

# 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-S-B-835-TG-F-ITL90352.013.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90352.013 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-S-B-835-TG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 32.5 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 35.3 WATTS

[\_ABSOLUTE]LUMENS]3268

[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	3268
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	32.5
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)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9636	6774	5337
55	8596	5326	4128
65	7451	4030	3198
75	6219	3109	2838
85	4303	2331	2152

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**CANDELA TABULATION**

	<u><b>0.0</b></u>	<u><b>22.5</b></u>	<u><b>45.0</b></u>	<u><b>67.5</b></u>	<u><b>90.0</b></u>
<b>0.0</b>	815.731	815.731	815.731	815.731	815.731
<b>2.5</b>	814.188	814.188	813.158	812.129	811.614
<b>5.0</b>	809.556	808.526	804.924	801.836	800.806
<b>7.5</b>	802.865	799.777	792.057	784.852	782.279
<b>10.0</b>	793.601	786.911	774.559	762.207	756.031
<b>12.5</b>	781.764	770.956	751.914	734.930	725.667
<b>15.0</b>	767.868	750.885	726.181	701.992	690.670
<b>17.5</b>	750.885	728.755	696.331	666.481	653.100
<b>20.0</b>	732.357	703.536	664.422	628.396	613.986
<b>22.5</b>	711.256	676.774	630.455	590.312	572.813
<b>25.0</b>	686.553	648.468	595.458	549.654	532.155
<b>27.5</b>	661.334	617.588	559.947	510.540	491.498
<b>30.0</b>	633.028	586.194	522.892	471.426	451.354
<b>32.5</b>	605.237	554.800	486.351	432.827	412.755
<b>35.0</b>	575.387	521.348	450.325	396.286	375.700
<b>37.5</b>	544.507	488.924	415.328	360.260	340.188
<b>40.0</b>	513.628	455.471	380.846	326.807	307.250
<b>42.5</b>	482.234	422.019	346.879	295.413	276.371
<b>45.0</b>	448.781	390.110	315.485	265.563	248.579
<b>47.5</b>	417.387	358.201	285.120	237.772	222.332
<b>50.0</b>	384.964	326.293	255.785	212.039	198.143
<b>52.5</b>	355.628	295.928	227.993	188.364	176.527
<b>55.0</b>	324.749	266.078	201.231	166.749	155.941
<b>57.5</b>	293.869	236.742	177.042	146.677	136.899
<b>60.0</b>	264.534	209.465	153.882	127.635	118.886
<b>62.5</b>	235.713	183.218	132.781	109.107	101.387
<b>65.0</b>	207.407	158.000	112.195	91.609	89.036
<b>67.5</b>	180.645	134.840	93.668	80.801	78.743
<b>70.0</b>	154.397	112.195	76.169	69.993	68.449
<b>72.5</b>	129.694	90.580	63.818	59.700	58.156
<b>75.0</b>	106.019	71.023	53.010	49.407	48.378
<b>77.5</b>	83.374	52.495	42.202	39.629	38.599
<b>80.0</b>	62.788	37.570	31.909	30.365	29.850
<b>82.5</b>	43.231	26.247	22.645	21.616	21.101
<b>85.0</b>	24.703	15.440	13.381	12.866	12.352
<b>87.5</b>	7.720	5.661	5.147	4.632	4.117
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	12.279	11.870	11.460	10.642	10.232
<b>95.0</b>	28.241	28.241	28.241	27.013	26.195
<b>97.5</b>	45.022	45.022	44.203	44.203	43.385
<b>100.0</b>	63.031	63.031	62.622	62.212	61.803
<b>102.5</b>	82.268	81.858	81.858	81.449	81.040
<b>105.0</b>	102.732	102.323	102.323	101.914	101.095
<b>107.5</b>	124.425	124.016	124.016	123.197	122.378
<b>110.0</b>	146.936	146.117	146.527	145.299	144.889
<b>112.5</b>	170.675	169.856	170.266	168.628	168.219
<b>115.0</b>	195.642	194.004	194.823	192.777	192.367
<b>117.5</b>	220.608	219.381	219.381	218.153	217.334
<b>120.0</b>	246.394	244.757	245.166	243.119	242.301
<b>122.5</b>	272.998	270.542	271.361	269.314	268.496
<b>125.0</b>	300.420	297.146	297.965	295.918	295.099
<b>127.5</b>	327.843	324.159	324.978	323.341	320.885
<b>130.0</b>	355.265	351.173	352.401	350.763	347.898
<b>132.5</b>	381.870	378.186	379.823	377.777	375.321

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-S-B-835-TG-F-ITL90352.013.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	409.292	405.199	406.836	405.199	401.925
<b>137.5</b>	437.533	432.212	434.259	432.622	428.938
<b>140.0</b>	464.546	458.816	461.272	459.226	455.542
<b>142.5</b>	491.560	484.602	487.876	485.420	481.327
<b>145.0</b>	517.754	509.569	512.843	510.796	506.704
<b>147.5</b>	541.493	533.717	537.400	535.354	531.261
<b>150.0</b>	564.823	557.046	560.730	558.274	554.591
<b>152.5</b>	586.515	578.330	582.832	579.967	576.692
<b>155.0</b>	606.571	598.794	604.115	600.431	597.566
<b>157.5</b>	625.398	617.622	622.533	619.259	616.803
<b>160.0</b>	640.951	634.812	639.314	636.449	634.403
<b>162.5</b>	656.095	650.365	654.049	651.593	649.546
<b>165.0</b>	669.192	664.281	667.146	665.509	663.462
<b>167.5</b>	679.834	676.560	678.197	677.378	675.332
<b>170.0</b>	688.838	686.792	687.611	686.792	685.973
<b>172.5</b>	694.978	694.978	694.978	694.159	694.159
<b>175.0</b>	700.708	700.299	700.299	699.889	699.480
<b>177.5</b>	703.573	703.573	703.573	703.573	703.573
<b>180.0</b>	704.801	704.801	704.801	704.801	704.801

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	279.80	N.A.	8.60
0-30	555.75	N.A.	17.00
0-40	843.88	N.A.	25.80
0-60	1294.94	N.A.	39.60
0-80	1489.5	N.A.	45.60
0-90	1506.99	N.A.	46.10
10-90	1431.11	N.A.	43.80
20-40	564.08	N.A.	17.30
20-50	819.04	N.A.	25.10
40-70	578.92	N.A.	17.70
60-80	194.55	N.A.	6.00
70-80	66.69	N.A.	2.00
80-90	17.50	N.A.	0.50
90-110	139.77	N.A.	4.30
90-120	332.11	N.A.	10.20
90-130	598.05	N.A.	18.30
90-150	1230.71	N.A.	37.70
90-180	1761.42	N.A.	53.90
110-180	1621.65	N.A.	49.60
0-180	3268.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	75.89
10-20	203.91
20-30	275.95
30-40	288.13
40-50	254.96
50-60	196.11
60-70	127.86
70-80	66.69
80-90	17.50
90-100	31.20
100-110	108.57
110-120	192.34
120-130	265.94
130-140	313.09
140-150	319.57
150-160	276.68
160-170	187.61
170-180	66.42

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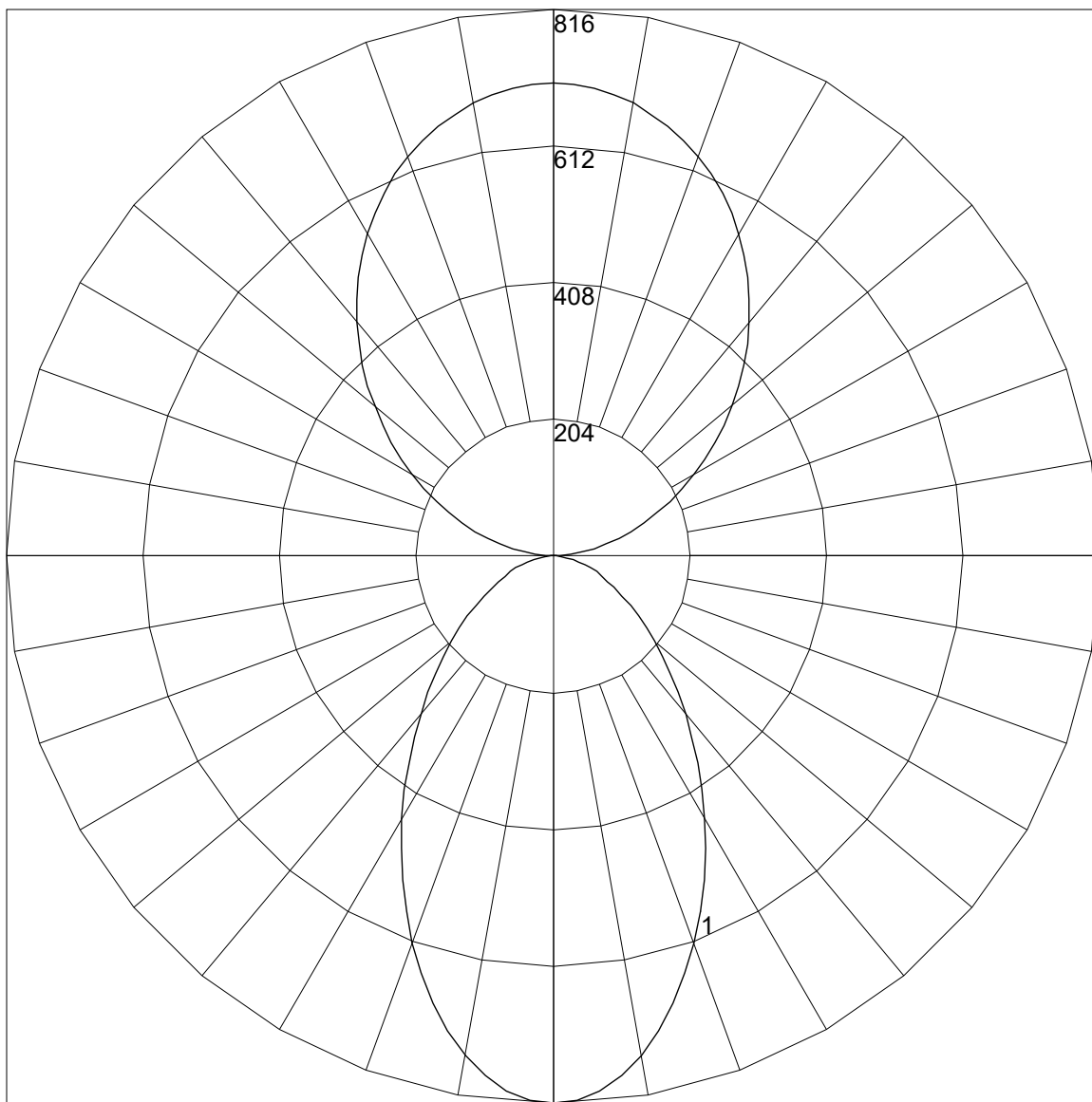
PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-S-B-835-TG-F-ITL90352.013.IES

## 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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	53	53	53	46
1	97	93	90	86	89	86	83	80	72	70	68	59	58	56	47	46	45	40
2	89	82	76	72	82	76	71	67	64	60	57	53	50	48	42	41	39	34
3	82	73	66	60	75	67	61	56	57	52	49	47	44	41	38	36	34	30
4	75	65	57	51	69	60	53	48	51	46	42	42	39	36	34	32	30	26
5	69	58	50	45	63	54	47	42	46	41	37	38	34	31	31	29	26	23
6	64	52	45	39	59	49	42	37	41	36	32	35	31	28	29	26	24	21
7	59	47	40	34	54	44	37	32	38	32	29	32	28	25	26	23	21	19
8	55	43	36	31	51	40	34	29	35	29	26	29	25	22	24	21	19	17
9	51	40	32	27	47	37	30	26	32	27	23	27	23	20	23	20	17	15
10	48	36	29	25	44	34	28	23	29	24	21	25	21	18	21	18	16	14

POLAR GRAPH



Maximum Candela = 815.731 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)