

Family Correlated Photometric Data

The following photometric information is developed using correlated data. Finelite considers a family to be a group of luminaires where critical performance metrics such as photometric performance, thermal performance, and electrical performance can be accurately projected via a combination of LM79 tests at the luminaire level and well-documented specifications at the component level.

For more information, please download [Finelite's Family Correlated White Paper](#)

Additional links:

- [Solid-State Lighting: Early Lessons Learned on the Way to Market](#)
(U.S. Department of Energy)
- [Lighting Facts®](#)
- [Design Lights Consortium®](#)

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-S-835-ASYTG-F-ITL90353 ITL89988.010.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89988.010 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/03/18

[ISSUEDATE]06/05/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-ID-RG-4ft-B-S-835-ASYTG-F

[_INPUT_ELECTRICAL]120.0 VOLTS, 32.8 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 35.3 WATTS

[_ABSOLUTE]LUMENS]3706

[OTHER]see www.finelite.com for source files ITL90353 and ITL89988. For further details on Finelite family correlation files, go to

[more]http://www.finelite.com/download_files/series_downloads/photometry_pdf/FL_Family_Correlation_WhitePaper.pdf

[_CONVERT] Photometric web converted from original test data

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3706
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	32.8
Ballast Factor	1.00
CIE Type	Semi-Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4212	3849	3568
55	3926	3391	3022
65	3571	2810	2336
75	3113	1956	1467
85	2273	1259	1174

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CANDELA TABULATION

	<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>
0.0	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324
2.5	606.115	605.936	605.756	605.846	606.025	606.115	606.115	606.115	606.115	606.115
5.0	603.294	603.115	602.935	602.891	602.891	602.980	603.160	603.338	603.518	603.697
7.5	598.861	598.682	598.503	598.458	598.458	598.458	598.458	598.413	598.234	598.055
10.0	593.219	592.324	591.428	591.472	591.831	591.741	591.204	590.621	589.905	589.189
12.5	585.159	584.084	583.009	582.741	582.741	582.203	581.129	580.009	578.756	577.502
15.0	575.890	574.099	572.308	571.726	571.546	570.740	569.308	567.785	565.994	564.203
17.5	564.606	562.456	560.307	559.098	558.202	556.769	554.799	552.874	551.083	549.292
20.0	551.307	548.799	546.292	544.590	543.157	541.097	538.410	535.993	534.380	532.768
22.5	536.799	534.112	531.425	529.007	526.679	523.903	520.678	517.813	516.021	514.231
25.0	521.082	518.037	514.992	511.947	508.902	505.409	501.469	498.066	496.274	494.483
27.5	504.155	500.752	497.349	493.543	489.602	485.483	481.184	477.468	475.498	473.527
30.0	485.618	482.214	478.811	474.468	469.811	465.064	460.228	456.019	453.691	451.362
32.5	466.273	462.870	459.467	454.452	448.899	443.437	438.063	433.316	430.451	427.585
35.0	446.929	442.989	439.048	433.496	427.406	421.406	415.495	410.301	407.256	404.211
37.5	426.779	422.301	417.823	411.599	404.793	398.077	391.449	385.807	383.120	380.434
40.0	405.823	401.166	396.509	389.568	381.867	374.702	368.075	362.344	359.299	356.254
42.5	384.867	379.673	374.479	367.269	359.388	351.776	344.432	338.163	335.118	332.074
45.0	363.508	357.955	352.403	344.701	336.283	328.133	320.252	313.625	310.759	307.894
47.5	342.149	336.059	329.969	321.864	313.087	304.580	296.341	289.445	286.579	283.714
50.0	319.983	313.536	307.088	298.490	289.176	280.310	271.892	264.862	261.996	259.130
52.5	297.416	290.788	284.161	275.250	265.578	256.533	248.115	241.084	238.219	235.353
55.0	274.847	268.220	261.593	252.279	242.070	232.756	224.338	217.307	214.442	211.576
57.5	252.682	245.697	238.712	229.174	218.786	209.382	200.964	193.933	191.067	188.202
60.0	230.114	222.950	215.785	206.068	195.501	186.008	177.589	170.559	167.693	164.828
62.5	207.546	200.202	192.859	182.963	172.216	162.723	154.484	147.633	144.946	142.260
65.0	184.172	177.187	170.201	160.395	149.648	140.245	132.185	125.513	123.005	120.497
67.5	162.007	154.842	147.678	137.827	127.080	117.945	110.423	104.154	101.646	99.138
70.0	139.842	132.677	125.513	115.930	105.542	96.676	89.332	83.287	81.138	78.989
72.5	118.079	111.094	104.109	94.974	85.123	76.794	69.988	64.346	62.197	60.047
75.0	98.332	90.989	83.645	74.824	65.510	58.077	52.525	48.136	47.241	46.345
77.5	78.182	71.197	64.212	56.152	47.733	42.449	40.300	38.644	38.464	38.285
80.0	58.838	52.211	45.584	39.763	34.211	31.166	30.628	30.225	30.225	30.225
82.5	41.912	35.106	28.300	25.255	23.464	22.389	22.031	21.762	21.762	21.762
85.0	24.180	19.881	15.583	14.105	13.567	13.209	13.030	12.852	12.672	12.493
87.5	7.657	6.403	5.149	4.702	4.523	4.433	4.433	4.388	4.209	4.030
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	34.482	34.996	34.996	33.967	31.394	30.364	31.394	30.879	25.733	11.322
95.0	73.081	74.625	75.139	73.595	74.110	78.742	81.315	73.081	54.553	29.335
97.5	115.282	116.826	121.973	127.119	135.354	140.500	131.751	109.621	79.771	47.863
100.0	178.584	180.643	187.334	195.568	202.773	199.171	178.584	145.132	105.504	66.905
102.5	241.372	243.945	251.665	262.473	268.649	255.782	223.874	179.614	129.692	86.976
105.0	299.528	303.645	318.055	334.524	337.612	314.967	271.222	213.066	153.367	106.533
107.5	369.006	377.240	401.944	418.413	411.722	376.726	317.026	243.945	175.497	127.119
110.0	464.731	477.083	499.728	505.389	484.803	434.882	357.684	270.707	197.112	147.705
112.5	581.043	587.219	598.027	591.336	557.369	487.376	391.651	294.896	218.727	168.806
115.0	687.062	689.120	691.693	672.651	620.671	529.578	418.927	317.026	239.828	189.907
117.5	786.389	784.331	776.096	740.071	668.019	559.428	440.543	337.612	261.958	211.008
120.0	866.161	859.985	840.428	788.448	698.899	578.984	458.041	357.684	283.059	234.167
122.5	923.802	912.480	881.600	817.269	715.367	592.880	475.025	377.755	306.218	257.841
125.0	957.769	943.359	903.730	829.106	723.087	602.144	489.435	397.312	328.349	280.486
127.5	969.606	952.622	907.848	829.620	724.631	610.378	503.845	416.869	350.993	303.645
130.0	964.459	946.961	900.128	822.930	724.116	618.098	519.285	436.426	372.609	326.290
132.5	948.505	932.036	886.747	814.181	723.087	626.332	535.239	457.012	395.768	349.449

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-S-835-ASYTG-F-ITL90353 ITL89988.010.IES

CANDELA TABULATION - (Cont.)

135.0	927.919	912.480	870.793	804.402	722.573	635.596	551.193	477.083	418.927	372.609
137.5	906.818	892.923	854.324	795.653	723.087	644.860	567.662	498.699	442.087	396.283
140.0	885.717	873.366	839.913	788.448	724.631	654.638	584.131	519.799	465.246	420.471
142.5	867.190	856.382	828.076	783.816	727.719	665.446	601.629	540.900	488.406	444.145
145.0	852.780	842.487	818.298	780.728	731.322	676.254	618.613	562.001	511.050	467.819
147.5	840.428	832.194	811.607	778.670	735.439	687.576	635.596	582.072	533.695	491.493
150.0	830.650	822.930	805.432	777.640	741.100	699.413	652.065	601.629	555.310	515.168
152.5	821.901	815.210	800.800	777.126	746.761	709.706	665.961	619.127	575.382	536.783
155.0	813.666	808.520	797.197	778.670	752.422	719.485	678.827	635.082	594.424	557.884
157.5	809.034	804.402	795.139	779.699	756.540	726.690	689.635	648.977	611.922	577.955
160.0	805.432	801.829	794.109	779.699	758.598	731.836	697.869	661.329	627.876	596.483
162.5	798.741	797.197	789.992	777.126	758.084	734.410	704.045	671.107	641.772	613.466
165.0	791.021	789.477	782.272	770.435	753.966	733.380	707.133	678.827	653.609	627.876
167.5	778.155	777.126	771.465	760.657	746.247	728.234	706.618	683.459	661.844	640.228
170.0	761.686	761.172	756.025	747.791	735.954	721.029	704.045	686.032	668.534	651.036
172.5	741.100	741.615	738.012	731.322	722.058	710.736	698.899	686.032	672.137	658.756
175.0	721.029	719.485	716.911	712.794	706.618	699.413	691.693	683.459	674.195	665.446
177.5	695.296	695.296	693.752	691.693	688.606	685.518	681.915	677.283	672.651	668.534
180.0	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078

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>
0.0	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324
2.5	606.115	606.115	606.115	606.115	606.025	605.846	605.756	605.936	606.115
5.0	603.518	603.338	603.160	602.980	602.891	602.891	602.935	603.115	603.294
7.5	598.234	598.413	598.458	598.458	598.458	598.458	598.503	598.682	598.861
10.0	589.905	590.621	591.204	591.741	591.831	591.472	591.428	592.324	593.219
12.5	578.756	580.009	581.129	582.203	582.741	582.741	583.009	584.084	585.159
15.0	565.994	567.785	569.308	570.740	571.546	571.726	572.308	574.099	575.890
17.5	551.083	552.874	554.799	556.769	558.202	559.098	560.307	562.456	564.606
20.0	534.380	535.993	538.410	541.097	543.157	544.590	546.292	548.799	551.307
22.5	516.021	517.813	520.678	523.903	526.679	529.007	531.425	534.112	536.799
25.0	496.274	498.066	501.469	505.409	508.902	511.947	514.992	518.037	521.082
27.5	475.498	477.468	481.184	485.483	489.602	493.543	497.349	500.752	504.155
30.0	453.691	456.019	460.228	465.064	469.811	474.468	478.811	482.214	485.618
32.5	430.451	433.316	438.063	443.437	448.899	454.452	459.467	462.870	466.273
35.0	407.256	410.301	415.495	421.406	427.406	433.496	439.048	442.989	446.929
37.5	383.120	385.807	391.449	398.077	404.793	411.599	417.823	422.301	426.779
40.0	359.299	362.344	368.075	374.702	381.867	389.568	396.509	401.166	405.823
42.5	335.118	338.163	344.432	351.776	359.388	367.269	374.479	379.673	384.867
45.0	310.759	313.625	320.252	328.133	336.283	344.701	352.403	357.955	363.508
47.5	286.579	289.445	296.341	304.580	313.087	321.864	329.969	336.059	342.149
50.0	261.996	264.862	271.892	280.310	289.176	298.490	307.088	313.536	319.983
52.5	238.219	241.084	248.115	256.533	265.578	275.250	284.161	290.788	297.416
55.0	214.442	217.307	224.338	232.756	242.070	252.279	261.593	268.220	274.847
57.5	191.067	193.933	200.964	209.382	218.786	229.174	238.712	245.697	252.682
60.0	167.693	170.559	177.589	186.008	195.501	206.068	215.785	222.950	230.114
62.5	144.946	147.633	154.484	162.723	172.216	182.963	192.859	200.202	207.546
65.0	123.005	125.513	132.185	140.245	149.648	160.395	170.201	177.187	184.172
67.5	101.646	104.154	110.423	117.945	127.080	137.827	147.678	154.842	162.007
70.0	81.138	83.287	89.332	96.676	105.542	115.930	125.513	132.677	139.842
72.5	62.197	64.346	69.988	76.794	85.123	94.974	104.109	111.094	118.079
75.0	47.241	48.136	52.525	58.077	65.510	74.824	83.645	90.989	98.332
77.5	38.464	38.644	40.300	42.449	47.733	56.152	64.212	71.197	78.182
80.0	30.225	30.225	30.628	31.166	34.211	39.763	45.584	52.211	58.838

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-S-835-ASYTG-F-ITL90353 ITL89988.010.IES****CANDELA TABULATION - (Cont.)**

82.5	21.762	21.762	22.031	22.389	23.464	25.255	28.300	35.106	41.912
85.0	12.672	12.852	13.030	13.209	13.567	14.105	15.583	19.881	24.180
87.5	4.209	4.388	4.433	4.433	4.523	4.702	5.149	6.403	7.657
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	19.557	27.791	35.511	43.231	48.892	53.009	56.612	58.156	59.700
95.0	35.511	44.775	55.583	66.905	75.654	81.315	86.462	88.006	90.064
97.5	51.465	60.729	73.595	88.520	99.843	108.592	115.797	118.370	120.943
100.0	68.449	77.713	91.608	107.048	119.914	130.722	139.986	143.588	147.191
102.5	85.432	94.696	109.621	126.605	139.986	149.764	157.998	161.601	165.204
105.0	103.445	110.650	125.575	142.559	156.969	168.292	177.555	180.129	182.702
107.5	121.458	126.090	140.500	157.998	172.923	185.275	195.053	197.627	199.685
110.0	138.956	141.015	155.425	173.438	189.392	202.773	213.066	215.639	217.698
112.5	156.454	155.425	169.835	188.878	205.861	219.757	230.565	233.652	236.226
115.0	174.982	170.865	184.246	203.288	220.786	235.711	247.548	250.636	253.724
117.5	194.539	186.819	198.656	217.184	234.682	251.665	265.046	268.134	271.222
120.0	214.610	203.288	213.066	230.050	247.548	265.561	279.971	284.088	288.206
122.5	235.196	219.757	227.477	242.401	259.385	278.942	294.896	300.043	304.675
125.0	255.268	235.711	240.343	253.209	269.678	289.750	306.733	312.909	319.085
127.5	275.339	252.180	253.724	263.502	278.942	299.013	316.512	324.231	331.951
130.0	295.411	268.134	266.590	273.795	286.662	305.704	322.173	330.922	339.671
132.5	315.482	284.088	279.971	284.603	294.896	311.880	326.290	334.010	342.244
135.0	337.098	302.616	294.381	294.896	302.616	316.512	328.863	336.068	343.273
137.5	359.228	322.173	310.336	306.733	310.336	321.658	331.951	337.612	343.273
140.0	381.872	343.273	326.805	318.055	317.541	326.290	334.010	338.642	343.273
142.5	404.517	364.889	344.303	329.378	325.261	330.922	336.583	339.671	343.273
145.0	427.676	386.504	361.286	341.215	332.980	336.583	339.671	341.729	343.788
147.5	450.321	408.120	379.299	355.111	343.273	343.788	344.303	345.332	346.361
150.0	473.995	431.794	399.885	371.579	355.625	352.537	349.964	350.479	350.479
152.5	497.669	455.982	423.045	392.680	373.123	363.860	357.169	356.140	355.111
155.0	520.829	481.715	448.777	418.413	395.253	379.814	367.462	365.404	363.345
157.5	543.473	507.448	476.054	445.689	420.471	400.915	385.475	380.843	376.726
160.0	565.089	532.666	502.301	472.966	448.777	429.735	413.781	407.605	401.429
162.5	585.160	556.854	528.548	500.757	478.113	460.614	446.204	440.543	434.367
165.0	603.173	578.984	554.796	531.122	510.536	493.037	478.627	473.481	468.334
167.5	619.127	599.056	579.499	559.942	542.444	527.005	513.624	508.477	503.330
170.0	633.538	617.583	602.144	587.219	573.838	562.516	553.252	549.135	545.017
172.5	645.889	633.538	622.215	611.408	602.144	594.424	588.248	585.160	582.587
175.0	656.697	647.948	640.743	634.052	627.876	623.245	619.127	617.583	615.525
177.5	664.417	659.785	656.182	652.580	650.006	647.433	645.375	644.345	643.316
180.0	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-S-835-ASYTG-F-ITL90353 ITL89988.010.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	217.75	N.A.	5.90
0-30	451.00	N.A.	12.20
0-40	716.40	N.A.	19.30
0-60	1187.71	N.A.	32.00
0-80	1405.91	N.A.	37.90
0-90	1423.39	N.A.	38.40
10-90	1366.19	N.A.	36.90
20-40	498.65	N.A.	13.50
20-50	755.71	N.A.	20.40
40-70	617.85	N.A.	16.70
60-80	218.21	N.A.	5.90
70-80	71.66	N.A.	1.90
80-90	17.48	N.A.	0.50
90-110	297.32	N.A.	8.00
90-120	653.48	N.A.	17.60
90-130	1063.74	N.A.	28.70
90-150	1777.81	N.A.	48.00
90-180	2282.96	N.A.	61.60
110-180	1985.64	N.A.	53.60
0-180	3706.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	57.21
10-20	160.55
20-30	233.25
30-40	265.40
40-50	257.06
50-60	214.24
60-70	146.55
70-80	71.66
80-90	17.48
90-100	75.33
100-110	221.99
110-120	356.16
120-130	410.26
130-140	383.40
140-150	330.68
150-160	264.28
160-170	177.64
170-180	63.22

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-S-835-ASYTG-F-ITL90353 ITL89988.010.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

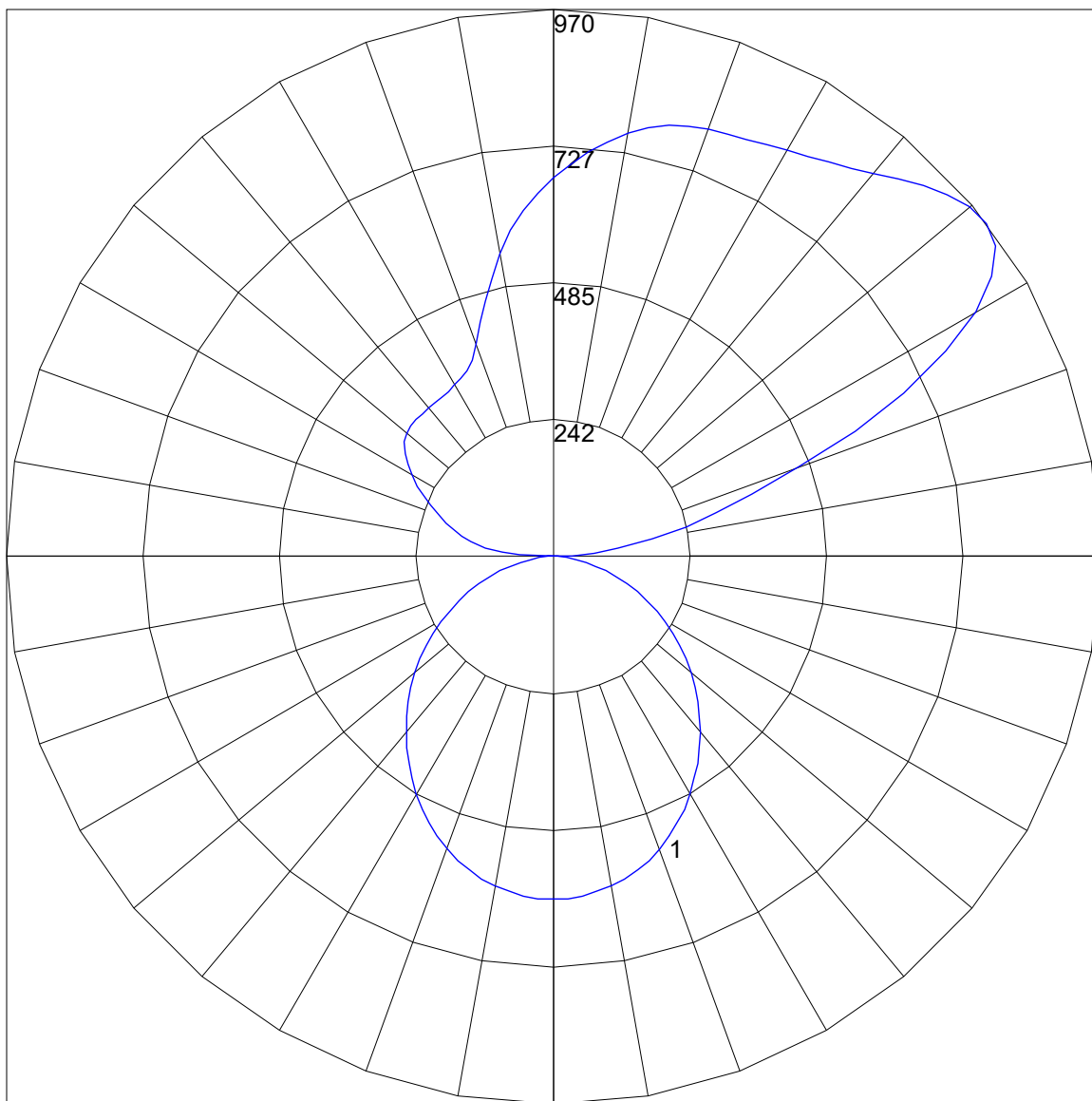
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	45	45	45	38
1	95	91	88	84	87	83	80	77	68	66	64	54	52	51	41	40	39	33
2	87	80	74	69	79	73	68	64	60	56	53	47	45	43	36	34	33	28
3	79	70	63	58	72	64	58	53	53	48	45	42	39	36	32	30	28	24
4	73	62	55	49	66	57	50	45	47	42	38	37	34	31	29	26	25	21
5	67	56	48	42	60	51	44	39	42	37	33	34	30	27	26	23	21	18
6	62	50	42	36	56	46	39	34	38	33	29	30	27	24	24	21	19	16
7	57	45	37	32	52	41	34	30	34	29	25	28	24	21	22	19	17	14
8	53	41	33	28	48	37	31	26	31	26	22	25	22	19	20	17	15	13
9	49	37	30	25	45	34	28	23	29	24	20	23	20	17	18	16	14	11
10	46	34	27	22	42	31	25	21	26	21	18	21	18	15	17	14	12	10

IES INDOOR REPORT

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POLAR GRAPH



Maximum Candela = 969.606 Located At Horizontal Angle = 0, Vertical Angle = 127.5

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)