

# 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-2-ID-RG-4FT-V-H-835-TG-F-ITL90352.006.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90352.006 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/04/18

[ISSUEDATE]05/17/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-RG-4ft-V-H-835-TG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 64.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 66.3 WATTS

[\_ABSOLUTE]LUMENS]6581

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90352. 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	6581
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	64.7
Ballast Factor	1.00
CIE Type	Semi-Indirect
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)	0.18 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	14562	10237	8066
55	12991	8050	6238
65	11260	6091	4834
75	9399	4699	4289
85	6503	3523	3252

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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	1232.802	1232.802	1232.802	1232.802	1232.802
2.5	1230.469	1230.469	1228.913	1227.358	1226.580
5.0	1223.469	1221.913	1216.468	1211.802	1210.246
7.5	1213.357	1208.691	1197.024	1186.134	1182.246
10.0	1199.357	1189.246	1170.579	1151.912	1142.578
12.5	1181.468	1165.134	1136.356	1110.689	1096.688
15.0	1160.467	1134.800	1097.466	1060.910	1043.798
17.5	1134.800	1101.355	1052.354	1007.242	987.019
20.0	1106.800	1063.243	1004.131	949.685	927.907
22.5	1074.910	1022.798	952.797	892.129	865.684
25.0	1037.576	980.019	899.907	830.683	804.238
27.5	999.464	933.352	846.239	771.571	742.793
30.0	956.686	885.906	790.238	712.458	682.125
32.5	914.685	838.461	735.014	654.124	623.790
35.0	869.573	787.904	680.569	598.901	567.789
37.5	822.905	738.904	627.679	544.455	514.121
40.0	776.237	688.347	575.567	493.899	464.342
42.5	728.792	637.790	524.233	446.453	417.675
45.0	678.236	589.567	476.787	401.341	375.674
47.5	630.790	541.344	430.897	359.340	336.007
50.0	581.789	493.121	386.563	320.451	299.450
52.5	537.455	447.231	344.562	284.672	266.783
55.0	490.788	402.119	304.117	252.005	235.671
57.5	444.120	357.785	267.561	221.671	206.893
60.0	399.786	316.562	232.560	192.893	179.670
62.5	356.229	276.894	200.671	164.892	153.225
65.0	313.451	238.782	169.559	138.447	134.558
67.5	273.005	203.782	141.558	122.114	119.002
70.0	233.338	169.559	115.113	105.780	103.447
72.5	196.004	136.892	96.446	90.224	87.891
75.0	160.225	107.335	80.113	74.668	73.113
77.5	126.002	79.335	63.779	59.890	58.334
80.0	94.891	56.779	48.223	45.890	45.112
82.5	65.335	39.667	34.223	32.667	31.890
85.0	37.334	23.334	20.223	19.445	18.667
87.5	11.667	8.556	7.778	7.000	6.222
90.0	0.000	0.000	0.000	0.000	0.000
92.5	30.000	29.000	28.000	26.000	25.000
95.0	69.000	69.000	69.000	66.000	64.000
97.5	110.000	110.000	108.000	108.000	106.000
100.0	154.000	154.000	153.000	152.000	151.000
102.5	201.000	200.000	200.000	199.000	198.000
105.0	251.000	250.000	250.000	249.000	247.000
107.5	304.000	303.000	303.000	301.000	299.000
110.0	359.000	357.000	358.000	355.000	354.000
112.5	417.000	415.000	416.000	412.000	411.000
115.0	478.000	474.000	476.000	471.000	470.000
117.5	539.000	536.000	536.000	533.000	531.000
120.0	602.000	598.000	599.000	594.000	592.000
122.5	667.000	661.000	663.000	658.000	656.000
125.0	734.000	726.000	728.000	723.000	721.000
127.5	801.000	792.000	794.000	790.000	784.000
130.0	868.000	858.000	861.000	857.000	850.000
132.5	933.000	924.000	928.000	923.000	917.000

**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	1000.000	990.000	994.000	990.000	982.000
<b>137.5</b>	1069.000	1056.000	1061.000	1057.000	1048.000
<b>140.0</b>	1135.000	1121.000	1127.000	1122.000	1113.000
<b>142.5</b>	1201.000	1184.000	1192.000	1186.000	1176.000
<b>145.0</b>	1265.000	1245.000	1253.000	1248.000	1238.000
<b>147.5</b>	1323.000	1304.000	1313.000	1308.000	1298.000
<b>150.0</b>	1380.000	1361.000	1370.000	1364.000	1355.000
<b>152.5</b>	1433.000	1413.000	1424.000	1417.000	1409.000
<b>155.0</b>	1482.000	1463.000	1476.000	1467.000	1460.000
<b>157.5</b>	1528.000	1509.000	1521.000	1513.000	1507.000
<b>160.0</b>	1566.000	1551.000	1562.000	1555.000	1550.000
<b>162.5</b>	1603.000	1589.000	1598.000	1592.000	1587.000
<b>165.0</b>	1635.000	1623.000	1630.000	1626.000	1621.000
<b>167.5</b>	1661.000	1653.000	1657.000	1655.000	1650.000
<b>170.0</b>	1683.000	1678.000	1680.000	1678.000	1676.000
<b>172.5</b>	1698.000	1698.000	1698.000	1696.000	1696.000
<b>175.0</b>	1712.000	1711.000	1711.000	1710.000	1709.000
<b>177.5</b>	1719.000	1719.000	1719.000	1719.000	1719.000
<b>180.0</b>	1722.000	1722.000	1722.000	1722.000	1722.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	422.85	N.A.	6.40
0-30	839.90	N.A.	12.80
0-40	1275.34	N.A.	19.40
0-60	1957.03	N.A.	29.70
0-80	2251.05	N.A.	34.20
0-90	2277.5	N.A.	34.60
10-90	2162.81	N.A.	32.90
20-40	852.49	N.A.	13.00
20-50	1237.81	N.A.	18.80
40-70	874.92	N.A.	13.30
60-80	294.02	N.A.	4.50
70-80	100.79	N.A.	1.50
80-90	26.44	N.A.	0.40
90-110	341.49	N.A.	5.20
90-120	811.42	N.A.	12.30
90-130	1461.18	N.A.	22.20
90-150	3006.93	N.A.	45.70
90-180	4303.57	N.A.	65.40
110-180	3962.08	N.A.	60.20
0-180	6581.07	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	114.69
10-20	308.17
20-30	417.04
30-40	435.45
40-50	385.32
50-60	296.37
60-70	193.23
70-80	100.79
80-90	26.44
90-100	76.22
100-110	265.27
110-120	469.92
120-130	649.77
130-140	764.96
140-150	780.78
150-160	675.99
160-170	458.37
170-180	162.28

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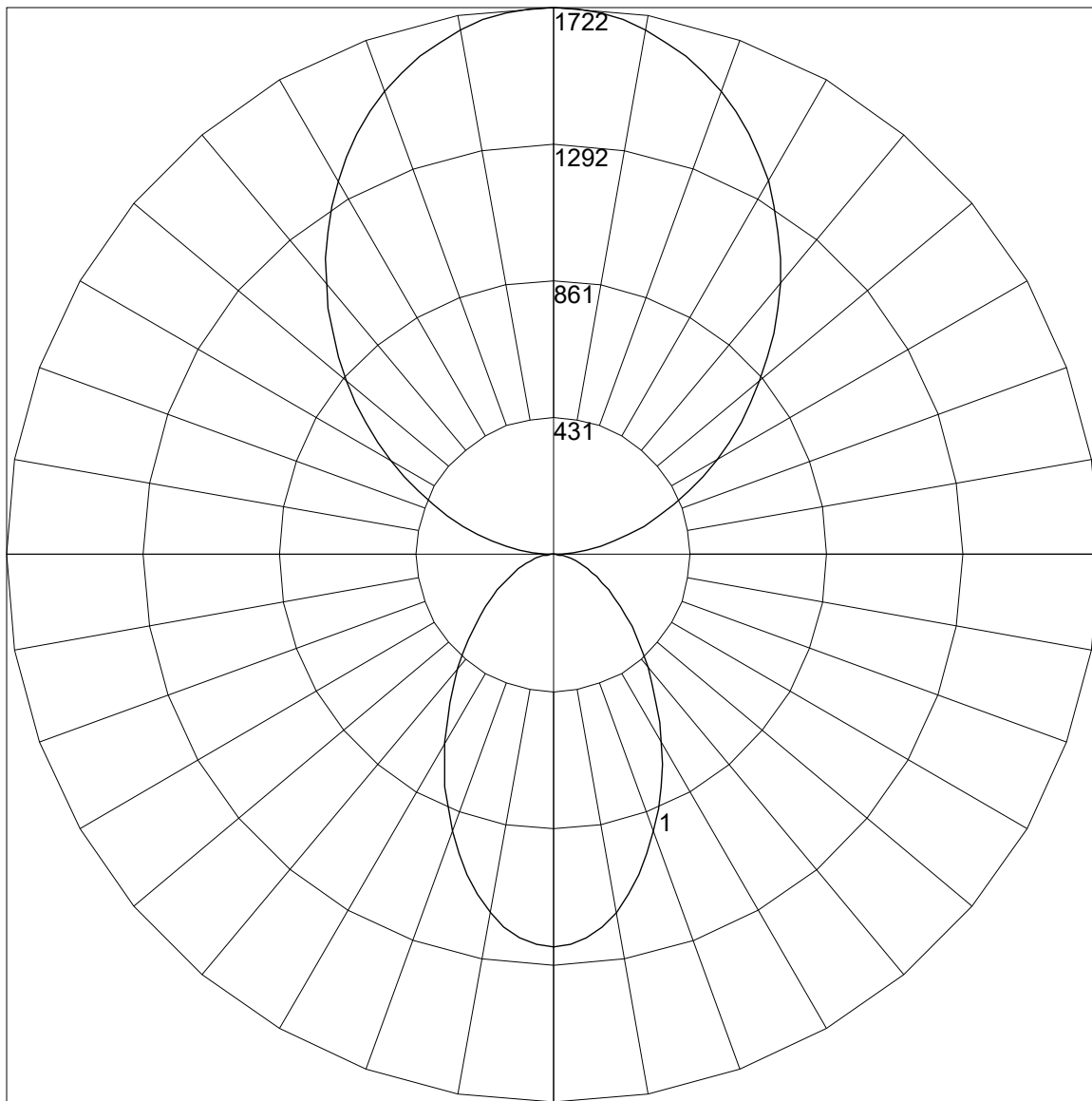
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35
1	95	91	87	84	85	82	79	76	66	64	62	51	50	49	38	37	36	30
2	87	80	74	69	78	72	67	63	58	55	52	46	43	41	34	32	31	26
3	79	70	63	58	71	64	58	53	52	48	44	41	38	35	30	28	27	22
4	73	62	55	49	65	57	50	46	46	42	38	36	33	31	27	25	24	20
5	67	56	48	42	60	51	44	39	42	37	33	33	30	27	25	23	21	17
6	62	50	42	37	56	46	39	34	38	33	29	30	26	24	23	20	19	15
7	57	45	38	32	51	41	35	30	34	29	26	27	24	21	21	18	17	14
8	53	41	34	29	48	38	31	27	31	26	23	25	22	19	19	17	15	13
9	49	38	30	26	45	35	28	24	29	24	20	23	20	17	18	15	14	12
10	46	35	28	23	42	32	26	22	26	22	19	21	18	16	17	14	13	11

POLAR GRAPH



Maximum Candela = 1722 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)