

# 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-H-835-TG-F-ITL90353.011.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353.011 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/03/18

[ISSUEDATE]05/18/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-ID-RG-4ft-B-H-835-TG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 46.3 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 48.2 WATTS

[\_ABSOLUTE]LUMENS]5014

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90353. 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)

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5014
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	46.3
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	8129	7426	6886
55	7577	6533	5833
65	6891	5398	4509
75	6008	3718	2832
85	4387	2413	2267

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1172.134	1172.134	1172.134	1172.134	1172.134
2.5	1169.801	1169.023	1169.801	1169.801	1169.801
5.0	1164.356	1163.578	1163.578	1164.356	1165.134
7.5	1155.801	1155.023	1155.023	1155.023	1154.245
10.0	1144.911	1141.023	1142.578	1140.245	1137.134
12.5	1129.356	1124.689	1124.689	1120.022	1114.578
15.0	1111.466	1103.688	1102.911	1096.688	1088.910
17.5	1089.688	1080.355	1076.466	1067.910	1060.132
20.0	1064.021	1053.132	1046.910	1035.243	1028.243
22.5	1036.021	1024.354	1014.242	1000.242	992.464
25.0	1005.687	992.464	979.242	962.130	954.352
27.5	973.019	958.241	941.130	922.463	913.907
30.0	937.241	922.463	902.240	881.240	871.128
32.5	899.907	885.129	861.017	837.683	825.239
35.0	862.573	845.461	819.016	793.349	780.127
37.5	823.683	804.238	774.682	745.904	734.237
40.0	783.238	763.015	729.570	700.792	687.569
42.5	742.792	720.236	686.014	654.124	640.902
45.0	701.569	677.458	640.902	606.679	594.234
47.5	660.346	633.901	595.790	560.011	547.566
50.0	617.568	589.567	549.122	512.566	500.121
52.5	574.011	545.233	503.232	466.676	454.231
55.0	530.455	501.677	457.342	420.786	408.341
57.5	487.676	457.342	412.230	375.674	363.229
60.0	444.120	413.008	367.118	330.562	318.117
62.5	400.563	368.674	322.006	286.228	274.561
65.0	355.451	325.118	278.450	243.449	232.560
67.5	312.673	281.561	234.894	202.226	191.337
70.0	269.894	238.783	193.670	161.781	152.447
72.5	227.893	197.559	154.781	125.225	115.891
75.0	189.782	157.892	117.447	93.335	89.446
77.5	150.892	120.558	84.002	74.668	73.890
80.0	113.558	84.779	60.668	58.334	58.334
82.5	80.890	51.334	43.556	42.001	42.001
85.0	46.668	28.001	25.667	24.889	24.112
87.5	14.778	9.334	8.556	8.556	7.778
90.0	0.000	0.000	0.000	0.000	0.000
92.5	15.440	16.984	18.528	19.042	19.042
95.0	38.599	40.143	41.687	43.231	43.746
97.5	62.274	64.332	66.905	68.964	69.479
100.0	87.492	89.550	92.638	95.212	95.212
102.5	113.739	115.798	119.400	122.488	122.488
105.0	142.045	144.619	147.707	150.795	150.795
107.5	171.381	173.439	176.527	180.130	179.615
110.0	201.746	203.290	206.377	209.465	209.465
112.5	232.625	234.169	237.257	240.345	239.830
115.0	264.534	265.563	269.166	271.739	270.710
117.5	296.442	296.442	300.560	301.589	302.104
120.0	328.866	328.866	331.954	333.498	334.012
122.5	361.804	361.804	363.863	365.407	366.951
125.0	393.713	393.198	395.257	397.315	398.345
127.5	425.621	424.592	427.165	428.709	430.768
130.0	457.530	455.986	458.559	460.618	461.647
132.5	487.895	485.836	488.924	491.497	492.012

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-H-835-TG-F-ITL90353.011.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	519.804	516.201	520.318	522.892	522.892
<b>137.5</b>	550.683	546.051	550.683	552.227	552.742
<b>140.0</b>	579.504	574.872	581.048	581.048	582.077
<b>142.5</b>	609.354	603.693	609.869	609.869	608.839
<b>145.0</b>	638.689	631.484	638.175	637.660	636.631
<b>147.5</b>	665.966	658.246	664.937	664.422	662.364
<b>150.0</b>	691.184	683.465	690.155	689.126	688.096
<b>152.5</b>	715.373	708.168	714.859	713.315	711.771
<b>155.0</b>	738.018	731.328	737.504	736.474	733.901
<b>157.5</b>	758.605	751.914	758.090	755.517	753.973
<b>160.0</b>	778.161	772.500	777.647	775.074	772.500
<b>162.5</b>	795.145	789.999	794.116	791.543	789.999
<b>165.0</b>	810.070	805.953	808.526	806.982	805.438
<b>167.5</b>	822.937	819.849	821.393	820.363	819.334
<b>170.0</b>	833.230	831.686	832.201	831.686	830.657
<b>172.5</b>	840.950	840.950	840.950	839.920	839.920
<b>175.0</b>	847.126	847.126	847.126	846.611	846.611
<b>177.5</b>	851.243	851.243	851.243	851.243	851.243
<b>180.0</b>	852.272	852.272	852.272	852.272	852.272

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-H-835-TG-F-ITL90353.011.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	420.26	N.A.	8.40
0-30	870.43	N.A.	17.40
0-40	1382.63	N.A.	27.60
0-60	2292.12	N.A.	45.70
0-80	2712.99	N.A.	54.10
0-90	2746.64	N.A.	54.80
10-90	2636.23	N.A.	52.60
20-40	962.37	N.A.	19.20
20-50	1458.45	N.A.	29.10
40-70	1192.22	N.A.	23.80
60-80	420.88	N.A.	8.40
70-80	138.15	N.A.	2.80
80-90	33.65	N.A.	0.70
90-110	202.93	N.A.	4.00
90-120	468.61	N.A.	9.30
90-130	822.25	N.A.	16.40
90-150	1621.12	N.A.	32.30
90-180	2267.55	N.A.	45.20
110-180	2064.62	N.A.	41.20
0-180	5014.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	110.41
10-20	309.86
20-30	450.16
30-40	512.20
40-50	496.08
50-60	413.41
60-70	282.73
70-80	138.15
80-90	33.65
90-100	46.82
100-110	156.11
110-120	265.68
120-130	353.64
130-140	401.13
140-150	397.74
150-160	338.44
160-170	227.62
170-180	80.37

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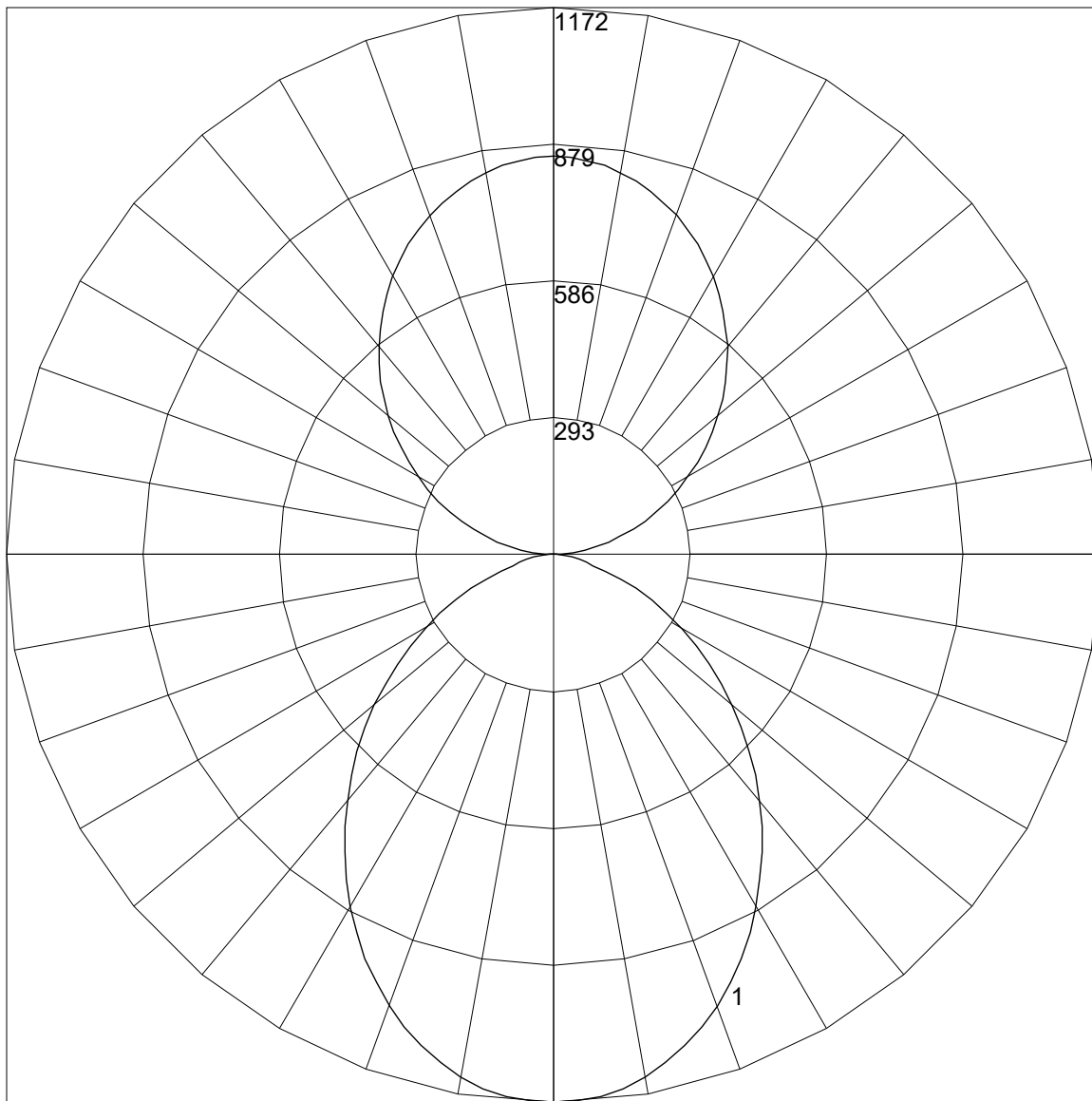
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	99	95	91	88	92	88	85	82	76	74	71	65	63	61	54	53	52	47
2	91	83	77	72	84	78	72	68	67	63	60	57	54	52	48	46	44	40
3	83	73	66	60	77	69	62	57	59	54	50	51	47	44	43	40	38	34
4	76	65	57	51	70	61	54	49	53	47	43	45	41	38	38	35	33	29
5	70	58	50	44	65	54	47	42	47	42	37	41	36	33	35	31	29	26
6	64	52	44	39	60	49	42	37	43	37	33	37	32	29	31	28	25	23
7	60	47	39	34	55	44	37	32	39	33	29	34	29	26	29	25	23	20
8	55	43	35	30	51	40	34	29	36	30	26	31	26	23	27	23	20	18
9	52	39	32	27	48	37	30	26	33	27	23	28	24	21	25	21	18	16
10	48	36	29	24	45	34	28	23	30	25	21	26	22	19	23	19	17	15

POLAR GRAPH



Maximum Candela = 1172.134 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)