



OUTDOOR LIGHTING SPECIALISTS SINCE 1972

IES ROAD REPORT

PHOTOMETRIC FILENAME : NILAND FR T2 D SHORT CUTOFF AP LED200.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002

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

[ISSUE DATE]

[TEST] 1

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

[MANUFAC]

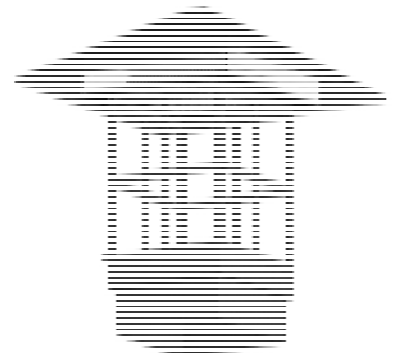
[LUMINAIRE] Niland Fr T2 D Short Cutoff AP

[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	290.3 (54 lamps)
Total Lamp Lumens	15676.2
Luminaire Lumens	7019
Total Luminaire Efficiency	45 %
Downward Total Efficiency	45 %
Upward Waste Light Ratio	0.00
Maximum Candela	4654.435
Maximum Candela Angle	80H 55V
Maximum Candela At 90 Degrees Vertical	2.946 (0.0% Lamp Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	152.995 (1.0% Lamp Lumens)
Total Luminaire Watts	192.98
Ballast Factor	1.00



IES ROAD REPORT**PHOTOMETRIC FILENAME : NILAND FR T2 D SHORT CUTOFF AP LED200.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	545.7	3.5	7.8
FM - Front-Medium (30-60)	2264.3	14.4	32.3
FH - Front-High (60-80)	1417.5	9.0	20.2
FVH - Front-Very High (80-90)	15.6	0.1	0.2
BL - Back-Low (0-30)	454.5	2.9	6.5
BM - Back-Medium (30-60)	1410.9	9.0	20.1
BH - Back-High (60-80)	883.3	5.6	12.6
BVH - Back-Very High (80-90)	15.4	0.1	0.2
UL - Uplight-Low (90-100)	0.6	0.0	0.0
UH - Uplight-High (100-180)	11.3	0.1	0.2
Total	7019.1	44.7	100.0
BUG Rating	B2-U2-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>
0	2052.591	2052.591	2052.591	2052.591	2052.591	2052.591	2052.591	2052.591	2052.591	2052.591
5	2000.919	2096.748	2115.715	2072.154	2066.990	2066.791	2082.779	2152.855	2121.012	2029.685
10	1968.645	1990.559	2010.949	2019.688	2000.754	1986.553	1866.263	1813.135	1774.472	1710.255
15	1870.334	1954.908	1947.858	1965.699	1836.438	1464.741	1196.685	1075.600	1019.592	991.589
20	1084.968	1198.142	1377.784	1464.278	1109.231	801.851	788.676	918.236	967.325	979.573
25	562.295	576.562	534.986	593.477	748.822	959.017	1067.060	1231.111	1388.641	1374.242
30	1023.399	1146.768	952.065	754.185	1183.412	1468.085	1254.315	1470.633	1616.346	1633.592
35	1538.822	1742.331	1677.617	1231.442	1495.393	1542.100	1470.501	1739.219	1875.299	1881.489
40	1374.341	1561.663	1628.991	1297.513	1345.940	1575.168	1698.769	1986.620	2140.707	2139.217
45	1135.712	1353.156	1446.403	1103.902	1351.302	1635.214	2018.298	2506.909	2581.983	2534.482
50	1378.810	1553.718	1425.781	1096.719	1409.826	1819.325	2341.832	3468.210	3742.489	3746.196
55	1392.084	1624.059	1616.015	1158.221	1409.694	1777.186	2785.259	4389.193	4654.435	4632.489
60	1320.750	1529.024	1489.005	1086.888	1299.664	1624.555	2657.223	4330.173	4484.624	4493.628
65	1153.389	1312.739	1258.254	925.816	1090.231	1183.875	2061.561	3761.423	4314.251	4445.895
70	804.267	877.289	914.429	693.675	690.034	709.398	1465.271	2963.279	3343.980	3366.687
75	334.689	375.404	429.889	334.027	263.653	285.467	809.497	1698.438	1879.636	1813.764
80	17.014	20.556	38.629	40.947	32.903	50.414	125.554	152.995	120.986	105.097
85	5.362	5.031	5.164	5.495	8.441	13.936	21.814	39.689	58.954	55.048
90	0.596	0.629	0.662	0.463	0.497	0.861	1.655	2.847	2.946	1.887
95	0.397	0.364	0.331	0.199	0.132	0.166	0.265	0.530	0.463	0.166
100	0.265	0.331	0.298	0.232	0.132	0.199	0.265	0.298	0.298	0.232
105	0.331	0.331	0.298	0.298	0.199	0.298	0.331	0.331	0.298	0.232
110	0.364	0.364	0.463	0.331	0.364	0.563	0.563	0.530	0.463	0.397
115	0.761	0.861	0.894	0.960	1.026	1.125	1.192	0.927	0.794	0.662
120	1.456	1.688	1.854	2.152	2.317	2.350	2.317	1.887	1.655	1.390
125	2.847	3.244	3.608	3.840	4.204	4.303	4.270	3.674	3.310	2.516
130	3.740	4.071	4.535	5.065	5.793	6.256	5.826	5.263	4.535	3.774
135	4.138	4.138	4.535	5.462	6.819	7.117	6.753	6.256	5.462	4.568
140	3.939	4.336	5.031	5.561	6.687	7.249	7.349	6.653	5.991	5.362
145	4.204	4.535	5.131	6.157	6.951	7.282	7.216	6.455	6.058	4.965
150	3.939	4.270	4.965	6.091	6.786	6.984	6.289	5.594	5.263	4.700
155	3.509	3.707	4.336	5.031	5.793	5.826	5.594	5.131	4.833	4.270
160	2.781	2.979	3.145	3.310	3.707	3.906	4.270	4.171	4.171	3.840
165	1.523	1.556	1.390	1.423	1.821	2.284	2.185	2.483	2.483	2.251
170	0.530	0.596	0.563	0.331	0.099	0.099	0.463	0.728	0.960	0.993
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

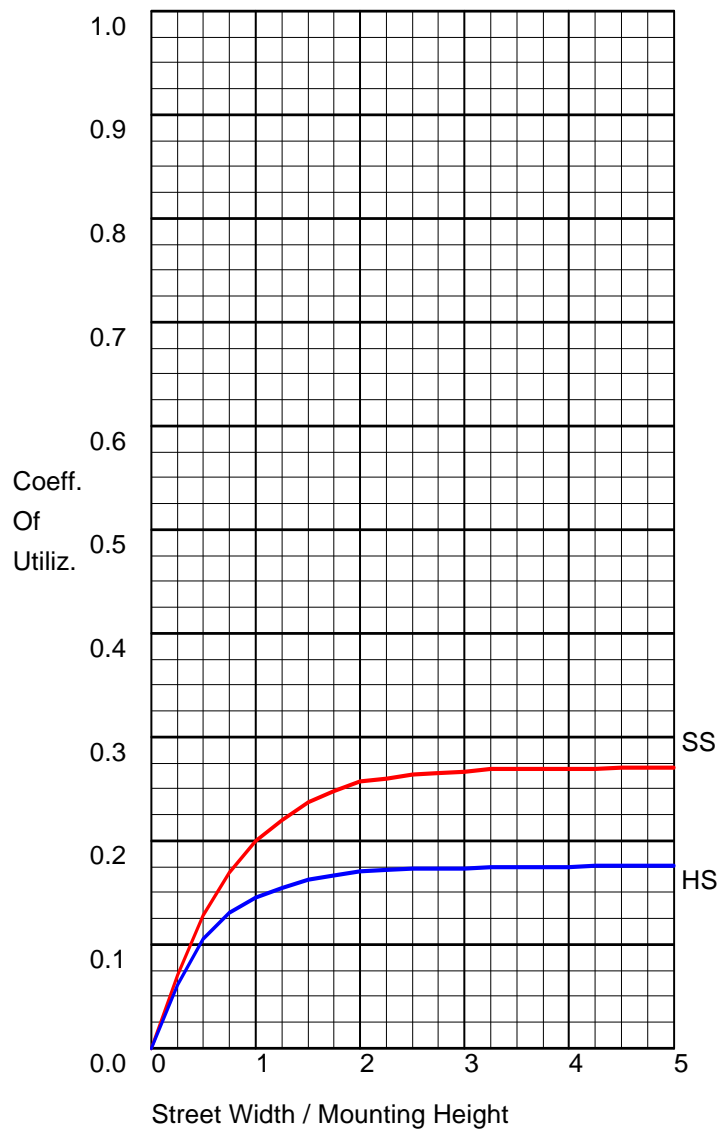
Vert. Angles	Horizontal Angles								
	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>
0	2052.591	2052.591	2052.591	2052.591	2052.591	2052.591	2052.591	2052.591	2052.591
5	1989.533	1949.082	1899.132	1771.559	1665.303	1553.718	1444.914	1365.437	1292.746
10	1720.848	1596.618	1208.701	974.508	972.125	1073.117	1142.333	1133.958	1113.832
15	953.820	845.280	839.818	1090.099	1100.526	1122.637	1148.192	1149.814	1067.590
20	911.516	719.395	896.885	1052.131	1024.359	1011.582	1114.925	1166.861	1116.613
25	1207.179	837.302	727.273	921.115	1011.979	999.069	947.299	934.919	879.805
30	1442.431	970.470	911.582	1050.741	924.161	871.000	842.433	875.965	838.196
35	1641.603	1189.304	1125.947	1079.506	930.119	807.511	802.016	871.132	858.355
40	1901.516	1306.318	1086.623	977.752	853.092	721.844	685.532	722.606	733.761
45	2245.904	1537.101	1075.633	807.643	644.718	601.520	611.914	670.537	683.380
50	3290.852	2071.525	1117.275	664.148	515.390	531.478	593.609	637.303	666.399
55	4092.140	2543.685	1183.776	593.344	477.721	479.773	587.022	674.476	685.168

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CANDELA TABULATION - (Cont.)

60	3941.131	2510.517	1101.121	546.572	436.675	440.746	515.126	605.691	593.046
65	3809.949	2206.480	861.102	447.797	363.752	363.355	412.478	480.402	481.461
70	2985.590	1694.731	632.934	309.764	262.263	273.816	294.901	336.874	339.290
75	1683.509	946.570	338.761	166.335	148.162	163.323	175.603	185.865	187.553
80	118.636	107.116	71.334	50.877	45.945	55.710	59.086	58.523	51.175
85	31.678	18.669	16.749	19.166	15.591	15.061	15.657	14.697	12.148
90	2.350	1.688	0.861	0.695	0.662	0.794	1.192	1.721	1.192
95	0.265	0.199	0.099	0.132	0.166	0.232	0.397	0.563	0.430
100	0.132	0.099	0.099	0.099	0.132	0.199	0.331	0.430	0.397
105	0.166	0.132	0.132	0.166	0.199	0.232	0.298	0.331	0.430
110	0.265	0.166	0.199	0.265	0.265	0.265	0.298	0.331	0.397
115	0.463	0.331	0.331	0.463	0.497	0.530	0.430	0.430	0.463
120	0.960	0.629	0.629	0.761	0.927	0.927	0.728	0.695	0.629
125	1.655	1.159	0.993	1.026	1.225	1.225	1.092	0.993	0.960
130	2.615	1.754	1.324	1.324	1.556	1.622	1.456	1.192	1.125
135	3.310	2.152	1.655	1.589	1.655	1.787	1.688	1.390	1.490
140	3.774	3.012	2.284	1.986	2.019	1.953	1.787	1.655	1.291
145	4.138	3.343	3.078	2.648	2.450	2.152	1.721	1.556	1.490
150	4.105	3.509	3.409	3.542	2.979	2.483	1.920	1.589	1.523
155	3.807	3.542	3.343	3.674	3.674	2.847	2.383	2.152	1.754
160	3.310	3.012	3.045	3.078	3.078	3.343	2.913	2.714	2.549
165	1.986	1.688	1.456	2.118	2.549	1.986	2.019	2.218	2.218
170	0.861	0.563	0.430	0.066	0.132	0.530	0.993	1.291	1.159
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

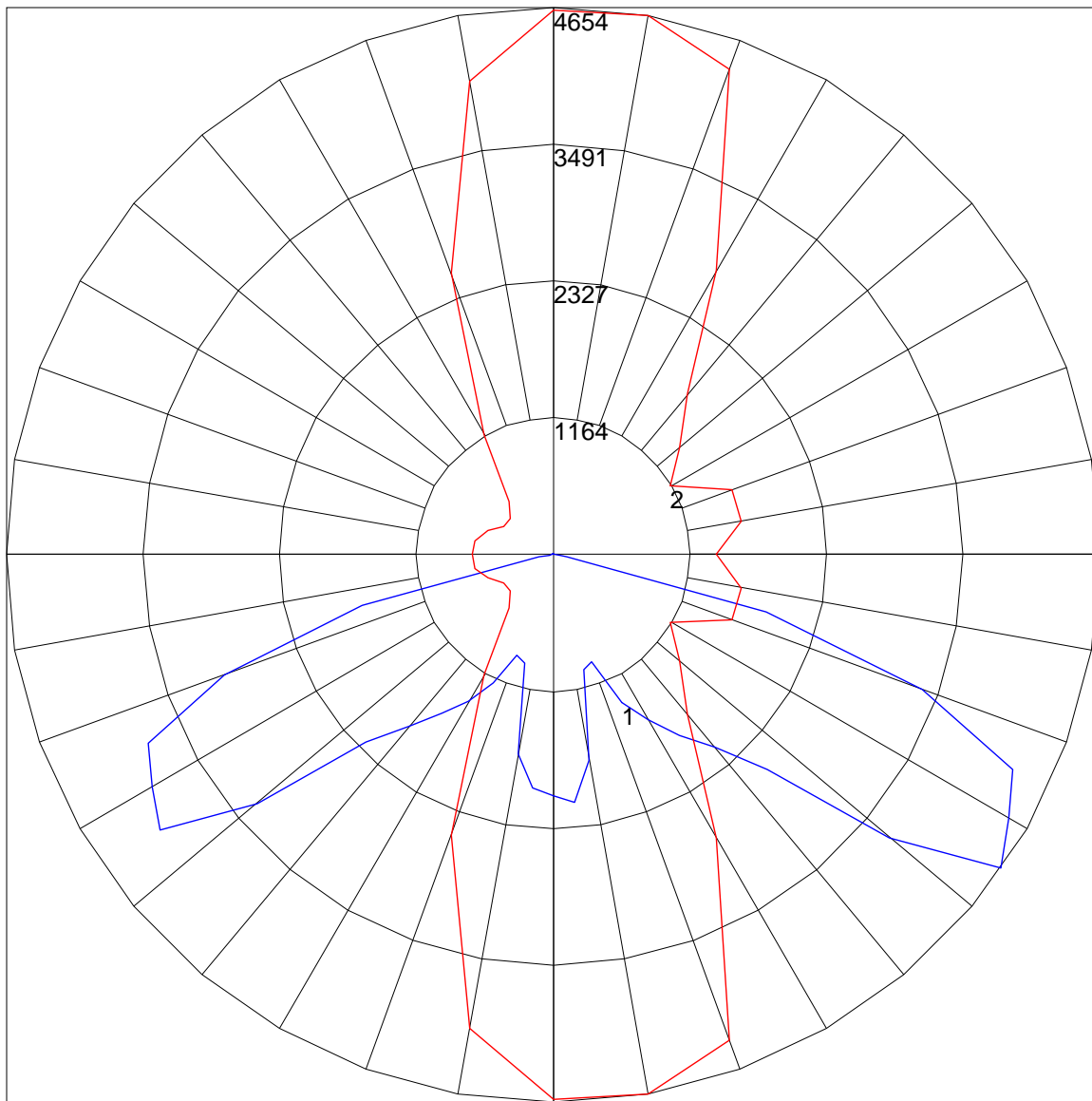
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

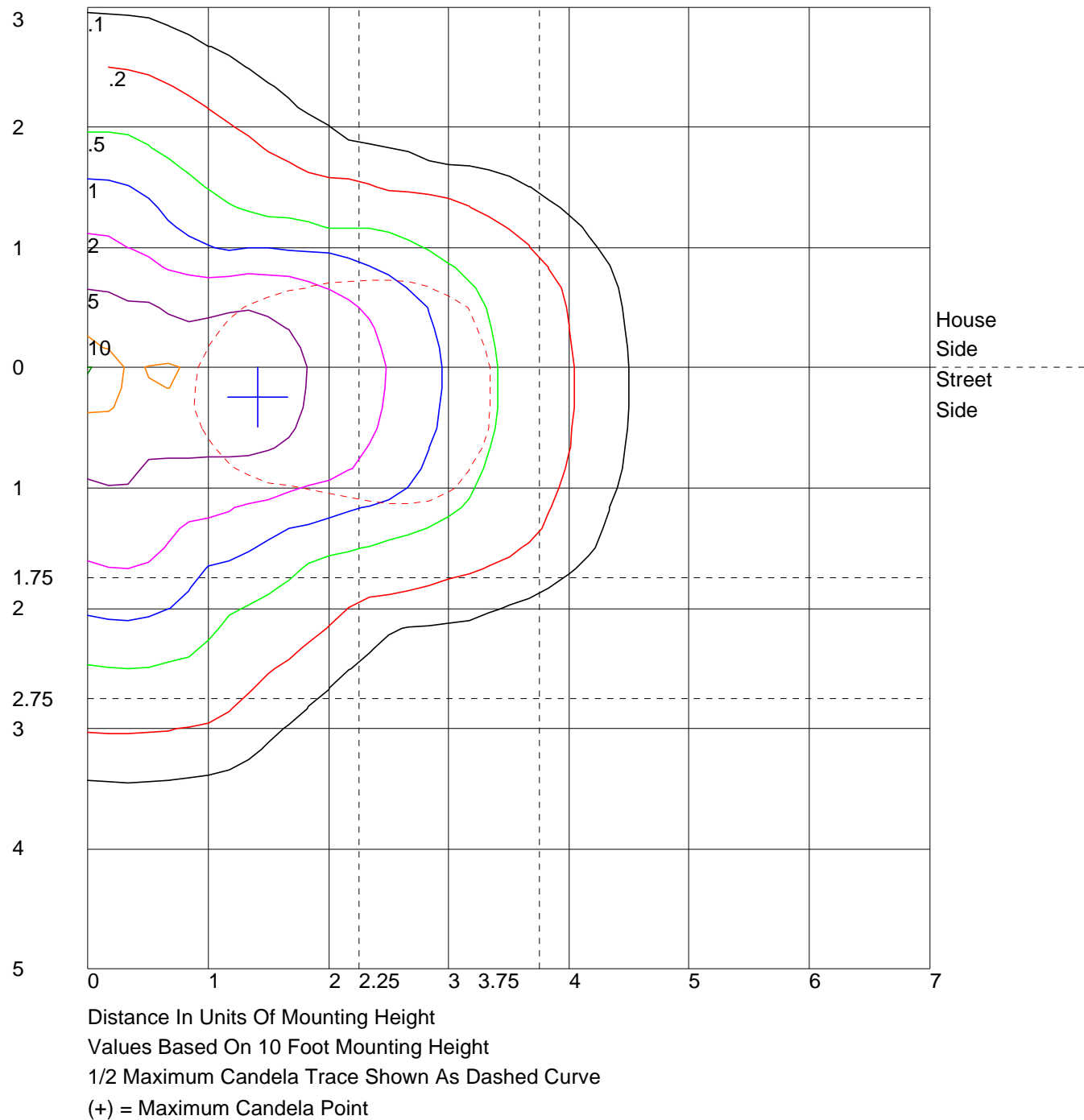
	Lumens	Percent Of Lamp
Downward Street Side	4243.2	27.1
Downward House Side	2764.2	17.6
Downward Total	7007.4	44.7
Upward Street Side	8.0	0.1
Upward House Side	3.8	0.0
Upward Total	11.8	0.1
Total Flux	7019.2	44.8

POLAR GRAPH

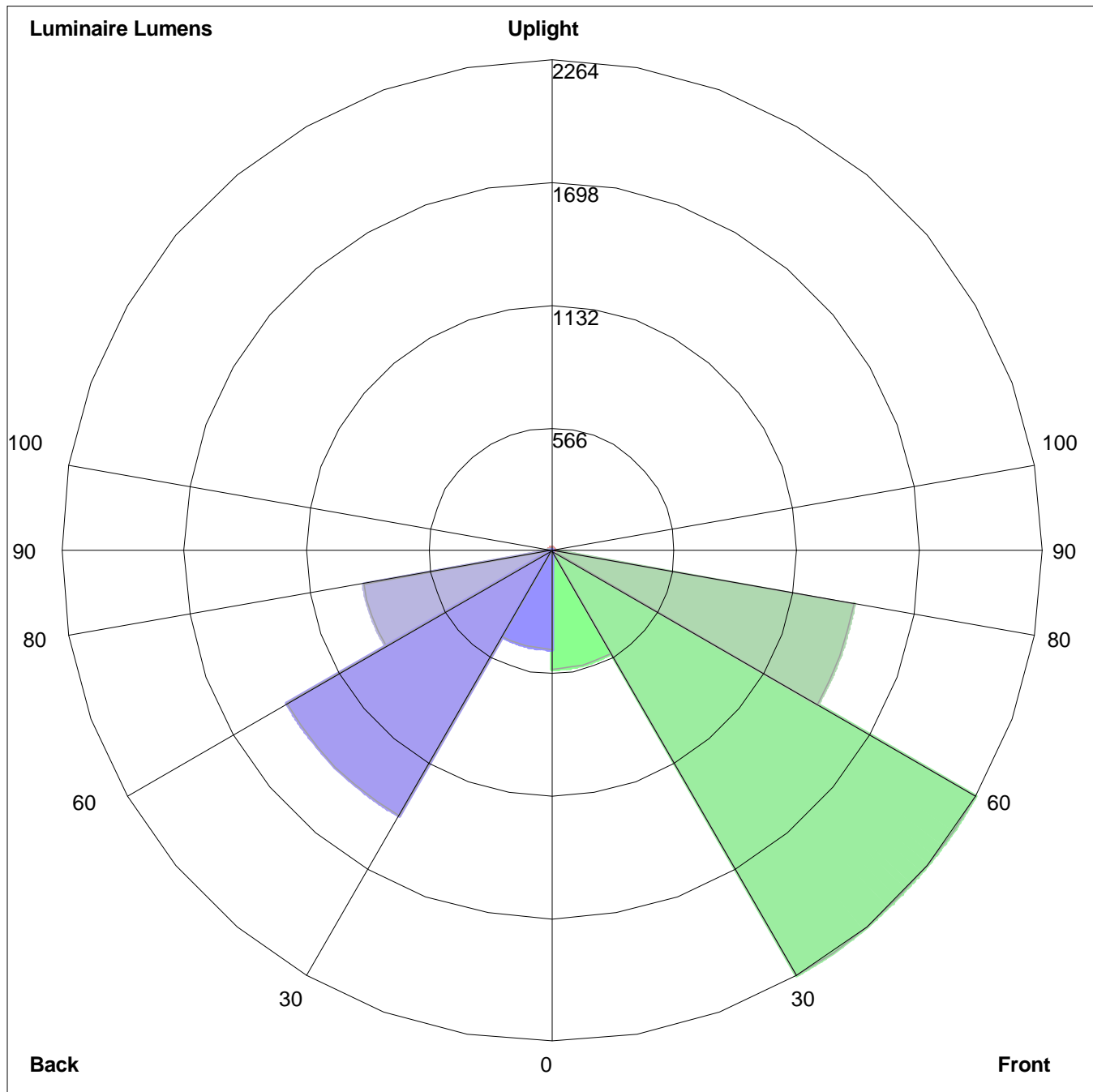


Maximum Candela = 4654.435 Located At Horizontal Angle = 80, Vertical Angle = 55
1 - Vertical Plane Through Horizontal Angles (80 - 260) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (55) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=545.7, Medium=2264.3, High=1417.5, Very High=15.6
Back: Low=454.5, Medium=1410.9, High=883.3, Very High=15.4
Uplight: Low=0.6, High=11.3

BUG Rating : B2-U2-G2