



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-FT-LED-32L-30.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-8433_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]03/10/17
[TEST DATE]01/09/17
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT]HLN-FT-LED-32L-30
[OTHER]TEST PROCEDURE: IESNA LM-79-08
[_ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED
[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	30490
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	310
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	21083.916
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	21083.916
Maximum Candela Angle (<90 Degrees Vertical)	50H 70V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	6387.157 (20.9% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1848.3	N.A.	6.1
FM - Front-Medium (30-60)	8451.8	N.A.	27.7
FH - Front-High (60-80)	11735.5	N.A.	38.5
FVH - Front-Very High (80-90)	623.3	N.A.	2.0
BL - Back-Low (0-30)	1813.9	N.A.	5.9
BM - Back-Medium (30-60)	4155.1	N.A.	13.6
BH - Back-High (60-80)	1732.7	N.A.	5.7
BVH - Back-Very High (80-90)	129.2	N.A.	0.4
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	30489.8	N.A.	100.0
BUG Rating	B3-U0-G4		

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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>50</u>	<u>55</u>	<u>65</u>	<u>75</u>
0.0	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655
2.5	4080.223	4080.223	4075.251	4080.223	4090.167	4105.082	4096.796	4105.082	4116.683	4123.313
5.0	3994.045	3989.073	3990.730	4012.275	4040.449	4075.251	4071.937	4095.139	4116.683	4134.914
7.5	3868.091	3861.462	3879.692	3917.810	3974.157	4045.420	4057.021	4101.768	4159.773	4187.946
10.0	3791.857	3783.570	3808.429	3854.833	3927.754	4023.876	4045.420	4110.054	4209.491	4267.496
12.5	3785.227	3780.256	3808.429	3856.490	3931.068	4033.819	4060.336	4138.228	4267.496	4363.618
15.0	3808.429	3801.800	3833.289	3894.608	3977.472	4086.852	4119.998	4204.519	4350.360	4479.628
17.5	3866.434	3859.805	3892.951	3949.298	4047.078	4178.003	4216.120	4302.299	4451.454	4598.952
20.0	3967.528	3962.556	3997.359	4052.050	4151.486	4285.726	4322.186	4416.651	4564.149	4714.962
22.5	4115.026	4111.712	4146.514	4197.890	4282.411	4400.078	4431.567	4516.088	4660.271	4821.027
25.0	4312.242	4317.214	4333.787	4376.876	4436.538	4519.402	4539.290	4612.210	4743.135	4895.605
27.5	4545.919	4550.891	4554.205	4589.008	4610.553	4653.642	4653.642	4705.018	4814.398	4950.295
30.0	4809.426	4814.398	4814.398	4811.084	4802.797	4797.826	4779.595	4804.455	4872.403	4978.469
32.5	5079.563	5086.192	5072.934	5054.704	5021.558	4960.239	4920.464	4915.492	4927.093	4995.042
35.0	5348.042	5356.329	5339.756	5301.639	5245.291	5162.427	5111.051	5056.361	4996.699	5009.957
37.5	5624.808	5628.123	5629.780	5580.062	5502.169	5402.733	5341.413	5246.948	5094.479	5034.817
40.0	5926.433	5934.720	5934.720	5885.001	5803.794	5720.930	5639.724	5497.198	5250.263	5087.850
42.5	6297.664	6322.523	6307.608	6259.546	6179.997	6102.105	6019.241	5831.968	5483.939	5192.258
45.0	6842.909	6813.078	6799.820	6756.730	6690.439	6614.204	6519.739	6309.265	5803.794	5356.329
47.5	7527.366	7492.563	7485.934	7451.131	7396.440	7293.689	7179.337	6947.318	6271.147	5616.522
50.0	8415.668	8374.236	8415.668	8415.668	8354.348	8196.907	8054.381	7751.098	6872.740	6035.814
52.5	9423.294	9446.496	9612.224	9632.111	9592.336	9357.003	9249.280	8796.842	7674.864	6577.744
55.0	10381.20210434.23510772.32010991.08111027.54110841.92610662.93910121.0098695.748	7333.464								
57.5	11019.25511118.691	11675.53712383.19612592.01312457.77412318.56211720.28410013.2868349.376								
60.0	11296.02011443.51812199.23813321.21614105.11014212.83314302.32613629.47011668.9089580.735									
62.5	11408.71511595.98812466.06013907.89315303.32316126.99116456.79015792.22113530.03411054.057									
65.0	11713.65511925.78712829.00414494.57116471.70618203.56318612.91117949.99915440.87711859.495									
67.5	12166.09212398.111	13342.76115434.24818079.26719930.44920419.34619531.04416120.36211695.425								
70.0	11481.63611839.60813390.82216544.62619703.40221025.91121083.91619650.36914862.4879466.383									
72.5	9980.140	10223.76011871.09616133.62019746.49120581.76020280.13517504.19110812.0955213.803								
75.0	6831.308	7051.726	8838.274	12504.17716630.80417555.56715951.32012311.9336100.448	2325.164					
77.5	3112.372	3327.818	4981.784	7701.380	11269.50411763.37310008.3147482.619	2915.155	1310.908			
80.0	1400.402	1567.787	2452.774	4033.819	5555.202	6387.157	5490.569	3922.782	1541.270	797.152
82.5	752.405	875.044	1524.698	2331.793	2843.892	3364.278	2779.259	1942.332	886.645	473.982
85.0	525.358	596.621	1040.772	1594.303	1879.355	1493.209	1269.476	798.809	502.156	299.968
87.5	376.203	450.780	762.349	1112.035	1284.392	599.935	366.259	232.019	220.418	165.728
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	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655	4121.655
2.5	4146.514	4121.655	4139.885	4163.087	4164.745	4171.374	4166.402	4159.773	4156.458	4148.172
5.0	4168.059	4153.144	4174.688	4201.205	4189.604	4178.003	4161.430	4146.514	4144.857	4138.228
7.5	4221.092	4207.834	4236.008	4237.665	4196.233	4181.317	4169.716	4156.458	4151.486	4144.857
10.0	4303.956	4287.383	4308.928	4274.125	4214.463	4192.918	4176.346	4174.688	4192.918	4194.576
12.5	4408.365	4385.163	4396.764	4328.815	4245.951	4209.491	4211.148	4222.749	4239.322	4244.294
15.0	4532.661	4499.515	4499.515	4386.820	4280.754	4242.637	4244.294	4249.266	4264.181	4264.181
17.5	4668.558	4623.811	4608.896	4443.168	4318.872	4279.097	4262.524	4254.238	4260.867	4259.210
20.0	4806.112	4751.422	4718.276	4502.830	4356.989	4297.327	4272.468	4245.951	4247.609	4242.637
22.5	4923.779	4870.746	4817.713	4550.891	4381.848	4310.585	4265.839	4231.036	4219.435	4212.806
25.0	5019.901	4971.840	4900.577	4584.036	4395.106	4315.557	4247.609	4199.547	4181.317	4179.660
27.5	5081.220	5043.103	4958.582	4595.637	4393.449	4298.984	4216.120	4159.773	4138.228	4133.256

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CANDELA TABULATION - (Cont.)

30.0	5106.080	5069.619	4980.126	4580.722	4368.590	4264.181	4171.374	4106.740	4081.881	4075.251
32.5	5097.793	5059.676	4966.868	4535.975	4322.186	4216.120	4115.026	4045.420	4008.960	4007.303
35.0	5064.648	5013.272	4922.122	4461.398	4252.580	4148.172	4047.078	3960.899	3924.439	3929.411
37.5	5023.216	4948.638	4852.516	4366.933	4168.059	4065.308	3960.899	3869.749	3831.631	3838.260
40.0	4986.755	4884.004	4772.966	4249.266	4063.650	3962.556	3853.176	3760.368	3735.509	3929.411
42.5	4971.840	4832.628	4683.473	4106.740	3924.439	3839.918	3713.964	3624.471	3811.744	3793.514
45.0	5006.643	4816.056	4615.525	3959.242	3770.312	3685.791	3553.208	3486.917	3786.885	3521.720
47.5	5109.394	4855.830	4582.379	3810.087	3579.725	3515.091	3375.879	3457.086	3554.866	3246.611
50.0	5321.526	4970.183	4612.210	3654.302	3374.222	3314.560	3186.949	3402.396	3276.442	3022.879
52.5	5654.639	5179.000	4711.647	3521.720	3147.175	3105.743	2993.048	3249.926	3027.851	2832.291
55.0	6186.626	5528.686	4937.037	3438.856	2925.099	2890.296	2809.090	3011.278	2772.629	2638.390
57.5	6894.285	6024.213	5258.549	3423.940	2711.310	2679.822	2654.963	2732.855	2530.667	2388.140
60.0	7704.695	6645.693	5616.522	3433.884	2527.352	2487.577	2490.892	2424.601	2237.328	2169.379
62.5	8589.682	7003.665	5752.419	3385.823	2348.366	2293.675	2290.361	2111.375	1982.107	1998.680
65.0	8763.696	6725.242	5359.643	3175.348	2132.919	2078.229	2043.426	1852.839	1731.858	1854.496
67.5	7921.798	5662.926	4227.721	2737.827	1862.783	1824.665	1832.952	1635.735	1493.209	1756.717
70.0	5450.794	3775.284	2557.183	2066.628	1551.214	1547.899	1652.308	1489.895	1281.077	1688.768
72.5	2497.521	1857.811	1373.885	1365.599	1203.185	1272.791	1463.378	1398.744	1092.147	1546.242
75.0	1206.500	984.424	778.922	876.701	841.898	928.077	1175.011	1166.725	807.095	1125.293
77.5	734.175	543.588	467.353	545.245	555.189	633.081	810.410	699.372	500.499	823.668
80.0	429.236	354.658	314.883	377.860	411.005	459.067	447.466	475.639	372.888	545.245
82.5	283.395	241.963	218.761	268.479	313.226	263.508	314.883	353.001	246.935	353.001
85.0	185.615	154.127	140.869	193.902	172.357	169.043	198.874	197.216	132.582	217.104
87.5	96.122	76.235	74.578	92.808	82.864	77.892	111.038	94.465	58.005	102.751
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

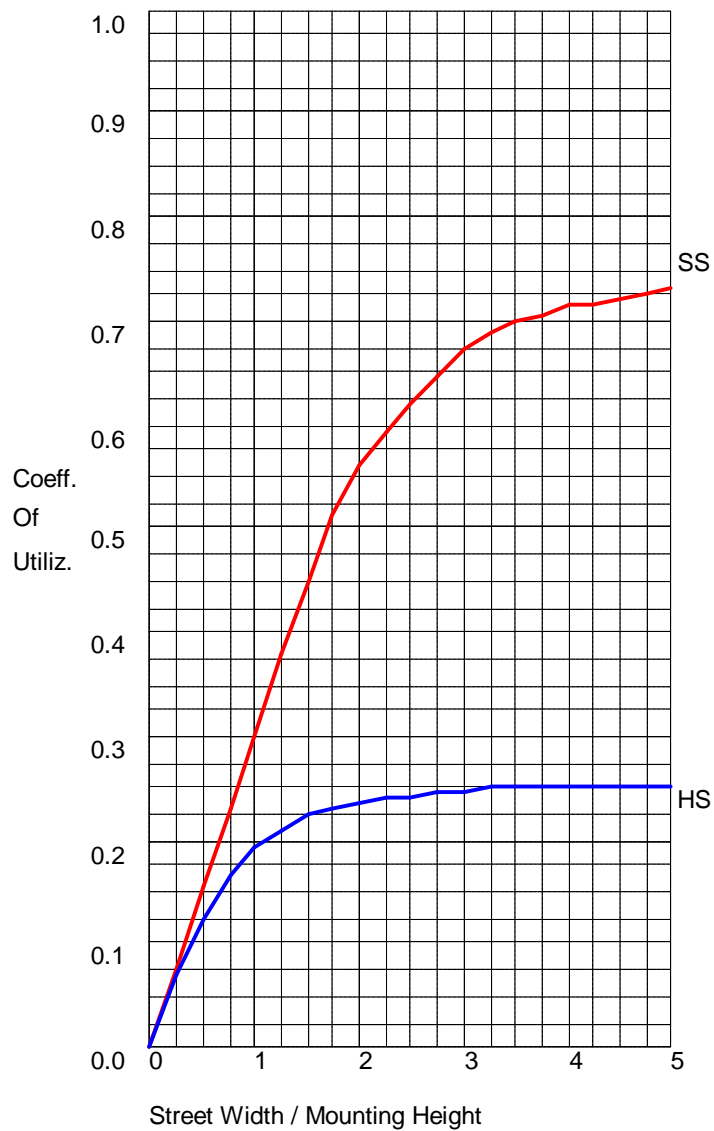
	175	180
0.0	4121.655	4121.655
2.5	4143.200	4136.571
5.0	4136.571	4123.313
7.5	4139.885	4129.942
10.0	4199.547	4184.632
12.5	4249.266	4237.665
15.0	4267.496	4259.210
17.5	4265.839	4257.552
20.0	4250.923	4236.008
22.5	4219.435	4207.834
25.0	4182.975	4176.346
27.5	4138.228	4129.942
30.0	4081.881	4076.909
32.5	4020.561	4013.932
35.0	3937.697	3929.411
37.5	3874.721	3876.378
40.0	3889.636	3883.007
42.5	3629.443	3614.528
45.0	3341.076	3322.846
47.5	3115.686	3085.855
50.0	2921.785	2890.296
52.5	2726.226	2703.024
55.0	2519.066	2489.235
57.5	2234.013	2204.182
60.0	2008.623	1967.191
62.5	1808.092	1755.059
65.0	1634.078	1569.444

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CANDELA TABULATION - (Cont.)

67.5	1526.355	1435.204
70.0	1486.580	1358.970
72.5	1423.603	1262.847
75.0	1194.899	1024.199
77.5	1178.326	1054.030
80.0	1040.772	1015.913
82.5	833.612	914.819
85.0	601.593	714.288
87.5	374.545	397.747
90.0	0.000	0.000

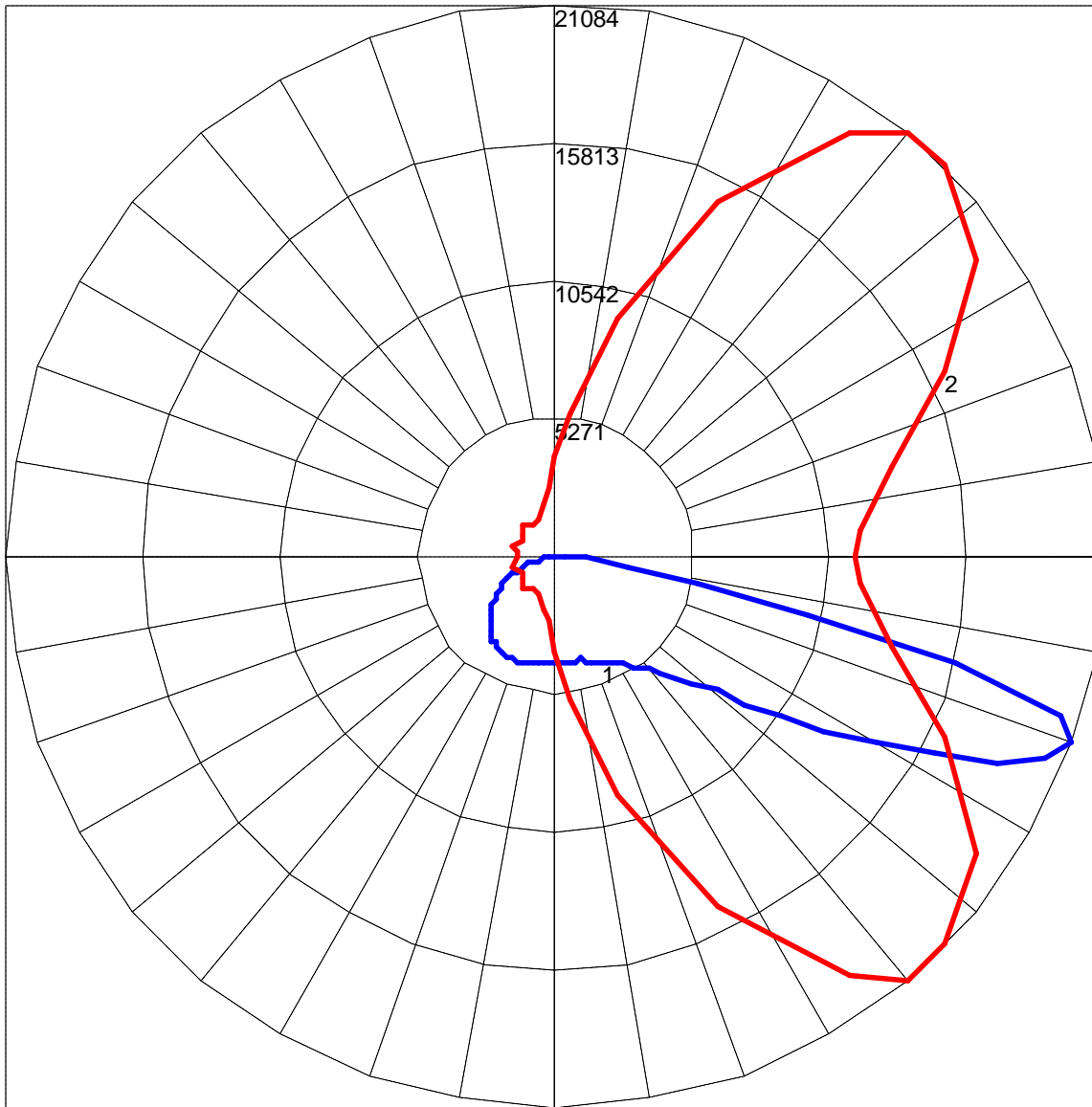
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

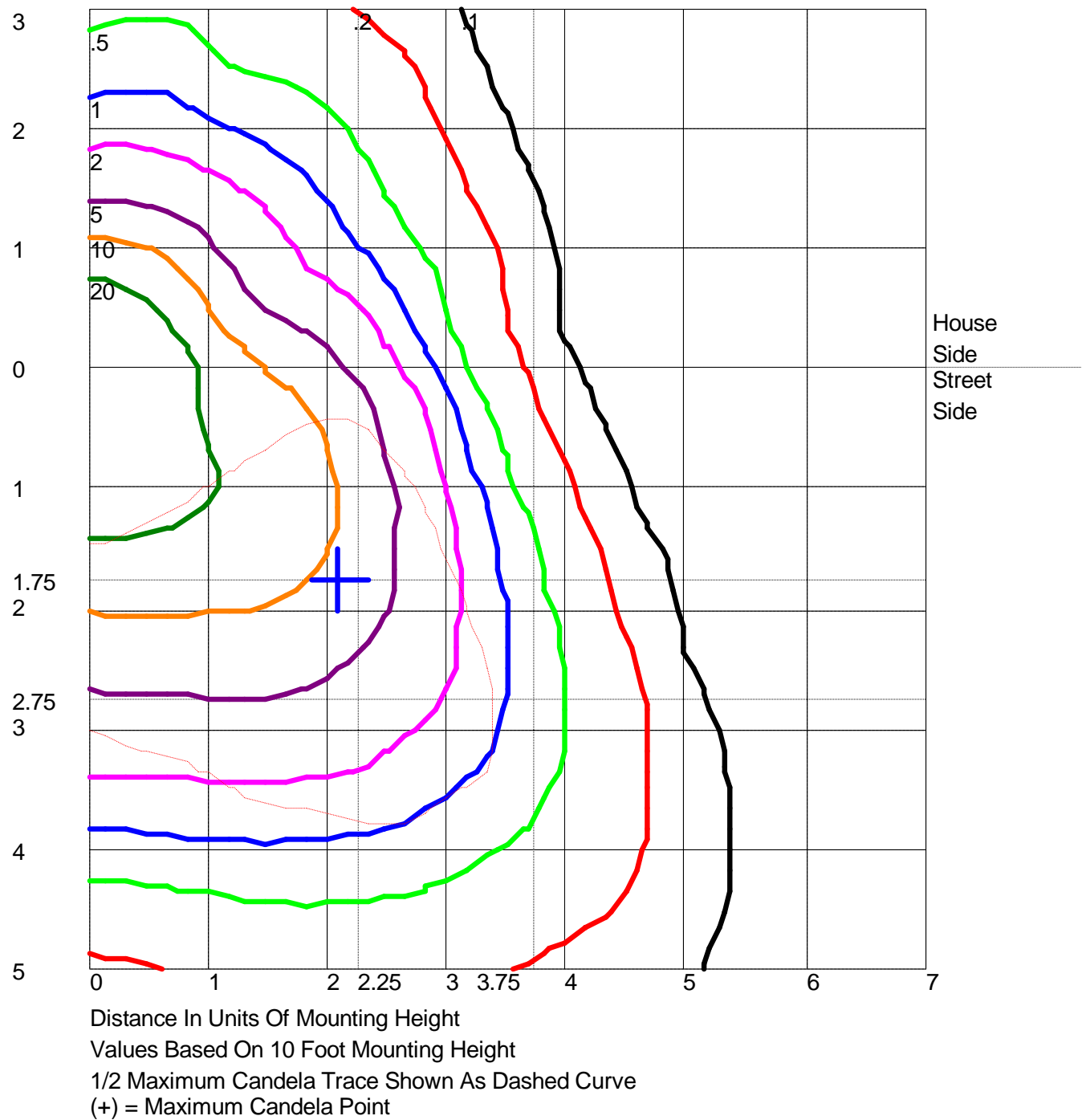
	Lumens	Percent Of Luminaire
Downward Street Side	22658.8	74.3
Downward House Side	7830.9	25.7
Downward Total	30489.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	30489.7	100.0

POLAR GRAPH

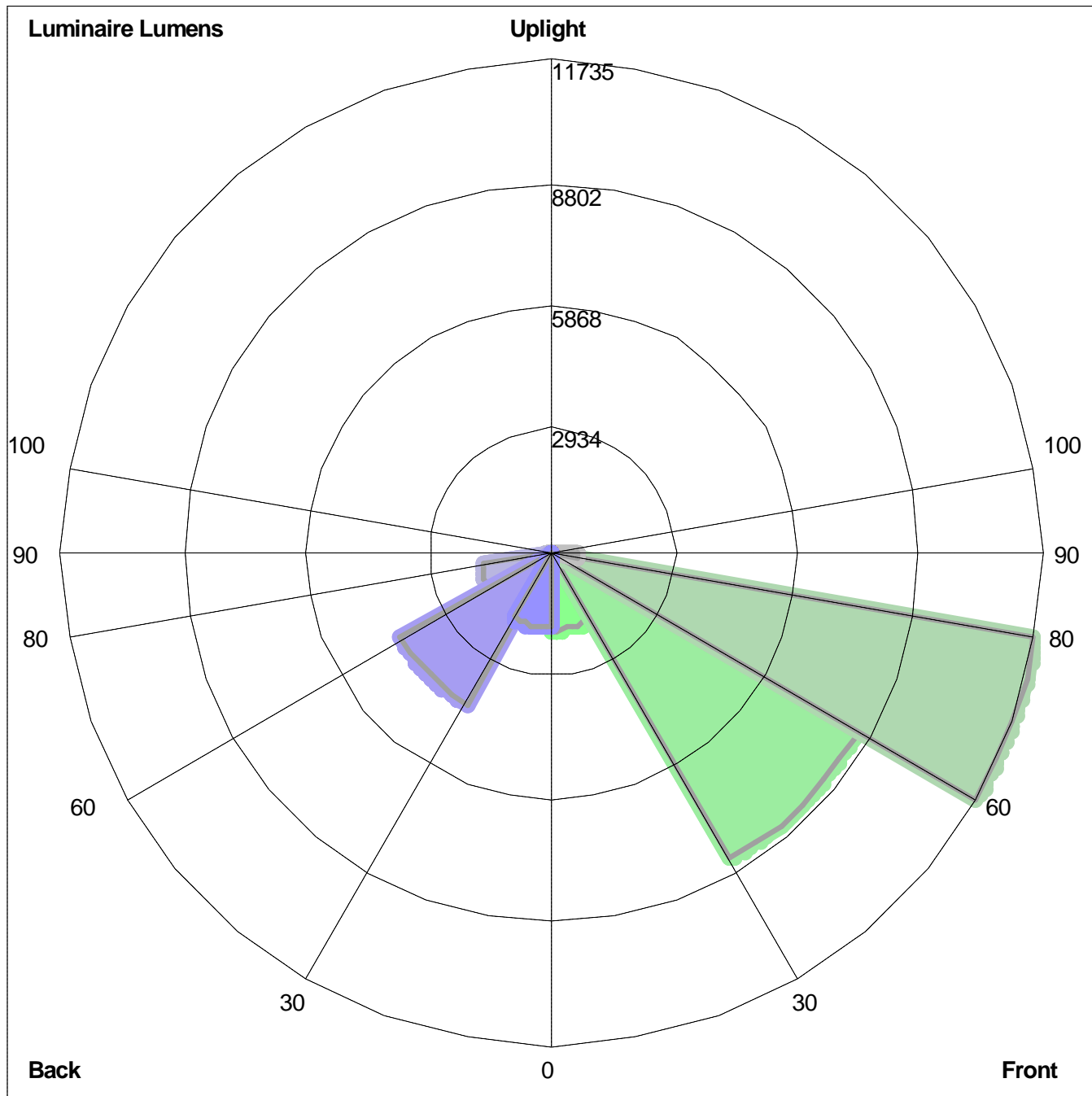


Maximum Candela = 21083.916 Located At Horizontal Angle = 50, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1848.3, Medium=8451.8, High=11735.5, Very High=623.3
Back: Low=1813.9, Medium=4155.1, High=1732.7, Very High=129.2
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G4