



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-2-LED-32L-30.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-8430_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]03/10/17
[TEST DATE]01/09/17
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMCAT]HLN-2-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_SOURCE TYPE] 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	29495
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	95
Total Luminaire Watts	310
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	25546.688
Maximum Candela Angle	82.5H 67.5V
Maximum Candela (<90 Degrees Vertical)	25546.688
Maximum Candela Angle (<90 Degrees Vertical)	82.5H 67.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1203.65 (4.1% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	2100.9	N.A.	7.1
FM - Front-Medium (30-60)	10524.6	N.A.	35.7
FH - Front-High (60-80)	5943.0	N.A.	20.1
FVH - Front-Very High (80-90)	94.1	N.A.	0.3
BL - Back-Low (0-30)	1637.0	N.A.	5.6
BM - Back-Medium (30-60)	6395.2	N.A.	21.7
BH - Back-High (60-80)	2683.2	N.A.	9.1
BVH - Back-Very High (80-90)	116.6	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	29494.5	N.A.	100.0
BUG Rating	B4-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>65.0</u>	<u>75.0</u>	<u>82.5</u>
0.0	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574
2.5	4370.023	4351.911	4383.196	4374.963	4378.256	4366.730	4343.678	4332.152	4327.212	4327.212
5.0	4449.059	4435.886	4463.878	4458.939	4465.525	4458.939	4439.180	4429.300	4407.895	4398.015
7.5	4490.224	4473.758	4509.983	4521.509	4546.207	4557.733	4547.854	4547.854	4526.448	4509.983
10.0	4477.051	4462.232	4513.276	4551.147	4610.424	4658.175	4679.580	4705.926	4687.813	4661.468
12.5	4383.196	4376.610	4453.999	4524.802	4631.829	4738.857	4814.600	4873.877	4870.584	4837.652
15.0	4277.815	4267.935	4363.437	4467.171	4615.364	4778.375	4934.800	5063.233	5091.225	5056.647
17.5	4192.193	4185.606	4290.987	4426.007	4607.131	4804.720	5036.888	5267.409	5349.738	5318.453
20.0	4160.908	4157.614	4274.522	4422.714	4623.597	4840.945	5122.510	5466.646	5637.890	5613.191
22.5	4197.132	4193.839	4307.453	4467.171	4679.580	4911.748	5199.900	5644.476	5937.567	5932.628
25.0	4292.634	4292.634	4409.541	4569.259	4784.961	5020.422	5303.634	5809.134	6250.418	6284.996
27.5	4473.758	4473.758	4579.139	4737.211	4944.680	5178.494	5443.593	5950.740	6561.621	6663.709
30.0	4728.978	4725.685	4834.359	4962.792	5155.442	5384.317	5632.950	6095.639	6872.825	7070.414
32.5	5048.414	5046.768	5150.502	5250.944	5405.722	5644.476	5873.351	6265.237	7195.555	7531.457
35.0	5489.698	5492.991	5581.906	5623.071	5715.279	5949.093	6171.382	6477.646	7498.525	8013.905
37.5	6103.872	6149.976	6187.848	6153.269	6131.864	6324.514	6555.035	6747.685	7796.556	8537.517
40.0	7077.001	7052.302	7065.475	6912.343	6731.219	6818.488	7011.138	7058.888	8097.880	9108.880
42.5	8208.201	8196.675	8199.968	8007.318	7630.252	7480.413	7574.268	7450.774	8402.498	9744.460
45.0	9285.065	9357.514	9454.662	9280.125	8848.721	8470.007	8405.791	7929.929	8705.468	10422.851
47.5	9897.592	9993.094	10243.374	10437.670	10291.125	9843.255	9561.690	8568.802	9071.009	11188.511
50.0	9660.485	9777.392	10184.097	10743.934	11246.141	11517.827	11260.960	9448.076	9508.999	12100.716
52.5	8835.548	8949.162	9446.429	10165.985	11198.390	12621.036	13431.153	10729.115	10065.543	13164.407
55.0	7605.553	7717.520	8231.253	9000.206	10291.125	12624.329	15711.666	12723.124	10822.970	14517.896
57.5	5950.740	6041.302	6362.385	7202.141	8661.011	11519.474	17180.416	15654.036	11845.496	16171.062
60.0	3986.370	4027.535	4132.916	4776.729	6171.382	9309.763	17427.403	19444.463	13210.511	18468.041
62.5	2567.018	2529.147	2552.199	2739.909	3538.500	5843.712	16088.733	22202.484	15048.094	21255.701
65.0	1557.665	1572.484	1649.873	1676.218	1931.438	2996.776	12245.615	22530.154	17117.845	23918.221
67.5	950.077	971.482	1027.466	1099.915	1236.582	1615.295	5954.033	20397.833	18925.790	25546.688
70.0	419.878	439.637	500.560	675.098	864.454	1068.630	2598.303	15645.803	18090.974	22844.651
72.5	271.686	283.212	273.332	362.248	545.018	838.109	1407.826	9135.226	12989.869	13124.889
75.0	209.116	218.995	202.529	258.513	357.308	584.536	955.016	4118.097	6439.774	4388.136
77.5	169.598	184.417	171.244	202.529	278.272	409.998	601.002	1905.093	2705.331	1215.176
80.0	154.779	164.658	136.666	149.839	210.762	314.497	372.127	978.069	1203.650	717.909
82.5	128.433	128.433	102.088	100.441	123.493	223.935	255.220	401.766	587.829	401.766
85.0	75.743	82.329	69.156	67.510	74.096	131.726	172.891	200.883	293.091	230.521
87.5	32.932	36.225	34.578	31.285	36.225	54.337	85.622	100.441	130.080	128.433
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	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574	4297.574
2.5	4330.505	4302.513	4304.160	4286.048	4284.401	4262.996	4244.883	4231.711	4221.831	4216.891
5.0	4394.722	4355.204	4343.678	4292.634	4244.883	4185.606	4119.743	4065.406	4020.948	3988.017
7.5	4501.750	4447.413	4421.067	4322.272	4220.184	4090.105	3950.145	3825.005	3731.150	3663.640
10.0	4645.002	4579.139	4533.035	4379.903	4195.486	3964.965	3741.030	3550.026	3421.593	3342.557
12.5	4819.540	4737.211	4669.701	4442.473	4154.321	3816.772	3508.862	3293.160	3179.546	3128.502
15.0	5031.948	4934.800	4837.652	4531.388	4108.217	3640.588	3289.867	3112.036	3065.932	3079.105
17.5	5288.815	5173.554	5046.768	4643.356	4065.406	3469.344	3125.209	3042.880	3087.337	3161.434
20.0	5578.613	5441.947	5287.168	4766.849	4002.836	3301.393	3046.173	3077.458	3187.779	3309.626
22.5	5906.282	5741.624	5572.027	4896.929	3915.567	3176.253	3064.285	3182.839	3335.971	3477.577
25.0	6258.651	6103.872	5881.584	5040.181	3813.479	3138.381	3153.201	3321.152	3523.681	3691.632
27.5	6640.657	6492.465	6224.072	5170.261	3714.684	3186.132	3284.927	3497.336	3752.556	3966.611

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CANDELA TABULATION - (Cont.)

30.0	7085.234	6902.463	6596.199	5290.461	3648.821	3301.393	3461.111	3752.556	4073.639	4346.971
32.5	7542.983	7353.626	7012.784	5389.256	3673.520	3470.991	3694.925	4096.691	4519.862	4888.696
35.0	8053.423	7865.713	7460.654	5476.525	3783.841	3699.865	4040.707	4562.673	5082.992	5494.637
37.5	8616.553	8432.136	7949.688	5568.733	3988.017	3992.956	4455.645	5089.579	5644.476	6041.302
40.0	9237.314	9064.423	8483.180	5675.761	4271.228	4379.903	4905.162	5565.440	6103.872	6457.887
42.5	9910.765	9747.753	9046.310	5805.841	4645.002	4761.909	5287.168	5898.049	6352.506	6589.613
45.0	10659.959	10508.473	9657.192	5977.085	4997.370	5086.286	5527.569	6001.784	6260.297	6273.470
47.5	11498.068	11363.048	10297.711	6201.020	5300.341	5272.349	5525.922	5751.504	5748.211	5611.545
50.0	12556.819	12331.237	11015.620	6466.120	5514.396	5232.831	5222.952	5157.089	4997.370	4836.005
52.5	13724.244	13478.904	11728.589	6746.038	5586.846	4984.198	4719.098	4486.930	4174.080	4001.189
55.0	15262.150	14860.384	12471.197	7040.776	5580.260	4633.476	4151.028	3798.660	3436.412	3289.867
57.5	17058.569	16394.997	13292.840	7327.281	5568.733	4279.461	3592.838	3253.642	2932.559	2912.800
60.0	19335.789	18156.837	14017.335	7580.854	5558.854	3951.792	3156.494	2940.792	2641.114	2642.761
62.5	21881.401	19918.678	14443.800	7597.320	5456.766	3610.950	2850.230	2741.556	2320.031	2217.943
65.0	24158.621	20956.023	13974.524	7118.165	5020.422	3194.365	2545.613	2382.601	1824.411	1705.857
67.5	25263.477	19786.952	11761.521	5774.556	4131.269	2560.432	2068.104	1905.093	1353.489	1149.313
70.0	21273.813	15122.191	7534.750	3897.455	2897.981	1804.652	1491.801	1371.601	879.274	739.314
72.5	11348.229	7898.644	3769.022	2143.847	1766.780	1202.003	1076.863	852.928	564.777	503.853
75.0	3326.092	2191.598	1737.142	1147.666	1029.112	849.635	708.029	556.544	401.766	358.954
77.5	997.827	846.342	871.041	742.608	696.503	615.821	462.689	401.766	307.910	286.505
80.0	602.648	498.914	505.500	563.130	551.604	398.472	327.669	299.678	309.557	270.039
82.5	372.127	288.151	289.798	469.275	345.782	256.866	230.521	232.168	497.267	528.552
85.0	225.581	176.184	179.477	302.971	176.184	159.718	166.305	174.537	350.722	141.606
87.5	128.433	97.148	110.321	108.674	90.562	77.389	51.044	52.691	228.875	47.751
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

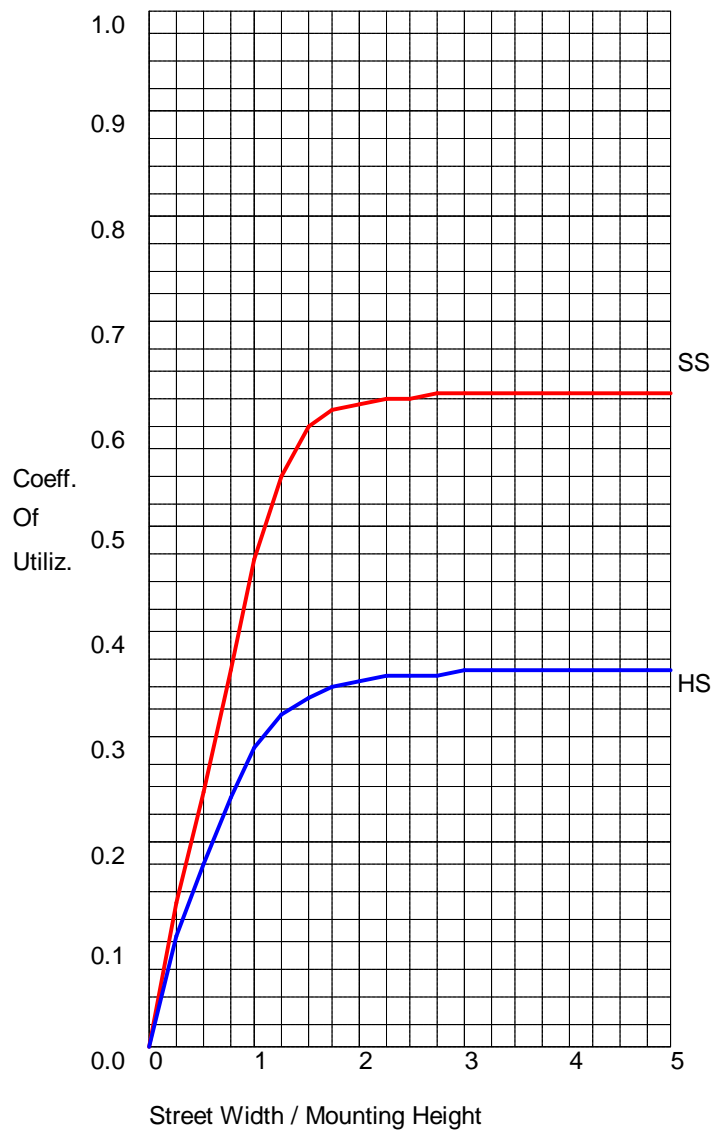
	<u>175.0</u>	<u>180.0</u>
0.0	4297.574	4297.574
2.5	4213.598	4213.598
5.0	3978.137	3974.844
7.5	3617.536	3634.002
10.0	3293.160	3301.393
12.5	3105.450	3097.217
15.0	3087.337	3090.631
17.5	3200.951	3207.538
20.0	3365.609	3372.196
22.5	3551.673	3563.199
25.0	3783.841	3798.660
27.5	4086.812	4101.631
30.0	4500.103	4519.862
32.5	5048.414	5071.466
35.0	5654.356	5679.054
37.5	6199.374	6197.727
40.0	6558.328	6558.328
42.5	6606.079	6607.725
45.0	6210.900	6156.563
47.5	5481.465	5463.352
50.0	4689.460	4672.994
52.5	3839.825	3818.419
55.0	3189.425	3179.546
57.5	2881.515	2869.989
60.0	2571.958	2552.199
62.5	2096.096	2092.803
65.0	1574.130	1560.958

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CANDELA TABULATION - (Cont.)

67.5	1052.165	1017.586
70.0	689.917	668.511
72.5	505.500	513.733
75.0	380.360	408.352
77.5	298.031	324.376
80.0	311.204	317.790
82.5	561.484	566.424
85.0	92.208	88.915
87.5	29.638	27.992
90.0	0.000	0.000

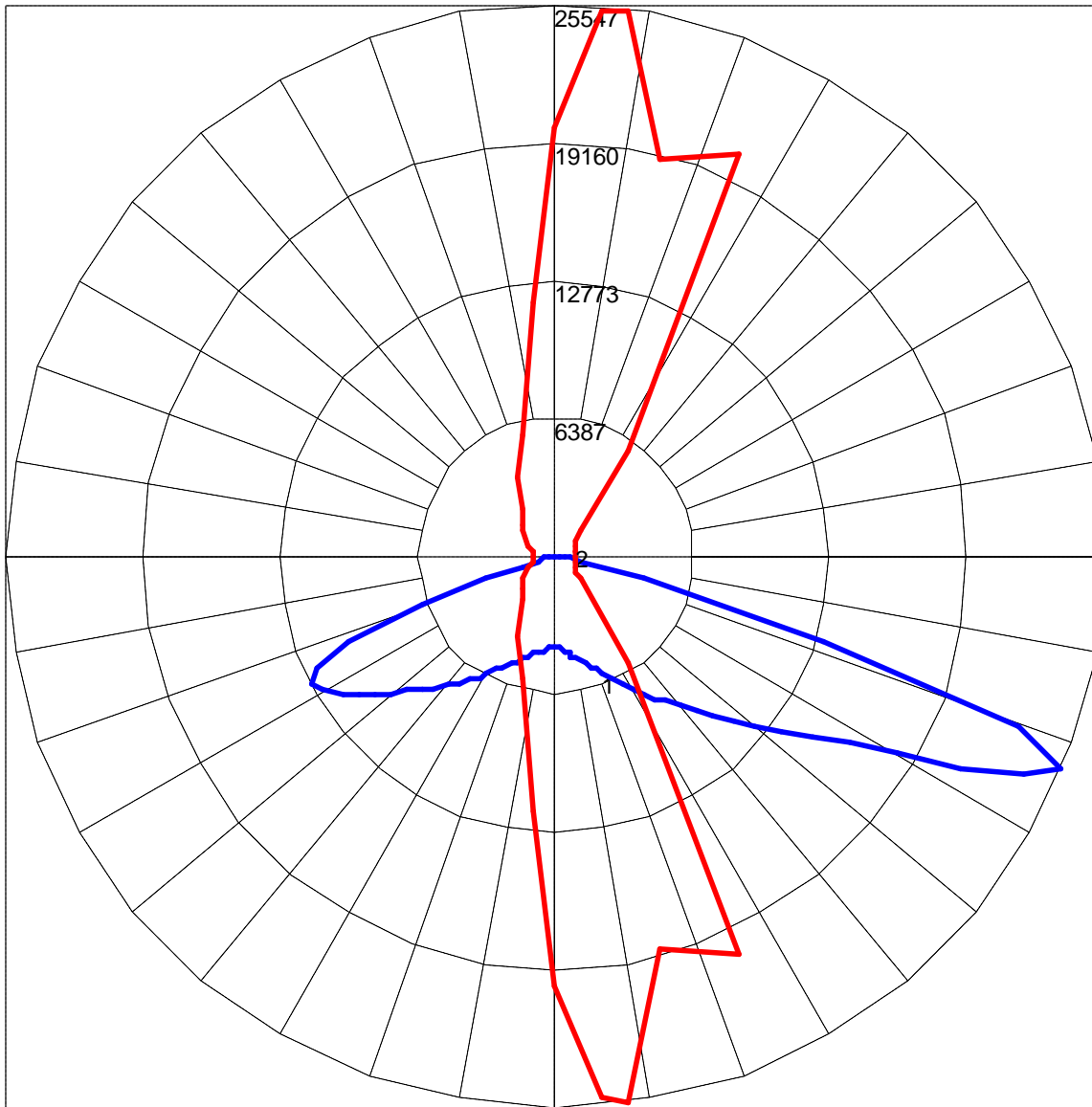
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

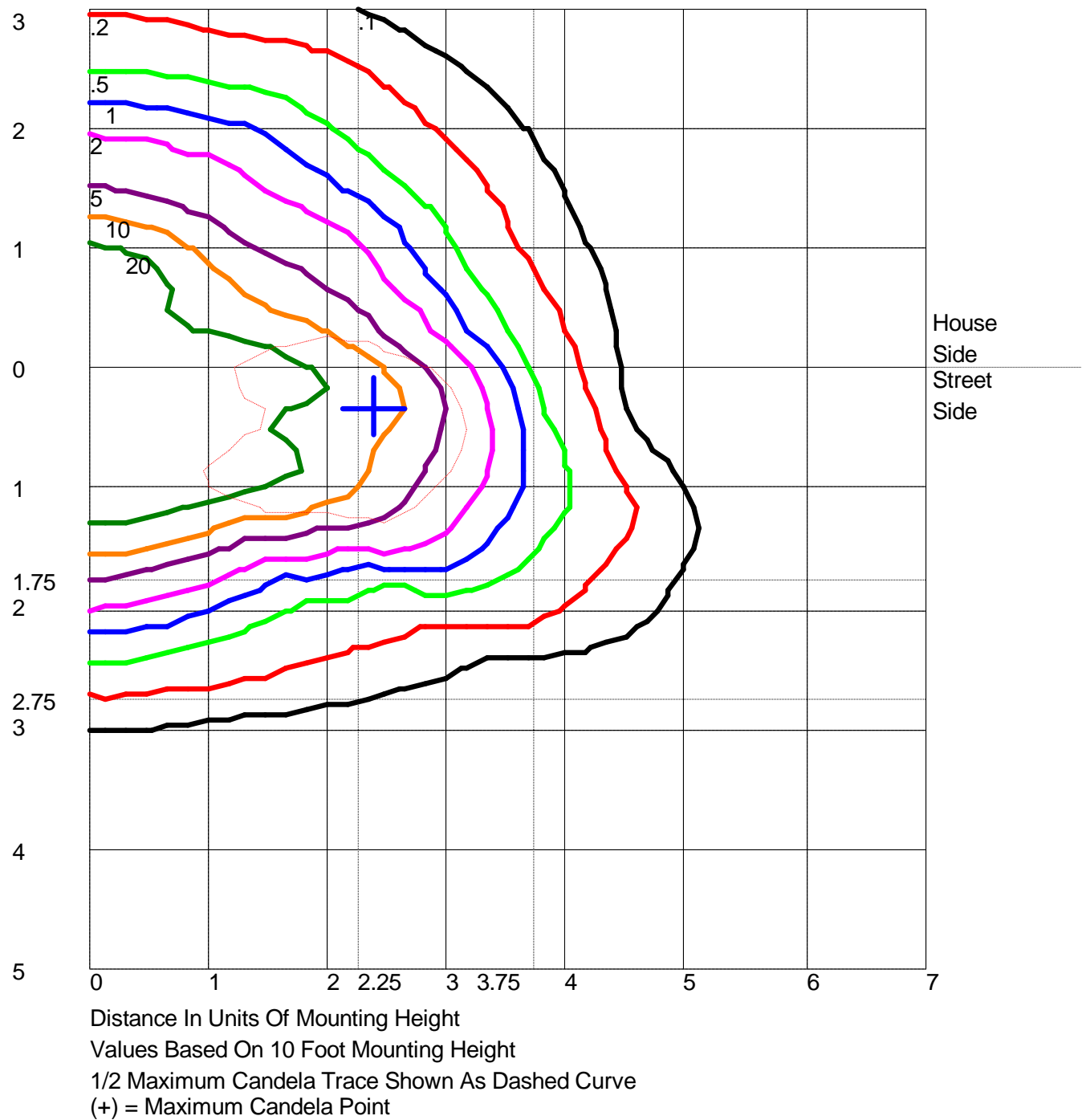
	Lumens	Percent Of Luminaire
Downward Street Side	18662.6	63.3
Downward House Side	10832.0	36.7
Downward Total	29494.6	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	29494.6	100.0

POLAR GRAPH

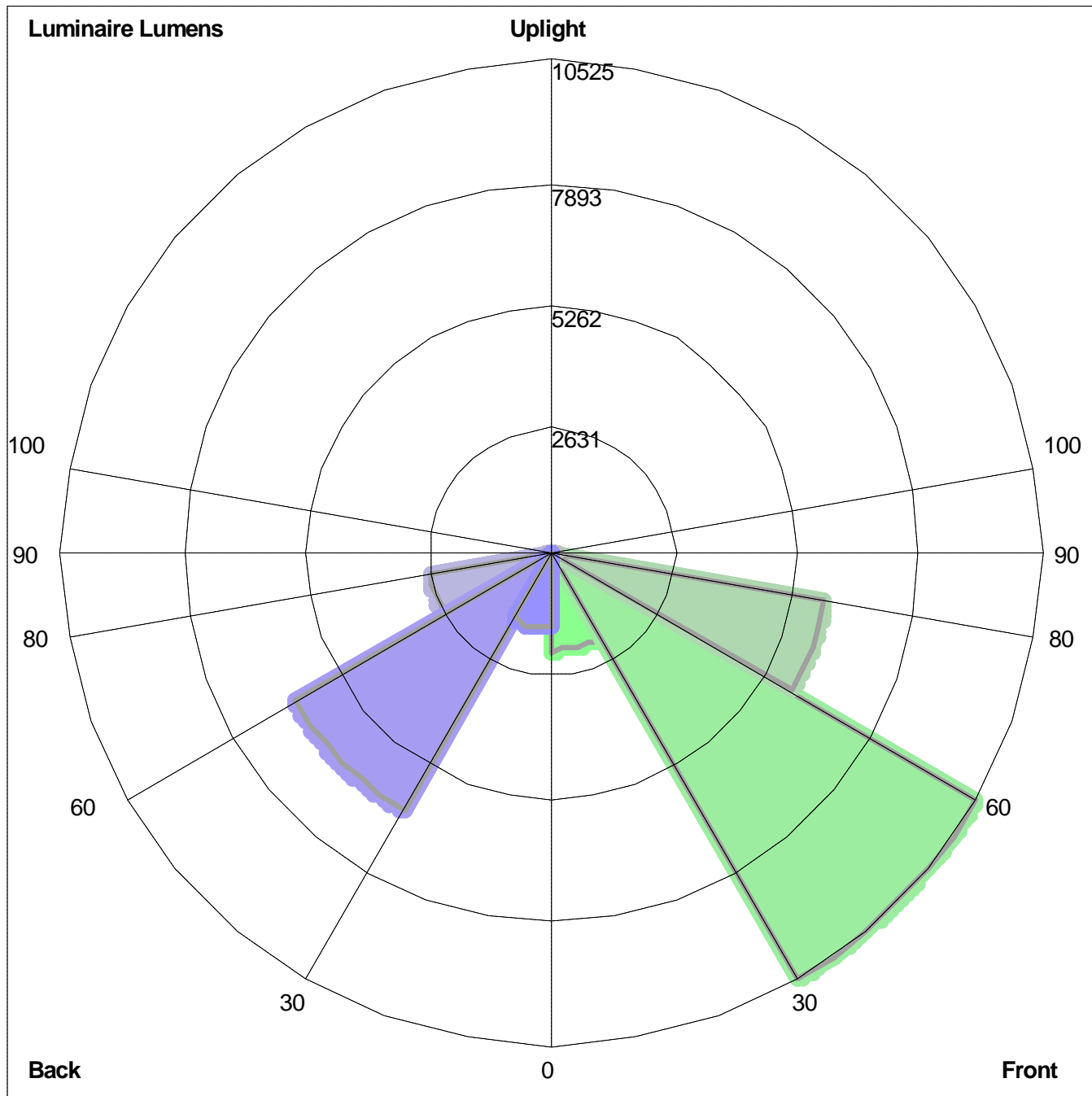


Maximum Candela = 25546.688 Located At Horizontal Angle = 82.5, Vertical Angle = 67.5
1 - Vertical Plane Through Horizontal Angles (82.5 - 262.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=2100.9, Medium=10524.6, High= 5943.0, Very High=94.1
Back: Low= 1637.0, Medium=6395.2, High=2683.2, Very High=116.6
Uplight: Low=0.0, High=0.0

BUG Rating : B4-U0-G4