

# 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-H-V-835-TG-F-ITL90353.009.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353.009 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-H-V-835-TG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 64.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 66.1 WATTS

[\_ABSOLUTE]LUMENS]6958

[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	6958
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	64.7
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	10452	9548	8853
55	9742	8399	7499
65	8860	6941	5797
75	7724	4780	3641
85	5641	3102	2914

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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	1507.000	1507.000	1507.000	1507.000	1507.000
2.5	1504.000	1503.000	1504.000	1504.000	1504.000
5.0	1497.000	1496.000	1496.000	1497.000	1498.000
7.5	1486.000	1485.000	1485.000	1485.000	1484.000
10.0	1472.000	1467.000	1469.000	1466.000	1462.000
12.5	1452.000	1446.000	1446.000	1440.000	1433.000
15.0	1429.000	1419.000	1418.000	1410.000	1400.000
17.5	1401.000	1389.000	1384.000	1373.000	1363.000
20.0	1368.000	1354.000	1346.000	1331.000	1322.000
22.5	1332.000	1317.000	1304.000	1286.000	1276.000
25.0	1293.000	1276.000	1259.000	1237.000	1227.000
27.5	1251.000	1232.000	1210.000	1186.000	1175.000
30.0	1205.000	1186.000	1160.000	1133.000	1120.000
32.5	1157.000	1138.000	1107.000	1077.000	1061.000
35.0	1109.000	1087.000	1053.000	1020.000	1003.000
37.5	1059.000	1034.000	996.000	959.000	944.000
40.0	1007.000	981.000	938.000	901.000	884.000
42.5	955.000	926.000	882.000	841.000	824.000
45.0	902.000	871.000	824.000	780.000	764.000
47.5	849.000	815.000	766.000	720.000	704.000
50.0	794.000	758.000	706.000	659.000	643.000
52.5	738.000	701.000	647.000	600.000	584.000
55.0	682.000	645.000	588.000	541.000	525.000
57.5	627.000	588.000	530.000	483.000	467.000
60.0	571.000	531.000	472.000	425.000	409.000
62.5	515.000	474.000	414.000	368.000	353.000
65.0	457.000	418.000	358.000	313.000	299.000
67.5	402.000	362.000	302.000	260.000	246.000
70.0	347.000	307.000	249.000	208.000	196.000
72.5	293.000	254.000	199.000	161.000	149.000
75.0	244.000	203.000	151.000	120.000	115.000
77.5	194.000	155.000	108.000	96.000	95.000
80.0	146.000	109.000	78.000	75.000	75.000
82.5	104.000	66.000	56.000	54.000	54.000
85.0	60.000	36.000	33.000	32.000	31.000
87.5	19.000	12.000	11.000	11.000	10.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	23.334	25.667	28.001	28.778	28.778
95.0	58.334	60.668	63.001	65.335	66.112
97.5	94.113	97.224	101.113	104.224	105.002
100.0	132.225	135.336	140.003	143.892	143.892
102.5	171.892	175.003	180.448	185.115	185.115
105.0	214.671	218.560	223.227	227.893	227.893
107.5	259.005	262.116	266.783	272.228	271.450
110.0	304.895	307.228	311.895	316.562	316.562
112.5	351.563	353.896	358.563	363.229	362.452
115.0	399.786	401.341	406.786	410.675	409.119
117.5	448.009	448.009	454.231	455.787	456.565
120.0	497.010	497.010	501.677	504.010	504.788
122.5	546.789	546.789	549.900	552.233	554.567
125.0	595.012	594.234	597.345	600.456	602.012
127.5	643.235	641.679	645.568	647.902	651.013
130.0	691.458	689.125	693.014	696.125	697.680
132.5	737.348	734.237	738.904	742.792	743.570

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-H-V-835-TG-F-ITL90353.009.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	785.571	780.127	786.349	790.238	790.238
<b>137.5</b>	832.239	825.239	832.239	834.572	835.350
<b>140.0</b>	875.795	868.795	878.128	878.128	879.684
<b>142.5</b>	920.907	912.351	921.685	921.685	920.129
<b>145.0</b>	965.241	954.352	964.464	963.686	962.130
<b>147.5</b>	1006.464	994.797	1004.909	1004.131	1001.020
<b>150.0</b>	1044.576	1032.909	1043.021	1041.465	1039.909
<b>152.5</b>	1081.132	1070.243	1080.355	1078.021	1075.688
<b>155.0</b>	1115.355	1105.244	1114.578	1113.022	1109.133
<b>157.5</b>	1146.467	1136.356	1145.689	1141.800	1139.467
<b>160.0</b>	1176.023	1167.468	1175.245	1171.356	1167.468
<b>162.5</b>	1201.690	1193.912	1200.135	1196.246	1193.912
<b>165.0</b>	1224.246	1218.024	1221.913	1219.580	1217.246
<b>167.5</b>	1243.691	1239.024	1241.358	1239.802	1238.247
<b>170.0</b>	1259.247	1256.914	1257.692	1256.914	1255.358
<b>172.5</b>	1270.914	1270.914	1270.914	1269.358	1269.358
<b>175.0</b>	1280.248	1280.248	1280.248	1279.470	1279.470
<b>177.5</b>	1286.470	1286.470	1286.470	1286.470	1286.470
<b>180.0</b>	1288.025	1288.025	1288.025	1288.025	1288.025

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-H-V-835-TG-F-ITL90353.009.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	540.33	N.A.	7.80
0-30	1119.1	N.A.	16.10
0-40	1777.63	N.A.	25.50
0-60	2946.95	N.A.	42.40
0-80	3488.07	N.A.	50.10
0-90	3531.33	N.A.	50.80
10-90	3389.38	N.A.	48.70
20-40	1237.3	N.A.	17.80
20-50	1875.11	N.A.	26.90
40-70	1532.82	N.A.	22.00
60-80	541.11	N.A.	7.80
70-80	177.61	N.A.	2.60
80-90	43.26	N.A.	0.60
90-110	306.69	N.A.	4.40
90-120	708.20	N.A.	10.20
90-130	1242.65	N.A.	17.90
90-150	2449.98	N.A.	35.20
90-180	3426.92	N.A.	49.20
110-180	3120.23	N.A.	44.80
0-180	6958.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	141.95
10-20	398.38
20-30	578.77
30-40	658.53
40-50	637.81
50-60	531.51
60-70	363.50
70-80	177.61
80-90	43.26
90-100	70.77
100-110	235.92
110-120	401.51
120-130	534.44
130-140	606.23
140-150	601.10
150-160	511.48
160-170	344.00
170-180	121.46

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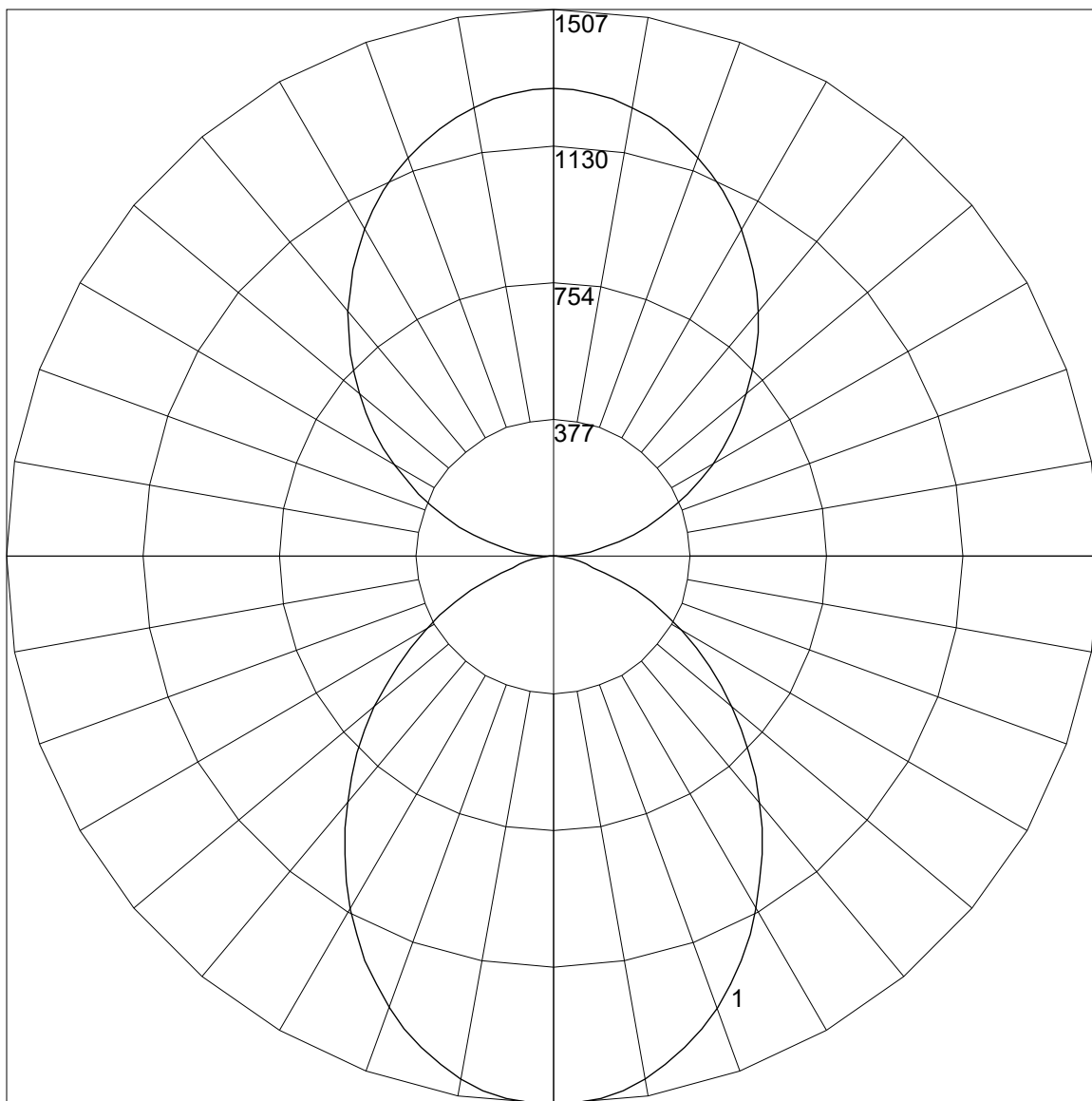
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	90	87	91	87	84	81	74	72	69	62	60	59	51	50	49	43
2	90	82	76	71	83	76	71	67	65	61	58	55	52	49	45	43	41	37
3	82	73	66	60	75	67	61	56	58	53	49	49	45	42	40	38	35	31
4	75	64	57	51	69	60	53	48	51	46	42	43	39	36	36	33	31	27
5	69	58	50	44	64	54	47	41	46	41	36	39	35	32	32	29	27	24
6	64	52	44	38	59	48	41	36	42	36	32	35	31	28	30	26	24	21
7	59	47	39	33	54	44	37	32	38	32	28	32	28	25	27	24	21	19
8	55	43	35	30	50	40	33	28	34	29	25	30	25	22	25	22	19	17
9	51	39	31	26	47	36	30	25	32	26	22	27	23	20	23	20	17	15
10	48	36	29	24	44	33	27	23	29	24	20	25	21	18	21	18	16	14

POLAR GRAPH



Maximum Candela = 1507 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)