

# 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-B-835-ASYTG-F-ITL90353 ITL89988.013.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89988.013 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-B-835-ASYTG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 32.8 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 35.3 WATTS

[\_ABSOLUTE]LUMENS]3605

[OTHER]see [www.finelite.com](http://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](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	3605
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	32.8
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	5295	4839	4485
55	4936	4264	3800
65	4489	3533	2937
75	3914	2459	1844
85	2858	1582	1477

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-B-835-ASYTG-F-ITL90353 ITL89988.013.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	763.530	763.529	763.529	763.529	763.529	763.529	763.529	763.529	763.529	763.529
2.5	762.010	761.784	761.559	761.672	761.897	762.010	762.010	762.010	762.010	762.010
5.0	758.463	758.237	758.012	757.956	757.956	758.069	758.294	758.519	758.744	758.970
7.5	752.890	752.665	752.439	752.383	752.383	752.383	752.383	752.327	752.102	751.876
10.0	745.797	744.671	743.545	743.601	744.051	743.939	743.263	742.531	741.631	740.730
12.5	735.663	734.312	732.961	732.624	732.624	731.948	730.597	729.190	727.614	726.037
15.0	724.010	721.759	719.507	718.775	718.550	717.537	715.735	713.821	711.569	709.318
17.5	709.824	707.122	704.420	702.900	701.774	699.972	697.495	695.075	692.823	690.571
20.0	693.105	689.952	686.799	684.660	682.859	680.269	676.891	673.851	671.825	669.798
22.5	674.865	671.487	668.109	665.070	662.143	658.652	654.599	650.996	648.744	646.492
25.0	655.105	651.277	647.449	643.621	639.793	635.402	630.448	626.170	623.918	621.666
27.5	633.826	629.547	625.269	620.484	615.530	610.351	604.947	600.274	597.797	595.320
30.0	610.520	606.241	601.963	596.502	590.647	584.680	578.600	573.309	570.381	567.454
32.5	586.200	581.922	577.643	571.338	564.358	557.490	550.734	544.767	541.164	537.561
35.0	561.881	556.927	551.973	544.992	537.336	529.793	522.362	515.831	512.003	508.175
37.5	536.548	530.919	525.289	517.464	508.907	500.463	492.131	485.038	481.660	478.283
40.0	510.202	504.347	498.493	489.767	480.084	471.077	462.745	455.539	451.711	447.883
42.5	483.856	477.325	470.796	461.732	451.824	442.253	433.021	425.140	421.312	417.484
45.0	457.003	450.023	443.042	433.359	422.776	412.530	402.622	394.290	390.687	387.085
47.5	430.150	422.494	414.838	404.648	393.615	382.918	372.561	363.891	360.288	356.685
50.0	402.284	394.178	386.072	375.263	363.553	352.407	341.824	332.985	329.382	325.780
52.5	373.912	365.580	357.248	346.046	333.886	322.514	311.931	303.092	299.490	295.887
55.0	345.539	337.207	328.875	317.166	304.331	292.622	282.038	273.199	269.597	265.994
57.5	317.673	308.891	300.109	288.118	275.058	263.236	252.652	243.813	240.211	236.608
60.0	289.300	280.293	271.286	259.070	245.784	233.850	223.266	214.427	210.825	207.222
62.5	260.928	251.695	242.463	230.022	216.511	204.576	194.218	185.605	182.227	178.850
65.0	231.542	222.760	213.977	201.649	188.138	176.316	166.183	157.795	154.642	151.490
67.5	203.675	194.668	185.661	173.276	159.765	148.281	138.824	130.942	127.790	124.637
70.0	175.809	166.802	157.795	145.748	132.688	121.541	112.309	104.709	102.007	99.305
72.5	148.450	139.668	130.886	119.402	107.017	96.546	87.989	80.896	78.194	75.492
75.0	123.624	114.391	105.159	94.069	82.360	73.015	66.034	60.517	59.391	58.265
77.5	98.291	89.509	80.727	70.594	60.011	53.367	50.666	48.583	48.358	48.132
80.0	73.972	65.640	57.308	49.990	43.010	39.181	38.506	37.999	37.999	37.999
82.5	52.692	44.135	35.579	31.751	29.499	28.148	27.697	27.359	27.359	27.359
85.0	30.399	24.994	19.590	17.733	17.057	16.607	16.382	16.157	15.932	15.706
87.5	9.626	8.050	6.474	5.911	5.686	5.573	5.573	5.517	5.292	5.066
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

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PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-B-835-ASYTG-F-ITL90353 ITL89988.013.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

	100	110	120	130	140	150	160	170	180
0.0	763.529	763.529	763.529	763.529	763.529	763.529	763.529	763.529	763.529
2.5	762.010	762.010	762.010	762.010	761.897	761.672	761.559	761.784	762.010
5.0	758.744	758.519	758.294	758.069	757.956	757.956	758.012	758.237	758.463
7.5	752.102	752.327	752.383	752.383	752.383	752.383	752.439	752.665	752.890
10.0	741.631	742.531	743.263	743.939	744.051	743.601	743.545	744.671	745.797
12.5	727.614	729.190	730.597	731.948	732.624	732.624	732.961	734.312	735.663
15.0	711.569	713.821	715.735	717.537	718.550	718.775	719.507	721.759	724.010
17.5	692.823	695.075	697.495	699.972	701.774	702.900	704.420	707.122	709.824
20.0	671.825	673.851	676.891	680.269	682.859	684.660	686.799	689.952	693.105
22.5	648.744	650.996	654.599	658.652	662.143	665.070	668.109	671.487	674.865
25.0	623.918	626.170	630.448	635.402	639.793	643.621	647.449	651.277	655.105
27.5	597.797	600.274	604.947	610.351	615.530	620.484	625.269	629.547	633.826
30.0	570.381	573.309	578.600	584.680	590.647	596.502	601.963	606.241	610.520
32.5	541.164	544.767	550.734	557.490	564.358	571.338	577.643	581.922	586.200
35.0	512.003	515.831	522.362	529.793	537.336	544.992	551.973	556.927	561.881
37.5	481.660	485.038	492.131	500.463	508.907	517.464	525.289	530.919	536.548
40.0	451.711	455.539	462.745	471.077	480.084	489.767	498.493	504.347	510.202
42.5	421.312	425.140	433.021	442.253	451.824	461.732	470.796	477.325	483.856
45.0	390.687	394.290	402.622	412.530	422.776	433.359	443.042	450.023	457.003
47.5	360.288	363.891	372.561	382.918	393.615	404.648	414.838	422.494	430.150
50.0	329.382	332.985	341.824	352.407	363.553	375.263	386.072	394.178	402.284
52.5	299.490	303.092	311.931	322.514	333.886	346.046	357.248	365.580	373.912
55.0	269.597	273.199	282.038	292.622	304.331	317.166	328.875	337.207	345.539
57.5	240.211	243.813	252.652	263.236	275.058	288.118	300.109	308.891	317.673
60.0	210.825	214.427	223.266	233.850	245.784	259.070	271.286	280.293	289.300
62.5	182.227	185.605	194.218	204.576	216.511	230.022	242.463	251.695	260.928
65.0	154.642	157.795	166.183	176.316	188.138	201.649	213.977	222.760	231.542
67.5	127.790	130.942	138.824	148.281	159.765	173.276	185.661	194.668	203.675
70.0	102.007	104.709	112.309	121.541	132.688	145.748	157.795	166.802	175.809
72.5	78.194	80.896	87.989	96.546	107.017	119.402	130.886	139.668	148.450
75.0	59.391	60.517	66.034	73.015	82.360	94.069	105.159	114.391	123.624
77.5	48.358	48.583	50.666	53.367	60.011	70.594	80.727	89.509	98.291
80.0	37.999	37.999	38.506	39.181	43.010	49.990	57.308	65.640	73.972

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-B-835-ASYTG-F-ITL90353 ITL89988.013.IES****CANDELA TABULATION - (Cont.)**

82.5	27.359	27.359	27.697	28.148	29.499	31.751	35.579	44.135	52.692
85.0	15.932	16.157	16.382	16.607	17.057	17.733	19.590	24.994	30.399
87.5	5.292	5.517	5.573	5.573	5.686	5.911	6.474	8.050	9.626
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-B-835-ASYTG-F-ITL90353 ITL89988.013.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	273.76	N.A.	7.60
0-30	567.00	N.A.	15.70
0-40	900.66	N.A.	25.00
0-60	1493.19	N.A.	41.40
0-80	1767.52	N.A.	49.00
0-90	1789.5	N.A.	49.60
10-90	1717.58	N.A.	47.60
20-40	626.90	N.A.	17.40
20-50	950.08	N.A.	26.40
40-70	776.77	N.A.	21.50
60-80	274.33	N.A.	7.60
70-80	90.09	N.A.	2.50
80-90	21.98	N.A.	0.60
90-110	236.50	N.A.	6.60
90-120	519.80	N.A.	14.40
90-130	846.14	N.A.	23.50
90-150	1414.15	N.A.	39.20
90-180	1815.97	N.A.	50.40
110-180	1579.47	N.A.	43.80
0-180	3605.46	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	71.92
10-20	201.84
20-30	293.24
30-40	333.66
40-50	323.18
50-60	269.35
60-70	184.24
70-80	90.09
80-90	21.98
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-B-835-ASYTG-F-ITL90353 ITL89988.013.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

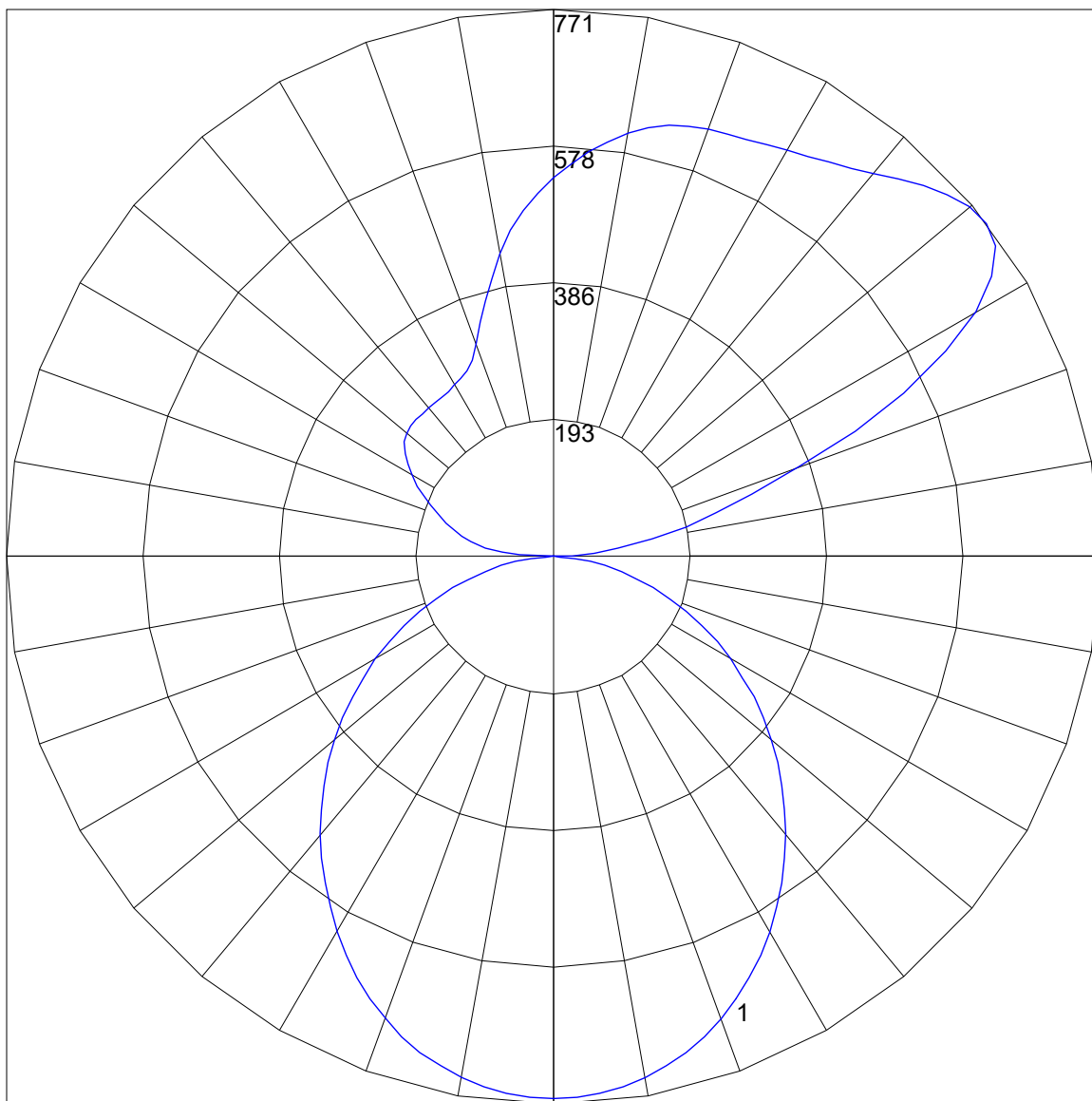
Effective Floor Cavity Reflectance 0.20

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	94	90	87	90	87	83	81	73	71	69	61	59	58	50	49	48	42
2	89	82	76	71	82	76	71	67	65	61	58	54	51	49	44	42	41	36
3	82	72	65	60	75	67	61	56	57	52	49	48	44	42	39	37	35	31
4	75	64	57	51	69	60	53	48	51	46	42	43	39	36	35	33	30	27
5	69	57	49	44	63	53	46	41	46	40	36	39	34	31	32	29	26	23
6	63	52	44	38	58	48	41	36	41	36	32	35	31	27	29	26	23	20
7	59	47	39	33	54	43	36	31	37	32	28	32	28	24	27	23	21	18
8	55	42	35	29	50	40	33	28	34	29	25	29	25	22	24	21	19	16
9	51	39	31	26	47	36	30	25	31	26	22	27	23	20	23	19	17	15
10	47	36	28	24	44	33	27	22	29	24	20	25	21	18	21	18	15	13

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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.)