



OUTDOOR LIGHTING SPECIALISTS SINCE 1972

## IES ROAD REPORT

PHOTOMETRIC FILENAME : NILAND FR T2 D SHORT CUTOFF AP LED100.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TESTLAB] Photopia 3.1.5 see: [www.ltioptics.com/ies](http://www.ltioptics.com/ies)

[ISSUE DATE]

[TEST] 1

[TEST DATE] Tue Aug 03 23:04:48 2010

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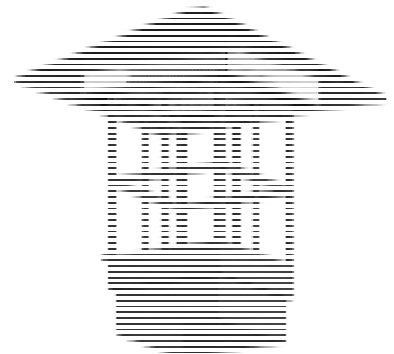
[LUMINAIRE] Niland Fr T2 D Short Cutoff AP

[LAMP] LED Cree XPG, Fr F1G Left & Right

[LAMPCAT] 3535 XPG, FRNRDLT, FRNRDRT

### CHARACTERISTICS

IES Classification	Type II
Longitudinal Classification	Short
Cutoff Classification (deprecated)	Cutoff
Lumens Per Lamp	176.4 (54 lamps)
Total Lamp Lumens	9525.6
Luminaire Lumens	4265
Total Luminaire Efficiency	45 %
Downward Total Efficiency	45 %
Upward Waste Light Ratio	0.00
Maximum Candela	2828.25
Maximum Candela Angle	80H 55V
Maximum Candela At 90 Degrees Vertical	1.79 (0.0% Lamp Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	92.967 (1.0% Lamp Lumens)
Total Luminaire Watts	96.89
Ballast Factor	1.00



**IES ROAD REPORT****PHOTOMETRIC FILENAME : NILAND FR T2 D SHORT CUTOFF AP LED100.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	331.6	3.5	7.8
FM - Front-Medium (30-60)	1375.9	14.4	32.3
FH - Front-High (60-80)	861.4	9.0	20.2
FVH - Front-Very High (80-90)	9.5	0.1	0.2
BL - Back-Low (0-30)	276.2	2.9	6.5
BM - Back-Medium (30-60)	857.3	9.0	20.1
BH - Back-High (60-80)	536.7	5.6	12.6
BVH - Back-Very High (80-90)	9.4	0.1	0.2
UL - Uplight-Low (90-100)	0.3	0.0	0.0
UH - Uplight-High (100-180)	6.9	0.1	0.2
Total	4265.2	44.7	100.0
BUG Rating	B2-U1-G2		

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**CANDELA TABULATION**

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
<b>0</b>	1247.249	1247.249	1247.249	1247.249	1247.249	1247.249	1247.249	1247.249	1247.249	1247.249
<b>5</b>	1215.851	1274.081	1285.606	1259.136	1255.999	1255.878	1265.593	1308.174	1288.825	1233.330
<b>10</b>	1196.240	1209.555	1221.946	1227.256	1215.750	1207.122	1134.027	1101.744	1078.251	1039.230
<b>15</b>	1136.501	1187.893	1183.608	1194.450	1115.905	890.044	727.161	653.584	619.551	602.535
<b>20</b>	659.277	728.046	837.205	889.763	674.020	487.242	479.236	557.962	587.791	595.234
<b>25</b>	341.677	350.346	325.082	360.624	455.019	582.743	648.395	748.080	843.802	835.053
<b>30</b>	621.865	696.829	578.519	458.277	719.096	892.076	762.180	893.625	982.167	992.646
<b>35</b>	935.060	1058.720	1019.398	748.281	908.670	937.051	893.544	1056.830	1139.518	1143.280
<b>40</b>	835.113	948.938	989.850	788.429	817.855	957.145	1032.250	1207.162	1300.792	1299.887
<b>45</b>	690.111	822.240	878.901	670.782	821.114	993.632	1226.411	1523.314	1568.932	1540.069
<b>50</b>	837.829	944.111	866.370	666.417	856.675	1105.506	1423.005	2107.444	2274.109	2276.362
<b>55</b>	845.894	986.853	981.965	703.789	856.595	1079.901	1692.452	2667.076	2828.250	2814.914
<b>60</b>	802.549	929.106	904.788	660.443	789.736	987.155	1614.651	2631.213	2725.065	2730.536
<b>65</b>	700.852	797.681	764.573	562.568	662.475	719.377	1252.700	2285.614	2621.538	2701.531
<b>70</b>	488.710	533.081	555.649	421.509	419.296	431.063	890.366	1800.625	2031.956	2045.755
<b>75</b>	203.373	228.113	261.221	202.970	160.208	173.463	491.888	1032.049	1142.153	1102.127
<b>80</b>	10.339	12.491	23.473	24.881	19.993	30.634	76.292	92.967	73.517	63.862
<b>85</b>	3.258	3.057	3.138	3.339	5.129	8.468	13.255	24.117	35.823	33.450
<b>90</b>	0.362	0.382	0.402	0.282	0.302	0.523	1.006	1.730	1.790	1.146
<b>95</b>	0.241	0.221	0.201	0.121	0.080	0.101	0.161	0.322	0.282	0.101
<b>100</b>	0.161	0.201	0.181	0.141	0.080	0.121	0.161	0.181	0.181	0.141
<b>105</b>	0.201	0.201	0.181	0.181	0.121	0.181	0.201	0.201	0.181	0.141
<b>110</b>	0.221	0.221	0.282	0.201	0.221	0.342	0.342	0.322	0.282	0.241
<b>115</b>	0.463	0.523	0.543	0.583	0.624	0.684	0.724	0.563	0.483	0.402
<b>120</b>	0.885	1.026	1.126	1.307	1.408	1.428	1.408	1.146	1.006	0.845
<b>125</b>	1.730	1.971	2.192	2.333	2.554	2.615	2.595	2.233	2.011	1.529
<b>130</b>	2.273	2.474	2.756	3.077	3.520	3.802	3.540	3.198	2.756	2.293
<b>135</b>	2.514	2.514	2.756	3.319	4.143	4.325	4.103	3.802	3.319	2.776
<b>140</b>	2.394	2.635	3.057	3.379	4.063	4.405	4.465	4.043	3.641	3.258
<b>145</b>	2.554	2.756	3.118	3.741	4.224	4.425	4.385	3.922	3.681	3.017
<b>150</b>	2.394	2.595	3.017	3.701	4.123	4.244	3.822	3.399	3.198	2.856
<b>155</b>	2.132	2.253	2.635	3.057	3.520	3.540	3.399	3.118	2.937	2.595
<b>160</b>	1.690	1.810	1.911	2.011	2.253	2.373	2.595	2.534	2.534	2.333
<b>165</b>	0.925	0.945	0.845	0.865	1.106	1.388	1.328	1.509	1.509	1.368
<b>170</b>	0.322	0.362	0.342	0.201	0.060	0.060	0.282	0.443	0.583	0.603
<b>175</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>180</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

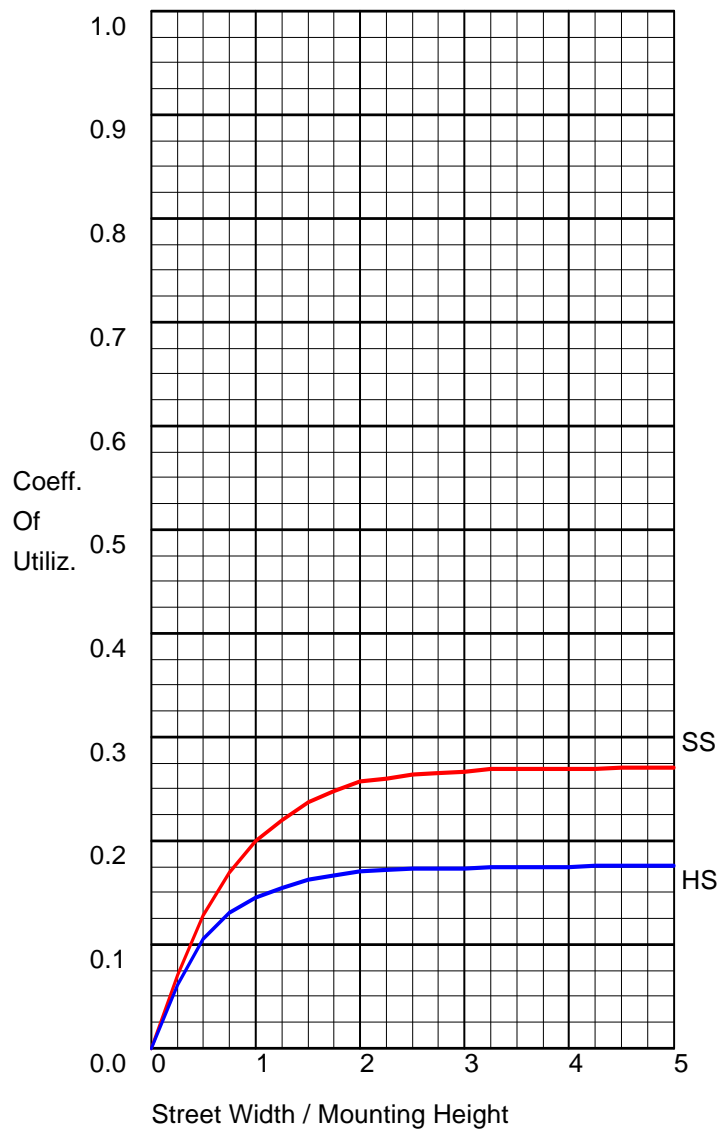
Vert. Angles	Horizontal Angles								
	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>
<b>0</b>	1247.249	1247.249	1247.249	1247.249	1247.249	1247.249	1247.249	1247.249	1247.249
<b>5</b>	1208.932	1184.353	1154.001	1076.481	1011.915	944.111	877.996	829.702	785.532
<b>10</b>	1045.667	970.179	734.463	592.156	590.708	652.076	694.134	689.045	676.816
<b>15</b>	579.585	513.631	510.312	662.394	668.730	682.166	697.694	698.680	648.717
<b>20</b>	553.879	437.138	544.989	639.323	622.448	614.684	677.480	709.039	678.506
<b>25</b>	733.537	508.784	441.925	559.712	614.925	607.081	575.622	568.100	534.610
<b>30</b>	876.488	589.702	553.919	638.479	561.563	529.260	511.901	532.277	509.327
<b>35</b>	997.514	722.676	684.178	655.958	565.183	490.681	487.342	529.340	521.576
<b>40</b>	1155.449	793.779	660.282	594.127	518.378	438.626	416.561	439.089	445.867
<b>45</b>	1364.715	934.014	653.604	490.761	391.760	365.512	371.827	407.449	415.254
<b>50</b>	1999.674	1258.754	678.908	403.567	313.175	322.950	360.704	387.255	404.935
<b>55</b>	2486.573	1545.660	719.317	360.543	290.285	291.532	356.702	409.843	416.340

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**CANDELA TABULATION - (Cont.)**

<b>60</b>	2394.813	1525.506	669.092	332.122	265.344	267.818	313.014	368.046	360.362
<b>65</b>	2315.101	1340.759	523.246	272.102	221.033	220.791	250.641	291.914	292.558
<b>70</b>	1814.182	1029.797	384.600	188.227	159.363	166.383	179.196	204.700	206.168
<b>75</b>	1022.978	575.180	205.847	101.073	90.030	99.242	106.705	112.940	113.966
<b>80</b>	72.089	65.089	43.346	30.915	27.918	33.852	35.903	35.562	31.096
<b>85</b>	19.249	11.344	10.178	11.646	9.474	9.152	9.514	8.931	7.382
<b>90</b>	1.428	1.026	0.523	0.422	0.402	0.483	0.724	1.046	0.724
<b>95</b>	0.161	0.121	0.060	0.080	0.101	0.141	0.241	0.342	0.261
<b>100</b>	0.080	0.060	0.060	0.060	0.080	0.121	0.201	0.261	0.241
<b>105</b>	0.101	0.080	0.080	0.101	0.121	0.141	0.181	0.201	0.261
<b>110</b>	0.161	0.101	0.121	0.161	0.161	0.161	0.181	0.201	0.241
<b>115</b>	0.282	0.201	0.201	0.282	0.302	0.322	0.261	0.261	0.282
<b>120</b>	0.583	0.382	0.382	0.463	0.563	0.563	0.443	0.422	0.382
<b>125</b>	1.006	0.704	0.603	0.624	0.744	0.744	0.664	0.603	0.583
<b>130</b>	1.589	1.066	0.805	0.805	0.945	0.986	0.885	0.724	0.684
<b>135</b>	2.011	1.307	1.006	0.965	1.006	1.086	1.026	0.845	0.905
<b>140</b>	2.293	1.830	1.388	1.207	1.227	1.187	1.086	1.006	0.784
<b>145</b>	2.514	2.032	1.871	1.609	1.488	1.307	1.046	0.945	0.905
<b>150</b>	2.494	2.132	2.072	2.152	1.810	1.509	1.167	0.965	0.925
<b>155</b>	2.313	2.152	2.032	2.233	2.233	1.730	1.448	1.307	1.066
<b>160</b>	2.011	1.830	1.850	1.871	1.871	2.032	1.770	1.649	1.549
<b>165</b>	1.207	1.026	0.885	1.287	1.549	1.207	1.227	1.348	1.348
<b>170</b>	0.523	0.342	0.261	0.040	0.080	0.322	0.603	0.784	0.704
<b>175</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>180</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

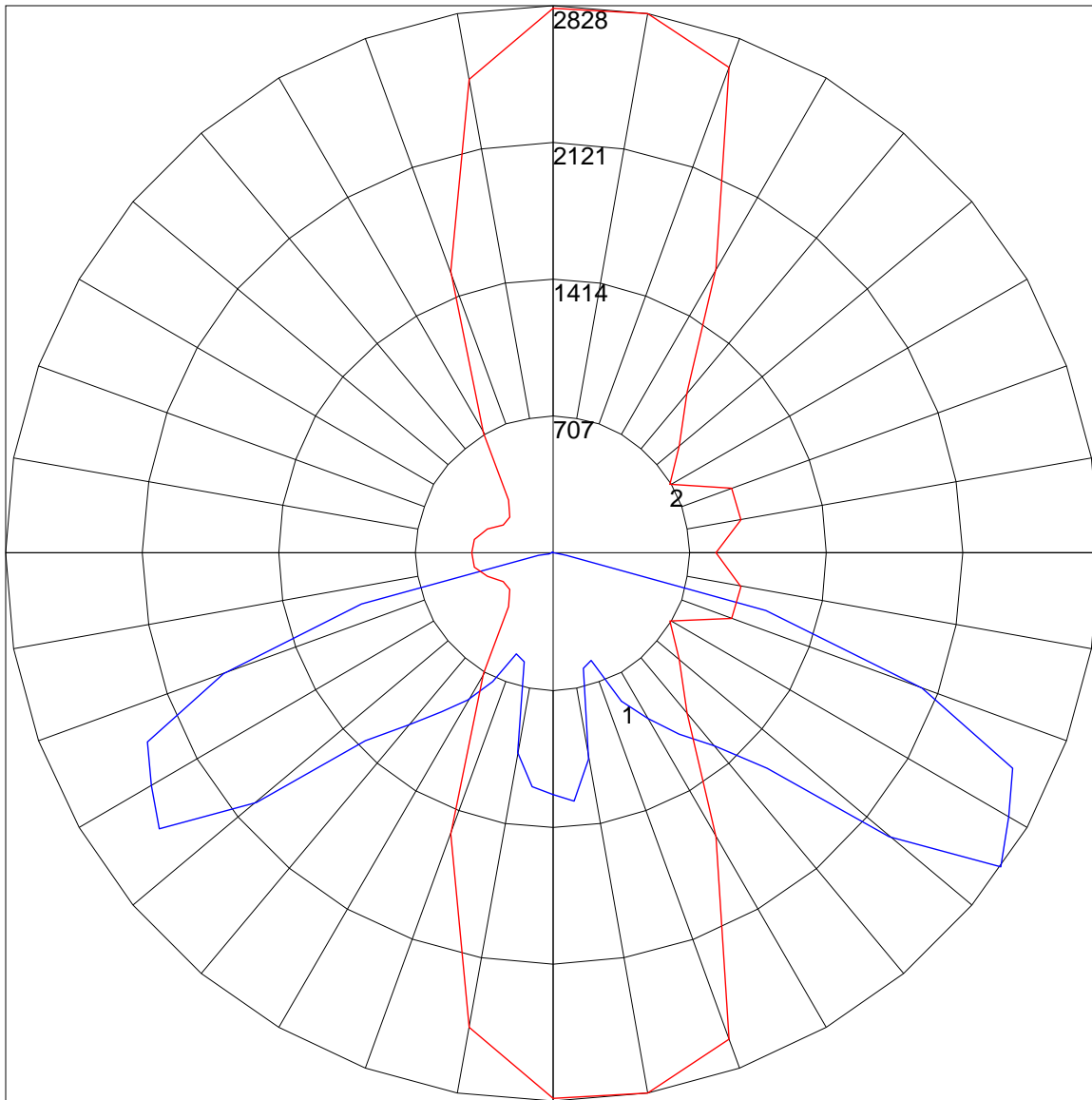
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

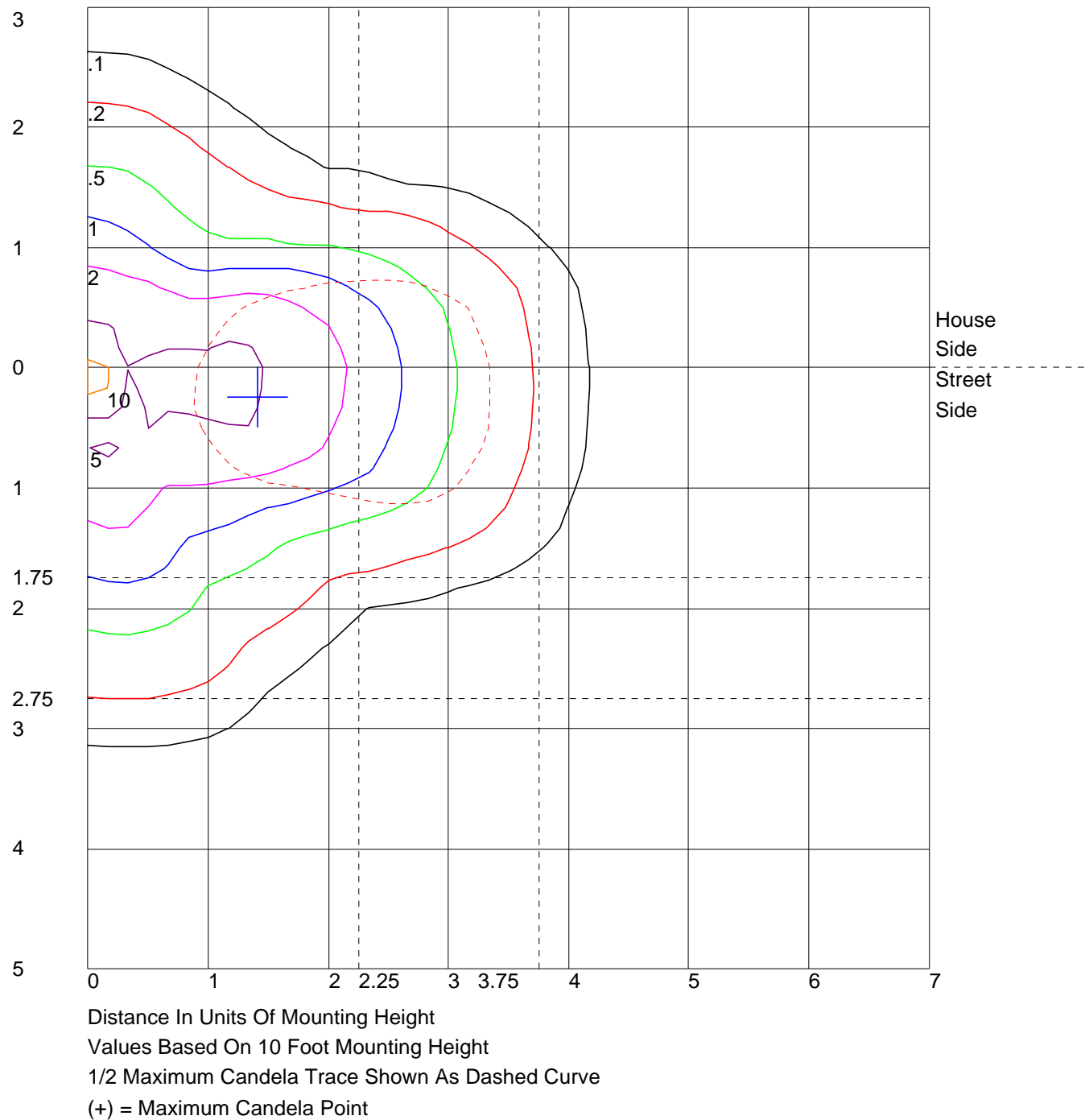
	Lumens	Percent Of Lamp
Downward Street Side	2578.3	27.1
Downward House Side	1679.6	17.6
Downward Total	4257.9	44.7
Upward Street Side	4.9	0.1
Upward House Side	2.3	0.0
Upward Total	7.2	0.1
Total Flux	4265.1	44.8

POLAR GRAPH

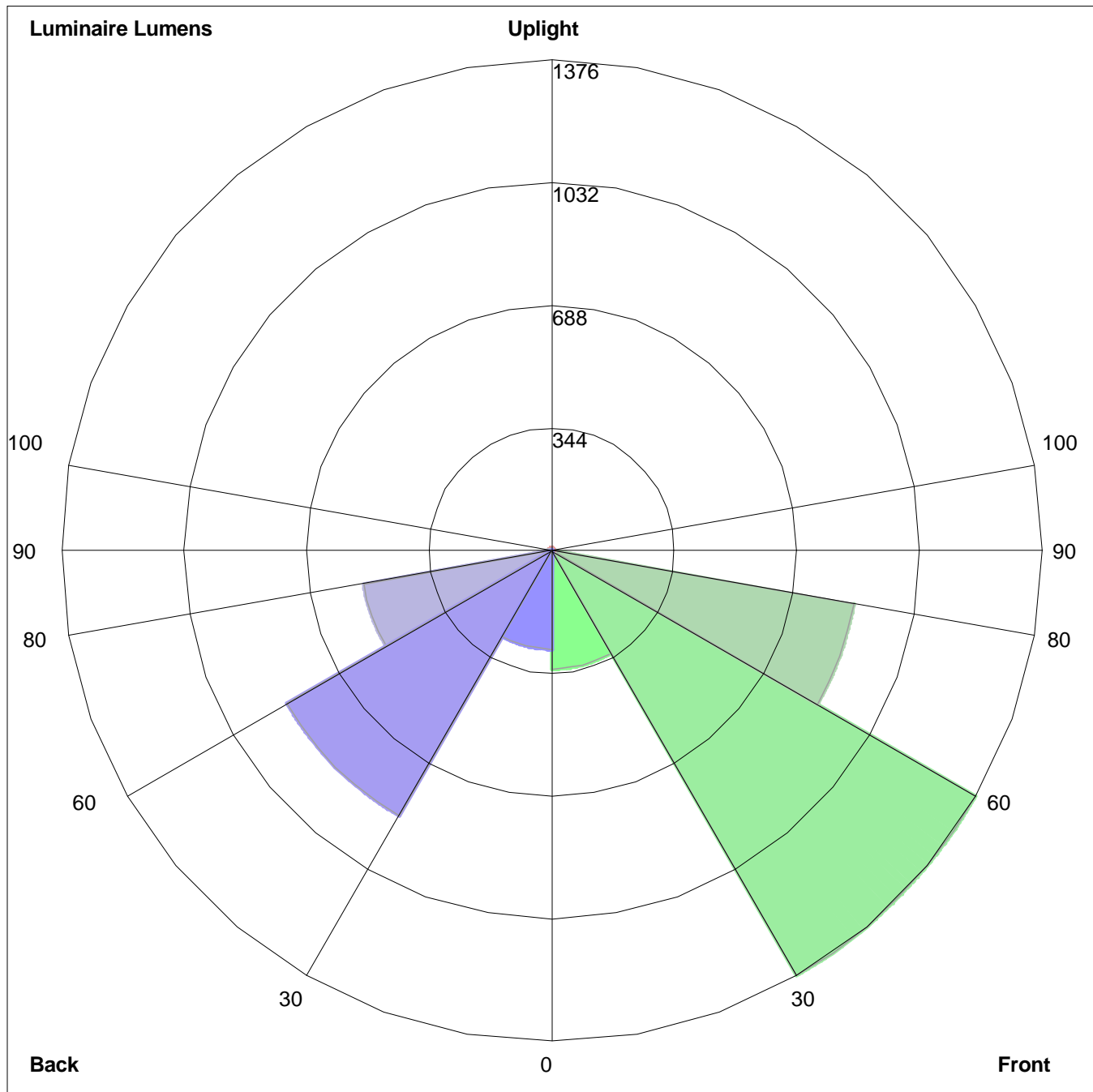


Maximum Candela = 2828.25 Located At Horizontal Angle = 80, Vertical Angle = 55  
# 1 - Vertical Plane Through Horizontal Angles (80 - 260) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (55) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=331.6, Medium=1375.9, High=861.4, Very High=9.5  
Back: Low=276.2, Medium=857.3, High=536.7, Very High=9.4  
Uplight: Low=0.3, High=6.9

BUG Rating : B2-U1-G2