



## IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-FT-LED-32L-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-32L-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	23743
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	75
Total Luminaire Watts	315
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	22667.403
Maximum Candela Angle	45H 67.5V
Maximum Candela (<90 Degrees Vertical)	22667.403
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	2754.001 (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)	2068.1	N.A.	8.7
FM - Front-Medium (30-60)	8617.2	N.A.	36.3
FH - Front-High (60-80)	10244.2	N.A.	43.1
FVH - Front-Very High (80-90)	239.8	N.A.	1.0
BL - Back-Low (0-30)	813.2	N.A.	3.4
BM - Back-Medium (30-60)	1368.4	N.A.	5.8
BH - Back-High (60-80)	387.5	N.A.	1.6
BVH - Back-Very High (80-90)	4.5	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	23742.9	N.A.	100.0
BUG Rating	B2-U0-G4		

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**CANDELA TABULATION**

<b>Vert. Angles</b>	<b>Horizontal Angles</b>									
	<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	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383
2.5	4038.181	4051.578	4053.492	4051.578	4038.181	4028.612	4007.560	3984.594	3938.662	3909.955
5.0	4101.338	4114.735	4116.648	4133.873	4145.356	4168.322	4164.494	4166.408	4120.476	4066.889
7.5	4072.630	4093.682	4103.252	4133.873	4170.236	4214.254	4221.909	4273.582	4273.582	4254.444
10.0	4131.959	4154.925	4160.667	4193.202	4241.047	4294.635	4308.031	4384.585	4426.689	4447.741
12.5	4271.669	4296.548	4300.376	4325.256	4367.360	4422.861	4436.258	4522.380	4604.675	4644.866
15.0	4447.741	4484.104	4484.104	4507.070	4541.519	4598.934	4597.020	4683.142	4775.006	4845.818
17.5	4635.296	4669.745	4662.090	4690.797	4719.505	4776.920	4769.264	4847.731	4937.682	5042.942
20.0	4822.852	4855.387	4853.473	4857.301	4884.094	4930.026	4931.940	5000.838	5083.133	5192.221
22.5	4995.096	5023.804	5021.890	5019.976	5031.459	5056.339	5058.253	5127.151	5203.704	5312.792
25.0	5152.030	5178.824	5167.341	5167.341	5157.772	5165.427	5161.600	5217.101	5301.309	5410.398
27.5	5299.395	5324.275	5303.223	5284.085	5259.205	5251.550	5247.722	5287.912	5374.035	5488.865
30.0	5433.363	5452.502	5421.881	5383.604	5337.672	5322.361	5318.534	5337.672	5425.708	5544.366
32.5	5536.710	5552.021	5509.917	5458.243	5402.742	5375.949	5377.862	5381.690	5463.985	5580.728
35.0	5622.833	5630.488	5580.728	5509.917	5456.329	5433.363	5435.277	5427.622	5490.778	5611.350
37.5	5707.041	5718.524	5647.712	5565.418	5511.831	5500.348	5513.744	5494.606	5525.227	5636.229
40.0	5823.785	5831.440	5752.973	5659.195	5603.694	5596.039	5624.746	5615.177	5584.556	5674.506
42.5	6032.392	6018.995	5934.787	5831.440	5775.939	5791.250	5806.560	5814.216	5712.783	5743.404
45.0	6361.571	6355.830	6256.310	6145.308	6087.893	6112.773	6135.739	6149.136	5925.218	5873.544
47.5	6918.496	6912.754	6811.321	6688.836	6646.732	6637.163	6667.784	6686.922	6300.328	6181.671
50.0	7796.944	7795.030	7766.322	7571.112	7500.300	7452.454	7494.558	7521.352	6924.237	6598.886
52.5	9056.244	9075.382	9111.745	8964.380	8755.772	8627.546	8683.047	8725.151	7793.116	7199.829
55.0	10612.188	10665.775	10853.330	10916.487	10472.478	10227.508	10313.630	10300.233	8995.001	8082.104
57.5	11969.093	12045.646	12545.156	13000.647	12801.609	12309.755	12392.050	12271.478	10514.582	9037.105
60.0	13056.149	13161.409	13915.458	14925.960	15291.502	14906.822	15155.620	14700.129	12177.701	10124.161
62.5	13712.592	13900.148	15021.652	16759.410	17926.846	17961.295	18114.401	17161.314	13748.955	10748.070
65.0	12843.713	13199.686	14887.684	17978.519	20414.825	20889.455	20830.126	19134.473	14799.648	10769.122
67.5	9988.279	10309.802	12979.595	17555.563	21480.828	22625.299	22667.403	20160.286	14409.226	9408.388
70.0	6384.537	6696.491	8880.171	14692.473	19898.091	22246.360	22491.331	19004.332	11752.830	6686.922
72.5	2269.802	2449.702	3839.143	8294.539	15986.222	18916.296	19130.645	14893.425	8101.243	3733.882
75.0	995.192	1079.400	1701.395	3090.836	8365.351	13161.409	13360.448	10089.712	4177.891	1450.683
77.5	727.255	799.981	1257.386	1978.900	3056.387	6256.310	6526.160	5305.137	1762.637	813.378
80.0	541.614	621.995	1052.607	1622.928	2013.349	2664.051	2754.001	2195.163	882.276	530.131
82.5	398.077	474.630	874.620	1299.491	1207.627	1083.228	981.795	497.596	444.009	333.006
85.0	279.419	323.437	509.079	564.580	424.870	363.628	298.557	156.934	185.642	195.211
87.5	70.812	74.639	116.744	191.383	93.778	70.812	72.726	74.639	80.381	89.950
90.0	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>85.0</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	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383	3789.383
2.5	3873.592	3867.851	3816.177	3737.710	3697.520	3617.139	3571.207	3525.275	3479.343	3448.722
5.0	3975.025	3931.007	3823.832	3619.053	3452.549	3247.770	3085.094	2928.160	2784.623	2685.104
7.5	4135.787	4047.751	3877.420	3523.361	3186.527	2813.330	2465.013	2177.939	1976.986	1858.329
10.0	4325.256	4193.202	3948.231	3425.756	2876.487	2329.131	1911.916	1680.343	1559.771	1490.874
12.5	4535.777	4357.791	4026.698	3314.754	2556.877	1944.451	1624.842	1473.649	1366.475	1280.352
15.0	4757.781	4539.605	4110.907	3198.010	2271.716	1724.361	1488.960	1314.801	1213.368	1161.695
17.5	4960.647	4698.453	4174.063	3058.300	2059.281	1603.790	1370.302	1226.765	1152.126	1102.366
20.0	5132.892	4830.507	4208.512	2933.901	1917.658	1540.633	1291.835	1186.575	1106.194	1052.607
22.5	5282.171	4933.854	4219.995	2840.124	1823.880	1467.908	1259.300	1142.557	1058.348	1002.847
25.0	5393.173	5021.890	4221.909	2776.967	1787.517	1418.148	1226.765	1094.711	1012.416	960.743
27.5	5483.123	5079.305	4212.340	2738.691	1781.776	1395.182	1184.661	1050.693	918.638	796.153

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**CANDELA TABULATION - (Cont.)**

30.0	5550.107	5109.926	4198.943	2721.466	1783.690	1374.130	1146.384	951.174	706.203	558.838
32.5	5588.384	5108.012	4189.374	2717.639	1768.379	1351.164	1085.142	738.738	507.165	447.836
35.0	5607.522	5094.616	4193.202	2713.811	1739.672	1322.457	924.380	558.838	447.836	398.077
37.5	5620.919	5079.305	4214.254	2704.242	1687.998	1249.731	723.428	503.337	403.818	342.576
40.0	5638.143	5075.477	4254.444	2688.931	1613.359	1077.486	625.822	453.578	346.403	300.471
42.5	5682.161	5102.271	4313.773	2656.396	1473.649	821.033	541.614	388.507	304.299	327.265
45.0	5775.939	5196.049	4419.034	2610.464	1238.248	621.995	434.439	321.523	273.678	350.231
47.5	5999.857	5404.656	4598.934	2541.566	912.897	470.802	334.920	262.195	329.179	212.435
50.0	6311.811	5693.644	4847.731	2403.771	600.943	369.369	273.678	220.090	266.022	170.331
52.5	6832.373	6189.326	5190.307	2174.111	436.353	308.127	227.746	193.297	195.211	151.193
55.0	7494.558	6753.906	5584.556	1877.467	375.111	275.592	195.211	166.503	156.934	174.159
57.5	8147.174	7299.348	5929.045	1588.479	342.576	243.056	164.589	141.623	166.503	162.676
60.0	8677.305	7668.717	5927.132	1318.629	310.040	195.211	141.623	145.451	124.399	93.778
62.5	8757.686	7607.474	5339.586	1048.779	264.109	155.020	135.882	103.347	76.553	66.984
65.0	8216.072	6878.305	4118.562	876.534	212.435	135.882	112.916	66.984	55.501	68.898
67.5	6598.886	5282.171	2570.274	621.995	147.365	132.054	78.467	55.501	80.381	70.812
70.0	4208.512	3341.547	1238.248	355.972	103.347	93.778	59.329	72.726	57.415	47.846
72.5	1687.998	1230.593	533.959	177.986	78.467	55.501	59.329	53.587	44.018	32.535
75.0	765.532	587.546	244.970	107.174	55.501	38.277	36.363	38.277	15.311	5.741
77.5	491.854	371.283	158.848	66.984	30.621	24.880	21.052	9.569	3.828	3.828
80.0	288.988	222.004	109.088	36.363	17.224	17.224	7.655	3.828	1.914	1.914
82.5	193.297	143.537	65.070	17.224	11.483	7.655	5.741	1.914	0.000	0.000
85.0	114.830	70.812	22.966	5.741	3.828	1.914	1.914	0.000	0.000	0.000
87.5	47.846	19.138	5.741	1.914	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**

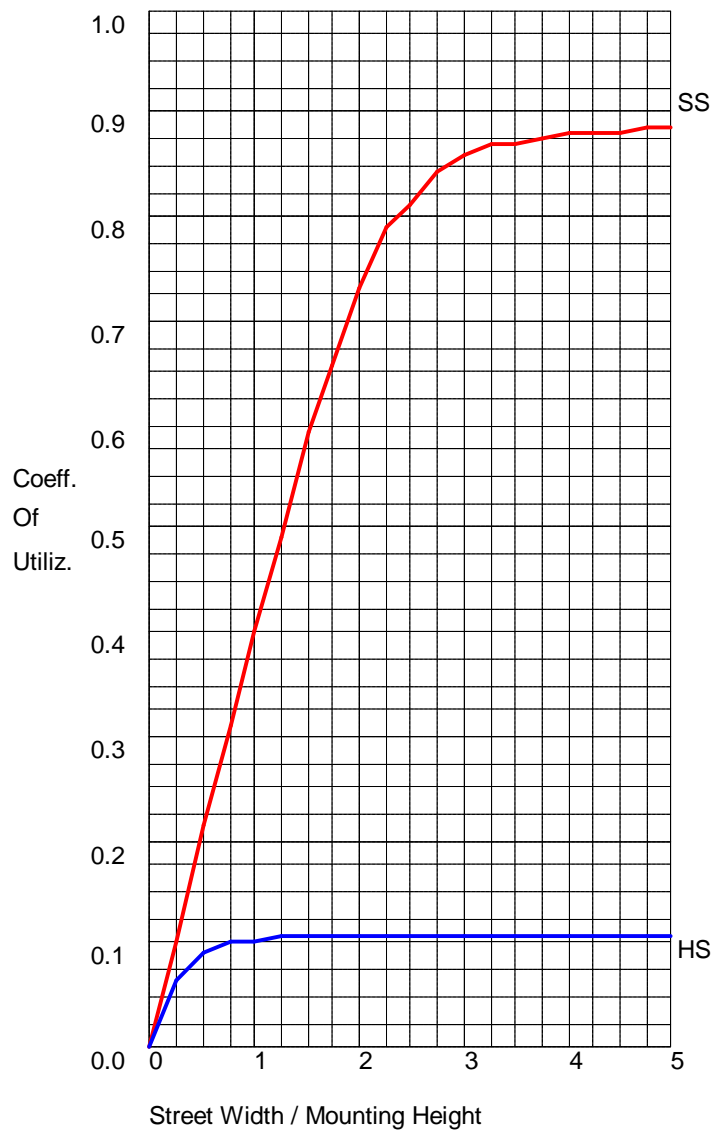
	<b>175.0</b>	<b>180.0</b>
0.0	3789.383	3789.383
2.5	3462.119	3441.066
5.0	2635.344	2658.310
7.5	1808.569	1820.052
10.0	1464.080	1464.080
12.5	1238.248	1228.679
15.0	1136.815	1129.160
17.5	1083.228	1075.572
20.0	1031.554	1023.899
22.5	985.622	977.967
25.0	930.121	920.552
27.5	725.342	713.859
30.0	491.854	482.285
32.5	424.870	421.043
35.0	380.852	377.025
37.5	317.696	313.868
40.0	285.161	285.161
42.5	325.351	298.557
45.0	214.349	206.694
47.5	179.900	177.986
50.0	160.762	158.848
52.5	155.020	153.106
55.0	189.469	189.469
57.5	153.106	141.623
60.0	84.209	76.553
62.5	55.501	51.673
65.0	84.209	84.209

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

<b>67.5</b>	63.156	61.243
<b>70.0</b>	42.104	42.104
<b>72.5</b>	26.794	24.880
<b>75.0</b>	1.914	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

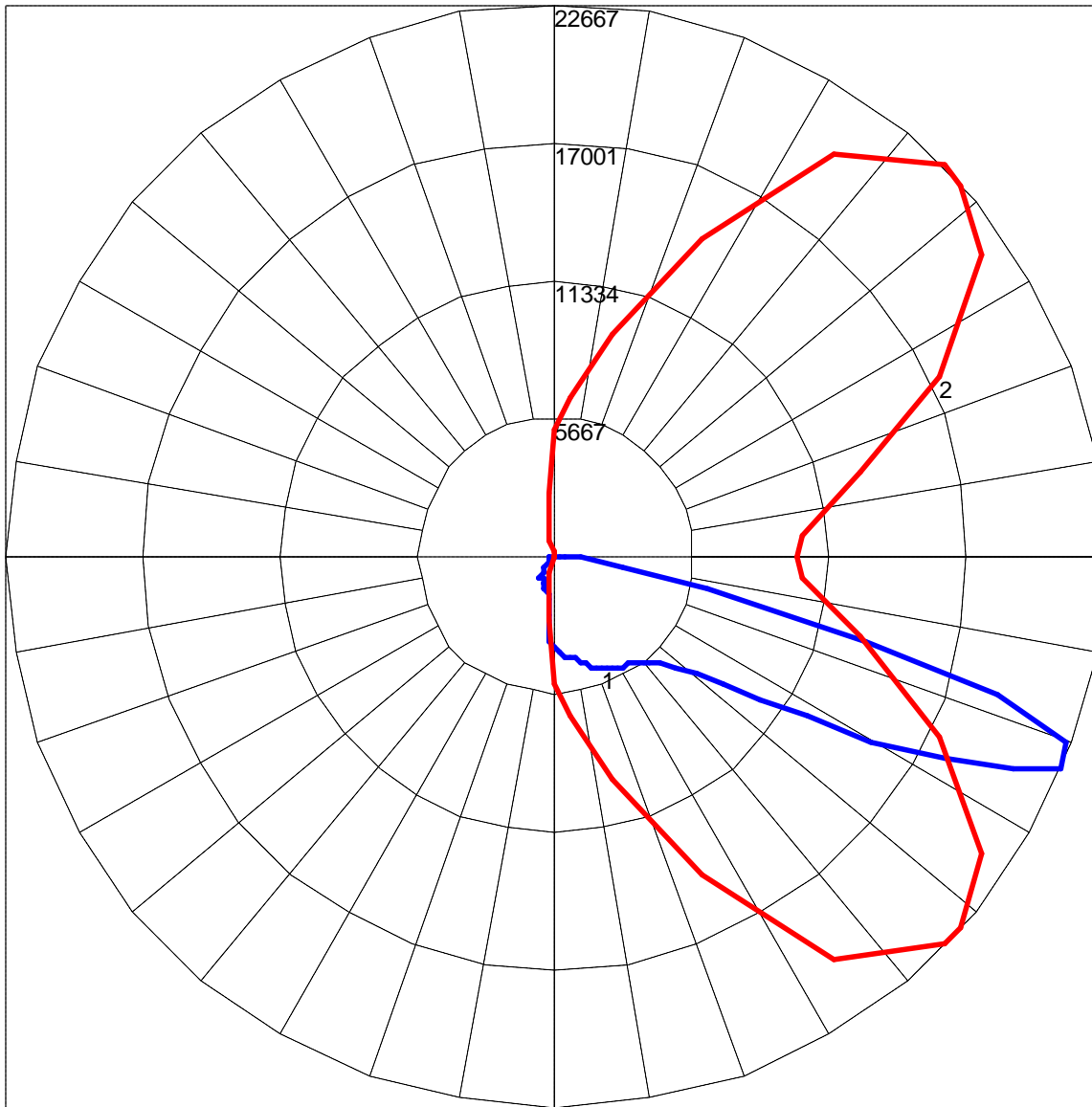
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

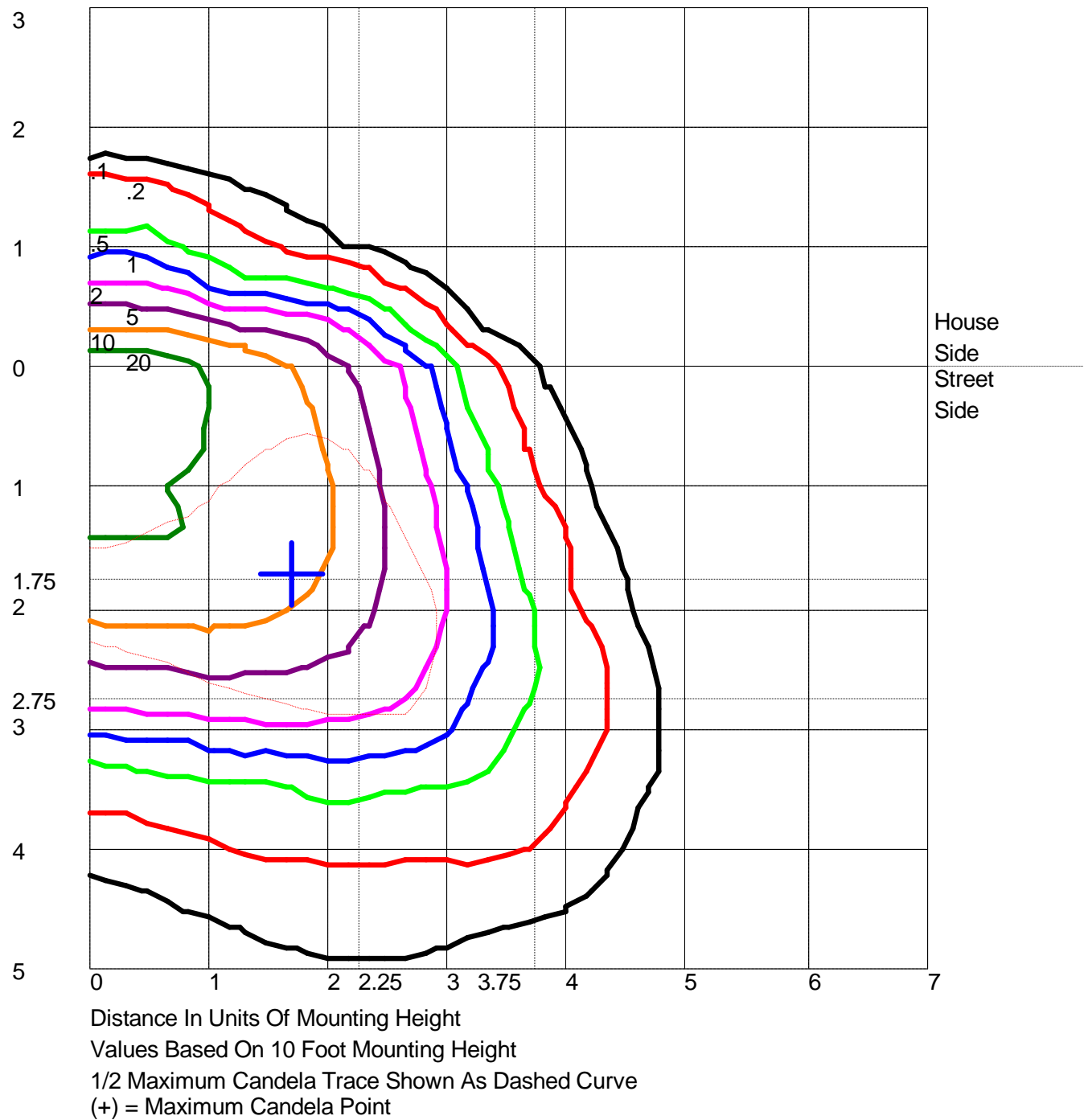
	Lumens	Percent Of Luminaire
Downward Street Side	21169.4	89.2
Downward House Side	2573.6	10.8
Downward Total	23743.0	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	23743.0	100.0

POLAR GRAPH



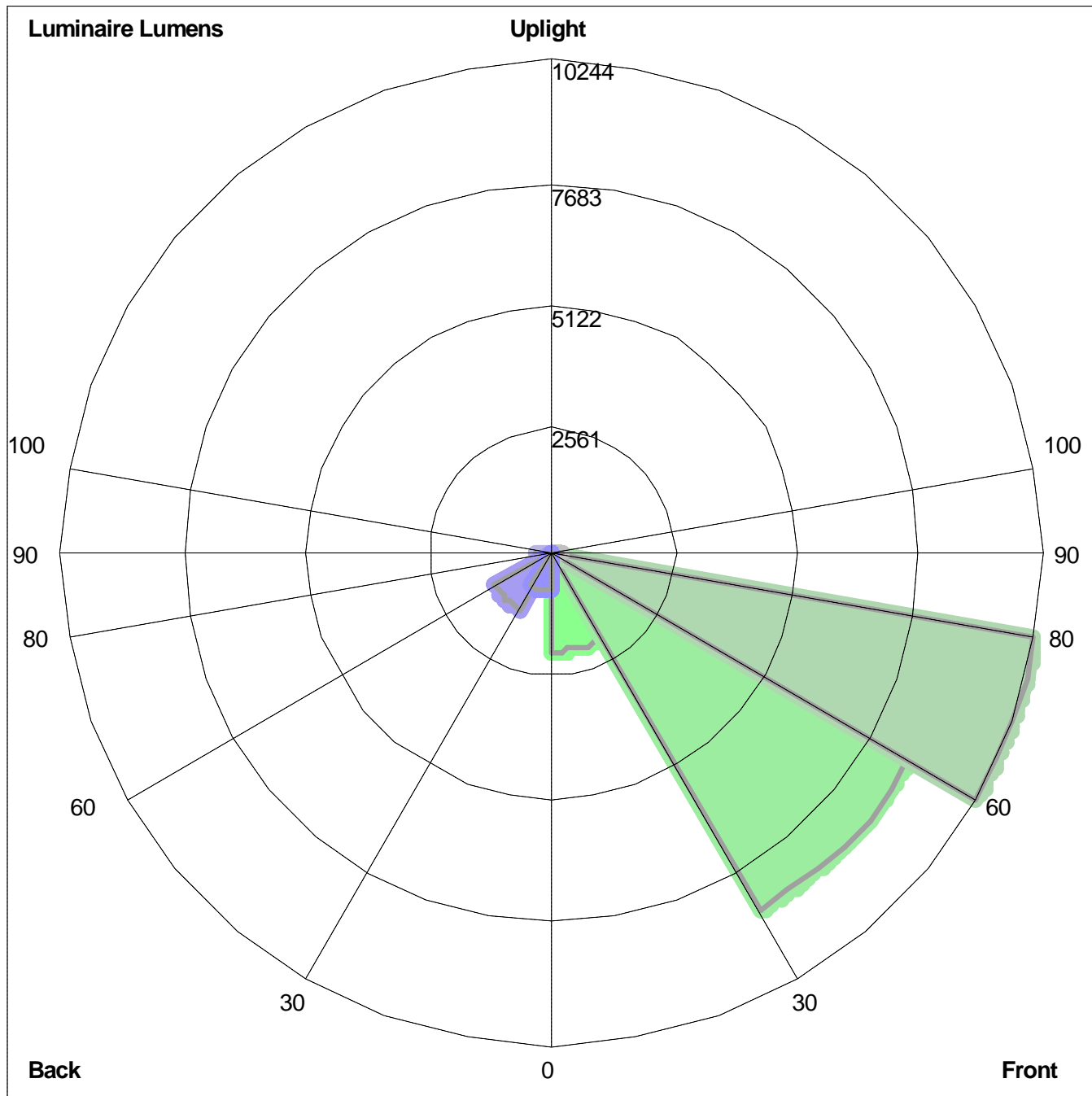
Maximum Candela = 22667.403 Located At Horizontal Angle = 45, Vertical Angle = 67.5  
# 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE





LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=2068.1, Medium=8617.2, High=10244.2, Very High=239.8  
Back: Low=813.2, Medium=1368.4, High=387.5, Very High=4.5  
Uplight: Low=0.0, High=0.0

BUG Rating : B2-U0-G4