

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-S-S-835-ASYTG-F-ITL90353 ITL89988.001.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89988.001 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-S-S-835-ASYTG-F

[_INPUT_ELECTRICAL]120.0 VOLTS, 28.9 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 31.6 WATTS

[_ABSOLUTE]LUMENS]3239

[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	3239
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	28.9
Ballast Factor	1.00
CIE Type	General Diffuse
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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PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-S-835-ASYTG-F-ITL90353 ITL89988.001.IES

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	27.428	27.838	27.838	27.019	24.972	24.153	24.972	24.563	20.469	9.006
95.0	58.132	59.360	59.769	58.541	58.950	62.635	64.682	58.132	43.394	23.334
97.5	91.701	92.929	97.022	101.116	107.666	111.760	104.801	87.198	63.454	38.072
100.0	142.054	143.692	149.013	155.564	161.295	158.429	142.054	115.445	83.922	53.219
102.5	191.998	194.045	200.186	208.783	213.695	203.461	178.079	142.873	103.163	69.185
105.0	238.258	241.533	252.995	266.096	268.552	250.539	215.742	169.482	121.995	84.741
107.5	293.524	300.074	319.724	332.824	327.502	299.665	252.177	194.045	139.598	101.116
110.0	369.668	379.493	397.506	402.009	385.634	345.924	284.518	215.333	156.792	117.491
112.5	462.188	467.100	475.697	470.375	443.356	387.681	311.536	234.573	173.986	134.276
115.0	546.519	548.157	550.204	535.057	493.710	421.250	333.234	252.177	190.770	151.060
117.5	625.529	623.892	617.342	588.685	531.372	444.994	350.427	268.552	208.373	167.845
120.0	688.983	684.070	668.514	627.167	555.935	460.550	364.346	284.518	225.158	186.267
122.5	734.833	725.827	701.264	650.092	569.035	471.603	377.856	300.483	243.580	205.098
125.0	761.852	750.389	718.867	659.508	575.176	478.972	389.318	316.040	261.183	223.111
127.5	771.268	757.758	722.143	659.917	576.404	485.522	400.781	331.596	279.196	241.533
130.0	767.174	753.255	716.002	654.595	575.995	491.663	413.062	347.152	296.389	259.546
132.5	754.483	741.383	705.358	647.636	575.176	498.213	425.753	363.527	314.812	277.967

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-S-835-ASYTG-F-ITL90353 ITL89988.001.IES

CANDELA TABULATION - (Cont.)

135.0	738.108	725.827	692.667	639.857	574.766	505.582	438.444	379.493	333.234	296.389
137.5	721.324	710.270	679.567	632.898	575.176	512.950	451.544	396.687	351.656	315.221
140.0	704.539	694.714	668.105	627.167	576.404	520.729	464.644	413.472	370.077	334.462
142.5	689.802	681.205	658.689	623.482	578.860	529.326	478.563	430.256	388.500	353.293
145.0	678.339	670.152	650.911	621.026	581.726	537.922	492.072	447.041	406.512	372.125
147.5	668.514	661.964	645.589	619.389	585.001	546.929	505.582	463.006	424.525	390.956
150.0	660.736	654.595	640.676	618.570	589.504	556.345	518.682	478.563	441.719	409.787
152.5	653.776	648.455	636.992	618.160	594.007	564.532	529.735	492.481	457.684	426.981
155.0	647.226	643.133	634.126	619.389	598.510	572.310	539.969	505.172	472.831	443.766
157.5	643.542	639.857	632.489	620.207	601.785	578.042	548.566	516.225	486.750	459.731
160.0	640.676	637.811	631.670	620.207	603.423	582.135	555.116	526.051	499.441	474.469
162.5	635.354	634.126	628.395	618.160	603.014	584.182	560.029	533.829	510.494	487.978
165.0	629.214	627.986	622.254	612.839	599.739	583.363	562.485	539.969	519.910	499.441
167.5	618.979	618.160	613.657	605.060	593.598	579.270	562.076	543.654	526.460	509.266
170.0	605.879	605.470	601.376	594.826	585.410	573.538	560.029	545.701	531.782	517.863
172.5	589.504	589.913	587.048	581.726	574.357	565.351	555.935	545.701	534.647	524.004
175.0	573.538	572.310	570.263	566.988	562.076	556.345	550.204	543.654	536.285	529.326
177.5	553.069	553.069	551.841	550.204	547.747	545.291	542.426	538.741	535.057	531.782
180.0	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010

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-S-S-835-ASYTG-F-ITL90353 ITL89988.001.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	15.556	22.106	28.247	34.388	38.891	42.166	45.032	46.260	47.488
95.0	28.247	35.616	44.213	53.219	60.178	64.682	68.775	70.004	71.641
97.5	40.938	48.307	58.541	70.413	79.419	86.379	92.110	94.157	96.204
100.0	54.447	61.816	72.869	85.151	95.385	103.982	111.351	114.216	117.082
102.5	67.957	75.326	87.198	100.707	111.351	119.129	125.679	128.545	131.410
105.0	82.285	88.016	99.888	113.398	124.860	133.867	141.235	143.282	145.329
107.5	96.613	100.298	111.760	125.679	137.551	147.376	155.154	157.201	158.839
110.0	110.532	112.169	123.632	137.960	150.651	161.295	169.482	171.529	173.167
112.5	124.451	123.632	135.095	150.242	163.751	174.804	183.401	185.857	187.904
115.0	139.189	135.913	146.557	161.704	175.623	187.495	196.911	199.367	201.823
117.5	154.745	148.604	158.020	172.757	186.676	200.186	210.830	213.286	215.742
120.0	170.711	161.704	169.482	182.992	196.911	211.239	222.702	225.977	229.252
122.5	187.086	174.804	180.945	192.817	206.326	221.883	234.573	238.667	242.352
125.0	203.051	187.495	191.179	201.414	214.514	230.480	243.989	248.902	253.814
127.5	219.017	200.595	201.823	209.601	221.883	237.849	251.767	257.908	264.049
130.0	234.983	213.286	212.058	217.789	228.023	243.170	256.271	263.230	270.189
132.5	250.949	225.977	222.702	226.386	234.573	248.083	259.546	265.686	272.236
135.0	268.142	240.714	234.164	234.573	240.714	251.767	261.592	267.324	273.055
137.5	285.746	256.271	246.855	243.989	246.855	255.861	264.049	268.552	273.055
140.0	303.758	273.055	259.955	252.995	252.586	259.546	265.686	269.371	273.055
142.5	321.771	290.249	273.874	262.002	258.727	263.230	267.733	270.189	273.055
145.0	340.193	307.443	287.383	271.418	264.868	267.733	270.189	271.827	273.464
147.5	358.206	324.637	301.712	282.471	273.055	273.464	273.874	274.692	275.511
150.0	377.037	343.468	318.087	295.571	282.880	280.424	278.377	278.786	278.786
152.5	395.868	362.709	336.509	312.355	296.799	289.430	284.108	283.289	282.471
155.0	414.290	383.178	356.977	332.824	314.402	302.121	292.296	290.658	289.021
157.5	432.303	403.647	378.675	354.521	334.462	318.905	306.624	302.940	299.665
160.0	449.497	423.706	399.553	376.218	356.977	341.830	329.140	324.227	319.315
162.5	465.463	442.947	420.431	398.325	380.312	366.393	354.931	350.427	345.515
165.0	479.791	460.550	441.309	422.478	406.103	392.184	380.721	376.628	372.534
167.5	492.481	476.516	460.959	445.403	431.484	419.203	408.559	404.465	400.372
170.0	503.944	491.253	478.972	467.100	456.456	447.450	440.081	436.806	433.531
172.5	513.769	503.944	494.938	486.341	478.972	472.831	467.919	465.463	463.416
175.0	522.366	515.407	509.675	504.353	499.441	495.757	492.481	491.253	489.616
177.5	528.507	524.822	521.957	519.091	517.044	514.997	513.360	512.541	511.722
180.0	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-S-835-ASYTG-F-ITL90353 ITL89988.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	217.75	N.A.	6.70
0-30	451.00	N.A.	13.90
0-40	716.40	N.A.	22.10
0-60	1187.71	N.A.	36.70
0-80	1405.91	N.A.	43.40
0-90	1423.39	N.A.	43.90
10-90	1366.19	N.A.	42.20
20-40	498.65	N.A.	15.40
20-50	755.71	N.A.	23.30
40-70	617.85	N.A.	19.10
60-80	218.21	N.A.	6.70
70-80	71.66	N.A.	2.20
80-90	17.48	N.A.	0.50
90-110	236.50	N.A.	7.30
90-120	519.80	N.A.	16.00
90-130	846.14	N.A.	26.10
90-150	1414.15	N.A.	43.70
90-180	1815.97	N.A.	56.10
110-180	1579.47	N.A.	48.80
0-180	3239.36	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	59.92
100-110	176.58
110-120	283.31
120-130	326.34
130-140	304.97
140-150	263.04
150-160	210.22
160-170	141.31
170-180	50.29

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-S-835-ASYTG-F-ITL90353 ITL89988.001.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

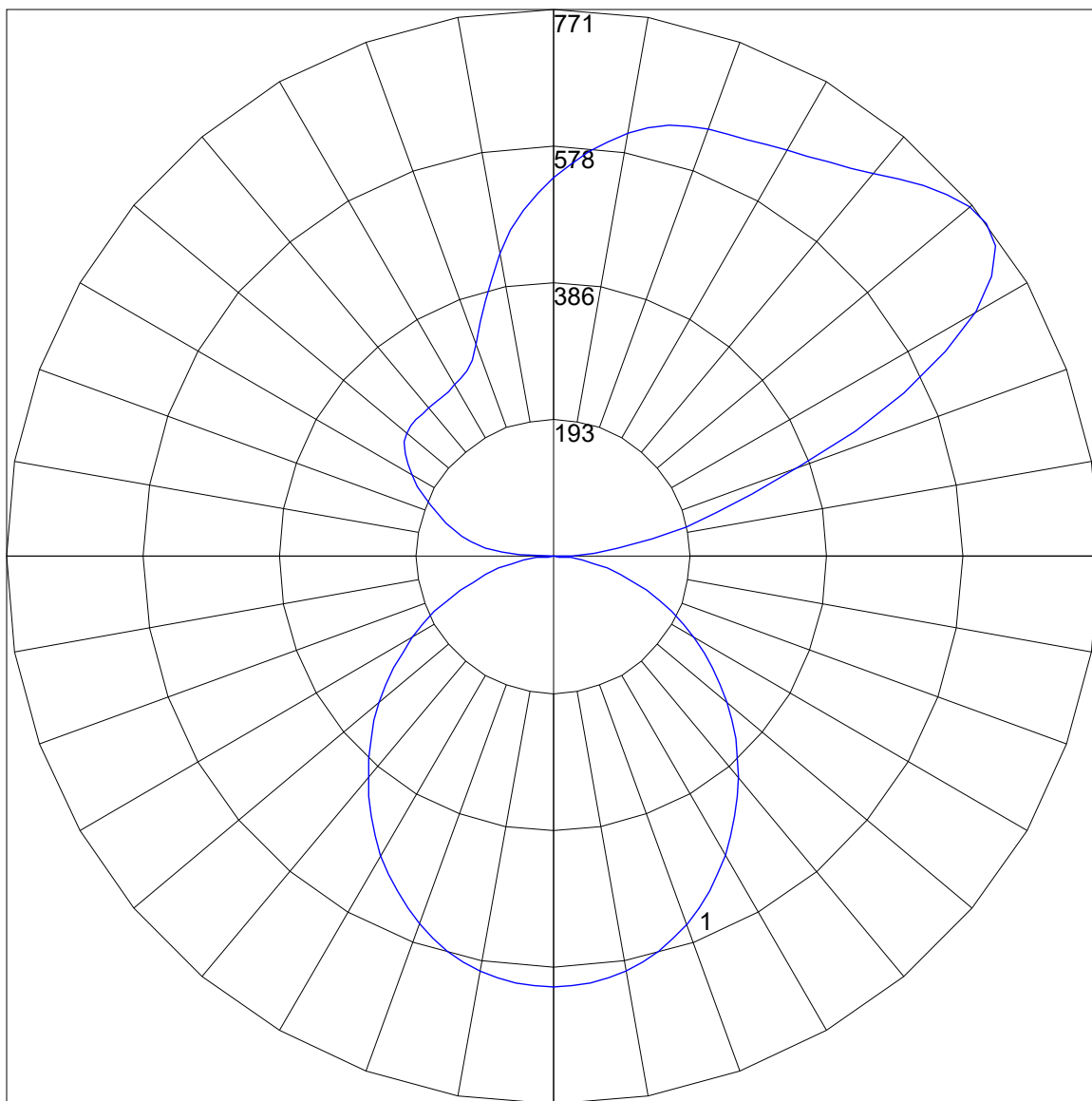
Effective Floor Cavity Reflectance 0.20

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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	97	93	89	85	88	85	82	79	70	68	66	57	56	54	45	44	43	38
2	88	81	75	70	81	74	69	65	62	58	55	51	48	46	40	38	37	32
3	81	71	64	59	74	66	60	55	55	50	47	45	42	39	36	33	32	27
4	74	63	56	50	67	58	52	46	49	44	40	40	36	33	32	29	27	24
5	68	56	49	43	62	52	45	40	44	39	34	36	32	29	29	26	24	21
6	62	51	43	37	57	47	40	35	39	34	30	33	29	26	26	23	21	18
7	58	46	38	33	53	42	35	31	36	30	27	30	26	23	24	21	19	16
8	54	42	34	29	49	38	32	27	33	27	24	27	23	20	22	19	17	15
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	20	17	15	13
10	47	35	28	23	43	32	26	22	28	23	19	23	19	16	19	16	14	12

IES INDOOR REPORT

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POLAR GRAPH



Maximum Candela = 771.268 Located At Horizontal Angle = 0, Vertical Angle = 127.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)