



IES ROAD REPORT

PHOTOMETRIC FILENAME : HLN-FT-LED-27L-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-27L-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 IV
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	24329
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	238
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Maximum Candela	16824.082
Maximum Candela Angle	50H 70V
Maximum Candela (<90 Degrees Vertical)	16824.082
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	5096.684 (20.9% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

IES ROAD REPORT
PHOTOMETRIC FILENAME : HLN-FT-LED-27L-30.IES

LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1474.8	N.A.	6.1
FM - Front-Medium (30-60)	6744.2	N.A.	27.7
FH - Front-High (60-80)	9364.4	N.A.	38.5
FVH - Front-Very High (80-90)	497.3	N.A.	2.0
BL - Back-Low (0-30)	1447.5	N.A.	5.9
BM - Back-Medium (30-60)	3315.6	N.A.	13.6
BH - Back-High (60-80)	1382.6	N.A.	5.7
BVH - Back-Very High (80-90)	103.1	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	24329.5	N.A.	100.0
BUG Rating	B3-U0-G4		

IES ROAD REPORT
PHOTOMETRIC FILENAME : HLN-FT-LED-27L-30.IES

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	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908
2.5	3255.847	3255.847	3251.880	3255.847	3263.782	3275.684	3269.072	3275.684	3284.941	3290.231	
5.0	3187.080	3183.113	3184.436	3201.627	3224.109	3251.880	3249.235	3267.749	3284.941	3299.488	
7.5	3086.575	3081.285	3095.832	3126.248	3171.211	3228.076	3237.333	3273.039	3319.324	3341.806	
10.0	3025.743	3019.131	3038.967	3075.996	3134.183	3210.884	3228.076	3279.651	3358.998	3405.283	
12.5	3020.453	3016.486	3038.967	3077.318	3136.828	3218.819	3239.978	3302.133	3405.283	3481.985	
15.0	3038.967	3033.677	3058.804	3107.734	3173.856	3261.137	3287.586	3355.030	3471.405	3574.555	
17.5	3085.253	3079.963	3106.412	3151.375	3229.399	3333.871	3364.287	3433.054	3552.074	3669.771	
20.0	3165.921	3161.954	3189.725	3233.366	3312.712	3419.830	3448.924	3524.303	3642.000	3762.342	
22.5	3283.619	3280.974	3308.745	3349.741	3417.185	3511.078	3536.205	3603.649	3718.701	3846.978	
25.0	3440.989	3444.956	3458.181	3492.564	3540.172	3606.294	3622.163	3680.351	3784.823	3906.488	
27.5	3627.453	3631.420	3634.065	3661.836	3679.028	3713.412	3713.412	3754.407	3841.688	3950.128	
30.0	3837.721	3841.688	3841.688	3839.043	3832.431	3828.464	3813.917	3833.754	3887.974	3972.610	
32.5	4053.279	4058.568	4047.989	4033.442	4006.993	3958.063	3926.324	3922.357	3931.614	3985.834	
35.0	4267.514	4274.126	4260.902	4230.486	4185.523	4119.401	4078.405	4034.765	3987.157	3997.736	
37.5	4488.361	4491.006	4492.329	4452.656	4390.501	4311.154	4262.224	4186.845	4065.181	4017.573	
40.0	4729.046	4735.658	4735.658	4695.985	4631.185	4565.063	4500.263	4386.534	4189.490	4059.891	
42.5	5025.272	5045.109	5033.207	4994.856	4931.379	4869.224	4803.102	4653.666	4375.954	4143.205	
45.0	5460.355	5436.551	5425.971	5391.588	5338.690	5277.858	5202.479	5034.529	4631.185	4274.126	
47.5	6006.523	5978.751	5973.462	5945.690	5902.050	5820.059	5728.810	5543.669	5004.113	4481.749	
50.0	6715.350	6682.289	6715.350	6715.350	6666.420	6540.788	6427.059	6185.052	5484.159	4816.327	
52.5	7519.394	7537.908	7670.152	7686.021	7654.283	7466.496	7380.538	7019.512	6124.220	5248.764	
55.0	8283.764	8326.082	8595.860	8770.422	8799.516	8651.403	8508.579	8076.141	6938.843	5851.797	
57.5	8792.904	8872.250	9316.590	9881.272	10047.899	9940.782	9829.697	9352.296	7990.183	6662.453	
60.0	9013.751	9131.448	9734.481	10629.773	11255.287	11341.246	11412.657	10875.747	9311.300	7645.026	
62.5	9103.677	9253.113	9947.394	11097.917	12211.411	12868.664	13131.829	12601.531	10796.400	8820.675	
65.0	9347.006	9516.278	10237.008	11566.060	13143.731	14525.681	14852.324	14323.348	12321.174	9463.381	
67.5	9708.032	9893.174	10646.965	12315.884	14426.498	15903.664	16293.784	15584.956	12863.374	9332.459	
70.0	9161.865	9447.512	10685.315	13201.919	15722.489	16777.797	16824.082	15680.171	11859.642	7553.777	
72.5	7963.734	8158.133	9472.638	12873.954	15756.873	16423.383	16182.699	13967.612	8267.599	4160.396	
75.0	5451.098	5626.982	7052.573	9977.810	13270.686	14008.607	12728.485	9824.407	4867.902	1855.383	
77.5	2483.542	2655.460	3975.255	6145.379	8992.592	9386.679	7986.215	5970.817	2326.172	1046.050	
80.0	1117.462	1251.028	1957.211	3218.819	4432.819	5096.684	4381.244	3130.216	1229.869	636.094	
82.5	600.388	698.248	1216.645	1860.673	2269.307	2684.553	2217.732	1549.900	707.505	378.218	
85.0	419.213	476.078	830.492	1272.187	1499.647	1191.518	1012.989	637.416	400.699	239.362	
87.5	300.194	359.704	608.322	887.357	1024.891	478.723	292.259	185.142	175.885	132.244	
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	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908	3288.908
2.5	3308.745	3288.908	3303.455	3321.969	3323.292	3328.582	3324.614	3319.324	3316.680	3310.067	
5.0	3325.937	3314.035	3331.226	3352.385	3343.128	3333.871	3320.647	3308.745	3307.423	3302.133	
7.5	3368.255	3357.675	3380.157	3381.479	3348.418	3336.516	3327.259	3316.680	3312.712	3307.423	
10.0	3434.377	3421.152	3438.344	3410.573	3362.965	3345.773	3332.549	3331.226	3345.773	3347.096	
12.5	3517.690	3499.176	3508.433	3454.213	3388.091	3358.998	3360.320	3369.577	3382.802	3386.769	
15.0	3616.873	3590.425	3590.425	3500.499	3415.863	3385.446	3386.769	3390.736	3402.638	3402.638	
17.5	3725.314	3689.608	3677.706	3545.462	3446.279	3414.540	3401.316	3394.704	3399.993	3398.671	
20.0	3835.076	3791.436	3764.987	3593.070	3476.695	3429.087	3409.250	3388.091	3389.414	3385.446	
22.5	3928.969	3886.651	3844.333	3631.420	3496.531	3439.667	3403.961	3376.189	3366.932	3361.643	
25.0	4005.671	3967.320	3910.455	3657.869	3507.111	3443.634	3389.414	3351.063	3336.516	3335.194	
27.5	4054.601	4024.185	3956.741	3667.126	3505.789	3430.409	3364.287	3319.324	3302.133	3298.165	

IES ROAD REPORT
PHOTOMETRIC FILENAME : HLN-FT-LED-27L-30.IES

CANDELA TABULATION - (Cont.)

30.0	4074.438	4045.344	3973.932	3655.224	3485.952	3402.638	3328.582	3277.006	3257.170	3251.880
32.5	4067.826	4037.409	3963.353	3619.518	3448.924	3364.287	3283.619	3228.076	3198.982	3197.660
35.0	4041.377	4000.381	3927.647	3560.009	3393.381	3310.067	3229.399	3160.632	3131.538	3135.505
37.5	4008.316	3948.806	3872.104	3484.629	3325.937	3243.945	3160.632	3087.897	3057.481	3062.771
40.0	3979.222	3897.231	3808.627	3390.736	3242.623	3161.954	3074.673	3000.616	2980.780	3135.505
42.5	3967.320	3856.235	3737.216	3277.006	3131.538	3064.094	2963.588	2892.176	3041.612	3027.065
45.0	3995.091	3843.011	3682.995	3159.309	3008.551	2941.107	2835.311	2782.414	3021.775	2810.185
47.5	4077.083	3874.749	3656.547	3040.290	2856.470	2804.895	2693.810	2758.610	2836.634	2590.660
50.0	4246.355	3965.998	3680.351	2915.980	2692.488	2644.880	2543.052	2714.969	2614.464	2412.131
52.5	4512.165	4132.625	3759.697	2810.185	2511.314	2478.253	2388.327	2593.305	2416.098	2260.050
55.0	4936.669	4411.660	3939.549	2744.063	2334.107	2306.335	2241.536	2402.874	2212.442	2105.325
57.5	5501.351	4807.070	4196.102	2732.161	2163.512	2138.386	2118.549	2180.704	2019.366	1905.636
60.0	6148.024	5302.985	4481.749	2740.096	2016.721	1984.982	1987.627	1934.730	1785.294	1731.074
62.5	6854.207	5588.632	4590.189	2701.745	1873.898	1830.257	1827.612	1684.789	1581.638	1594.863
65.0	6993.063	5366.462	4276.771	2533.795	1701.980	1658.340	1630.569	1478.488	1381.950	1479.810
67.5	6321.263	4518.778	3373.545	2184.671	1486.423	1456.006	1462.619	1305.248	1191.518	1401.786
70.0	4349.505	3012.518	2040.525	1649.083	1237.804	1235.159	1318.473	1188.874	1022.246	1347.566
72.5	1992.917	1482.455	1096.303	1089.691	960.091	1015.634	1167.715	1116.139	871.488	1233.837
75.0	962.736	785.529	621.547	699.571	671.800	740.566	937.610	930.998	644.028	897.937
77.5	585.841	433.760	372.928	435.083	443.017	505.172	646.673	558.070	399.377	657.253
80.0	342.512	283.002	251.264	301.516	327.965	366.316	357.059	379.540	297.549	435.083
82.5	226.137	193.076	174.562	214.235	249.941	210.268	251.264	281.680	197.044	281.680
85.0	148.113	122.987	112.407	154.725	137.534	134.889	158.693	157.370	105.795	173.240
87.5	76.702	60.832	59.510	74.057	66.122	62.155	88.603	75.379	46.285	81.991
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

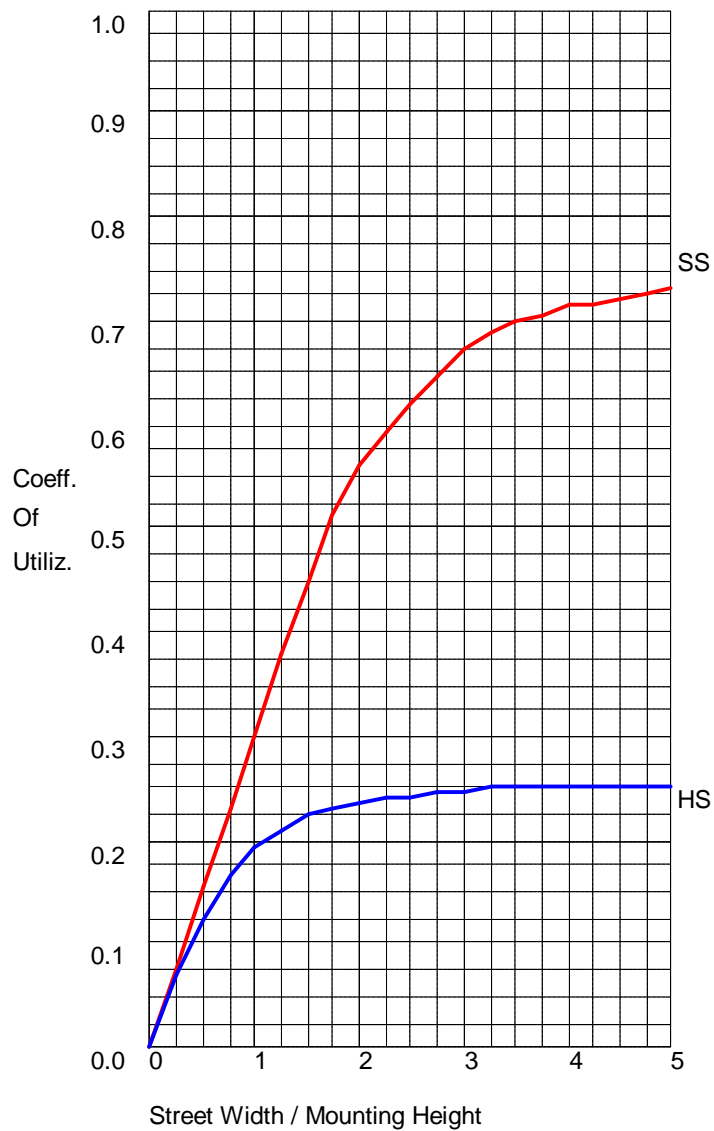
	175	180
0.0	3288.908	3288.908
2.5	3306.100	3300.810
5.0	3300.810	3290.231
7.5	3303.455	3295.521
10.0	3351.063	3339.161
12.5	3390.736	3381.479
15.0	3405.283	3398.671
17.5	3403.961	3397.348
20.0	3392.059	3380.157
22.5	3366.932	3357.675
25.0	3337.839	3332.549
27.5	3302.133	3295.521
30.0	3257.170	3253.202
32.5	3208.240	3202.950
35.0	3142.118	3135.505
37.5	3091.865	3093.187
40.0	3103.767	3098.477
42.5	2896.144	2884.242
45.0	2666.039	2651.492
47.5	2486.187	2462.383
50.0	2331.462	2306.335
52.5	2175.414	2156.900
55.0	2010.109	1986.305
57.5	1782.649	1758.845
60.0	1602.797	1569.736
62.5	1442.782	1400.464
65.0	1303.926	1252.351

IES ROAD REPORT
PHOTOMETRIC FILENAME : HLN-FT-LED-27L-30.IES

CANDELA TABULATION - (Cont.)

67.5	1217.967	1145.233
70.0	1186.229	1084.401
72.5	1135.976	1007.699
75.0	953.479	817.268
77.5	940.255	841.072
80.0	830.492	810.656
82.5	665.187	729.987
85.0	480.046	569.972
87.5	298.871	317.386
90.0	0.000	0.000

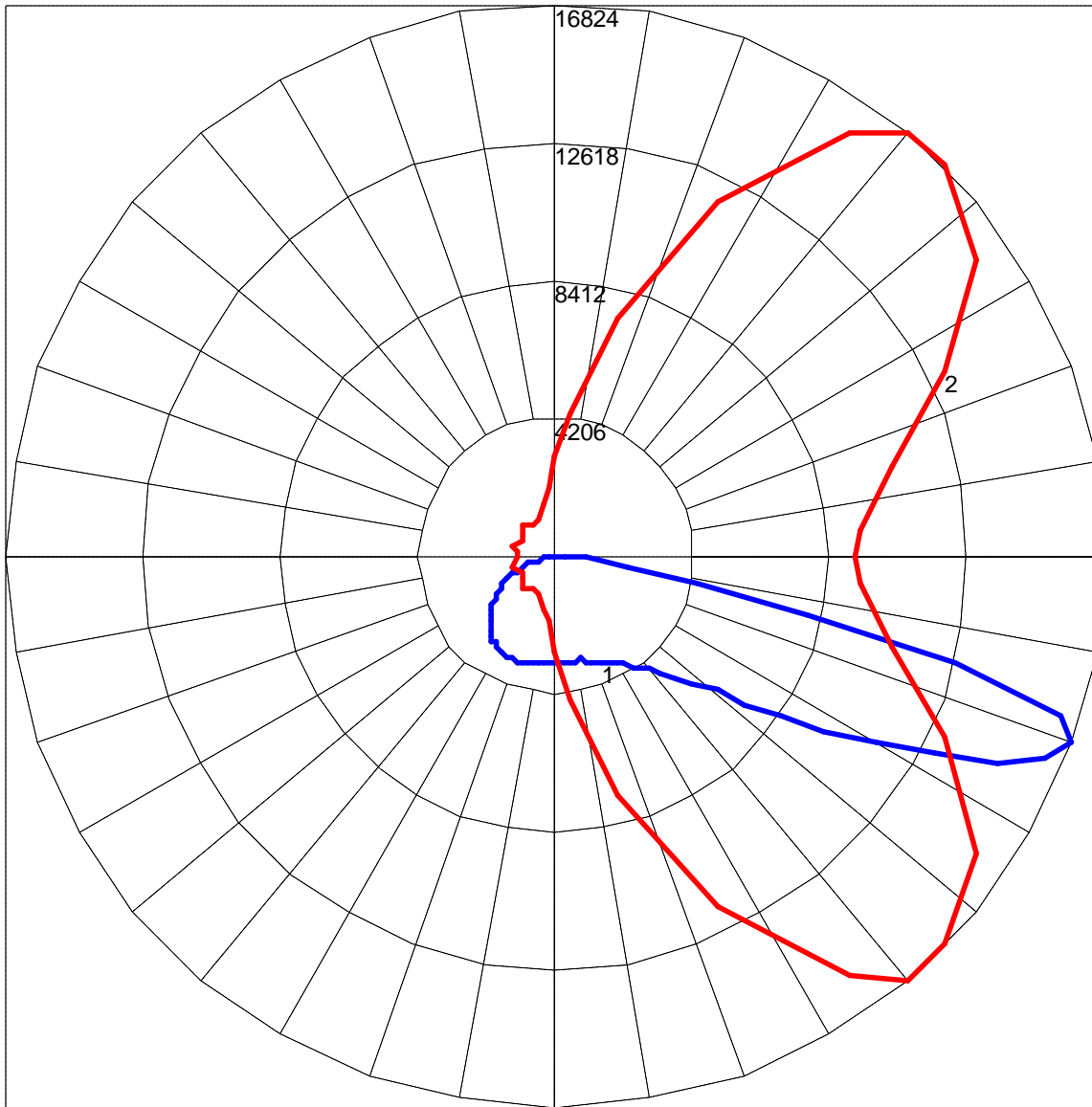
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

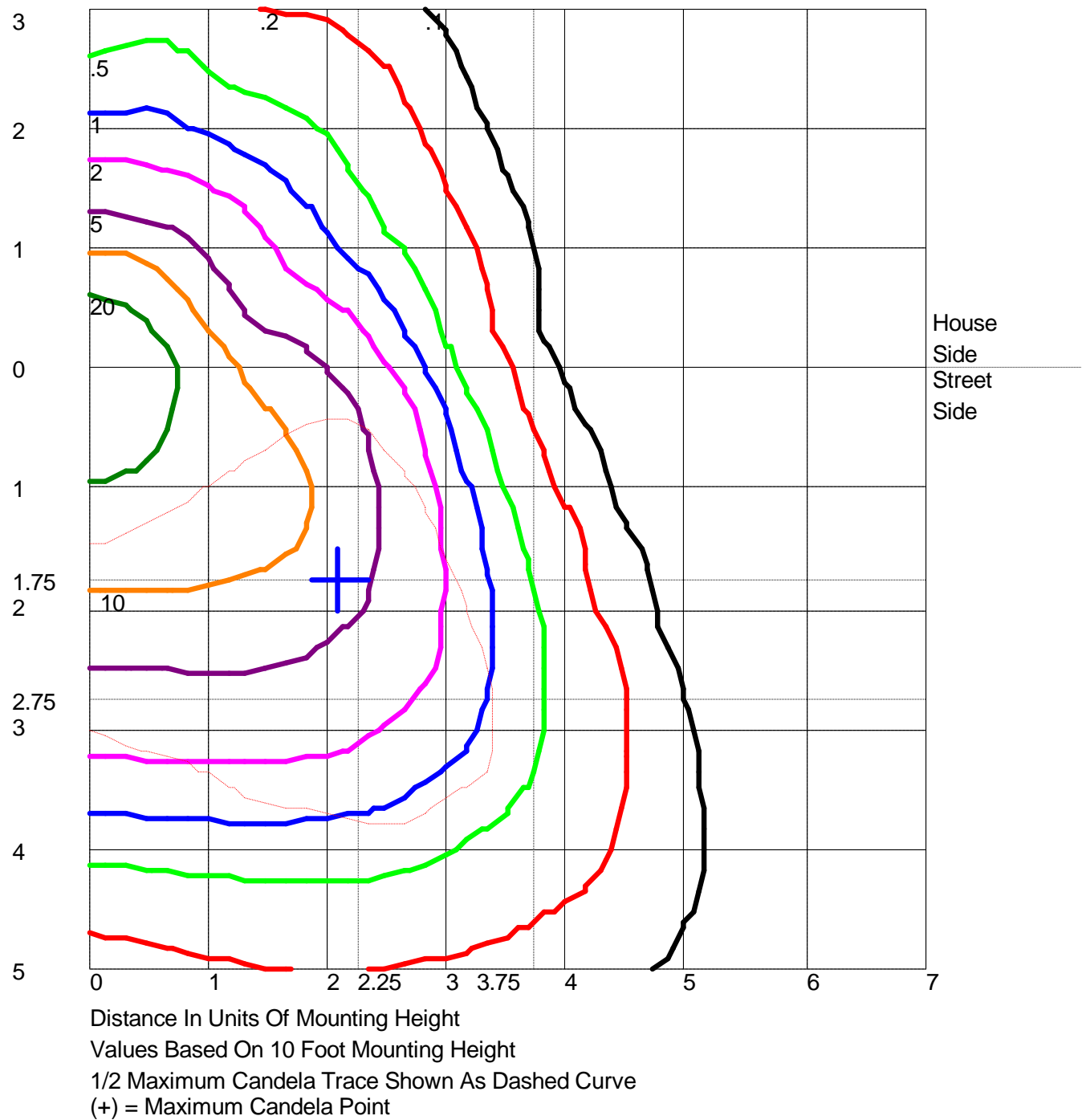
	Lumens	Percent Of Luminaire
Downward Street Side	18080.7	74.3
Downward House Side	6248.7	25.7
Downward Total	24329.4	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	24329.4	100.0

POLAR GRAPH

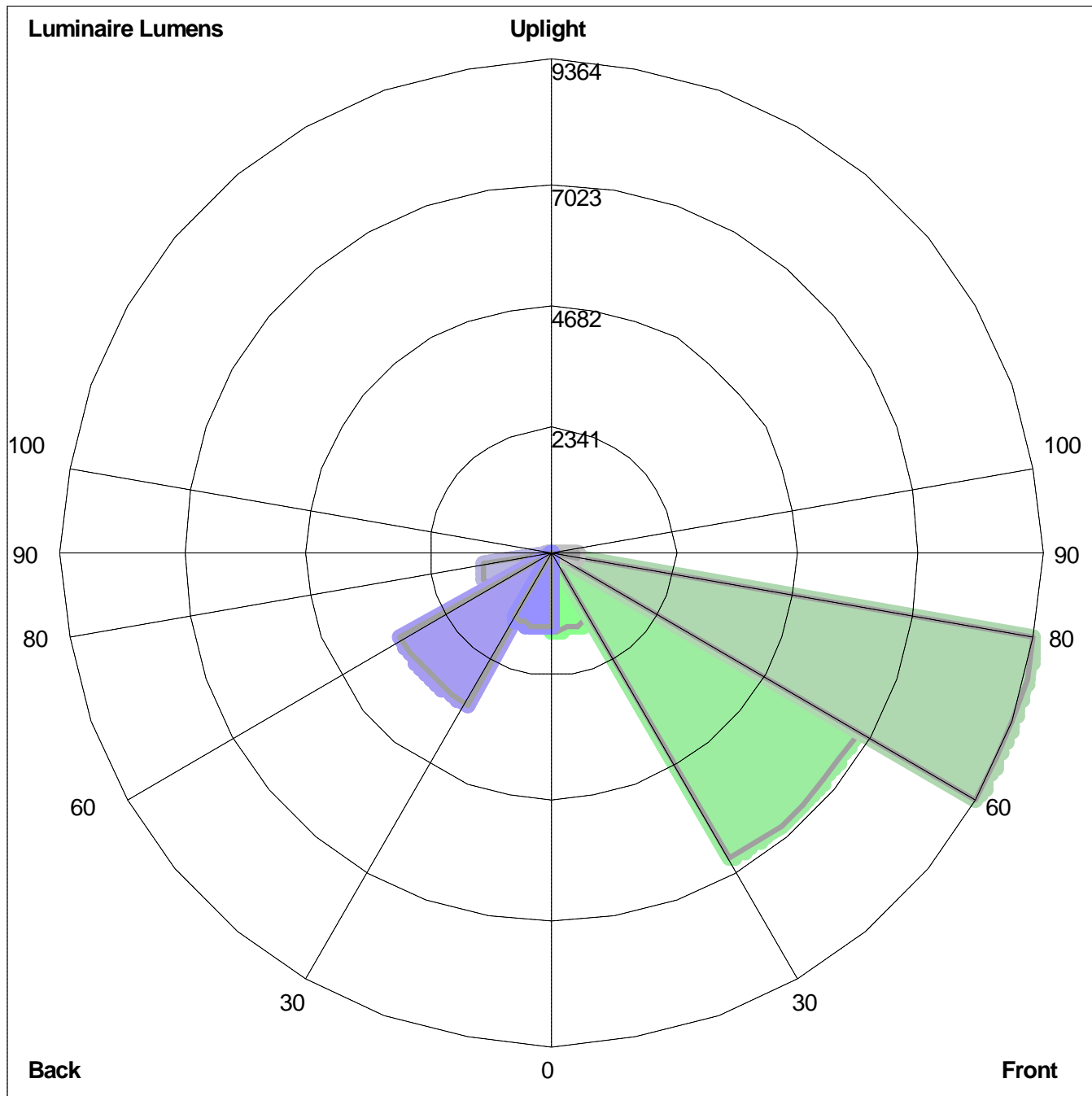


Maximum Candela = 16824.082 Located At Horizontal Angle = 50, Vertical Angle = 70
1 - Vertical Plane Through Horizontal Angles (50 - 230) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=1474.8, Medium=6744.2, High=9364.4, Very High=497.3
Back: Low=1447.5, Medium=3315.6, High=1382.6, Very High=103.1
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G4