



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-FT-LED-27L-30-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
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT] HLN-FT-LED-27L-30-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	18449
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	241
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	17613.212
Maximum Candela Angle	45H 67.5V
Maximum Candela (<90 Degrees Vertical)	17613.212
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	2139.937 (11.6% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1607.0	N.A.	8.7
FM - Front-Medium (30-60)	6695.8	N.A.	36.3
FH - Front-High (60-80)	7960.1	N.A.	43.1
FVH - Front-Very High (80-90)	186.3	N.A.	1.0
BL - Back-Low (0-30)	631.8	N.A.	3.4
BM - Back-Medium (30-60)	1063.3	N.A.	5.8
BH - Back-High (60-80)	301.1	N.A.	1.6
BVH - Back-Very High (80-90)	3.5	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	18448.9	N.A.	100.0
BUG Rating	B2-U0-G4		

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CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0.0</u>	<u>5.0</u>	<u>15.0</u>	<u>25.0</u>	<u>35.0</u>	<u>42.5</u>	<u>45.0</u>	<u>55.0</u>	<u>65.0</u>	<u>75.0</u>
0.0	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458
2.5	3137.781	3148.191	3149.678	3148.191	3137.781	3130.346	3113.987	3096.142	3060.452	3038.145
5.0	3186.855	3197.265	3198.752	3212.136	3221.059	3238.904	3235.930	3237.417	3201.726	3160.088
7.5	3164.549	3180.907	3188.342	3212.136	3240.391	3274.594	3280.543	3320.694	3320.694	3305.823
10.0	3210.649	3228.494	3232.955	3258.236	3295.414	3337.052	3347.462	3406.946	3439.662	3456.020
12.5	3319.207	3338.540	3341.514	3360.846	3393.562	3436.688	3447.098	3514.017	3577.963	3609.192
15.0	3456.020	3484.275	3484.275	3502.121	3528.888	3573.501	3572.014	3638.934	3710.315	3765.337
17.5	3601.756	3628.524	3622.576	3644.882	3667.189	3711.802	3705.853	3766.824	3836.718	3918.509
20.0	3747.492	3772.773	3771.286	3774.260	3795.079	3830.770	3832.257	3885.792	3949.738	4034.502
22.5	3881.331	3903.638	3902.150	3900.663	3909.586	3928.918	3930.405	3983.941	4043.425	4128.190
25.0	4003.273	4024.093	4015.170	4015.170	4007.735	4013.683	4010.709	4053.835	4119.267	4204.032
27.5	4117.780	4137.112	4120.754	4105.883	4086.551	4080.602	4077.628	4108.857	4175.777	4265.003
30.0	4221.877	4236.748	4212.954	4183.212	4147.522	4135.625	4132.651	4147.522	4215.929	4308.129
32.5	4302.180	4314.077	4281.361	4241.209	4198.083	4177.264	4178.751	4181.725	4245.671	4336.384
35.0	4369.100	4375.048	4336.384	4281.361	4239.722	4221.877	4223.364	4217.416	4266.490	4360.177
37.5	4434.532	4443.455	4388.432	4324.487	4282.848	4273.925	4284.335	4269.464	4293.258	4379.510
40.0	4525.245	4531.194	4470.223	4397.355	4354.229	4348.280	4370.587	4363.151	4339.358	4409.252
42.5	4687.339	4676.930	4611.497	4531.194	4488.068	4499.965	4511.861	4517.810	4438.994	4462.787
45.0	4943.120	4938.659	4861.330	4775.078	4730.465	4749.797	4767.643	4778.052	4604.062	4563.910
47.5	5375.867	5371.405	5292.589	5197.415	5164.698	5157.263	5181.056	5195.927	4895.533	4803.333
50.0	6058.445	6056.958	6034.652	5882.968	5827.945	5790.767	5823.484	5844.303	5380.328	5127.521
52.5	7036.957	7051.828	7080.083	6965.576	6803.483	6703.847	6746.973	6779.689	6055.471	5594.470
55.0	8245.970	8287.608	8433.344	8482.418	8137.411	7947.062	8013.982	8003.572	6989.370	6280.023
57.5	9300.323	9359.807	9747.941	10101.870	9947.212	9565.027	9628.973	9535.285	8170.127	7022.086
60.0	10144.996	10226.787	10812.704	11597.893	11881.929	11583.022	11776.345	11422.415	9462.417	7866.759
62.5	10655.072	10800.807	11672.248	13022.535	13929.666	13956.434	14075.402	13334.826	10683.326	8351.554
65.0	9979.928	10256.529	11568.151	13969.817	15862.896	16231.697	16185.596	14868.026	11499.744	8367.912
67.5	7761.175	8011.008	10085.512	13641.168	16691.210	17580.496	17613.212	15665.111	11196.376	7310.584
70.0	4960.966	5203.363	6900.144	11416.467	15461.379	17286.050	17476.399	14766.903	9132.281	5195.927
72.5	1763.701	1903.488	2983.123	6445.091	12421.746	14698.496	14865.052	11572.612	6294.894	2901.332
75.0	773.292	838.724	1322.032	2401.667	6500.114	10226.787	10381.445	7839.991	3246.339	1127.222
77.5	565.098	621.608	977.025	1537.661	2374.899	4861.330	5071.011	4122.241	1369.619	632.018
80.0	420.849	483.308	817.905	1261.061	1564.429	2070.043	2139.937	1705.704	685.553	411.927
82.5	309.317	368.801	679.605	1009.741	938.360	841.699	762.882	386.646	345.007	258.755
85.0	217.117	251.320	395.569	438.695	330.136	282.549	231.988	121.942	144.249	151.684
87.5	55.023	57.997	90.713	148.710	72.868	55.023	56.510	57.997	62.458	69.894
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>85.0</u>	<u>90.0</u>	<u>95.0</u>	<u>105.0</u>	<u>115.0</u>	<u>125.0</u>	<u>135.0</u>	<u>145.0</u>	<u>155.0</u>	<u>165.0</u>
0.0	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458	2944.458
2.5	3009.890	3005.429	2965.277	2904.306	2873.077	2810.619	2774.929	2739.238	2703.548	2679.754
5.0	3088.707	3054.503	2971.226	2812.106	2682.728	2523.609	2397.205	2275.263	2163.731	2086.401
7.5	3213.623	3145.217	3012.865	2737.751	2476.022	2186.037	1915.385	1692.320	1536.174	1443.974
10.0	3360.846	3258.236	3067.887	2661.909	2235.111	1809.801	1485.613	1305.674	1211.987	1158.451
12.5	3524.427	3386.127	3128.858	2575.657	1986.766	1510.894	1262.548	1145.067	1061.789	994.870
15.0	3696.931	3527.401	3194.291	2484.944	1765.188	1339.877	1156.964	1021.638	942.821	902.670
17.5	3854.563	3650.831	3243.365	2376.386	1600.120	1246.190	1064.764	953.231	895.234	856.570
20.0	3988.402	3753.440	3270.133	2279.724	1490.074	1197.116	1003.793	922.002	859.544	817.905
22.5	4104.396	3833.744	3279.056	2206.856	1417.206	1140.606	978.512	887.799	822.366	779.240
25.0	4190.648	3902.150	3280.543	2157.782	1388.951	1101.941	953.231	850.621	786.676	746.524
27.5	4260.542	3946.763	3273.107	2128.040	1384.490	1084.096	920.515	816.418	713.808	618.634

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CANDELA TABULATION - (Cont.)

30.0	4312.590	3970.557	3262.697	2114.656	1385.977	1067.738	890.773	739.089	548.740	434.233
32.5	4342.332	3969.070	3255.262	2111.682	1374.080	1049.893	843.186	574.021	394.082	347.981
35.0	4357.203	3958.660	3258.236	2108.708	1351.774	1027.586	718.269	434.233	347.981	309.317
37.5	4367.613	3946.763	3274.594	2101.272	1311.622	971.076	562.124	391.107	313.778	266.191
40.0	4380.997	3943.789	3305.823	2089.376	1253.625	837.237	486.282	352.443	269.165	233.475
42.5	4415.200	3964.609	3351.923	2064.095	1145.067	637.966	420.849	301.881	236.449	254.294
45.0	4488.068	4037.477	3433.714	2028.404	962.154	483.308	337.572	249.833	212.655	272.139
47.5	4662.059	4199.570	3573.501	1974.869	709.347	365.827	260.243	203.733	255.781	165.068
50.0	4904.456	4424.123	3766.824	1867.798	466.949	287.010	212.655	171.017	206.707	132.352
52.5	5308.947	4809.281	4033.015	1689.346	339.059	239.423	176.965	150.197	151.684	117.481
55.0	5823.484	5247.976	4339.358	1458.845	291.472	214.142	151.684	129.378	121.942	135.326
57.5	6330.585	5671.799	4607.036	1234.293	266.191	188.862	127.891	110.045	129.378	126.404
60.0	6742.511	5958.810	4605.549	1024.612	240.910	151.684	110.045	113.020	96.662	72.868
62.5	6804.970	5911.223	4149.009	814.931	205.220	120.455	105.584	80.303	59.484	52.049
65.0	6384.120	5344.637	3200.239	681.092	165.068	105.584	87.739	52.049	43.126	53.536
67.5	5127.521	4104.396	1997.175	483.308	114.507	102.610	60.971	43.126	62.458	55.023
70.0	3270.133	2596.477	962.154	276.601	80.303	72.868	46.100	56.510	44.613	37.178
72.5	1311.622	956.205	414.901	138.300	60.971	43.126	46.100	41.639	34.203	25.281
75.0	594.840	456.540	190.349	83.278	43.126	29.742	28.255	29.742	11.897	4.461
77.5	382.185	288.497	123.429	52.049	23.794	19.332	16.358	7.436	2.974	2.974
80.0	224.552	172.504	84.765	28.255	13.384	13.384	5.948	2.974	1.487	1.487
82.5	150.197	111.533	50.561	13.384	8.923	5.948	4.461	1.487	0.000	0.000
85.0	89.226	55.023	17.845	4.461	2.974	1.487	1.487	0.000	0.000	0.000
87.5	37.178	14.871	4.461	1.487	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

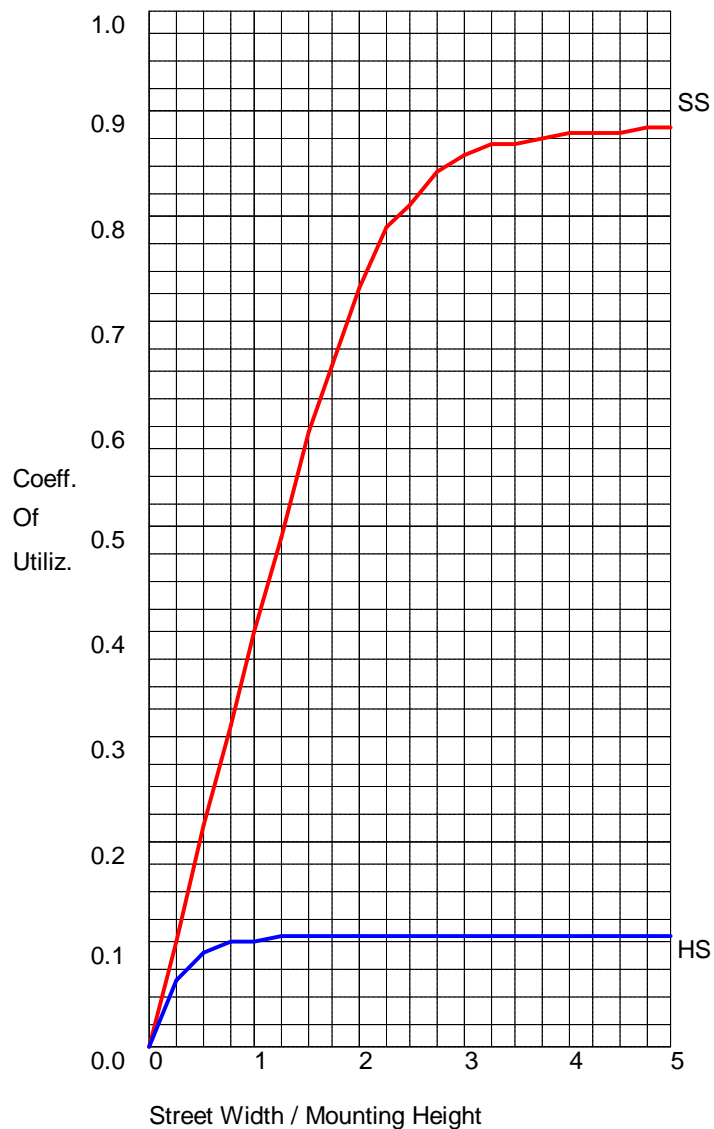
	175.0	180.0
0.0	2944.458	2944.458
2.5	2690.164	2673.806
5.0	2047.737	2065.582
7.5	1405.310	1414.232
10.0	1137.632	1137.632
12.5	962.154	954.718
15.0	883.337	877.389
17.5	841.699	835.750
20.0	801.547	795.599
22.5	765.857	759.908
25.0	722.731	715.295
27.5	563.611	554.688
30.0	382.185	374.749
32.5	330.136	327.162
35.0	295.933	292.959
37.5	246.859	243.884
40.0	221.578	221.578
42.5	252.807	231.988
45.0	166.555	160.607
47.5	139.787	138.300
50.0	124.916	123.429
52.5	120.455	118.968
55.0	147.223	147.223
57.5	118.968	110.045
60.0	65.432	59.484
62.5	43.126	40.152
65.0	65.432	65.432

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CANDELA TABULATION - (Cont.)

67.5	49.074	47.587
70.0	32.716	32.716
72.5	20.819	19.332
75.0	1.487	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

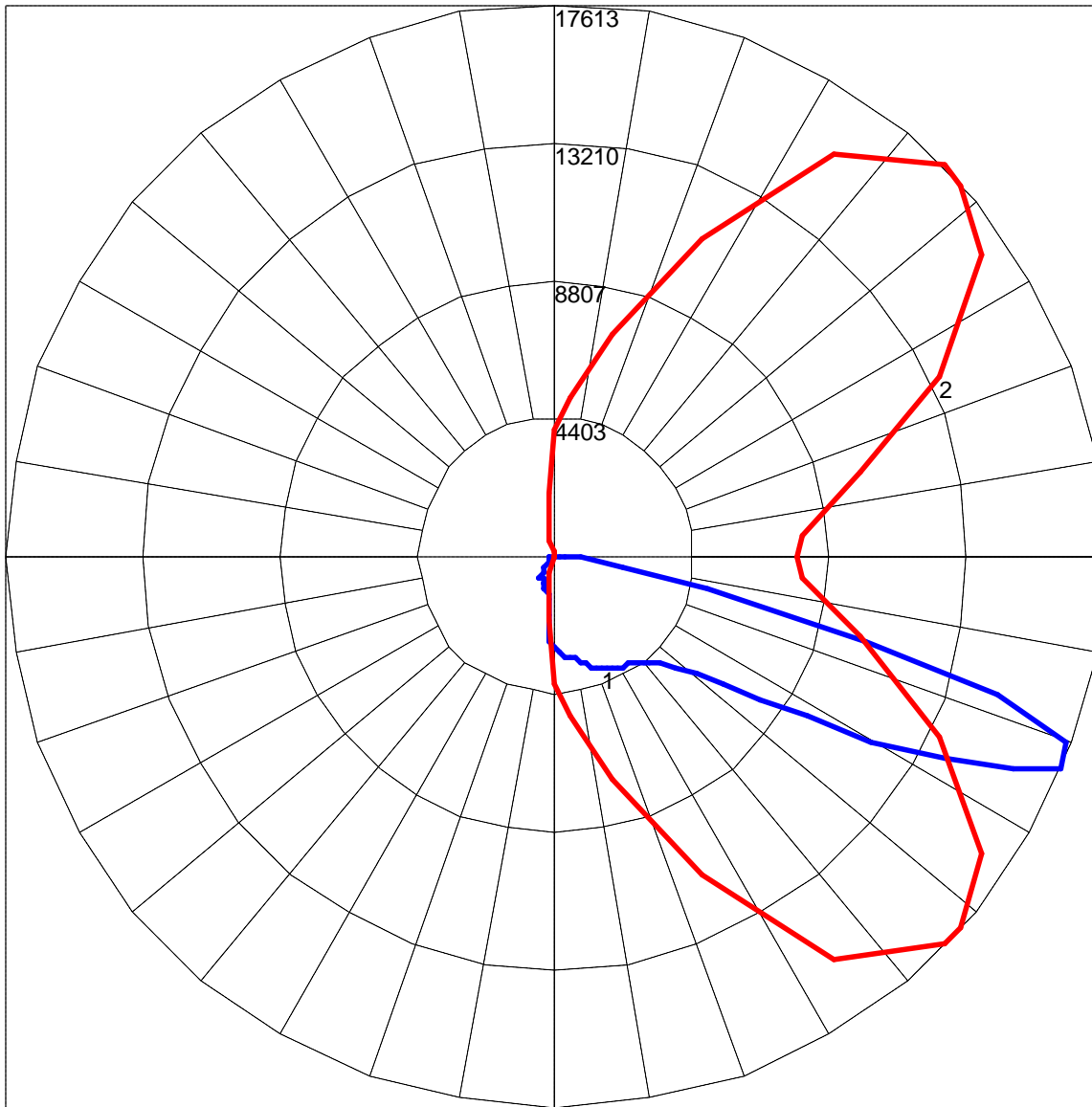
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

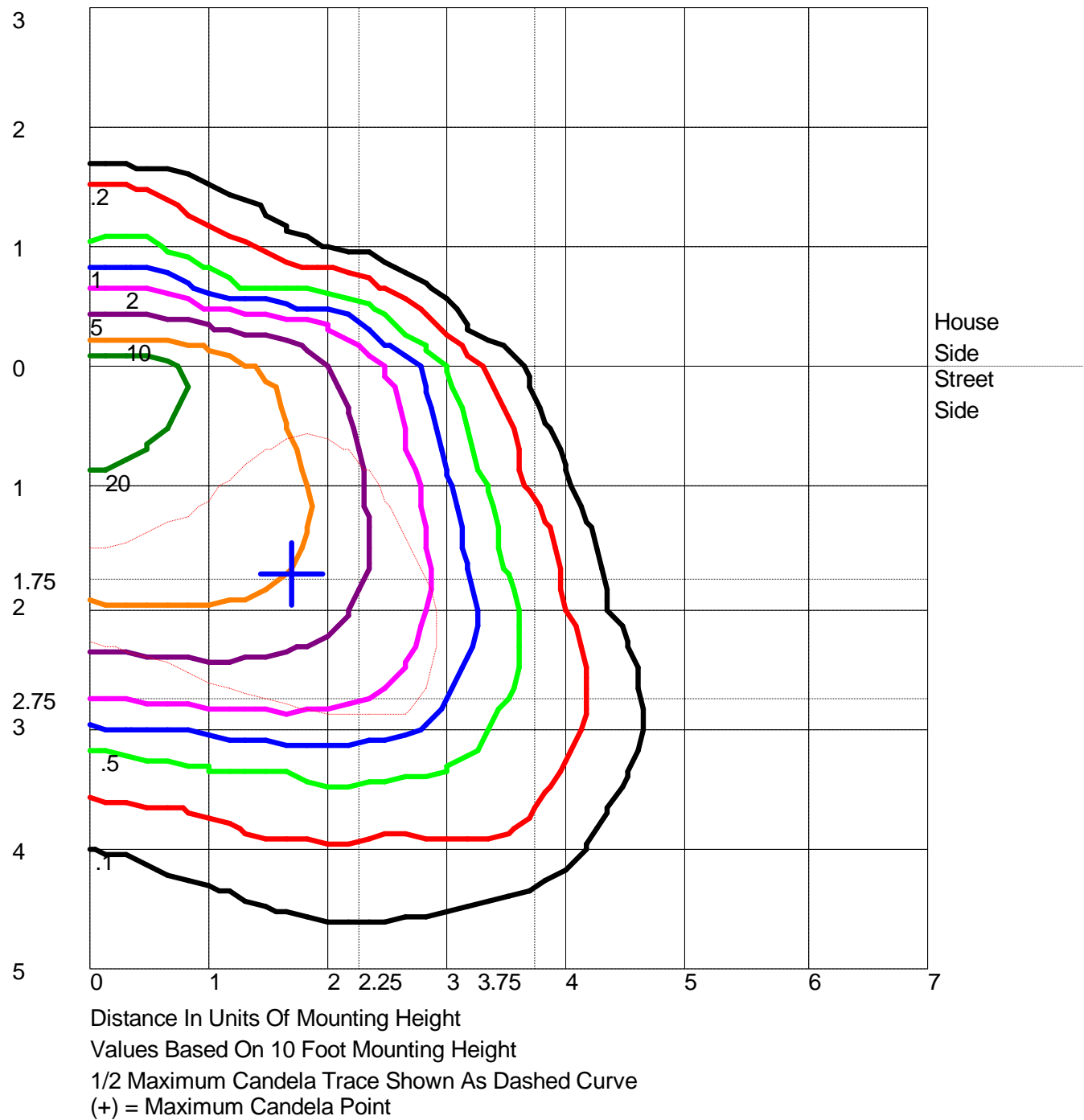
	Lumens	Percent Of Luminaire
Downward Street Side	16449.2	89.2
Downward House Side	1999.7	10.8
Downward Total	18448.9	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	18448.9	100.0

POLAR GRAPH

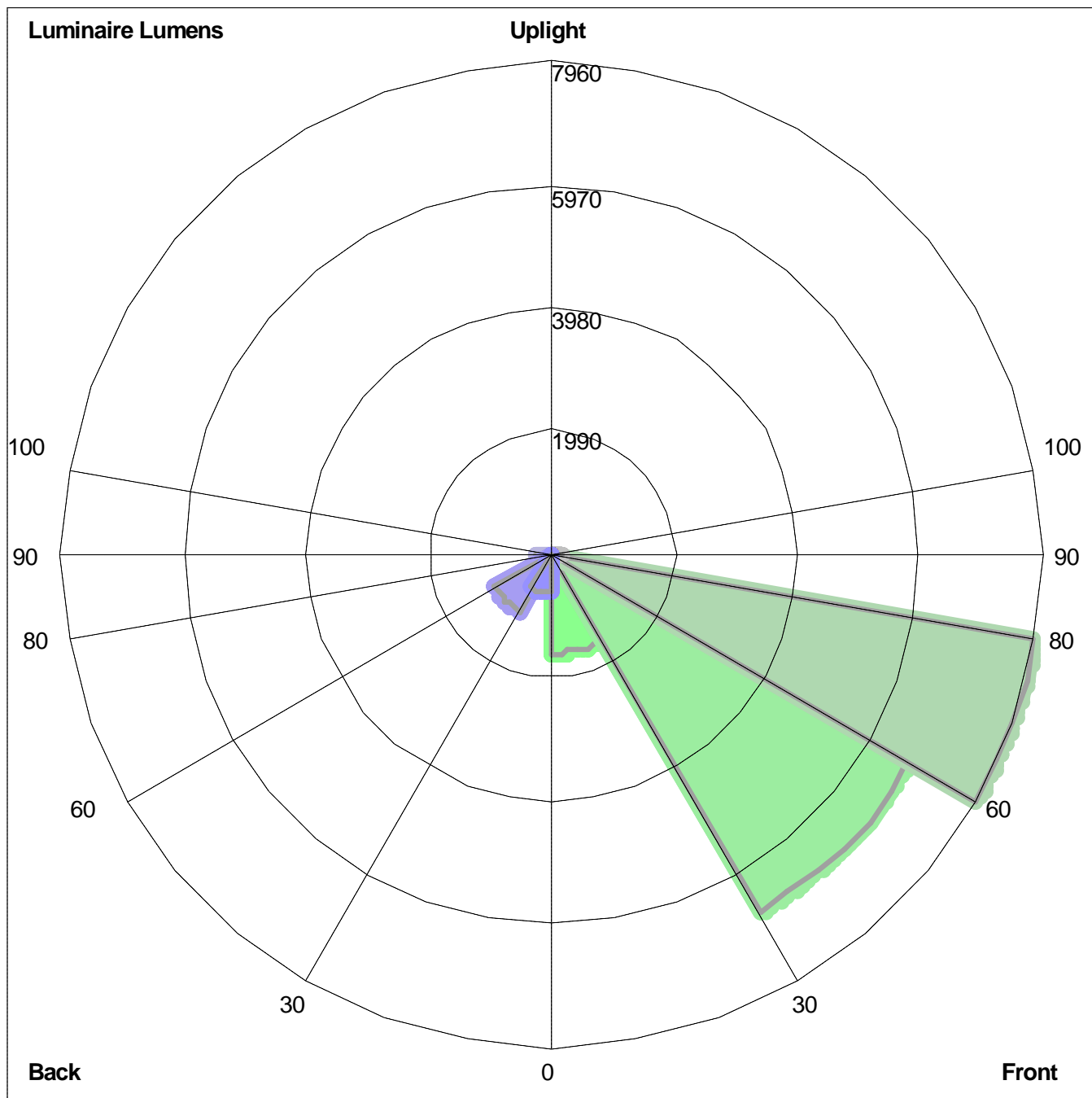


Maximum Candela = 17613.212 Located At Horizontal Angle = 45, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low= 1607.0, Medium=6695.8, High=7960.1, Very High=186.3
Back: Low=631.8, Medium=1063.3, High=301.1, Very High=3.5
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G4