

# 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-V-835-TG-F-ITL90353.015.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353.015 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-S-V-835-TG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 50.9 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 53.1 WATTS

[\_ABSOLUTE]LUMENS]5335

[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	5335
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	50.9
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.26
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	12.279	13.507	14.735	15.144	15.144
95.0	30.697	31.925	33.153	34.381	34.790
97.5	49.524	51.162	53.208	54.845	55.254
100.0	69.580	71.217	73.673	75.719	75.719
102.5	90.454	92.091	94.956	97.412	97.412
105.0	112.965	115.011	117.467	119.923	119.923
107.5	136.294	137.931	140.387	143.252	142.843
110.0	160.442	161.670	164.126	166.582	166.582
112.5	185.000	186.228	188.684	191.139	190.730
115.0	210.376	211.195	214.060	216.106	215.288
117.5	235.752	235.752	239.027	239.845	240.254
120.0	261.538	261.538	263.993	265.221	265.631
122.5	287.732	287.732	289.369	290.597	291.825
125.0	313.108	312.699	314.336	315.973	316.792
127.5	338.485	337.666	339.712	340.940	342.577
130.0	363.861	362.633	364.679	366.316	367.135
132.5	388.009	386.372	388.827	390.874	391.283

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-V-835-TG-F-ITL90353.015.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	413.385	410.520	413.794	415.841	415.841
<b>137.5</b>	437.942	434.259	437.942	439.170	439.580
<b>140.0</b>	460.863	457.179	462.091	462.091	462.909
<b>142.5</b>	484.602	480.100	485.011	485.011	484.192
<b>145.0</b>	507.931	502.201	507.522	507.113	506.294
<b>147.5</b>	529.624	523.484	528.805	528.396	526.759
<b>150.0</b>	549.679	543.540	548.861	548.042	547.223
<b>152.5</b>	568.916	563.186	568.507	567.279	566.051
<b>155.0</b>	586.925	581.604	586.516	585.697	583.650
<b>157.5</b>	603.296	597.976	602.887	600.841	599.613
<b>160.0</b>	618.850	614.347	618.440	616.394	614.347
<b>162.5</b>	632.356	628.263	631.538	629.491	628.263
<b>165.0</b>	644.226	640.951	642.998	641.770	640.542
<b>167.5</b>	654.458	652.002	653.230	652.411	651.593
<b>170.0</b>	662.644	661.416	661.825	661.416	660.597
<b>172.5</b>	668.783	668.783	668.783	667.965	667.965
<b>175.0</b>	673.695	673.695	673.695	673.285	673.285
<b>177.5</b>	676.969	676.969	676.969	676.969	676.969
<b>180.0</b>	677.788	677.788	677.788	677.788	677.788

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-V-835-TG-F-ITL90353.015.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	540.33	N.A.	10.10
0-30	1119.1	N.A.	21.00
0-40	1777.63	N.A.	33.30
0-60	2946.95	N.A.	55.20
0-80	3488.07	N.A.	65.40
0-90	3531.33	N.A.	66.20
10-90	3389.38	N.A.	63.50
20-40	1237.3	N.A.	23.20
20-50	1875.11	N.A.	35.10
40-70	1532.82	N.A.	28.70
60-80	541.11	N.A.	10.10
70-80	177.61	N.A.	3.30
80-90	43.26	N.A.	0.80
90-110	161.39	N.A.	3.00
90-120	372.67	N.A.	7.00
90-130	653.91	N.A.	12.30
90-150	1289.23	N.A.	24.20
90-180	1803.32	N.A.	33.80
110-180	1641.93	N.A.	30.80
0-180	5334.65	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	37.24
100-110	124.15
110-120	211.29
120-130	281.24
130-140	319.01
140-150	316.31
150-160	269.15
160-170	181.02
170-180	63.92

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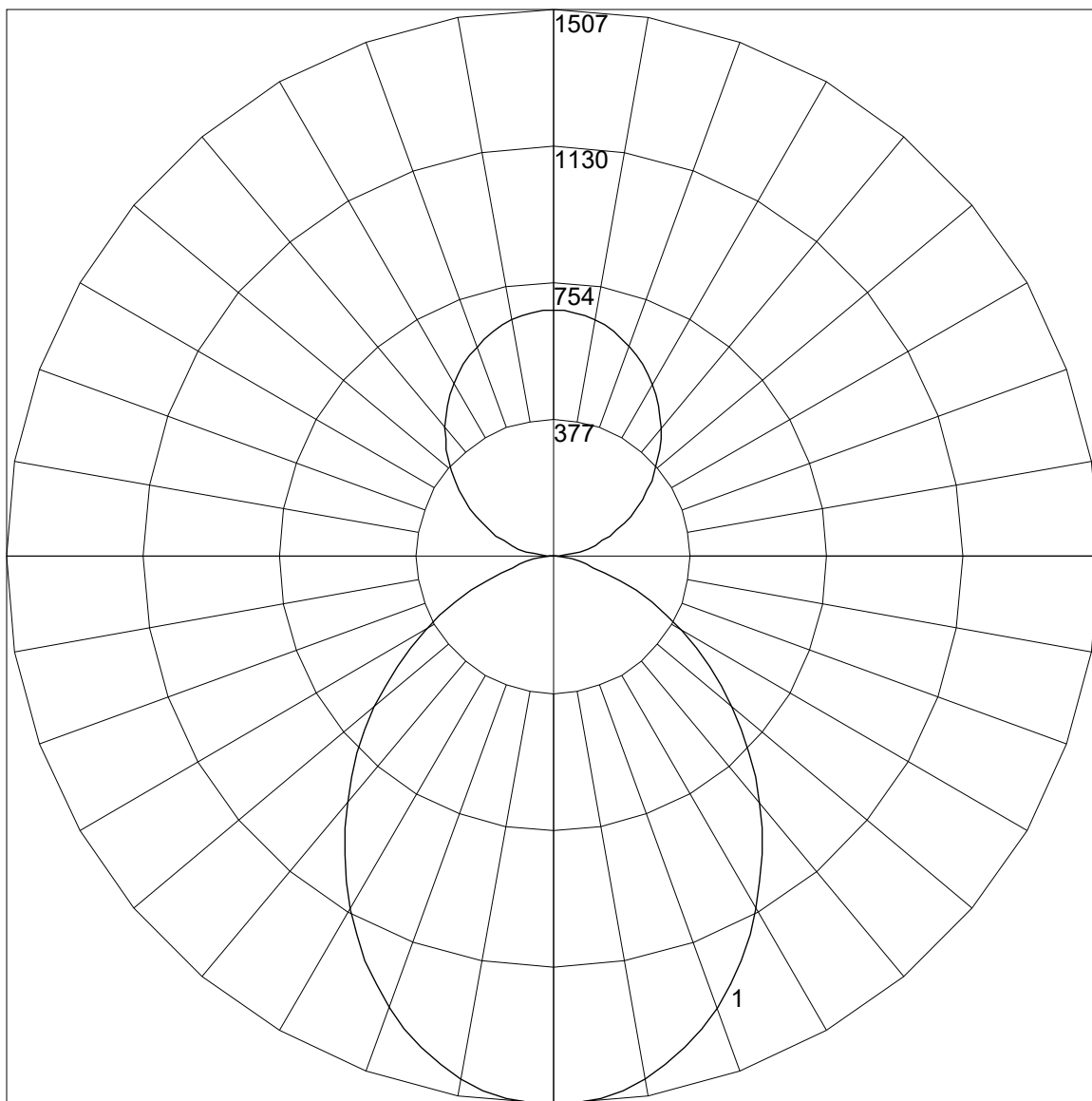
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	102	98	94	90	96	92	89	86	82	79	77	72	70	69	63	62	61	57
2	93	86	80	74	87	81	76	71	72	68	64	64	61	58	56	54	52	48
3	85	76	68	62	80	72	65	60	64	59	54	57	53	49	50	47	44	41
4	78	67	59	53	73	64	57	51	57	51	47	51	46	43	45	41	39	35
5	72	60	52	46	67	57	50	44	51	45	41	46	41	37	41	37	34	31
6	66	54	46	40	62	51	44	39	46	40	36	42	37	33	37	33	30	27
7	61	49	41	35	58	47	39	34	42	36	32	38	33	29	34	30	27	24
8	57	45	37	31	54	43	35	30	39	33	28	35	30	26	31	27	24	22
9	53	41	33	28	50	39	32	27	35	30	25	32	27	24	29	25	22	20
10	50	38	30	26	47	36	29	25	33	27	23	30	25	21	27	23	20	18

POLAR GRAPH



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