



**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HSUL-P6-14FT-160LED.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-P6-14'-160LED  
 [LUMINAIRE] Light Column Post, Half Sully  
 [\_SHIELD] Perforated Shield, 180  
 [LAMP] 16 - Alta PN110B Boards

**CHARACTERISTICS**

IES Classification	N.A.
Longitudinal Classification	N.A.
Lumens Per Lamp	60 (160 lamps)
Total Lamp Lumens	9600
Luminaire Lumens	4214
Downward Total Efficiency	22 %
Total Luminaire Efficiency	44 %
Luminaire Efficacy Rating (LER)	26
Total Luminaire Watts	160
Ballast Factor	1.00
Upward Waste Light Ratio	0.50
Maximum Candela	722.098
Maximum Candela Angle	165H 100V
Maximum Candela (<90 Degrees Vertical)	721.161
Maximum Candela Angle (<90 Degrees Vertical)	165H 85V
Maximum Candela At 90 Degrees Vertical	719.375 (7.5% Lamp Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	721.161 (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)	17.6	0.2	0.4
FM - Front-Medium (30-60)	183.6	1.9	4.4
FH - Front-High (60-80)	247.8	2.6	5.9
FVH - Front-Very High (80-90)	145.7	1.5	3.5
BL - Back-Low (0-30)	62.2	0.6	1.5
BM - Back-Medium (30-60)	490.0	5.1	11.6
BH - Back-High (60-80)	602.2	6.3	14.3
BVH - Back-Very High (80-90)	345.1	3.6	8.2
UL - Uplight-Low (90-100)	493.0	5.1	11.7
UH - Uplight-High (100-180)	1626.5	16.9	38.6
Total	4213.7	43.8	100.0
BUG Rating	B2-U5-G3		

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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	5.268	5.268	5.268	5.268	5.268	5.268	5.268	5.268	5.268	5.268
5	0.223	0.402	0.580	0.357	2.232	3.438	19.732	12.098	15.982	11.786
10	0.580	0.804	1.830	4.152	10.625	23.482	30.223	25.625	44.554	30.446
15	1.473	0.893	7.500	12.098	18.750	40.625	50.625	67.321	79.152	99.241
20	11.964	13.571	16.250	23.616	44.598	70.625	87.232	109.420	140.223	149.018
25	31.027	34.821	29.420	47.545	67.634	99.821	131.429	165.893	173.929	213.527
30	51.071	51.652	58.170	64.420	98.750	126.027	164.777	212.902	249.018	283.304
35	76.339	80.268	68.170	87.634	125.982	170.625	205.536	262.545	309.152	331.295
40	93.616	95.893	103.705	109.911	133.929	196.339	244.375	304.777	364.777	381.473
45	103.795	121.473	116.875	127.946	180.000	215.536	286.920	362.321	422.679	451.205
50	136.071	132.054	138.036	150.982	187.188	222.813	328.259	383.616	461.920	492.321
55	146.250	155.000	142.321	169.554	198.214	262.634	342.143	413.348	497.411	539.063
60	163.571	167.813	166.875	179.420	215.938	287.143	357.723	438.884	525.536	561.518
65	175.268	181.786	179.821	197.455	243.214	282.679	396.384	470.045	544.598	587.188
70	190.134	193.795	194.688	226.830	248.795	319.152	385.402	497.589	572.321	630.357
75	195.804	201.563	204.196	215.536	256.116	323.393	419.955	498.393	592.188	634.866
80	205.446	202.366	204.464	236.920	263.750	331.161	435.313	512.143	613.795	653.973
85	213.616	212.857	233.661	244.241	277.545	331.830	426.071	538.750	606.473	663.438
90	211.384	204.152	222.455	246.250	278.080	348.616	429.688	527.455	623.750	667.143
95	219.018	206.607	224.196	242.679	271.027	345.491	429.732	536.473	637.098	675.938
100	210.982	200.313	206.473	235.045	285.446	330.223	428.527	548.884	606.295	671.518
105	199.866	200.402	217.188	226.875	280.446	329.911	401.964	520.804	590.446	660.357
110	183.750	200.536	196.518	222.545	272.277	335.670	412.991	481.875	570.357	634.063
115	188.482	184.241	175.089	194.330	243.839	303.661	396.339	466.295	552.277	591.071
120	166.830	163.750	167.589	193.661	225.268	276.652	356.518	460.848	527.366	572.991
125	153.080	151.920	156.786	170.446	219.063	258.705	356.473	433.973	488.438	543.393
130	136.786	137.991	145.179	162.009	193.973	247.813	304.821	399.286	454.375	487.813
135	119.464	118.482	113.705	138.170	175.000	219.107	310.089	356.786	398.750	448.750
140	90.179	99.420	97.321	112.723	151.250	180.580	243.571	296.339	356.027	405.179
145	70.491	69.196	66.696	98.661	126.920	153.929	210.804	258.304	305.536	324.732
150	53.348	50.759	51.250	67.813	95.134	126.429	184.330	228.661	240.268	287.098
155	38.438	29.643	41.250	45.402	65.446	102.143	132.545	177.054	190.357	221.741
160	19.018	17.589	16.607	24.643	50.357	71.295	103.750	124.866	124.866	160.714
165	3.304	4.018	8.036	15.134	22.723	36.116	63.839	83.259	81.295	95.714
170	0.402	0.893	1.696	3.259	6.429	20.848	30.491	48.080	37.143	64.598
175	0.536	0.134	0.000	7.143	4.866	4.688	16.652	23.616	20.089	29.063
180	2.098	2.098	2.098	2.098	2.098	2.098	2.098	2.098	2.098	2.098

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	5.268	5.268	5.268	5.268	5.268	5.268	5.268	5.268	5.268	5.268
5	19.196	11.205	18.214	18.036	15.402	18.750	10.223	16.429	16.696	15.625
10	59.732	53.973	59.241	64.018	49.598	55.536	48.973	40.536	21.250	7.723
15	96.429	105.491	111.071	92.277	95.625	102.991	90.313	59.777	57.946	42.009
20	160.714	166.652	177.723	167.902	176.429	158.527	135.670	111.027	91.964	70.268
25	218.750	219.464	237.277	249.196	222.991	224.688	188.304	150.402	128.438	101.250
30	298.170	306.161	318.080	312.411	295.625	277.768	243.973	205.045	163.438	123.482
35	363.438	356.696	355.000	376.563	347.902	347.679	307.277	256.607	212.813	149.286
40	427.768	411.518	430.045	415.268	391.875	387.009	352.321	321.741	255.268	191.339
45	465.268	486.696	478.929	483.527	489.821	432.500	398.884	343.482	295.089	222.366
50	528.259	535.446	523.750	530.134	515.759	487.455	443.839	374.330	329.554	232.411
55	557.455	580.089	578.750	576.027	549.643	551.429	493.973	417.589	333.080	249.777

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**CANDELA TABULATION - (Cont.)**

60	576.116	611.205	598.170	585.670	583.661	564.241	495.402	454.955	356.071	292.902
65	621.696	630.670	644.821	640.268	625.804	604.464	536.741	484.464	396.250	305.402
70	664.777	670.223	658.661	654.018	671.161	636.920	575.759	489.196	403.304	328.170
75	675.536	700.357	691.875	676.295	666.696	656.830	582.009	516.384	422.723	319.554
80	695.491	691.696	720.402	692.857	685.223	671.027	597.723	544.018	436.161	340.536
85	689.554	721.161	714.375	700.848	705.625	675.313	619.509	537.768	447.946	334.777
90	680.134	716.875	704.152	711.429	719.375	675.848	621.875	544.777	443.348	344.777
95	701.786	721.696	712.143	701.071	706.429	667.679	623.884	537.009	435.759	338.973
100	692.723	722.098	695.491	708.080	674.643	659.152	617.634	544.688	444.866	350.759
105	659.107	676.652	678.393	691.786	677.455	651.696	596.741	511.563	425.268	337.366
110	633.214	674.866	677.321	670.357	685.268	612.411	575.714	509.554	422.634	326.875
115	620.446	634.286	662.232	661.116	648.795	620.536	547.857	470.804	375.848	314.554
120	605.714	589.509	629.286	604.330	610.089	585.625	519.420	456.429	371.964	293.259
125	566.607	566.250	576.384	603.750	575.179	532.455	513.214	418.304	341.250	273.839
130	514.821	507.500	526.027	545.580	547.813	483.036	462.009	379.420	317.143	251.027
135	485.000	474.777	492.232	499.821	472.366	441.652	407.768	353.259	280.268	225.134
140	431.429	444.509	422.813	409.196	422.366	404.598	360.714	315.759	257.813	190.625
145	363.438	375.134	364.152	374.420	363.571	358.929	308.839	250.179	206.875	164.866
150	305.759	309.777	303.125	295.625	318.705	276.250	268.036	206.473	177.366	131.116
155	239.821	230.848	243.170	251.964	234.241	240.848	194.018	168.125	141.875	104.018
160	156.830	190.670	176.607	175.357	162.277	175.491	144.643	116.071	81.250	65.179
165	134.018	106.696	108.482	108.527	136.920	112.143	102.366	93.304	56.339	41.830
170	65.580	66.652	71.696	46.384	63.259	41.295	58.036	46.295	24.688	27.500
175	31.071	19.107	17.054	18.795	23.482	11.563	12.589	16.652	6.696	5.580
180	2.098	2.098	2.098	2.098	2.098	2.098	2.098	2.098	2.098	2.098

**Vert. Angles**      **Horizontal Angles**

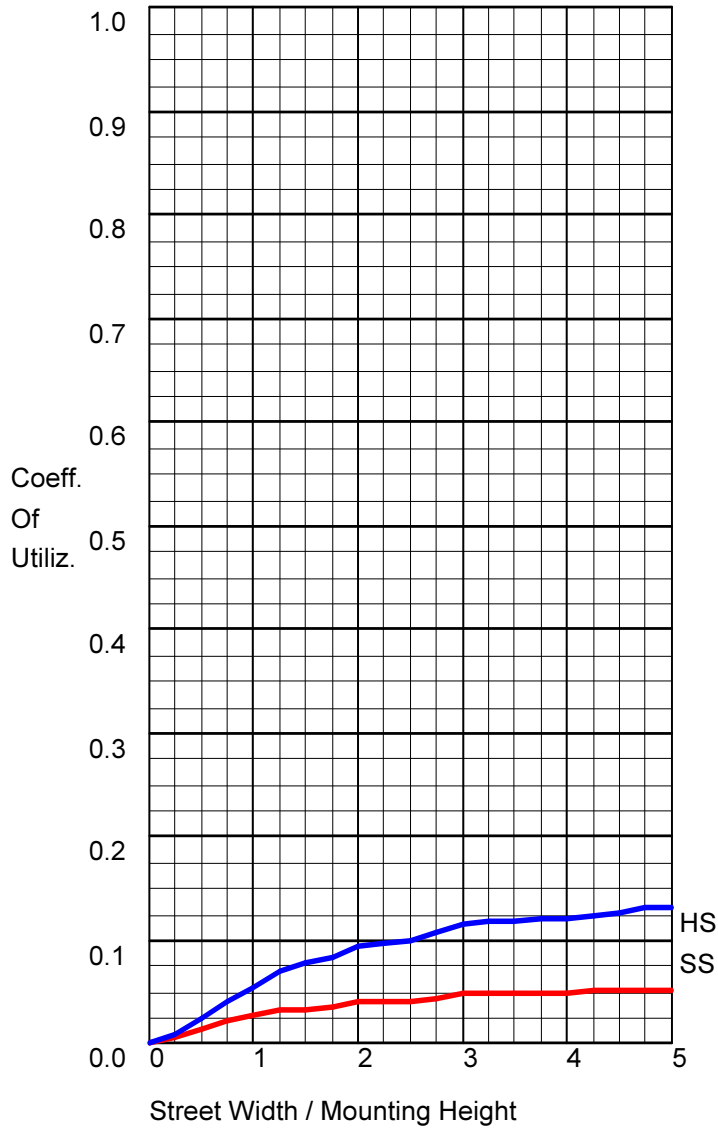
	<u>300</u>	<u>315</u>	<u>330</u>	<u>345</u>	<u>360</u>
0	5.268	5.268	5.268	5.268	5.268
5	4.241	7.098	0.893	2.321	0.223
10	9.196	4.241	0.580	0.580	0.580
15	19.643	9.107	7.143	6.295	1.473
20	41.339	29.821	23.348	16.473	11.964
25	74.554	47.634	32.098	33.036	31.027
30	95.446	58.125	48.750	51.920	51.071
35	108.170	88.795	76.473	76.920	76.339
40	138.482	114.866	99.330	90.268	93.616
45	166.161	138.036	102.545	118.393	103.795
50	199.643	157.857	138.438	124.152	136.071
55	212.589	156.295	152.813	142.500	146.250
60	220.223	192.054	168.304	164.330	163.571
65	233.884	196.696	180.625	168.571	175.268
70	249.330	219.464	188.393	196.250	190.134
75	259.777	222.991	197.946	208.036	195.804
80	264.018	235.714	209.196	217.411	205.446
85	270.089	240.670	200.045	213.929	213.616
90	283.304	243.259	219.732	211.696	211.384
95	270.982	237.589	208.036	218.170	219.018
100	264.866	243.214	213.393	206.563	210.982
105	266.830	225.446	191.607	202.813	199.866
110	244.643	206.161	196.563	190.134	183.750
115	239.911	203.170	184.509	175.134	188.482
120	227.321	193.973	173.348	168.929	166.830
125	225.893	181.339	156.116	151.786	153.080
130	184.063	155.491	138.795	130.000	136.786

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : HSUL-P6-14FT-160LED.IES**

**CANDELA TABULATION - (Cont.)**

<b>135</b>	159.598	139.286	120.804	109.420	119.464
<b>140</b>	141.964	116.696	97.857	101.920	90.179
<b>145</b>	120.848	94.107	74.196	65.938	70.491
<b>150</b>	93.616	73.214	54.821	52.411	53.348
<b>155</b>	52.277	49.509	40.179	33.304	38.438
<b>160</b>	46.786	23.259	15.580	17.545	19.018
<b>165</b>	22.143	13.170	6.696	4.330	3.304
<b>170</b>	7.545	10.580	1.429	0.491	0.402
<b>175</b>	7.054	2.098	0.313	0.000	0.536
<b>180</b>	2.098	2.098	2.098	2.098	2.098

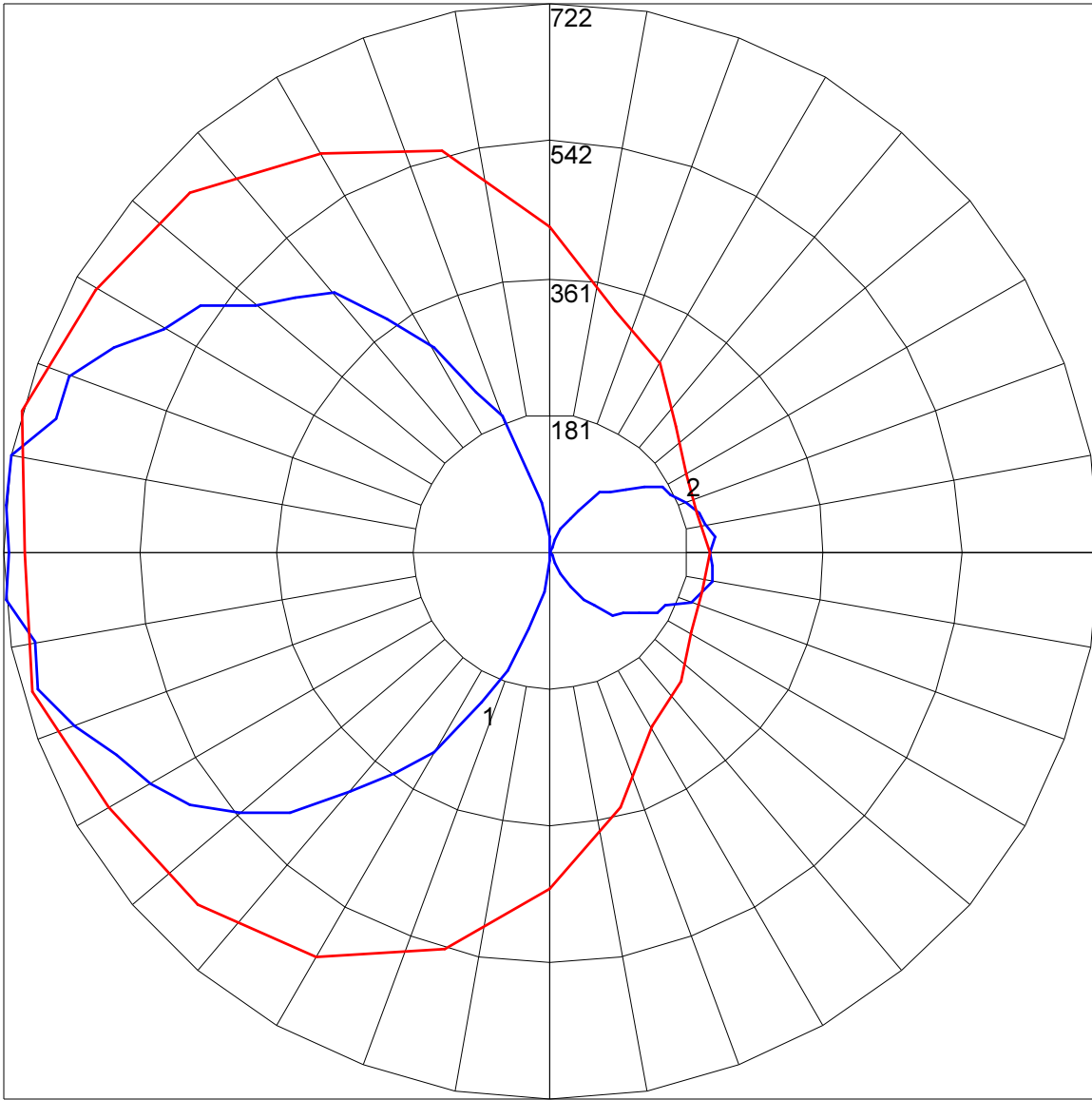
**COEFFICIENTS OF UTILIZATION**



**FLUX DISTRIBUTION**

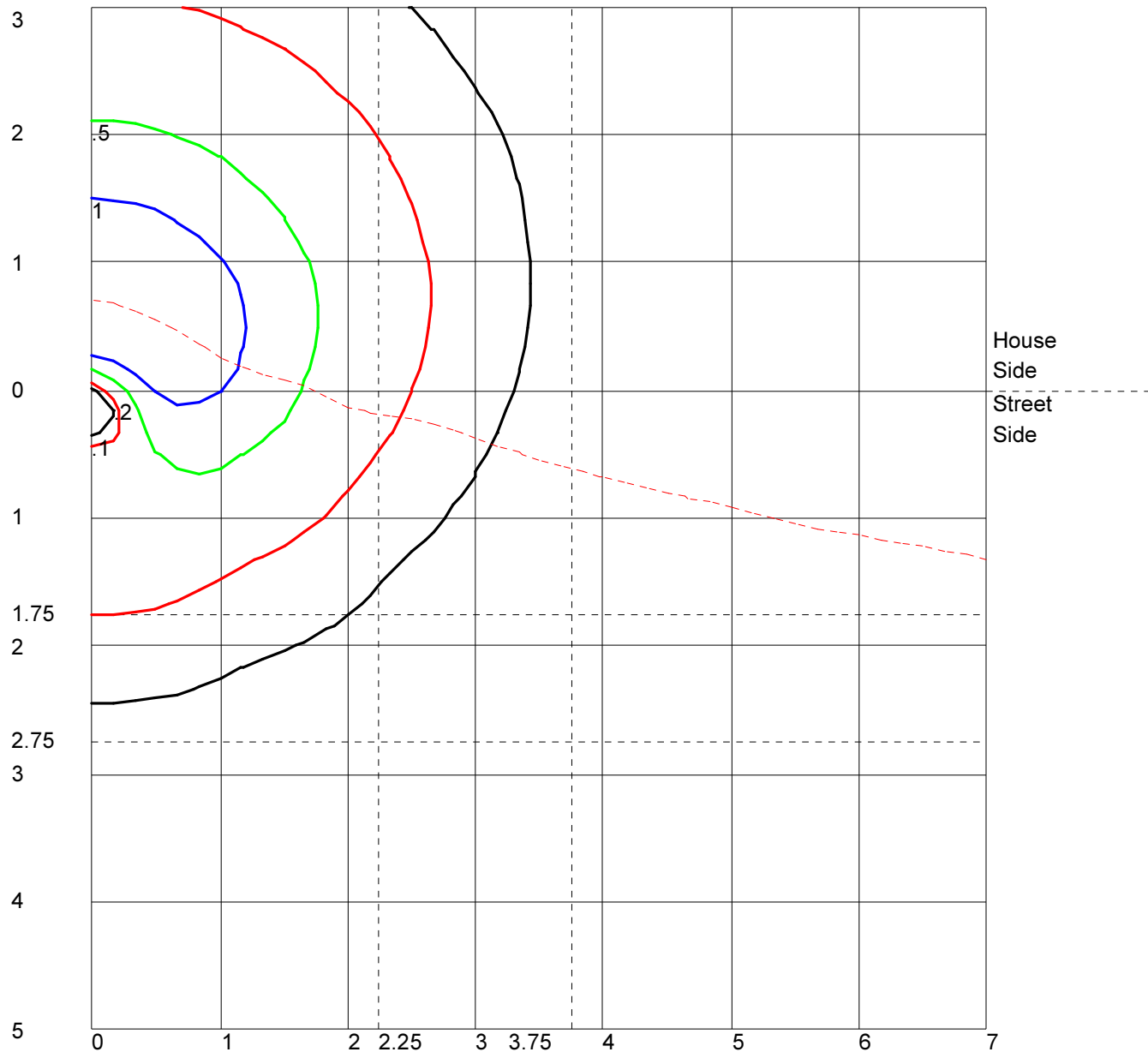
	Lumens	Percent Of Lamp
Downward Street Side	594.7	6.2
Downward House Side	1499.5	15.6
Downward Total	2094.2	21.8
Upward Street Side	604.3	6.3
Upward House Side	1515.2	15.8
Upward Total	2119.5	22.1
Total Flux	4213.7	43.9

POLAR GRAPH



Maximum Candela = 722.098 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.)

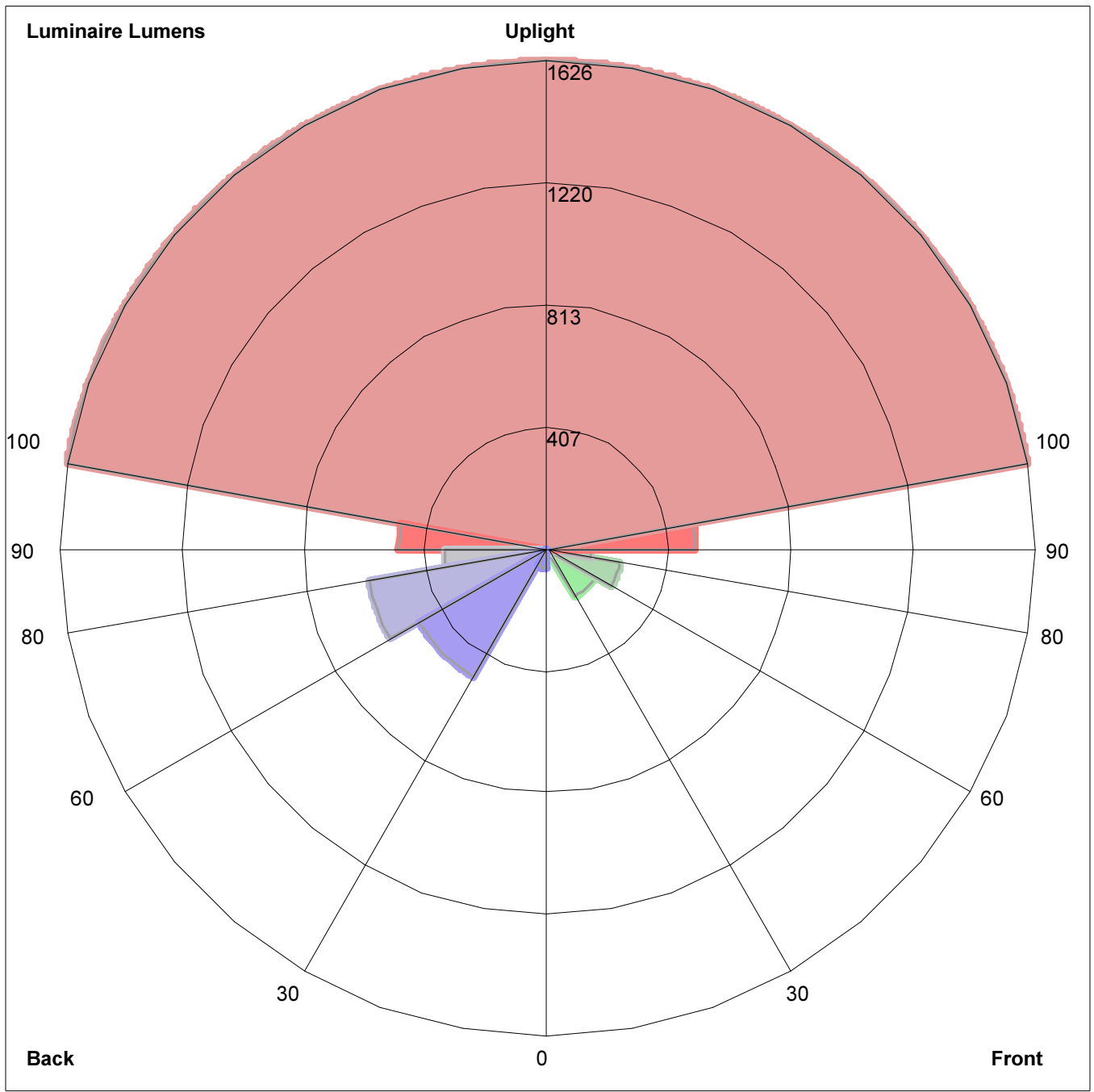
ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



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=17.6, Medium=183.6, High=247.8, Very High=145.7  
 Back: Low=62.2, Medium=490.0, High=602.2, Very High=345.1  
 Uplight: Low=493.0, High=1626.5

BUG Rating : B2-U5-G3