



IES ROAD REPORT
PHOTOMETRIC FILENAME : HSUL-P8-18FT-240LED.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]
 [TESTLAB] Photopia 2014.1.2 see: www.ltioptics.com/ies
 [ISSUE DATE] 9.15.2015
 [TEST DATE] Tue Jun 23 08:58:18 2015
 [MANUFAC] Evergreen Lighting
 [LUMCAT] HSUL-P8-18'-240LED
 [LUMINAIRE] Light Column Post, Half Sully
 [_SHIELD] Perforated Shield, 180
 [LAMP] 24 - Alta PN110B Boards

CHARACTERISTICS

IES Classification	N.A.
Longitudinal Classification	N.A.
Lumens Per Lamp	60 (240 lamps)
Total Lamp Lumens	14400
Luminaire Lumens	6320
Downward Total Efficiency	22 %
Total Luminaire Efficiency	44 %
Luminaire Efficacy Rating (LER)	26
Total Luminaire Watts	240
Ballast Factor	1.00
Upward Waste Light Ratio	0.50
Maximum Candela	1083.147
Maximum Candela Angle	165H 100V
Maximum Candela (<90 Degrees Vertical)	1081.742
Maximum Candela Angle (<90 Degrees Vertical)	165H 85V
Maximum Candela At 90 Degrees Vertical	1079.063 (7.5% Lamp Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	1081.742 (7.5% Lamp Lumens)
Cutoff Classification (deprecated)	Non-Cutoff



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LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	26.4	0.2	0.4
FM - Front-Medium (30-60)	275.4	1.9	4.4
FH - Front-High (60-80)	371.7	2.6	5.9
FVH - Front-Very High (80-90)	218.5	1.5	3.5
BL - Back-Low (0-30)	93.3	0.6	1.5
BM - Back-Medium (30-60)	735.0	5.1	11.6
BH - Back-High (60-80)	903.3	6.3	14.3
BVH - Back-Very High (80-90)	517.6	3.6	8.2
UL - Uplight-Low (90-100)	739.6	5.1	11.7
UH - Uplight-High (100-180)	2439.7	16.9	38.6
Total	6320.5	43.8	100.0
BUG Rating	B2-U5-G4		

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CANDELA TABULATION

Vert. Angles **Horizontal Angles**

	<u>0</u>	<u>15</u>	<u>30</u>	<u>45</u>	<u>60</u>	<u>75</u>	<u>90</u>	<u>105</u>	<u>120</u>	<u>135</u>
0	7.902	7.902	7.902	7.902	7.902	7.902	7.902	7.902	7.902	7.902
5	0.335	0.603	0.870	0.536	3.348	5.157	29.598	18.147	23.973	17.679
10	0.870	1.206	2.745	6.228	15.938	35.223	45.335	38.438	66.831	45.669
15	2.210	1.340	11.250	18.147	28.125	60.938	75.938	100.982	118.728	148.862
20	17.946	20.357	24.375	35.424	66.897	105.938	130.848	164.130	210.335	223.527
25	46.541	52.232	44.130	71.318	101.451	149.732	197.144	248.840	260.894	320.291
30	76.607	77.478	87.255	96.630	148.125	189.041	247.166	319.353	373.527	424.956
35	114.509	120.402	102.255	131.451	188.973	255.938	308.304	393.818	463.728	496.943
40	140.424	143.840	155.558	164.867	200.894	294.509	366.563	457.166	547.166	572.210
45	155.693	182.210	175.313	191.919	270.000	323.304	430.380	543.482	634.019	676.808
50	204.107	198.081	207.054	226.473	280.782	334.220	492.389	575.424	692.880	738.482
55	219.375	232.500	213.482	254.331	297.321	393.951	513.215	620.022	746.117	808.595
60	245.357	251.720	250.313	269.130	323.907	430.715	536.585	658.326	788.304	842.277
65	262.902	272.679	269.732	296.183	364.821	424.019	594.576	705.068	816.897	880.782
70	285.201	290.693	292.032	340.245	373.193	478.728	578.103	746.384	858.482	945.536
75	293.706	302.345	306.294	323.304	384.174	485.090	629.933	747.590	888.282	952.299
80	308.169	303.549	306.696	355.380	395.625	496.742	652.970	768.215	920.693	980.960
85	320.424	319.286	350.492	366.362	416.318	497.745	639.107	808.125	909.710	995.157
90	317.076	306.228	333.683	369.375	417.120	522.924	644.532	791.183	935.625	1000.715
95	328.527	309.911	336.294	364.019	406.541	518.237	644.598	804.710	955.647	1013.907
100	316.473	300.470	309.710	352.568	428.169	495.335	642.791	823.326	909.443	1007.277
105	299.799	300.603	325.782	340.313	420.669	494.867	602.946	781.206	885.669	990.536
110	275.625	300.804	294.777	333.818	408.416	503.505	619.487	722.813	855.536	951.095
115	282.723	276.362	262.634	291.495	365.759	455.492	594.509	699.443	828.416	886.607
120	250.245	245.625	251.384	290.492	337.902	414.978	534.777	691.272	791.049	859.487
125	229.620	227.880	235.179	255.669	328.595	388.058	534.710	650.960	732.657	815.090
130	205.179	206.987	217.769	243.014	290.960	371.720	457.232	598.929	681.563	731.720
135	179.196	177.723	170.558	207.255	262.500	328.661	465.134	535.179	598.125	673.125
140	135.269	149.130	145.982	169.085	226.875	270.870	365.357	444.509	534.041	607.769
145	105.737	103.794	100.044	147.992	190.380	230.894	316.206	387.456	458.304	487.098
150	80.022	76.139	76.875	101.720	142.701	189.644	276.495	342.992	360.402	430.647
155	57.657	44.465	61.875	68.103	98.169	153.215	198.818	265.581	285.536	332.612
160	28.527	26.384	24.911	36.965	75.536	106.943	155.625	187.299	187.299	241.071
165	4.956	6.027	12.054	22.701	34.085	54.174	95.759	124.889	121.943	143.571
170	0.603	1.340	2.544	4.889	9.644	31.272	45.737	72.120	55.715	96.897
175	0.804	0.201	0.000	10.715	7.299	7.032	24.978	35.424	30.134	43.595
180	3.147	3.147	3.147	3.147	3.147	3.147	3.147	3.147	3.147	3.147

Vert. Angles **Horizontal Angles**

	<u>150</u>	<u>165</u>	<u>180</u>	<u>195</u>	<u>210</u>	<u>225</u>	<u>240</u>	<u>255</u>	<u>270</u>	<u>285</u>
0	7.902	7.902	7.902	7.902	7.902	7.902	7.902	7.902	7.902	7.902
5	28.794	16.808	27.321	27.054	23.103	28.125	15.335	24.644	25.044	23.438
10	89.598	80.960	88.862	96.027	74.397	83.304	73.460	60.804	31.875	11.585
15	144.644	158.237	166.607	138.416	143.438	154.487	135.470	89.666	86.919	63.014
20	241.071	249.978	266.585	251.853	264.644	237.791	203.505	166.541	137.946	105.402
25	328.125	329.196	355.916	373.794	334.487	337.032	282.456	225.603	192.657	151.875
30	447.255	459.242	477.120	468.617	443.438	416.652	365.960	307.568	245.157	185.223
35	545.157	535.044	532.500	564.845	521.853	521.519	460.916	384.911	319.220	223.929
40	641.652	617.277	645.068	622.902	587.813	580.514	528.482	482.612	382.902	287.009
45	697.902	730.044	718.394	725.291	734.732	648.750	598.326	515.223	442.634	333.549
50	792.389	803.169	785.625	795.201	773.639	731.183	665.759	561.495	494.331	348.617
55	836.183	870.134	868.125	864.041	824.465	827.144	740.960	626.384	499.620	374.666

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CANDELA TABULATION - (Cont.)

60	864.174	916.808	897.255	878.505	875.492	846.362	743.103	682.433	534.107	439.353
65	932.544	946.005	967.232	960.402	938.706	906.696	805.112	726.696	594.375	458.103
70	997.166	1005.335	987.992	981.027	1006.742	955.380	863.639	733.794	604.956	492.255
75	1013.304	1050.536	1037.813	1014.443	1000.044	985.245	873.014	774.576	634.085	479.331
80	1043.237	1037.544	1080.603	1039.286	1027.835	1006.541	896.585	816.027	654.242	510.804
85	1034.331	1081.742	1071.563	1051.272	1058.438	1012.970	929.264	806.652	671.919	502.166
90	1020.201	1075.313	1056.228	1067.144	1079.063	1013.772	932.813	817.166	665.022	517.166
95	1052.679	1082.544	1068.215	1051.607	1059.644	1001.519	935.826	805.514	653.639	508.460
100	1039.085	1083.147	1043.237	1062.120	1011.965	988.728	926.451	817.032	667.299	526.139
105	988.661	1014.978	1017.590	1037.679	1016.183	977.544	895.112	767.345	637.902	506.049
110	949.821	1012.299	1015.982	1005.536	1027.902	918.617	863.571	764.331	633.951	490.313
115	930.669	951.429	993.348	991.674	973.193	930.804	821.786	706.206	563.772	471.831
120	908.571	884.264	943.929	906.495	915.134	878.438	779.130	684.644	557.946	439.889
125	849.911	849.375	864.576	905.625	862.769	798.683	769.821	627.456	511.875	410.759
130	772.232	761.250	789.041	818.370	821.720	724.554	693.014	569.130	475.715	376.541
135	727.500	712.166	738.348	749.732	708.549	662.478	611.652	529.889	420.402	337.701
140	647.144	666.764	634.220	613.794	633.549	606.897	541.071	473.639	386.720	285.938
145	545.157	562.701	546.228	561.630	545.357	538.394	463.259	375.269	310.313	247.299
150	458.639	464.666	454.688	443.438	478.058	414.375	402.054	309.710	266.049	196.674
155	359.732	346.272	364.755	377.946	351.362	361.272	291.027	252.188	212.813	156.027
160	235.245	286.005	264.911	263.036	243.416	263.237	216.965	174.107	121.875	97.769
165	201.027	160.044	162.723	162.791	205.380	168.215	153.549	139.956	84.509	62.745
170	98.370	99.978	107.544	69.576	94.889	61.943	87.054	69.443	37.032	41.250
175	46.607	28.661	25.581	28.193	35.223	17.345	18.884	24.978	10.044	8.370
180	3.147	3.147	3.147	3.147	3.147	3.147	3.147	3.147	3.147	3.147

Vert. Horizontal Angles

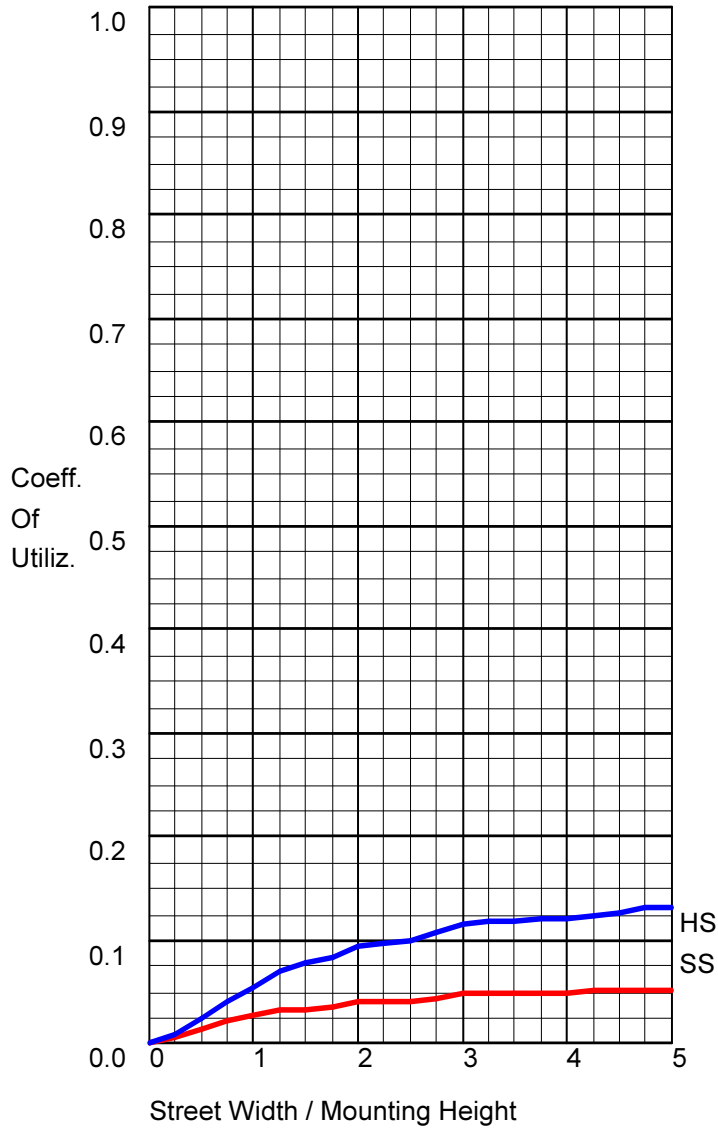
	<u>300</u>	<u>315</u>	<u>330</u>	<u>345</u>	<u>360</u>
0	7.902	7.902	7.902	7.902	7.902
5	6.362	10.647	1.340	3.482	0.335
10	13.794	6.362	0.870	0.870	0.870
15	29.465	13.661	10.715	9.443	2.210
20	62.009	44.732	35.022	24.710	17.946
25	111.831	71.451	48.147	49.554	46.541
30	143.169	87.188	73.125	77.880	76.607
35	162.255	133.193	114.710	115.380	114.509
40	207.723	172.299	148.995	135.402	140.424
45	249.242	207.054	153.818	177.590	155.693
50	299.465	236.786	207.657	186.228	204.107
55	318.884	234.443	229.220	213.750	219.375
60	330.335	288.081	252.456	246.495	245.357
65	350.826	295.044	270.938	252.857	262.902
70	373.995	329.196	282.590	294.375	285.201
75	389.666	334.487	296.919	312.054	293.706
80	396.027	353.571	313.794	326.117	308.169
85	405.134	361.005	300.068	320.894	320.424
90	424.956	364.889	329.598	317.544	317.076
95	406.473	356.384	312.054	327.255	328.527
100	397.299	364.821	320.090	309.845	316.473
105	400.245	338.169	287.411	304.220	299.799
110	366.965	309.242	294.845	285.201	275.625
115	359.867	304.755	276.764	262.701	282.723
120	340.982	290.960	260.022	253.394	250.245
125	338.840	272.009	234.174	227.679	229.620
130	276.095	233.237	208.193	195.000	205.179

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CANDELA TABULATION - (Cont.)

135	239.397	208.929	181.206	164.130	179.196
140	212.946	175.044	146.786	152.880	135.269
145	181.272	141.161	111.294	98.907	105.737
150	140.424	109.821	82.232	78.617	80.022
155	78.416	74.264	60.269	49.956	57.657
160	70.179	34.889	23.370	26.318	28.527
165	33.215	19.755	10.044	6.495	4.956
170	11.318	15.870	2.144	0.737	0.603
175	10.581	3.147	0.470	0.000	0.804
180	3.147	3.147	3.147	3.147	3.147

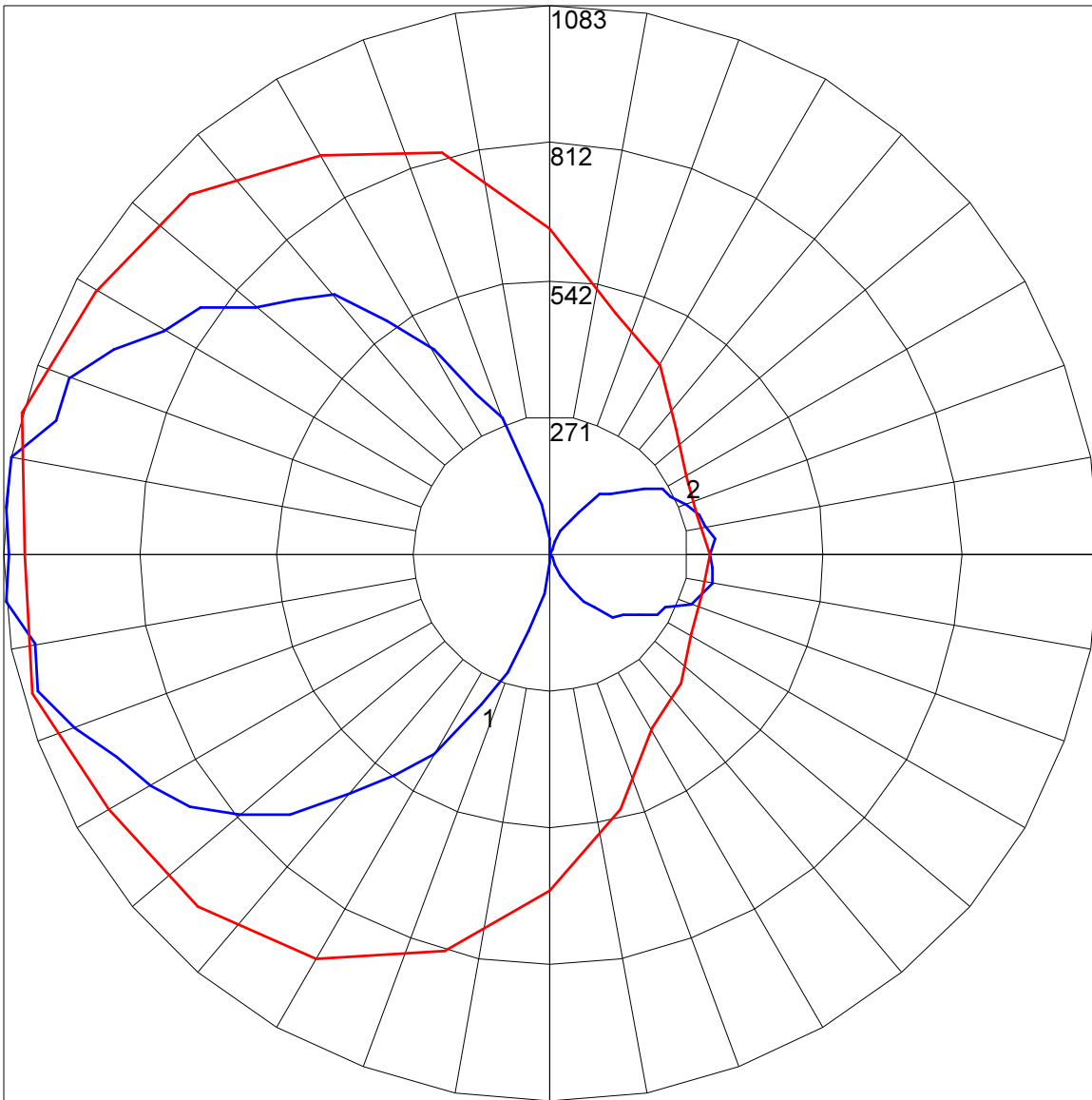
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

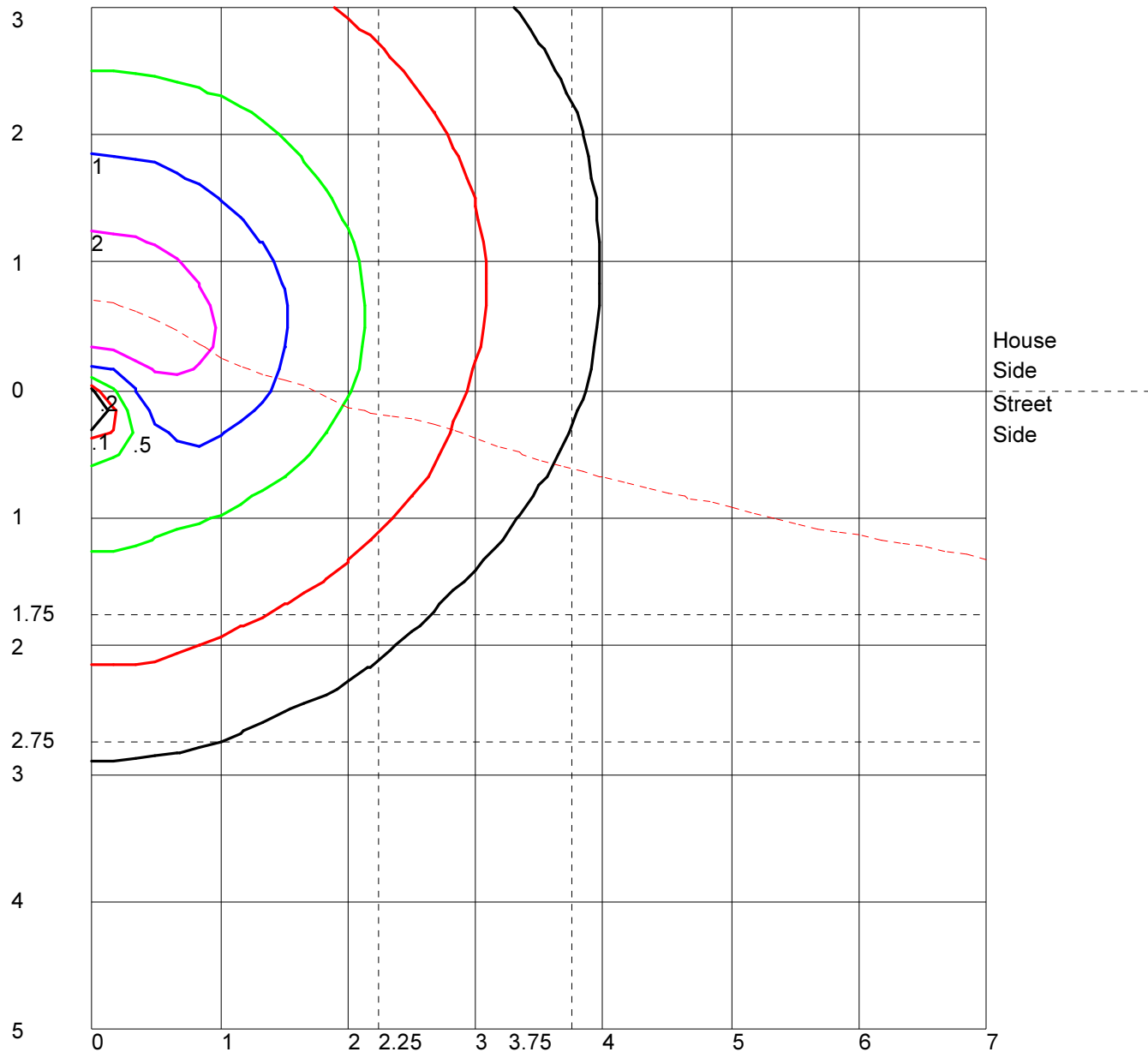
	Lumens	Percent Of Lamp
Downward Street Side	892.0	6.2
Downward House Side	2249.3	15.6
Downward Total	3141.3	21.8
Upward Street Side	906.5	6.3
Upward House Side	2272.8	15.8
Upward Total	3179.3	22.1
Total Flux	6320.6	43.9

POLAR GRAPH



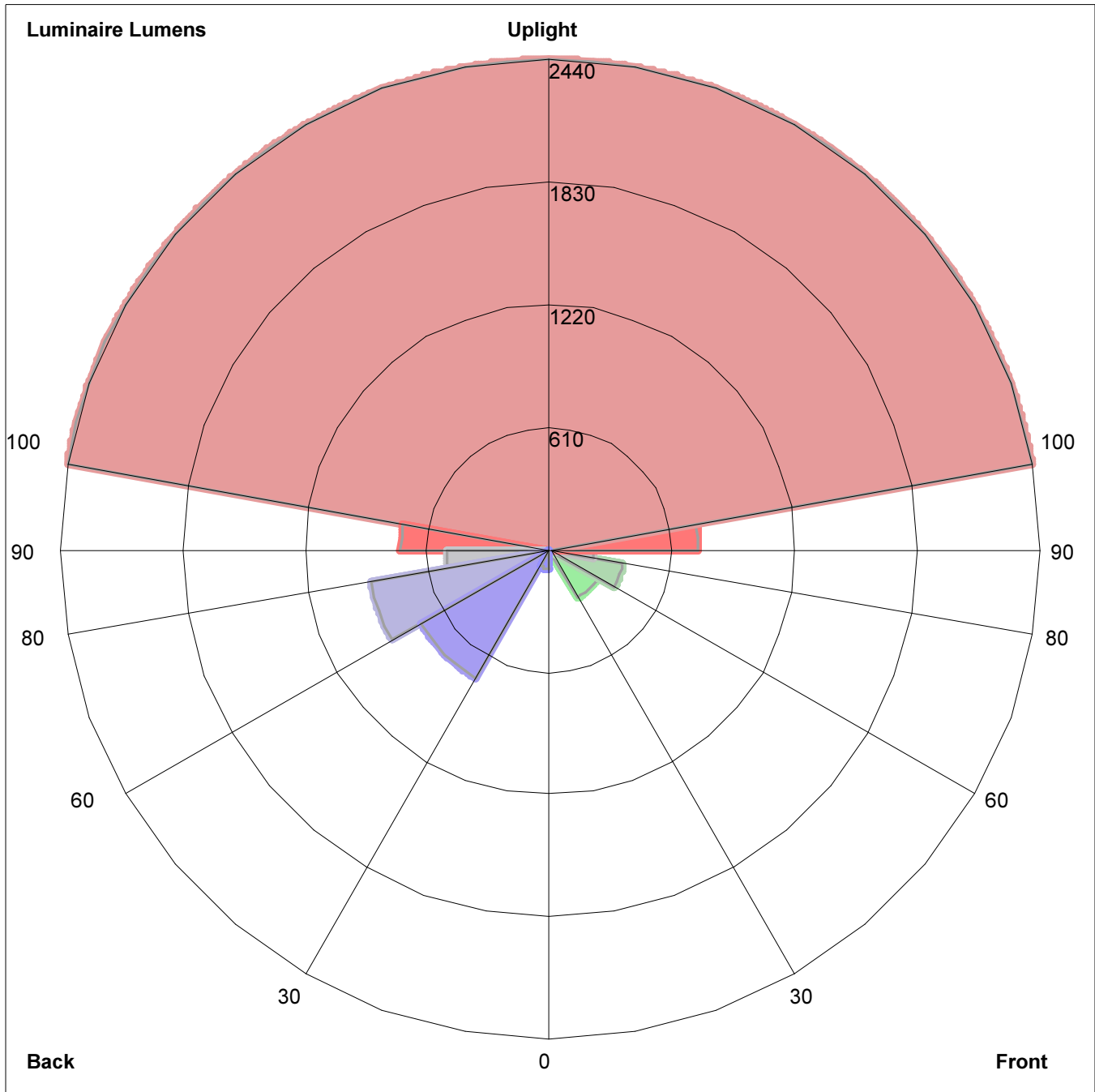
Maximum Candela = 1083.147 Located At Horizontal Angle = 165, Vertical Angle = 100
1 - Vertical Plane Through Horizontal Angles (165 - 345) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (100) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



Distance In Units Of Mounting Height
 Values Based On 10 Foot Mounting Height
 1/2 Maximum Candela Trace Shown As Dashed Curve
 (+) = Maximum Candela Point

LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=26.4, Medium=275.4, High=371.7, Very High=218.5
Back: Low=93.3, Medium=735.0, High=903.3, Very High=517.6
Uplight: Low=739.6, High=2439.7

BUG Rating : B2-U5-G4