

# 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-B-S-835-TG-F-ITL90352.010.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90352.010 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-B-S-835-TG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 32.5 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 35.3 WATTS

[\_ABSOLUTE]LUMENS]3413

[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	3413
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	32.5
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	7663	5387	4244
55	6836	4236	3283
65	5925	3205	2544
75	4946	2473	2257
85	3422	1854	1711

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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	648.728	648.728	648.728	648.728	648.728
2.5	647.500	647.500	646.681	645.863	645.454
5.0	643.816	642.998	640.133	637.677	636.858
7.5	638.495	636.040	629.900	624.170	622.124
10.0	631.128	625.808	615.985	606.162	601.250
12.5	621.715	613.119	597.976	584.469	577.102
15.0	610.664	597.157	577.511	558.274	549.270
17.5	597.157	579.558	553.772	530.033	519.392
20.0	582.423	559.502	528.396	499.746	488.285
22.5	565.642	538.219	501.383	469.458	455.542
25.0	545.995	515.708	473.551	437.124	423.208
27.5	525.940	491.151	445.310	406.018	390.874
30.0	503.429	466.184	415.841	374.911	358.949
32.5	481.327	441.217	386.781	344.215	328.252
35.0	457.589	414.613	358.130	315.155	298.783
37.5	433.031	388.827	330.299	286.504	270.542
40.0	408.473	362.223	302.876	259.901	244.347
42.5	383.507	335.620	275.863	234.934	219.790
45.0	356.903	310.243	250.896	211.195	197.688
47.5	331.936	284.867	226.748	189.093	176.814
50.0	306.151	259.491	203.418	168.628	157.577
52.5	282.821	235.343	181.316	149.801	140.387
55.0	258.263	211.604	160.033	132.611	124.016
57.5	233.706	188.274	140.797	116.648	108.872
60.0	210.376	166.582	122.378	101.504	94.546
62.5	187.456	145.708	105.597	86.770	80.630
65.0	164.945	125.653	89.226	72.854	70.808
67.5	143.661	107.234	74.491	64.259	62.622
70.0	122.788	89.226	60.575	55.664	54.436
72.5	103.142	72.035	50.752	47.478	46.250
75.0	84.314	56.482	42.157	39.292	38.473
77.5	66.305	41.748	33.562	31.515	30.697
80.0	49.934	29.878	25.376	24.148	23.739
82.5	34.380	20.874	18.009	17.190	16.781
85.0	19.646	12.279	10.642	10.232	9.823
87.5	6.139	4.502	4.093	3.684	3.274
90.0	0.000	0.000	0.000	0.000	0.000
92.5	15.440	14.925	14.410	13.381	12.866
95.0	35.511	35.511	35.511	33.967	32.938
97.5	56.612	56.612	55.583	55.583	54.554
100.0	79.257	79.257	78.743	78.228	77.713
102.5	103.446	102.931	102.931	102.417	101.902
105.0	129.179	128.664	128.664	128.150	127.120
107.5	156.456	155.941	155.941	154.912	153.882
110.0	184.762	183.733	184.247	182.703	182.189
112.5	214.612	213.583	214.097	212.039	211.524
115.0	246.006	243.947	244.977	242.404	241.889
117.5	277.400	275.856	275.856	274.312	273.283
120.0	309.824	307.765	308.280	305.706	304.677
122.5	343.276	340.188	341.218	338.644	337.615
125.0	377.758	373.641	374.670	372.097	371.068
127.5	412.240	407.608	408.638	406.579	403.491
130.0	446.722	441.576	443.120	441.061	437.459
132.5	480.175	475.543	477.602	475.029	471.941

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-B-S-835-TG-F-ITL90352.010.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	514.657	509.510	511.569	509.510	505.393
<b>137.5</b>	550.168	543.478	546.051	543.993	539.361
<b>140.0</b>	584.136	576.931	580.019	577.445	572.813
<b>142.5</b>	618.103	609.354	613.471	610.383	605.237
<b>145.0</b>	651.041	640.748	644.865	642.292	637.145
<b>147.5</b>	680.891	671.113	675.745	673.171	668.025
<b>150.0</b>	710.227	700.448	705.080	701.992	697.360
<b>152.5</b>	737.504	727.210	732.872	729.269	725.152
<b>155.0</b>	762.722	752.943	759.634	755.002	751.399
<b>157.5</b>	786.396	776.618	782.793	778.676	775.588
<b>160.0</b>	805.953	798.233	803.894	800.292	797.718
<b>162.5</b>	824.995	817.790	822.422	819.334	816.761
<b>165.0</b>	841.464	835.288	838.891	836.832	834.259
<b>167.5</b>	854.845	850.728	852.787	851.757	849.184
<b>170.0</b>	866.168	863.595	864.624	863.595	862.565
<b>172.5</b>	873.888	873.888	873.888	872.858	872.858
<b>175.0</b>	881.093	880.578	880.578	880.064	879.549
<b>177.5</b>	884.696	884.696	884.696	884.696	884.696
<b>180.0</b>	886.240	886.240	886.240	886.240	886.240

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	222.51	N.A.	6.50
0-30	441.97	N.A.	12.90
0-40	671.11	N.A.	19.70
0-60	1029.83	N.A.	30.20
0-80	1184.55	N.A.	34.70
0-90	1198.47	N.A.	35.10
10-90	1138.12	N.A.	33.30
20-40	448.60	N.A.	13.10
20-50	651.36	N.A.	19.10
40-70	460.40	N.A.	13.50
60-80	154.72	N.A.	4.50
70-80	53.04	N.A.	1.60
80-90	13.91	N.A.	0.40
90-110	175.75	N.A.	5.10
90-120	417.60	N.A.	12.20
90-130	752.01	N.A.	22.00
90-150	1547.54	N.A.	45.30
90-180	2214.86	N.A.	64.90
110-180	2039.11	N.A.	59.70
0-180	3413.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	60.35
10-20	162.16
20-30	219.46
30-40	229.14
40-50	202.76
50-60	155.96
60-70	101.68
70-80	53.04
80-90	13.91
90-100	39.23
100-110	136.52
110-120	241.85
120-130	334.41
130-140	393.69
140-150	401.84
150-160	347.90
160-170	235.90
170-180	83.52

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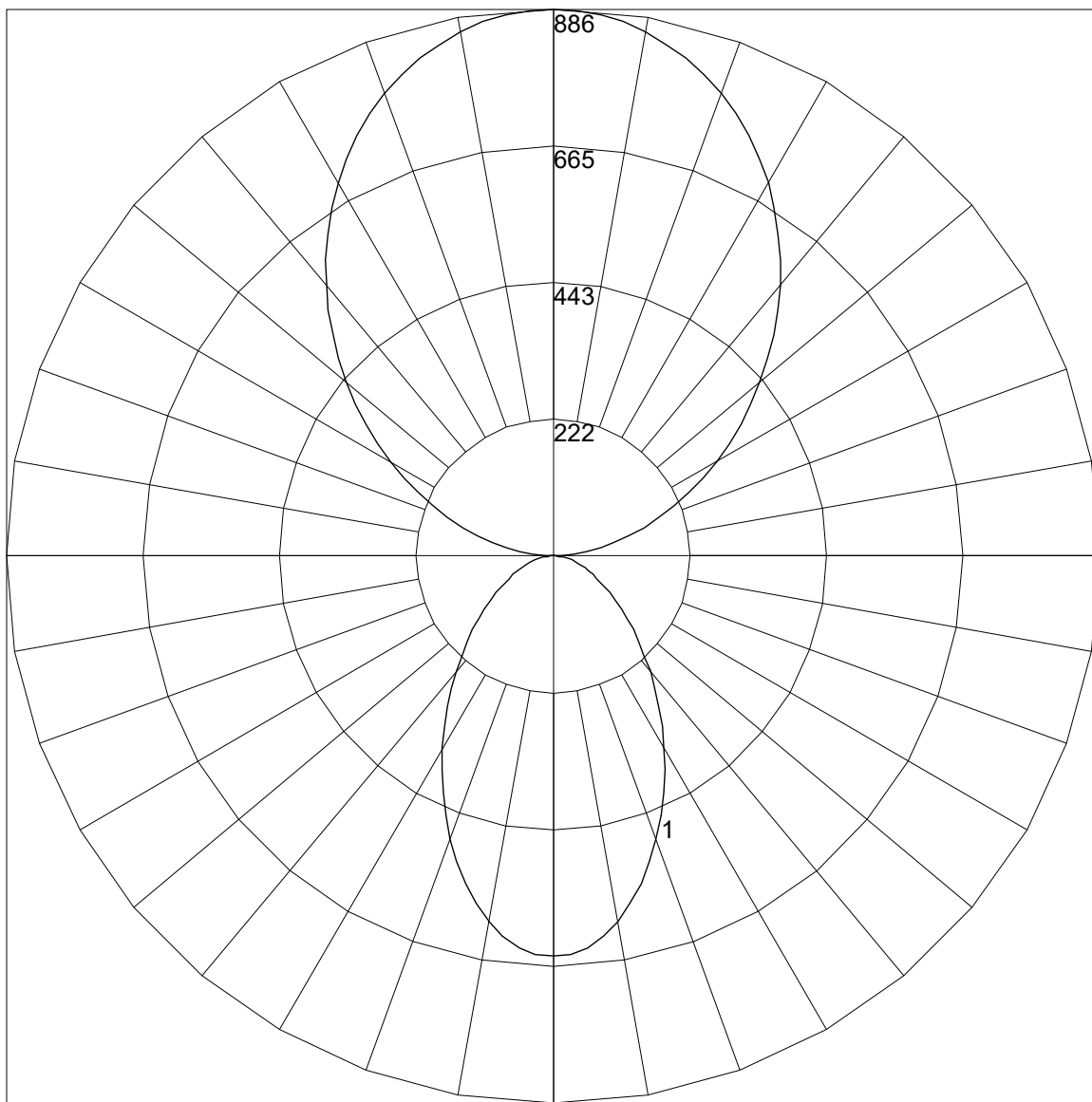
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	95	91	87	84	86	82	79	76	66	64	62	52	50	49	38	37	37	30
2	87	80	74	69	78	72	68	63	59	55	52	46	44	42	34	33	31	26
3	79	70	64	58	72	64	58	53	52	48	44	41	38	36	31	29	27	23
4	73	63	55	49	66	57	51	46	46	42	38	37	34	31	28	26	24	20
5	67	56	48	43	60	51	44	39	42	37	33	33	30	27	25	23	21	18
6	62	50	43	37	56	46	39	34	38	33	29	30	27	24	23	21	19	16
7	57	45	38	33	52	42	35	30	34	29	26	27	24	21	21	19	17	14
8	53	41	34	29	48	38	31	27	31	26	23	25	22	19	19	17	15	13
9	49	38	31	26	45	35	28	24	29	24	21	23	20	17	18	16	14	12
10	46	35	28	23	42	32	26	22	27	22	19	22	18	16	17	14	13	11

POLAR GRAPH



Maximum Candela = 886.24 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)