



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-3-LED-32L-40-IL.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-7762_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]04/03/17
[TEST DATE]04/28/16
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT] HLN-3-LED-32L-40-IL
[ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER]TEST PROCEDURE: IESNA LM-79-08
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] Outdoor
[OTHER]SCALED FROM ORIGINAL TEST DATA

CHARACTERISTICS

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	27021
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	314
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	34193.214
Maximum Candela Angle	55H 67.5V
Maximum Candela (<90 Degrees Vertical)	34193.214
Maximum Candela Angle (<90 Degrees Vertical)	55H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1861.631 (6.9% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1194.4	N.A.	4.4
FM - Front-Medium (30-60)	12223.4	N.A.	45.2
FH - Front-High (60-80)	11263.6	N.A.	41.7
FVH - Front-Very High (80-90)	219.4	N.A.	0.8
BL - Back-Low (0-30)	525.2	N.A.	1.9
BM - Back-Medium (30-60)	1182.2	N.A.	4.4
BH - Back-High (60-80)	405.4	N.A.	1.5
BVH - Back-Very High (80-90)	7.8	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	27021.4	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>45.0</u>	<u>55.0</u>	<u>57.5</u>	<u>65.0</u>	<u>75.0</u>
0.0	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766
2.5	2403.887	2393.525	2358.986	2343.444	2314.086	2296.817	2257.098	2238.101	2219.105	2169.024
5.0	2642.203	2638.749	2628.387	2618.026	2593.849	2576.580	2516.137	2478.145	2414.248	2293.363
7.5	2571.399	2571.399	2580.033	2609.391	2623.207	2642.203	2633.568	2618.026	2567.945	2415.975
10.0	2398.706	2398.706	2417.702	2467.783	2524.772	2600.757	2656.018	2654.291	2649.111	2521.318
12.5	2232.921	2234.647	2257.098	2319.267	2390.071	2497.141	2609.391	2624.934	2666.380	2585.214
15.0	2096.493	2098.220	2127.578	2189.747	2284.728	2398.706	2528.226	2554.130	2650.838	2630.114
17.5	2018.781	2020.508	2053.320	2122.397	2222.559	2341.717	2481.598	2514.410	2637.022	2676.742
20.0	2058.501	2063.681	2101.674	2188.020	2277.821	2396.979	2535.133	2574.853	2699.192	2766.542
22.5	2329.629	2333.082	2367.621	2450.514	2514.410	2609.391	2733.730	2776.903	2882.246	2966.866
25.0	2890.881	2890.881	2935.781	2949.596	2972.047	3010.039	3134.378	3141.286	3231.086	3300.163
27.5	3645.549	3692.176	3695.630	3667.999	3640.368	3602.376	3680.088	3681.815	3723.261	3733.623
30.0	4446.845	4496.926	4517.649	4512.468	4462.387	4369.133	4374.314	4355.318	4320.779	4192.986
32.5	5289.587	5267.137	5308.583	5348.302	5346.575	5305.129	5191.152	5141.071	4973.558	4693.796
35.0	5944.093	5935.458	6033.893	6135.782	6210.040	6249.760	6070.159	5983.813	5678.146	5218.783
37.5	6557.153	6586.511	6698.762	6871.455	7025.151	7216.841	6969.890	6854.185	6389.641	5736.862
40.0	7265.195	7298.006	7417.164	7595.038	7836.808	8121.752	7923.155	7717.650	7082.140	6216.948
42.5	8177.014	8208.098	8342.799	8408.422	8733.085	9037.025	8805.616	8600.112	7712.469	6614.142
45.0	9366.868	9397.953	9534.381	9513.657	9757.155	10031.736	9681.170	9434.219	8289.264	6956.074
47.5	10914.198	10953.917	11121.429	11021.267	11188.780	11154.241	10556.723	10216.518	8890.236	7277.283
50.0	13007.237	13091.856	13454.512	13376.800	13181.657	12509.881	11446.092	11009.179	9449.761	7669.296
52.5	16138.161	16279.769	16682.144	16524.993	16027.638	14259.261	12492.612	11893.367	10121.537	8259.906
55.0	19761.260	20103.192	20495.206	20547.013	19807.887	16623.428	13817.167	13076.314	11083.437	9130.279
57.5	21469.194	21704.057	223019.977	24301.359	24164.932	20144.639	15891.210	14939.672	12592.774	10560.177
60.0	19227.639	19652.464	22011.450	25142.374	28882.905	25235.628	19044.584	17897.903	15007.022	12951.975
62.5	11401.192	11701.678	16036.272	22007.996	28822.462	29732.554	23968.062	223108.051	18586.948	16075.992
65.0	3251.809	3391.691	5267.137	12109.233	24107.943	330400.876	29551.227	28846.639	22916.361	18833.899
67.5	1296.924	1357.367	1830.546	3467.675	13620.297	26558.457	34193.214	34186.307	26275.240	19697.364
70.0	877.280	911.819	1074.150	1792.553	4400.218	17802.922	30969.036	32619.981	27891.647	16309.127
72.5	708.041	739.126	830.653	1310.740	2547.222	7650.300	23356.729	25574.107	22018.358	9237.349
75.0	557.798	575.068	661.414	1113.870	2003.239	3697.357	11641.235	13722.186	11525.531	12840.800
77.5	426.552	452.456	524.987	973.989	1747.653	2274.367	4279.333	5412.199	3269.079	1022.343
80.0	297.032	314.301	393.740	820.292	1473.071	1580.141	1625.041	1861.631	1366.002	547.437
82.5	177.874	188.235	259.040	676.957	1122.505	1086.239	730.491	668.322	635.510	352.294
85.0	115.704	122.612	179.601	562.979	891.096	585.429	295.305	310.847	317.755	227.955
87.5	72.531	77.712	124.339	419.644	438.640	202.051	129.520	127.793	131.247	131.247
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	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766	2094.766
2.5	2132.759	2113.762	2089.585	2039.504	2001.512	1960.066	1922.073	1866.811	1830.546	1835.727
5.0	2175.932	2113.762	2048.139	1916.892	1790.826	1676.849	1571.506	1507.610	1464.437	1450.621
7.5	2217.378	2112.035	2001.512	1783.919	1593.956	1460.983	1390.179	1336.644	1290.017	1260.659
10.0	2253.644	2101.674	1947.977	1647.491	1441.987	1343.552	1264.113	1207.124	1163.951	1134.593
12.5	2288.182	2087.858	1896.169	1524.879	1347.005	1241.663	1169.132	1120.778	1081.058	1060.335
15.0	2319.267	2072.316	1840.907	1431.625	1276.201	1181.220	1101.781	1065.516	1041.339	1027.523
17.5	2352.079	2061.954	1787.373	1364.275	1227.847	1146.682	1072.424	1037.885	1022.343	1005.073
20.0	2417.702	2091.312	1773.557	1326.282	1227.847	1127.685	1070.697	1020.616	992.985	984.350
22.5	2602.484	2222.559	1856.450	1341.825	1277.928	1151.862	1077.604	1006.800	961.900	956.719
25.0	2878.792	2434.971	2036.050	1393.633	1345.278	1210.578	1079.331	992.985	932.542	873.827
27.5	3224.178	2732.003	2246.736	1467.891	1412.629	1276.201	1098.327	967.081	799.569	678.683

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CANDELA TABULATION - (Cont.)

30.0	3569.564	2991.043	2438.425	1549.056	1473.071	1336.644	1101.781	825.473	621.695	592.337
32.5	3946.035	3289.802	2647.384	1623.314	1526.606	1383.271	1025.796	687.318	599.245	611.333
35.0	4338.048	3578.199	2863.250	1668.214	1550.783	1398.813	894.550	671.776	602.699	628.603
37.5	4704.157	3854.508	3046.305	1683.757	1535.241	1314.194	863.465	640.691	547.437	549.164
40.0	5034.001	4092.824	3187.913	1666.487	1474.798	1150.135	847.923	597.518	469.725	438.640
42.5	5313.764	4279.333	3284.621	1614.680	1352.186	1015.435	777.119	557.798	424.825	369.563
45.0	5539.992	4429.576	3343.337	1530.060	1120.778	811.657	670.049	512.898	454.183	329.844
47.5	5776.581	4605.722	3417.595	1417.810	815.111	588.883	521.533	452.456	431.733	312.574
50.0	6090.882	4883.758	3554.022	1295.198	597.518	431.733	392.013	412.736	417.917	305.667
52.5	6570.969	5334.487	3847.600	1208.851	454.183	343.659	305.667	364.382	376.471	312.574
55.0	7320.456	6097.790	4338.048	1146.682	407.555	305.667	253.859	305.667	295.305	331.571
57.5	8582.842	7146.036	5054.724	1041.339	383.378	281.490	221.047	253.859	229.682	238.316
60.0	10598.170	8432.599	5450.191	896.277	362.655	248.678	191.689	181.328	138.154	184.782
62.5	13430.335	9391.045	5139.344	749.488	319.482	205.505	189.962	112.250	93.254	145.062
65.0	14858.506	9354.780	3813.061	606.152	248.678	181.328	136.427	88.073	67.350	139.881
67.5	14205.726	7588.131	2274.367	417.917	184.782	136.427	89.800	74.258	65.623	107.070
70.0	9271.887	4769.781	1131.139	269.401	136.427	82.893	55.262	60.443	50.081	79.439
72.5	4068.647	1901.350	419.644	172.693	100.162	48.354	41.446	39.719	32.812	53.535
75.0	1020.616	647.599	253.859	127.793	63.896	36.266	25.904	25.904	12.089	20.723
77.5	485.267	322.936	176.147	91.527	37.992	24.177	13.815	8.635	3.454	5.181
80.0	300.486	214.139	129.520	60.443	20.723	10.362	8.635	5.181	1.727	0.000
82.5	200.324	145.062	93.254	34.539	10.362	10.362	8.635	3.454	0.000	0.000
85.0	127.793	100.162	65.623	18.996	10.362	8.635	6.908	3.454	0.000	0.000
87.5	72.531	53.535	32.812	10.362	12.089	12.089	10.362	5.181	1.727	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

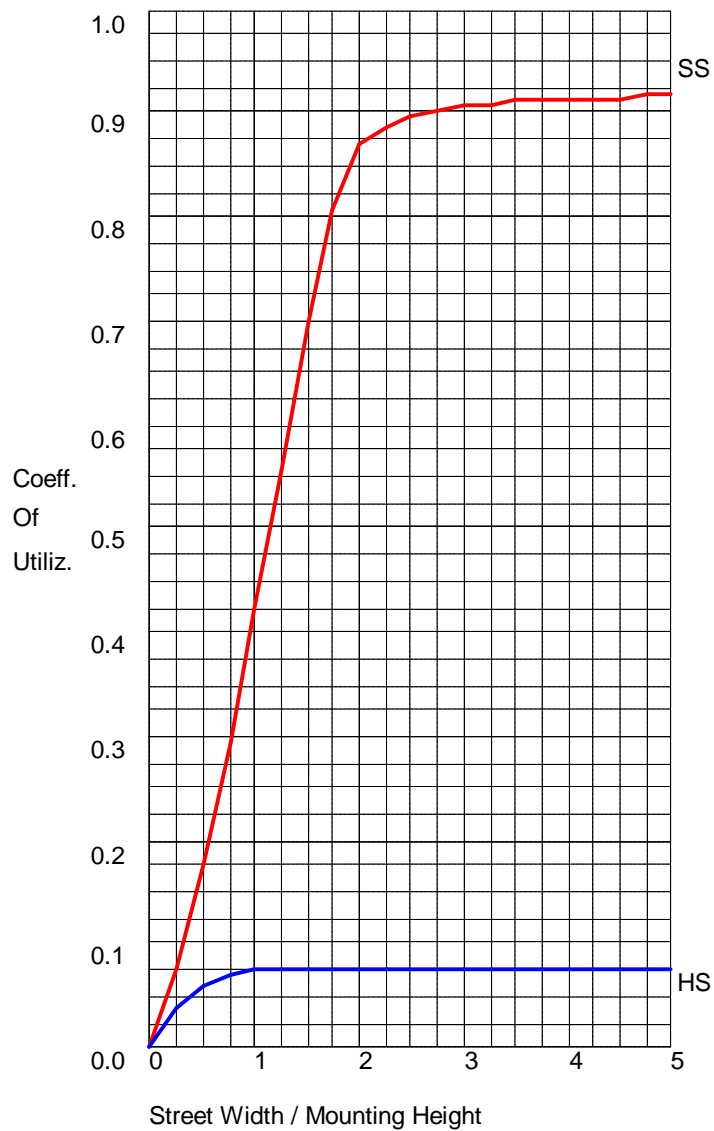
	175.0	180.0
0.0	2094.766	2094.766
2.5	1821.911	1825.365
5.0	1440.260	1436.806
7.5	1255.478	1252.024
10.0	1127.685	1120.778
12.5	1051.700	1046.520
15.0	1022.343	1013.708
17.5	998.166	989.531
20.0	973.989	963.627
22.5	946.358	937.723
25.0	827.199	816.838
27.5	628.603	619.968
30.0	595.791	590.610
32.5	638.964	630.329
35.0	675.230	668.322
37.5	562.979	554.345
40.0	424.825	411.009
42.5	319.482	316.028
45.0	286.670	278.036
47.5	260.766	255.586
50.0	236.589	226.228
52.5	248.678	240.043
55.0	243.497	231.409
57.5	150.243	127.793
60.0	115.704	96.708
62.5	100.162	77.712
65.0	122.612	93.254

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CANDELA TABULATION - (Cont.)

67.5	112.250	81.166
70.0	93.254	63.896
72.5	62.169	43.173
75.0	18.996	12.089
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

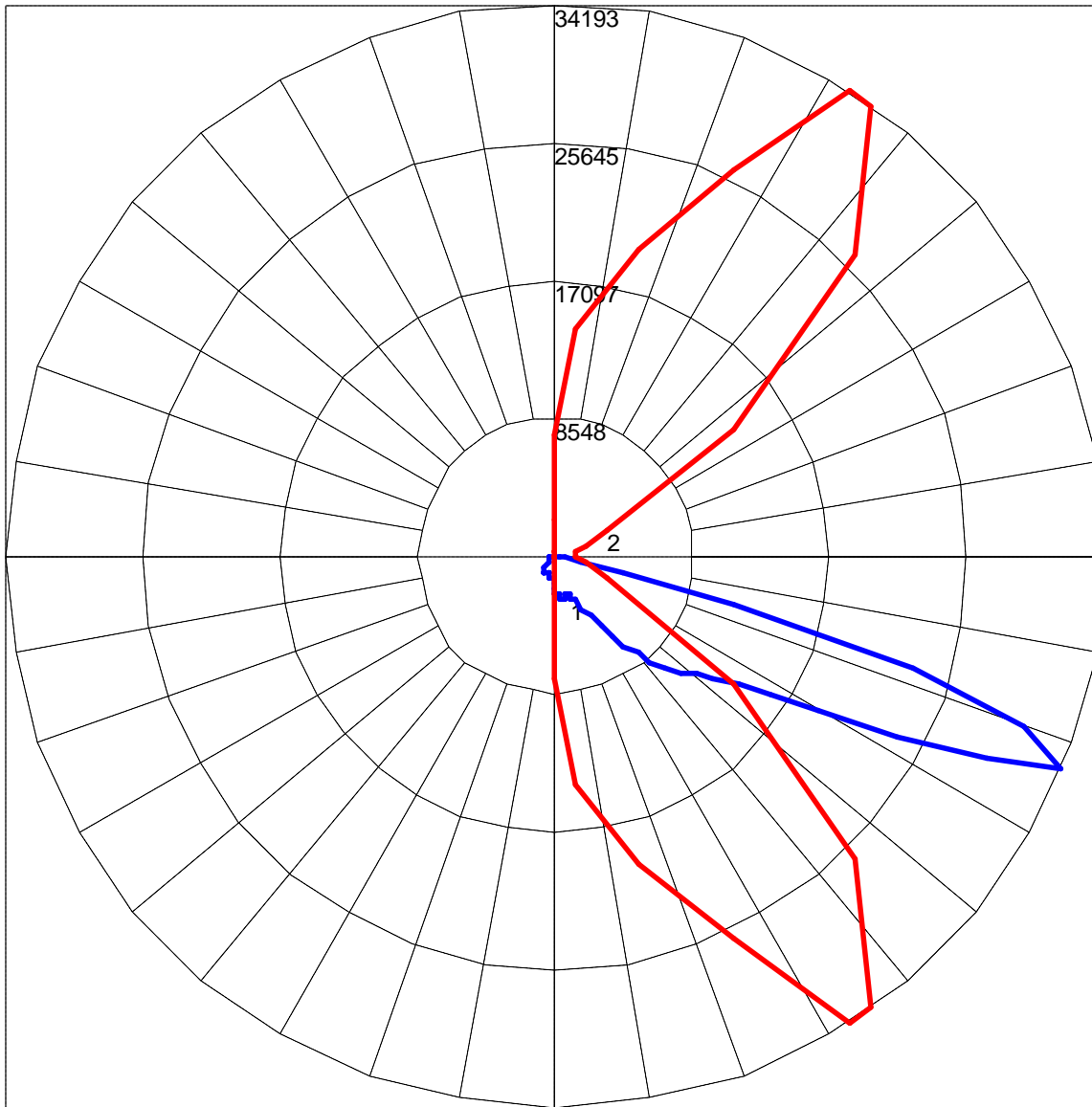
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

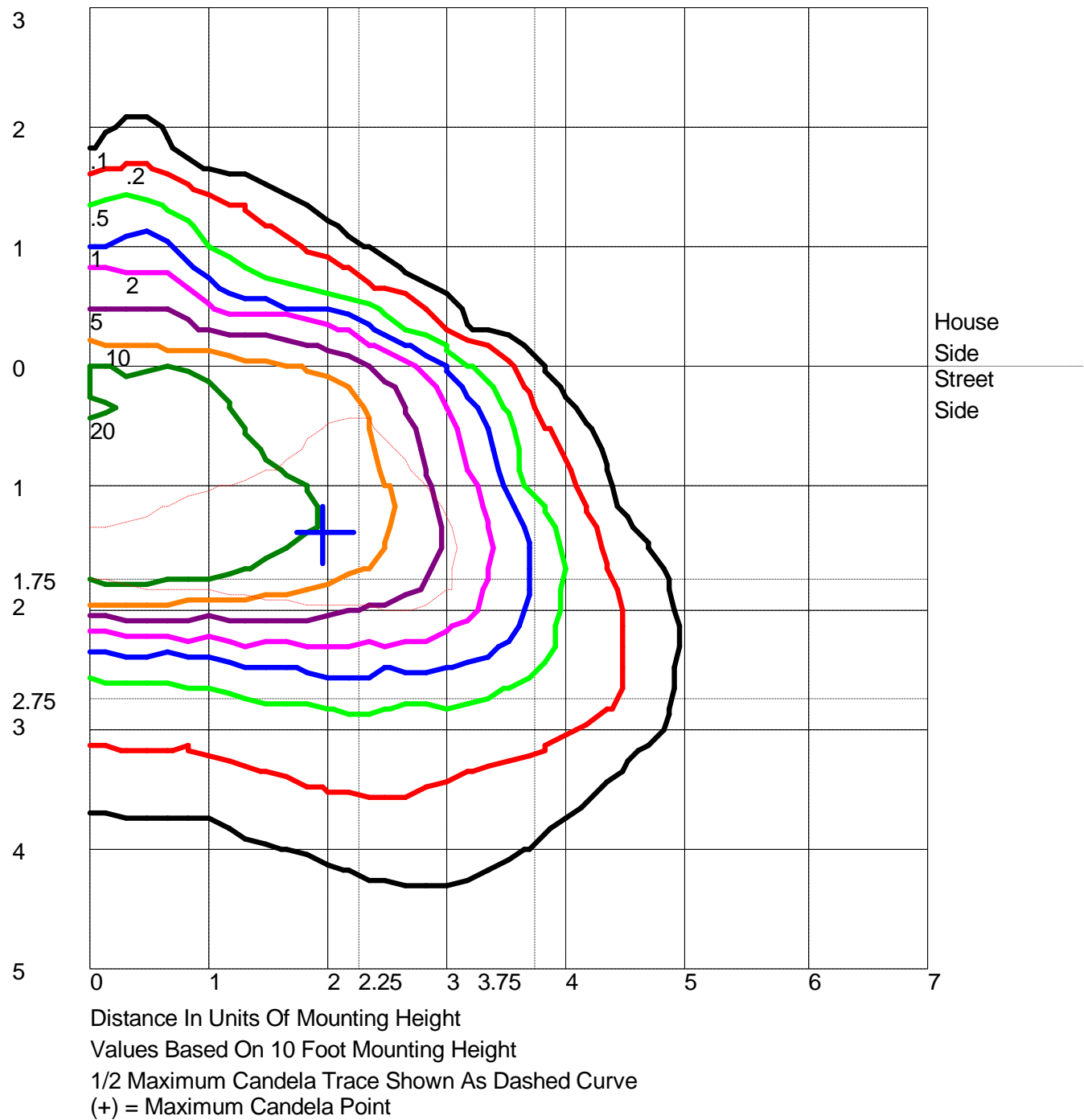
	Lumens	Percent Of Luminaire
Downward Street Side	24900.8	92.2
Downward House Side	2120.6	7.8
Downward Total	27021.4	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	27021.4	100.0

POLAR GRAPH

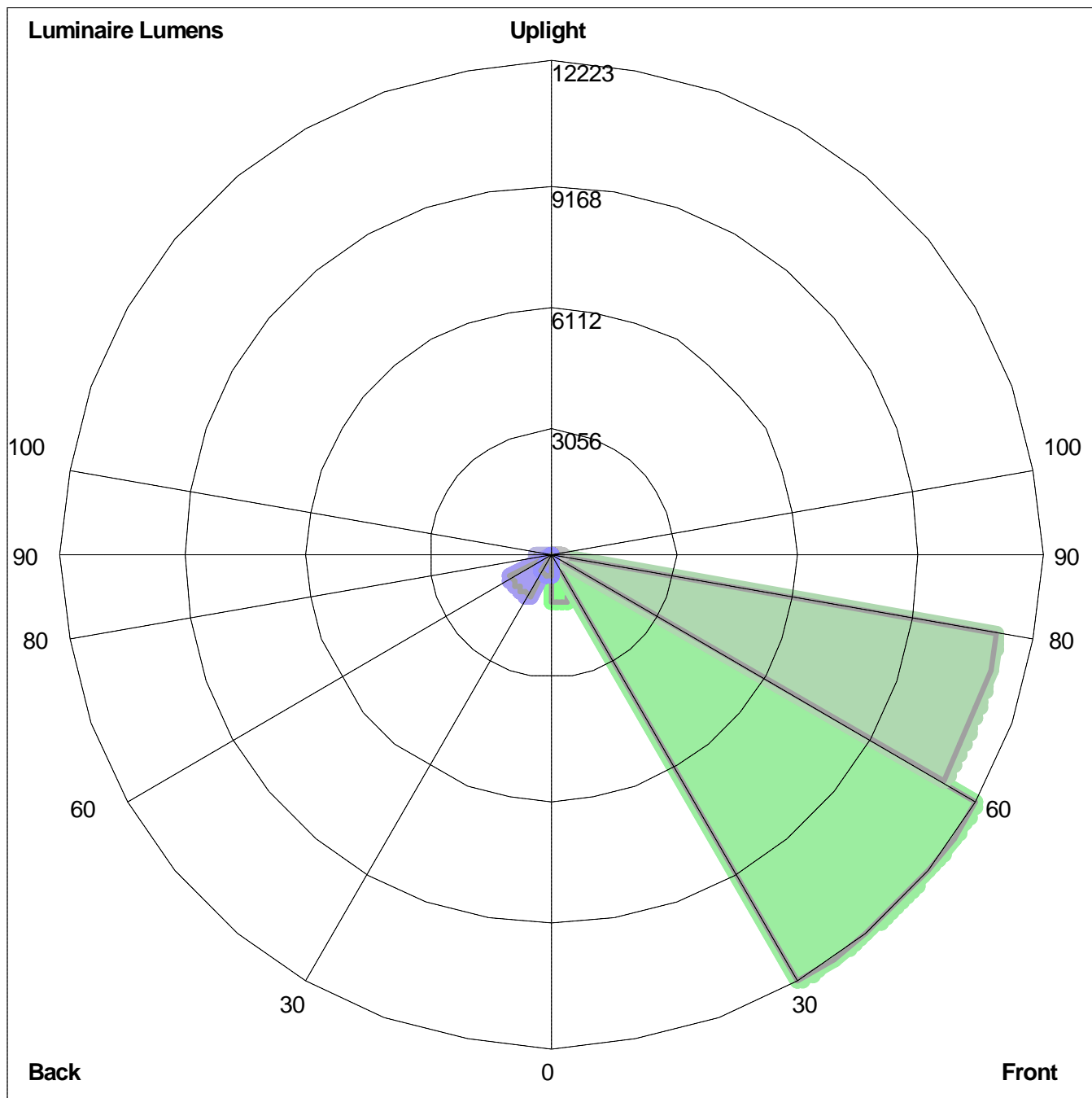


Maximum Candela = 34193.214 Located At Horizontal Angle = 55, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1194.4, Medium=12223.4, High=11263.6, Very High=219.4
Back: Low=525.2, Medium=1182.2, High=405.4, Very High=7.8
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G4