

# 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-B-8TW-TG-F-ITL90352.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90352.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/04/18

[ISSUEDATE]05/25/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-RG-4ft-B-B-8TW-TG-F

[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & C

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 40.0 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 42.8 WATTS

[\_ABSOLUTE]LUMENS]3722

[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	3722
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	40
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	725.666
<b>15.0</b>	767.868	750.885	726.181	701.992	690.670
<b>17.5</b>	750.885	728.754	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	455.472	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>	384.963	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	132.782	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	63.817	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	26.248	22.645	21.616	21.101
<b>85.0</b>	24.704	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>	15.440	14.925	14.410	13.381	12.866
<b>95.0</b>	35.511	35.511	35.511	33.967	32.938
<b>97.5</b>	56.612	56.612	55.583	55.583	54.554
<b>100.0</b>	79.257	79.257	78.743	78.228	77.713
<b>102.5</b>	103.446	102.931	102.931	102.417	101.902
<b>105.0</b>	129.179	128.664	128.664	128.150	127.120
<b>107.5</b>	156.456	155.941	155.941	154.912	153.882
<b>110.0</b>	184.762	183.733	184.247	182.703	182.189
<b>112.5</b>	214.612	213.583	214.097	212.039	211.524
<b>115.0</b>	246.006	243.947	244.977	242.403	241.889
<b>117.5</b>	277.400	275.856	275.856	274.312	273.283
<b>120.0</b>	309.824	307.765	308.280	305.706	304.677
<b>122.5</b>	343.276	340.188	341.218	338.644	337.615
<b>125.0</b>	377.758	373.641	374.670	372.097	371.068
<b>127.5</b>	412.240	407.608	408.638	406.579	403.491
<b>130.0</b>	446.722	441.576	443.120	441.061	437.459
<b>132.5</b>	480.175	475.543	477.602	475.028	471.941

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-B-B-8TW-TG-F-ITL90352.902.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	514.657	509.511	511.569	509.511	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>	886.239	886.239	886.239	886.239	886.239

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	279.80	N.A.	7.50
0-30	555.75	N.A.	14.90
0-40	843.88	N.A.	22.70
0-60	1294.94	N.A.	34.80
0-80	1489.5	N.A.	40.00
0-90	1506.99	N.A.	40.50
10-90	1431.11	N.A.	38.50
20-40	564.08	N.A.	15.20
20-50	819.04	N.A.	22.00
40-70	578.92	N.A.	15.60
60-80	194.55	N.A.	5.20
70-80	66.69	N.A.	1.80
80-90	17.50	N.A.	0.50
90-110	175.75	N.A.	4.70
90-120	417.60	N.A.	11.20
90-130	752.01	N.A.	20.20
90-150	1547.54	N.A.	41.60
90-180	2214.86	N.A.	59.50
110-180	2039.11	N.A.	54.80
0-180	3721.86	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	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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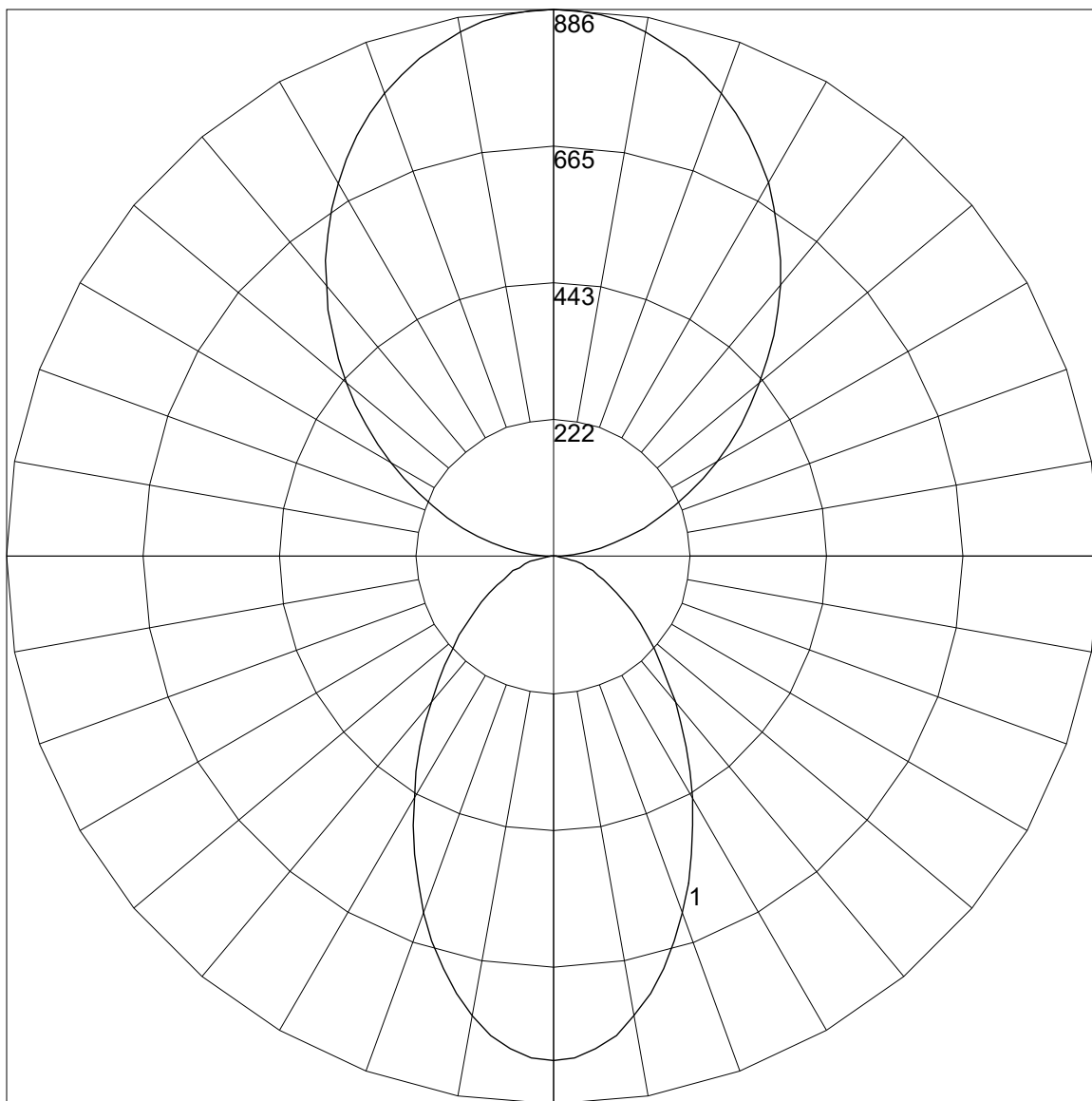
PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-B-B-8TW-TG-F-ITL90352.902.IES

## 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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	47	47	47	40
1	96	92	88	85	87	84	81	78	69	67	65	55	54	53	43	42	41	35
2	88	81	75	70	80	74	69	65	61	58	55	49	47	45	38	37	35	30
3	81	72	65	59	73	66	60	55	54	50	46	44	41	38	34	32	31	26
4	74	64	56	50	67	58	52	47	49	44	40	39	36	33	31	29	27	23
5	68	57	49	44	62	52	46	41	44	39	35	36	32	29	28	26	24	20
6	63	51	44	38	57	47	40	36	40	34	31	32	29	26	26	23	21	18
7	58	46	39	33	53	43	36	31	36	31	27	30	26	23	24	21	19	16
8	54	42	35	30	49	39	32	28	33	28	24	27	23	21	22	19	17	15
9	50	39	31	27	46	36	29	25	30	25	22	25	21	19	20	18	16	13
10	47	35	29	24	43	33	27	23	28	23	20	23	20	17	19	16	14	12

POLAR GRAPH



Maximum Candela = 886.239 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)