



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-2-LED-27L-40-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-40-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	20005
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	20666.887
Maximum Candela Angle	80H 67.5V
Maximum Candela (<90 Degrees Vertical)	20666.887
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	1635.926 (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)	1898.9	N.A.	9.5
FM - Front-Medium (30-60)	9039.2	N.A.	45.2
FH - Front-High (60-80)	5948.2	N.A.	29.7
FVH - Front-Very High (80-90)	86.4	N.A.	0.4
BL - Back-Low (0-30)	956.4	N.A.	4.8
BM - Back-Medium (30-60)	1473.9	N.A.	7.4
BH - Back-High (60-80)	597.6	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	20005.5	N.A.	100.0
BUG Rating	B2-U0-G3		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<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>
0.0	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999
2.5	3771.191	3766.435	3767.386	3770.240	3774.044	3769.289	3770.240	3760.729	3753.120	3746.462
5.0	3834.916	3831.111	3833.965	3837.769	3844.427	3839.672	3836.818	3818.747	3805.431	3794.018
7.5	3903.397	3899.592	3905.299	3916.712	3921.468	3913.859	3908.152	3885.325	3867.254	3849.183
10.0	3983.291	3981.388	3988.997	4004.215	4011.824	3999.460	3989.948	3966.170	3944.295	3924.321
12.5	4081.256	4078.403	4091.718	4108.838	4116.447	4105.034	4110.741	4086.963	4067.940	4041.309
15.0	4155.443	4154.492	4181.124	4219.168	4243.898	4251.506	4272.431	4249.604	4225.826	4192.537
17.5	4188.733	4192.537	4226.777	4287.649	4358.032	4426.513	4468.362	4455.997	4417.001	4379.908
20.0	4223.924	4228.680	4265.773	4347.570	4453.144	4583.447	4688.071	4682.364	4633.857	4588.203
22.5	4265.773	4268.627	4310.476	4431.268	4554.914	4701.386	4903.975	4947.726	4868.783	4818.374
25.0	4273.382	4273.382	4341.863	4491.189	4654.781	4810.765	5076.128	5233.062	5148.413	5093.248
27.5	4281.942	4289.551	4371.348	4542.549	4740.382	4914.437	5210.235	5541.225	5462.282	5406.166
30.0	4358.983	4368.494	4451.242	4623.394	4839.299	5034.278	5351.952	5843.681	5843.681	5770.445
32.5	4518.771	4525.429	4603.421	4757.502	4969.602	5190.262	5520.301	6108.093	6240.298	6158.502
35.0	4768.916	4767.965	4833.592	4962.944	5145.559	5395.704	5725.743	6341.117	6658.791	6577.946
37.5	5105.612	5098.954	5139.853	5250.183	5400.459	5655.360	5976.838	6562.728	7105.818	7036.386
40.0	5501.278	5488.914	5516.496	5592.586	5719.085	5982.545	6270.734	6814.775	7529.066	7540.480
42.5	5986.349	5962.571	5964.474	6014.883	6108.093	6401.989	6629.307	7082.040	7920.928	8007.479
45.0	6635.013	6641.671	6575.093	6575.093	6572.239	6909.887	7047.799	7336.940	8259.526	8494.453
47.5	7562.355	7569.964	7578.524	7460.585	7306.504	7564.258	7618.471	7665.076	8634.268	9086.050
50.0	8380.318	8405.999	8418.363	8463.066	8495.404	8621.903	8403.145	8143.490	9091.756	9746.127
52.5	8483.039	8498.257	8600.027	8921.506	9516.907	10254.025	9618.677	8793.105	9659.575	10529.850
55.0	8075.960	8117.809	8316.593	8773.131	9809.852	11491.432	11801.497	9771.807	10309.190	11478.116
57.5	7311.260	7374.034	7670.783	8180.583	9480.764	11725.408	13882.548	11228.923	11139.518	12504.375
60.0	5966.376	6051.026	6387.722	6945.078	8392.683	11022.530	15394.829	13551.558	12248.524	13939.615
62.5	3380.281	3479.197	3872.961	4752.747	6192.742	9009.009	16232.765	16776.806	13387.014	15987.376
65.0	1158.464	1199.362	1304.937	1867.049	3307.044	5696.258	15991.181	18699.971	15016.283	18379.443
67.5	619.179	616.326	622.984	743.776	1273.550	2601.313	12840.120	18941.555	17122.063	20666.887
70.0	396.617	388.057	399.470	463.195	644.859	1051.939	6210.814	16665.525	17889.616	20125.700
72.5	199.735	205.442	216.855	279.629	421.346	631.544	2210.403	11342.106	16407.771	14659.613
75.0	103.672	105.574	105.574	147.424	262.509	451.782	1031.014	5112.270	8805.469	5855.095
77.5	57.067	58.969	60.872	79.894	135.059	285.336	562.112	2390.165	3477.295	1926.969
80.0	50.409	51.360	49.458	56.116	72.285	135.059	289.140	844.595	1635.926	843.643
82.5	50.409	49.458	46.605	49.458	61.823	87.503	139.815	379.497	728.558	457.489
85.0	44.703	43.752	41.849	42.800	51.360	79.894	130.303	238.731	408.030	293.896
87.5	22.827	20.925	21.876	26.631	36.143	66.578	134.108	282.483	304.358	192.126
90.0	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>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	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999	3735.999
2.5	3740.755	3728.390	3742.657	3744.560	3747.413	3739.804	3728.390	3729.342	3725.537	3723.635
5.0	3786.409	3769.289	3779.751	3772.142	3763.582	3737.902	3706.515	3682.737	3655.154	3633.278
7.5	3832.063	3811.138	3816.845	3795.920	3762.631	3701.759	3629.474	3560.042	3487.757	3421.179
10.0	3902.445	3872.961	3872.010	3830.160	3753.120	3629.474	3482.050	3353.649	3214.786	3070.215
12.5	4017.531	3981.388	3977.584	3899.592	3760.729	3533.411	3248.075	2938.961	2612.727	2320.733
15.0	4158.297	4111.692	4097.425	3977.584	3757.875	3385.036	2794.391	2220.865	1734.843	1391.489
17.5	4333.303	4269.578	4243.898	4063.185	3731.244	3044.535	2105.780	1388.635	929.244	734.265
20.0	4527.331	4459.802	4410.344	4155.443	3647.545	2495.739	1412.413	808.452	528.823	453.684
22.5	4746.089	4675.706	4597.714	4254.360	3427.837	1866.097	887.395	496.485	415.639	386.155
25.0	5013.354	4933.460	4832.641	4373.250	3059.753	1319.203	557.356	421.346	376.644	348.110
27.5	5321.517	5229.258	5107.515	4488.335	2596.558	874.079	453.684	386.155	341.452	311.016

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CANDELA TABULATION - (Cont.)

30.0	5704.818	5587.830	5440.407	4551.109	2084.855	579.232	415.639	350.963	307.212	272.971
32.5	6099.533	5979.692	5803.734	4549.207	1496.112	479.364	377.595	315.772	268.216	225.415
35.0	6516.123	6383.918	6168.013	4437.926	995.823	435.613	338.599	276.776	215.904	164.544
37.5	6974.563	6832.846	6565.581	4186.830	661.028	391.861	298.652	224.464	148.375	102.721
40.0	7466.292	7318.869	6993.585	3762.631	514.556	347.159	253.949	160.739	88.454	59.921
42.5	7994.164	7811.549	7400.665	3130.136	456.538	305.310	198.784	98.916	49.458	32.338
45.0	8521.084	8324.202	7814.402	2384.458	409.933	261.558	135.059	54.214	22.827	13.316
47.5	9130.752	8935.773	8199.606	1624.513	365.230	214.002	84.650	26.631	8.560	3.804
50.0	9877.381	9680.500	8573.396	1030.063	319.576	159.788	49.458	12.365	2.853	0.951
52.5	10715.318	10465.174	8834.003	710.487	275.825	109.379	23.778	5.707	1.902	0.951
55.0	11764.404	11405.831	8989.986	620.130	238.731	70.383	14.267	3.804	2.853	1.902
57.5	12969.473	12489.157	9026.129	642.006	220.660	42.800	8.560	3.804	3.804	3.804
60.0	14384.739	13604.821	8758.864	669.588	215.904	22.827	6.658	3.804	4.756	4.756
62.5	16672.183	14955.411	8125.418	647.713	209.246	15.218	5.707	3.804	4.756	3.804
65.0	18421.293	15986.425	6801.459	550.698	177.859	21.876	4.756	3.804	2.853	1.902
67.5	19718.620	15669.702	4759.405	369.986	122.694	15.218	4.756	1.902	2.853	5.707
70.0	17658.494	12470.135	2351.169	173.104	63.725	12.365	2.853	2.853	3.804	1.902
72.5	11108.131	6676.863	871.226	76.090	32.338	10.462	1.902	1.902	0.951	0.000
75.0	4211.559	2600.362	390.910	32.338	13.316	5.707	1.902	0.000	0.000	0.000
77.5	1172.731	786.576	223.513	14.267	7.609	2.853	0.951	0.000	0.000	0.000
80.0	547.845	395.666	138.864	9.511	4.756	1.902	0.000	0.000	0.000	0.000
82.5	278.678	208.295	71.334	8.560	4.756	0.000	0.000	0.000	0.000	0.000
85.0	171.202	118.890	28.534	6.658	1.902	0.951	0.951	0.951	0.951	0.000
87.5	98.916	49.458	9.511	2.853	2.853	1.902	1.902	1.902	0.951	0.951
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

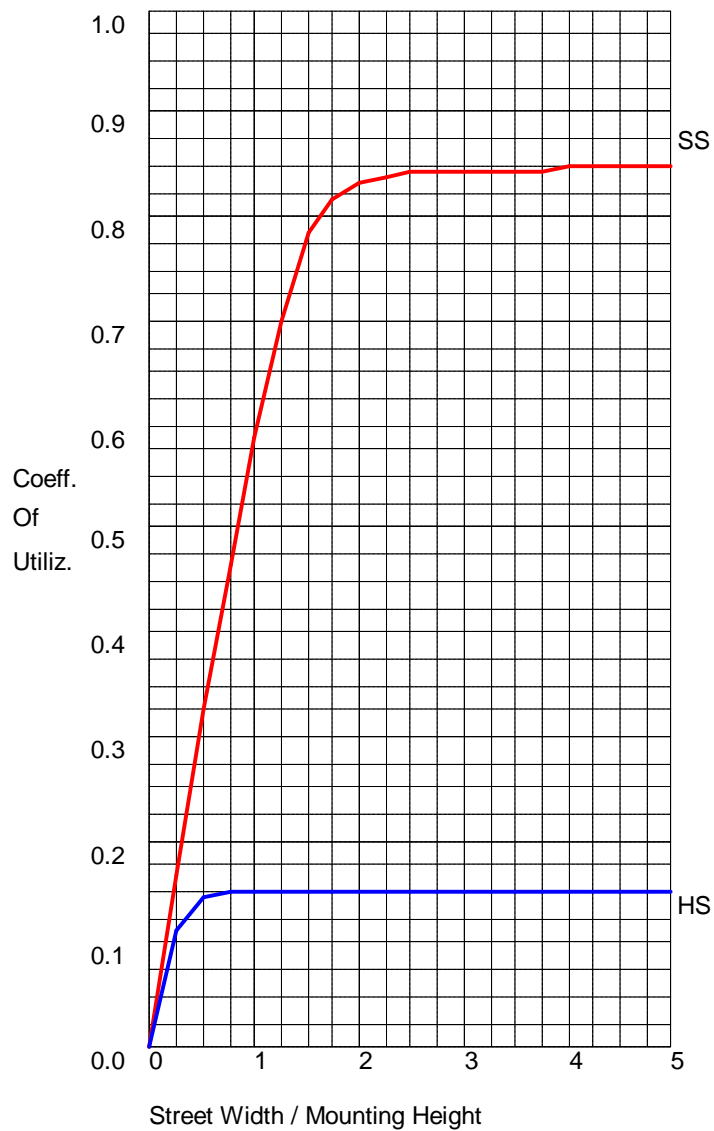
	<u>175</u>	<u>180</u>
0.0	3735.999	3735.999
2.5	3717.928	3708.417
5.0	3611.403	3600.940
7.5	3386.938	3374.574
10.0	2989.370	2970.348
12.5	2171.407	2146.678
15.0	1244.065	1223.140
17.5	639.153	628.690
20.0	428.955	424.200
22.5	373.790	372.839
25.0	334.794	332.892
27.5	296.749	293.896
30.0	253.949	252.998
32.5	202.589	200.686
35.0	140.766	135.059
37.5	85.601	80.845
40.0	48.507	47.556
42.5	25.680	25.680
45.0	9.511	8.560
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	1.902	0.951
60.0	2.853	1.902
62.5	0.951	0.000
65.0	0.000	0.000

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CANDELA TABULATION - (Cont.)

67.5	2.853	2.853
70.0	0.000	0.000
72.5	0.000	0.000
75.0	0.000	0.000
77.5	0.000	0.000
80.0	0.000	0.000
82.5	0.000	0.000
85.0	0.000	0.000
87.5	0.000	0.000
90.0	0.000	0.000

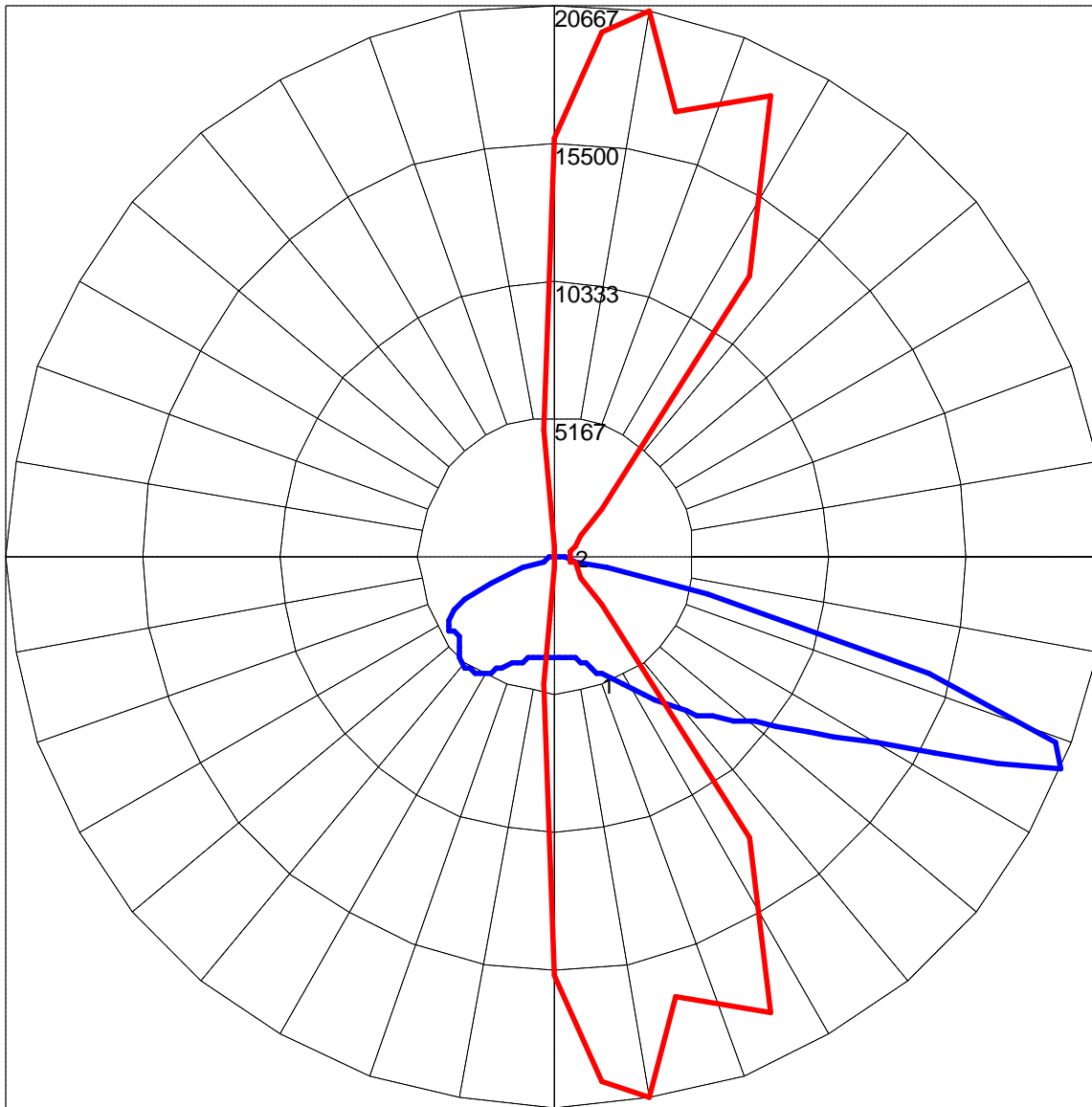
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

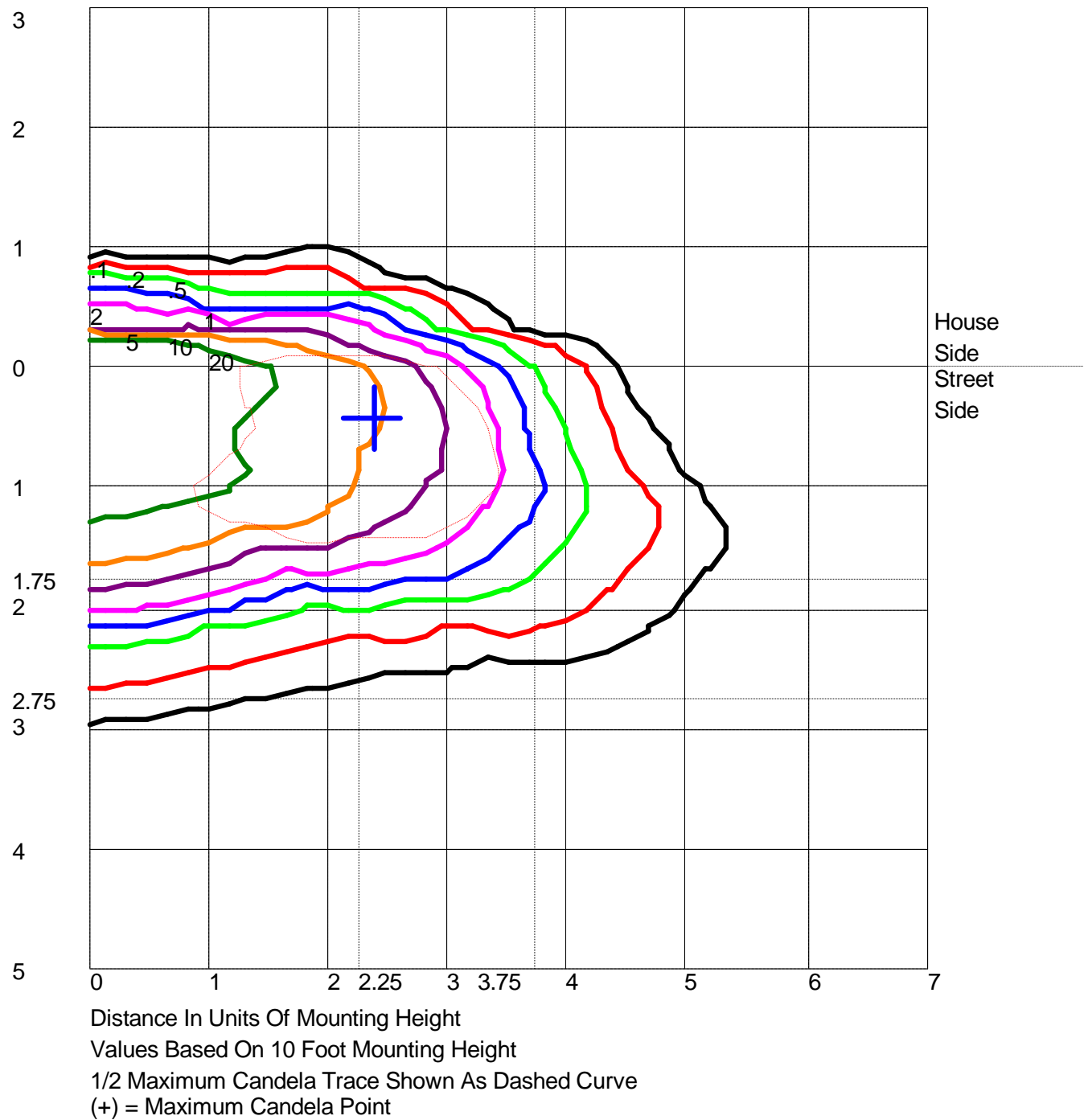
	Lumens	Percent Of Luminaire
Downward Street Side	16972.7	84.8
Downward House Side	3032.8	15.2
Downward Total	20005.5	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	20005.5	100.0

POLAR GRAPH

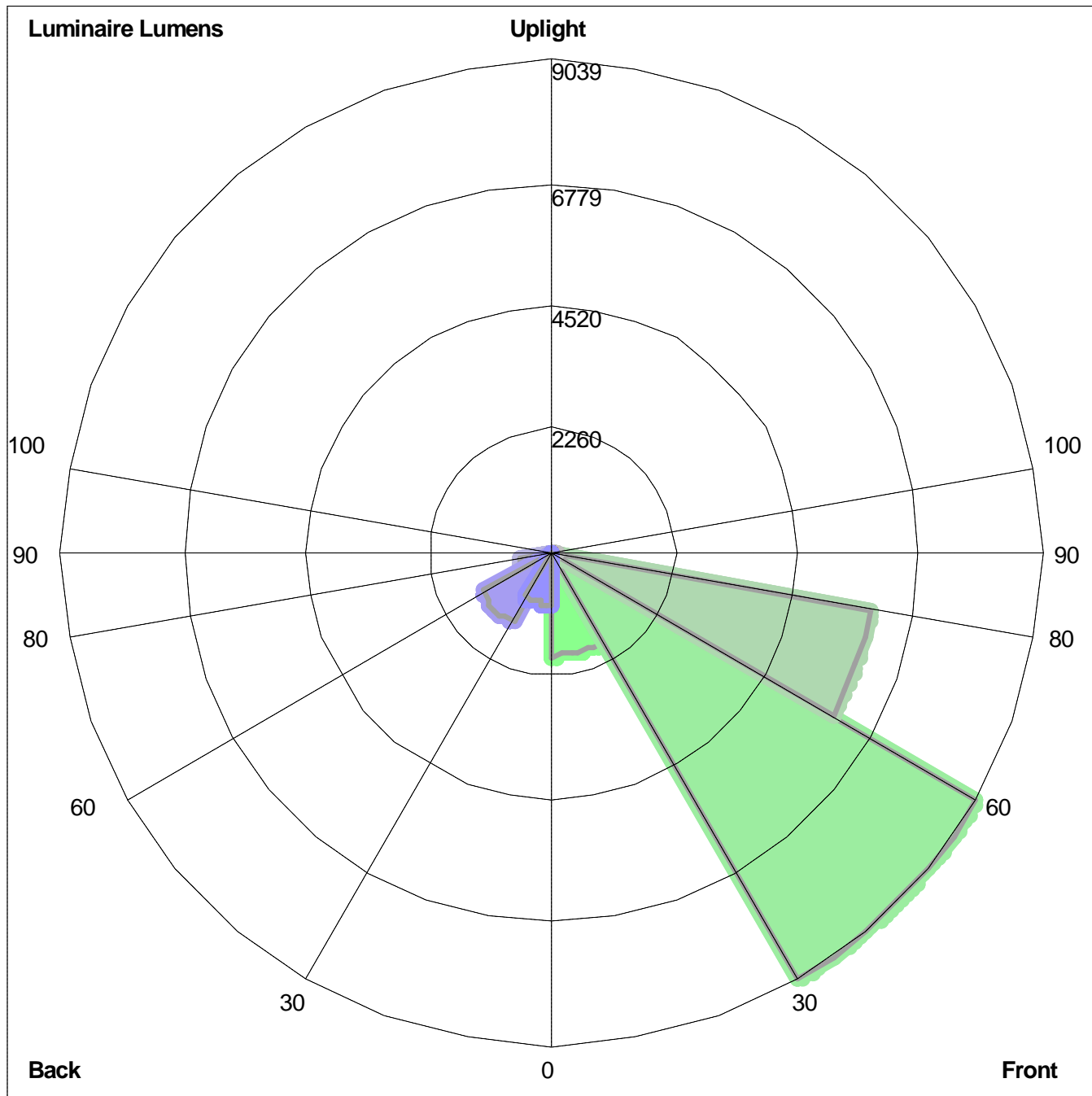


Maximum Candela = 20666.887 Located At Horizontal Angle = 80, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (80 - 260) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1898.9, Medium=9039.2, High=5948.2, Very High=86.4
Back: Low=956.4, Medium=1473.9, High=597.6, Very High=4.9
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G3