5476.563	5504.084	5580.002	5706.217	5969.084	6256.625	6799.442	7512.125	7523.513
<b>42.5</b>	5972.880	5949.155	5951.053	6001.349	6094.349	6387.584	6614.390	7066.105	7903.105	7989.462
<b>45.0</b>	6620.084	6626.727	6560.299	6560.299	6557.452	6894.340	7031.942	7320.432	8240.942	8475.340
<b>47.5</b>	7545.340	7552.932	7561.472	7443.799	7290.064	7547.238	7601.330	7647.830	8614.840	9065.606
<b>50.0</b>	8361.463	8387.085	8399.422	8444.024	8476.289	8602.503	8384.238	8125.167	9071.300	9724.198
<b>52.5</b>	8463.952	8479.136	8580.677	8901.432	9495.494	10230.953	9597.034	8773.320	9637.841	10506.157
<b>55.0</b>	8057.789	8099.544	8297.881	8753.391	9787.779	11465.576	11774.944	9749.820	10285.994	11452.290
<b>57.5</b>	7294.809	7357.442	7653.523	8162.177	9459.432	11699.025	13851.312	11203.658	11114.453	12476.240
<b>60.0</b>	5952.951	6037.411	6373.350	6929.452	8373.799	10997.729	15360.190	13521.067	12220.964	13908.250
<b>62.5</b>	3372.675	3471.369	3864.246	4742.053	6178.809	8988.738	16196.241	16739.058	13356.893	15951.404
<b>65.0</b>	1155.858	1196.664	1302.001	1862.848	3299.603	5683.441	15955.200	18657.895	14982.496	18338.089
<b>67.5</b>	617.786	614.939	621.582	742.102	1270.684	2595.460	12811.230	18898.936	17083.537	20620.386
<b>70.0</b>	395.725	387.184	398.572	462.153	643.408	1049.572	6196.839	16628.027	17849.364	20080.416
<b>72.5</b>	199.286	204.980	216.367	279.000	420.398	630.123	2205.429	11316.586	16370.854	14626.628
<b>75.0</b>	103.439	105.337	105.337	147.092	261.918	450.765	1028.694	5100.767	8785.657	5841.921
<b>77.5</b>	56.939	58.837	60.735	79.714	134.755	284.694	560.847	2384.787	3469.471	1922.633
<b>80.0</b>	50.296	51.245	49.347	55.990	72.122	134.755	288.490	842.694	1632.246	841.745
<b>82.5</b>	50.296	49.347	46.500	49.347	61.684	87.306	139.500	378.643	726.919	456.459
<b>85.0</b>	44.602	43.653	41.755	42.704	51.245	79.714	130.010	238.194	407.112	293.235
<b>87.5</b>	22.776	20.878	21.827	26.571	36.061	66.429	133.806	281.847	303.674	191.694
<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>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>
<b>0.0</b>	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593	3727.593
<b>2.5</b>	3732.338	3720.001	3734.236	3736.134	3738.981	3731.389	3720.001	3720.950	3717.155	3715.257
<b>5.0</b>	3777.889	3760.808	3771.246	3763.655	3755.114	3729.491	3698.175	3674.450	3646.930	3625.103
<b>7.5</b>	3823.440	3802.563	3808.257	3787.379	3754.165	3693.430	3621.308	3552.032	3479.910	3413.481
<b>10.0</b>	3893.665	3864.246	3863.297	3821.542	3744.675	3621.308	3474.216	3346.103	3207.552	3063.307
<b>12.5</b>	4008.491	3972.430	3968.634	3890.818	3752.267	3525.461	3240.767	2932.348	2606.848	2315.511
<b>15.0</b>	4148.940	4102.440	4088.206	3968.634	3749.420	3377.420	2788.103	2215.868	1730.939	1388.358
<b>17.5</b>	4323.553	4259.971	4234.349	4054.042	3722.848	3037.685	2101.042	1385.511	927.153	732.613
<b>20.0</b>	4517.145	4449.767	4400.420	4146.094	3639.338	2490.123	1409.235	806.633	527.633	452.663
<b>22.5</b>	4735.410	4665.186	4587.369	4244.787	3420.124	1861.899	885.398	495.368	414.704	385.286
<b>25.0</b>	5002.073	4922.359	4821.767	4363.410	3052.869	1316.235	556.102	420.398	375.796	347.327
<b>27.5</b>	5309.543	5217.492	5096.022	4478.236	2590.715	872.113	452.663	385.286	340.684	310.316

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**CANDELA TABULATION - (Cont.)**

30.0	5691.982	5575.257	5428.165	4540.869	2080.164	577.929	414.704	350.174	306.521	272.357
32.5	6085.809	5966.237	5790.676	4538.971	1492.745	478.286	376.745	315.061	267.612	224.908
35.0	6501.462	6369.554	6154.135	4427.941	993.582	434.633	337.837	276.153	215.418	164.174
37.5	6958.870	6817.472	6550.809	4177.410	659.541	390.980	297.980	223.959	148.041	102.490
40.0	7449.493	7302.401	6977.850	3754.165	513.398	346.378	253.378	160.378	88.255	59.786
42.5	7976.177	7793.973	7384.013	3123.093	455.510	304.623	198.337	98.694	49.347	32.265
45.0	8501.912	8305.473	7796.819	2379.093	409.010	260.969	134.755	54.092	22.776	13.286
47.5	9110.208	8915.667	8181.156	1620.858	364.408	213.520	84.459	26.571	8.541	3.796
50.0	9855.157	9658.718	8554.105	1027.745	318.857	159.429	49.347	12.337	2.847	0.949
52.5	10691.208	10441.627	8814.126	708.888	275.204	109.133	23.724	5.694	1.898	0.949
55.0	11737.933	11380.168	8969.759	618.735	238.194	70.225	14.235	3.796	2.847	1.898
57.5	12940.291	12461.056	9005.820	640.561	220.163	42.704	8.541	3.796	3.796	3.796
60.0	14352.373	13574.210	8739.157	668.082	215.418	22.776	6.643	3.796	4.745	4.745
62.5	16634.670	14921.761	8107.136	646.255	208.776	15.184	5.694	3.796	4.745	3.796
65.0	18379.844	15950.455	6786.156	549.459	177.459	21.827	4.745	3.796	2.847	1.898
67.5	19674.253	15634.445	4748.696	369.153	122.418	15.184	4.745	1.898	2.847	5.694
70.0	17618.762	12442.076	2345.878	172.714	63.582	12.337	2.847	2.847	3.796	1.898
72.5	11083.137	6661.839	869.266	75.918	32.265	10.439	1.898	1.898	0.949	0.000
75.0	4202.083	2594.511	390.031	32.265	13.286	5.694	1.898	0.000	0.000	0.000
77.5	1170.092	784.806	223.010	14.235	7.592	2.847	0.949	0.000	0.000	0.000
80.0	546.612	394.776	138.551	9.490	4.745	1.898	0.000	0.000	0.000	0.000
82.5	278.051	207.827	71.173	8.541	4.745	0.000	0.000	0.000	0.000	0.000
85.0	170.816	118.622	28.469	6.643	1.898	0.949	0.949	0.949	0.949	0.000
87.5	98.694	49.347	9.490	2.847	2.847	1.898	1.898	1.898	0.949	0.949
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**

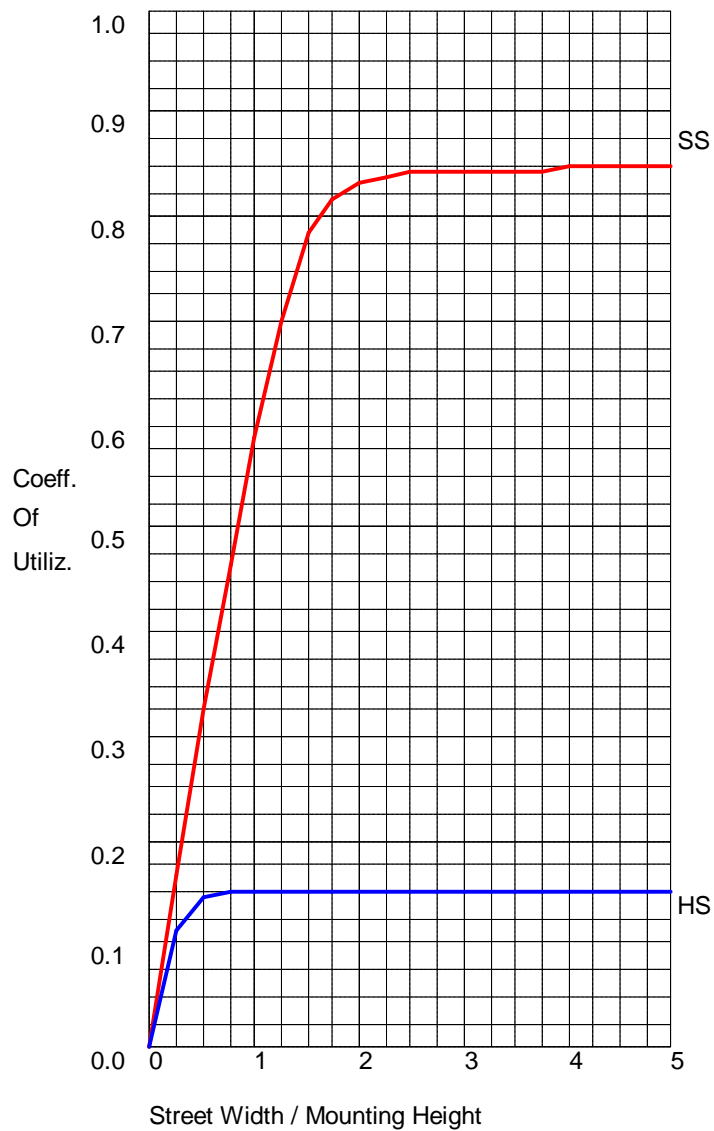
	<u>175</u>	<u>180</u>
0.0	3727.593	3727.593
2.5	3709.563	3700.073
5.0	3603.277	3592.838
7.5	3379.318	3366.981
10.0	2982.644	2963.664
12.5	2166.521	2141.848
15.0	1241.266	1220.388
17.5	637.715	627.276
20.0	427.990	423.245
22.5	372.949	372.000
25.0	334.041	332.143
27.5	296.082	293.235
30.0	253.378	252.429
32.5	202.133	200.235
35.0	140.449	134.755
37.5	85.408	80.663
40.0	48.398	47.449
42.5	25.622	25.622
45.0	9.490	8.541
47.5	0.000	0.000
50.0	0.000	0.000
52.5	0.000	0.000
55.0	0.000	0.000
57.5	1.898	0.949
60.0	2.847	1.898
62.5	0.949	0.000
65.0	0.000	0.000

**IES ROAD REPORT**  
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**CANDELA TABULATION - (Cont.)**

<b>67.5</b>	2.847	2.847
<b>70.0</b>	0.000	0.000
<b>72.5</b>	0.000	0.000
<b>75.0</b>	0.000	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

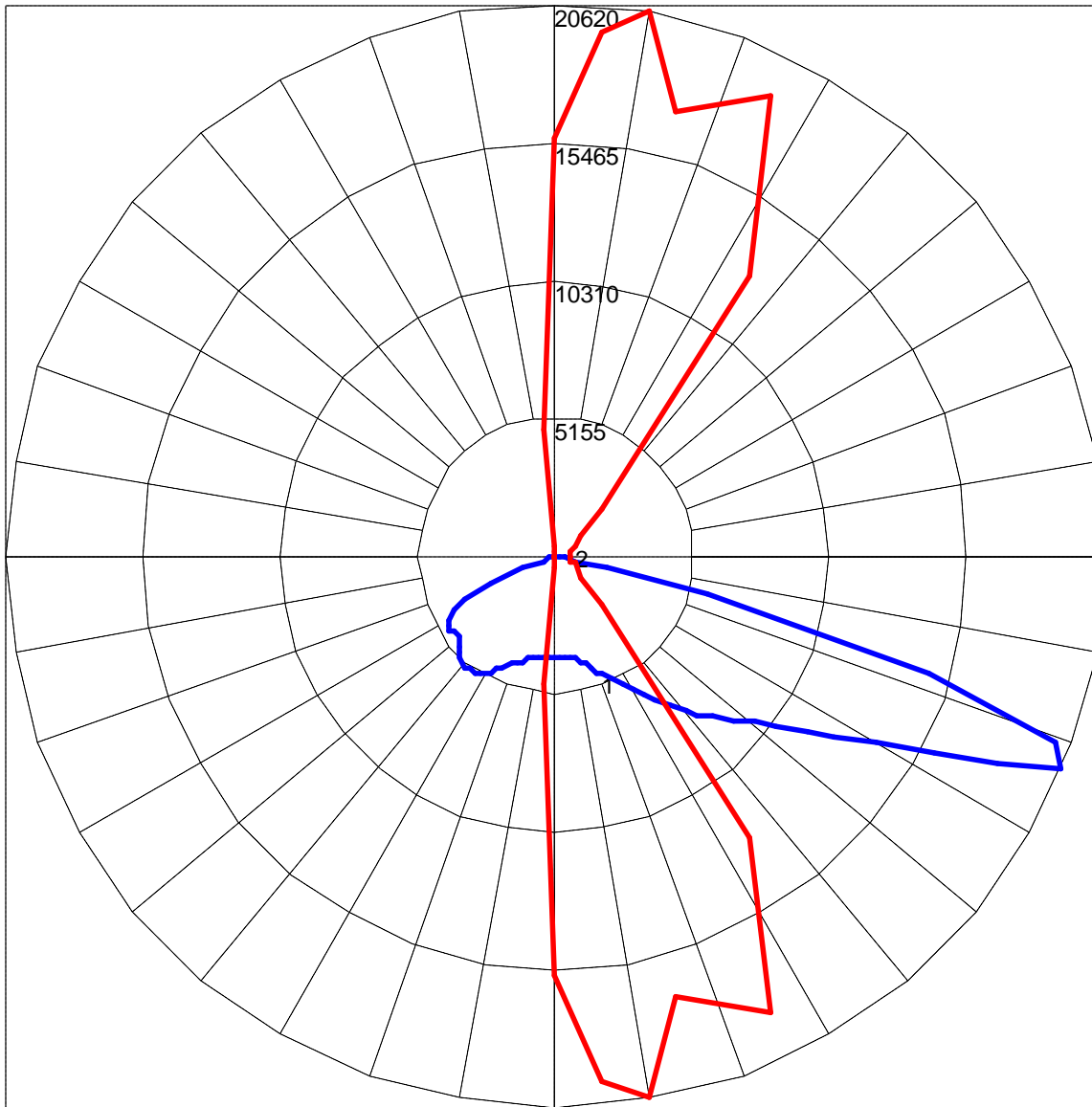
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

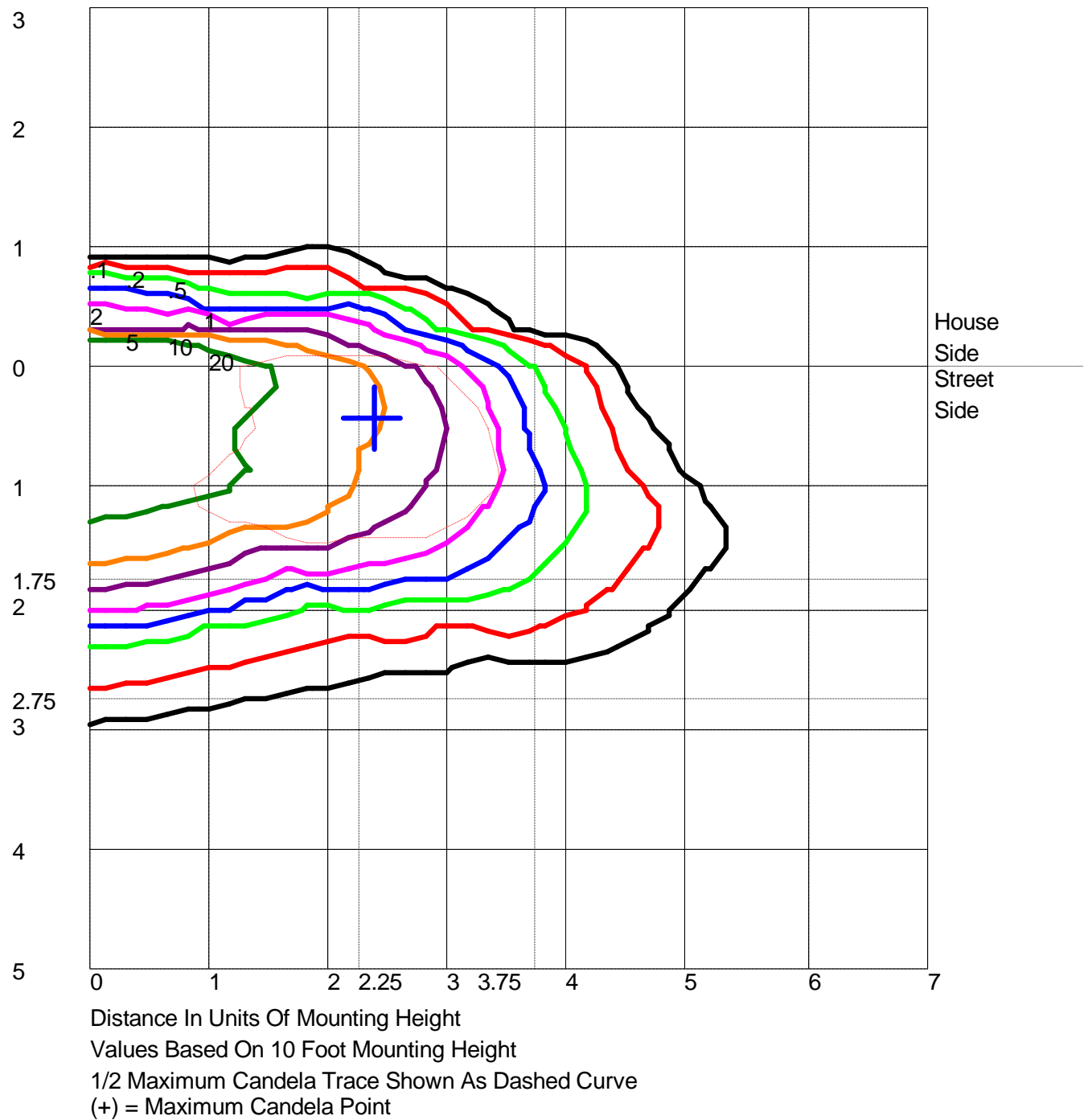
	Lumens	Percent Of Luminaire
Downward Street Side	16934.5	84.8
Downward House Side	3026.0	15.2
Downward Total	19960.4	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	19960.4	100.0

POLAR GRAPH



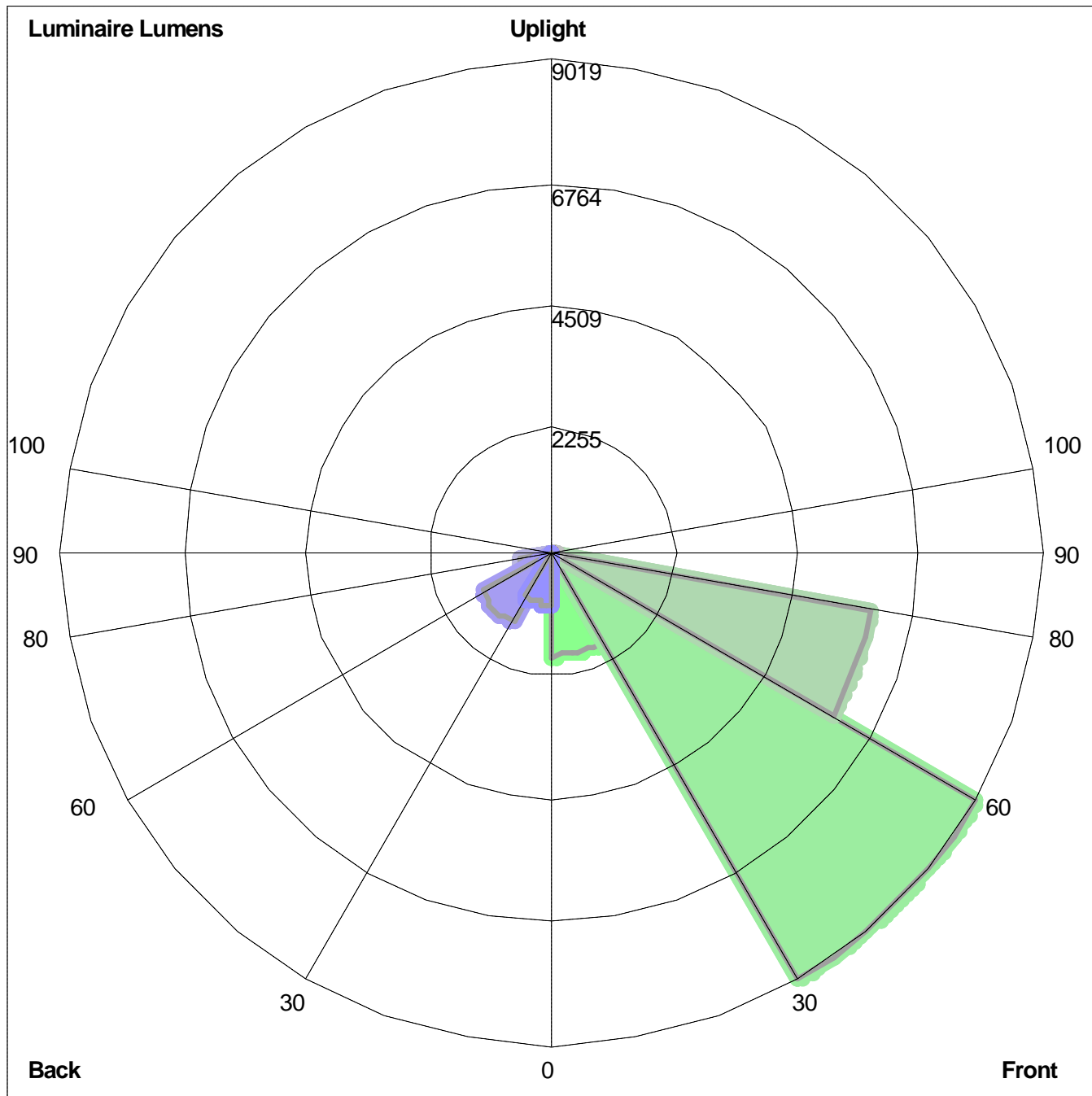
Maximum Candela = 20620.386 Located At Horizontal Angle = 80, Vertical Angle = 67.5  
# 1 - Vertical Plane Through Horizontal Angles (80 - 260) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=1894.7, Medium=9018.9, High=5934.8, Very High=86.2  
Back: Low=954.2, Medium=1470.6, High=596.2, Very High=4.9  
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G3