

# 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-835-WSOTG-F-ITL90350 ITL89456.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90350 ITL89456.002 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/19/17

[ISSUEDATE]05/31/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-RG-4ft-B-B-835-WSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 36.1 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 38.8 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89456. 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)

[\_ABSOLUTELUMENS]3554

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3554
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	36.1
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	9449	6719	5327
55	8501	5341	4155
65	7526	4049	3162
75	6401	3110	2838
85	5111	2510	2331

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-B-B-835-WSOTG-F-ITL90350 ITL89456.002.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	787.009	787.009	787.009	787.009	787.009
<b>2.5</b>	785.979	785.465	784.950	784.435	783.920
<b>5.0</b>	782.376	781.347	778.773	775.685	774.141
<b>7.5</b>	776.199	773.626	766.420	760.243	757.155
<b>10.0</b>	767.449	761.273	750.463	739.140	734.507
<b>12.5</b>	756.640	745.316	729.360	712.889	706.197
<b>15.0</b>	742.743	726.786	705.168	683.035	673.770
<b>17.5</b>	727.301	706.197	677.373	650.093	638.254
<b>20.0</b>	709.286	683.035	647.519	615.092	601.194
<b>22.5</b>	687.668	657.299	615.606	577.517	562.076
<b>25.0</b>	665.534	630.019	582.150	539.942	523.471
<b>27.5</b>	641.343	601.194	547.663	501.853	484.353
<b>30.0</b>	615.606	571.855	513.177	463.249	446.263
<b>32.5</b>	587.297	542.001	478.176	425.160	409.203
<b>35.0</b>	558.987	511.118	443.690	389.644	371.629
<b>37.5</b>	530.163	479.720	409.718	355.158	337.657
<b>40.0</b>	500.309	447.807	376.261	322.730	305.744
<b>42.5</b>	470.455	416.924	343.834	291.847	275.890
<b>45.0</b>	440.087	385.526	312.950	263.022	248.096
<b>47.5</b>	409.203	355.672	283.097	235.742	222.874
<b>50.0</b>	378.835	325.304	254.272	210.006	198.682
<b>52.5</b>	350.525	295.450	227.507	187.358	177.064
<b>55.0</b>	321.186	265.596	201.771	165.740	156.990
<b>57.5</b>	292.362	237.801	177.064	145.666	137.945
<b>60.0</b>	264.052	211.036	153.902	126.621	119.930
<b>62.5</b>	236.257	184.785	132.798	109.121	102.944
<b>65.0</b>	209.492	160.078	112.724	91.620	88.017
<b>67.5</b>	182.211	136.401	94.194	79.267	78.238
<b>70.0</b>	156.990	113.753	77.208	68.973	67.943
<b>72.5</b>	132.798	92.650	63.825	59.193	57.649
<b>75.0</b>	109.121	72.576	53.016	48.898	48.384
<b>77.5</b>	88.017	54.046	42.207	39.633	39.119
<b>80.0</b>	67.428	38.089	32.427	30.369	30.369
<b>82.5</b>	47.354	26.765	23.163	21.618	21.618
<b>85.0</b>	29.339	16.471	14.412	13.383	13.383
<b>87.5</b>	12.353	7.206	6.177	5.662	5.662
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	9.264	15.955	15.955	15.441	15.441
<b>95.0</b>	24.190	42.719	42.719	35.513	34.998
<b>97.5</b>	40.660	69.997	85.952	61.762	58.159
<b>100.0</b>	57.645	91.099	170.875	99.334	87.496
<b>102.5</b>	76.173	111.172	236.240	175.507	139.479
<b>105.0</b>	94.187	132.788	273.812	286.164	235.725
<b>107.5</b>	112.201	153.891	296.973	386.013	359.764
<b>110.0</b>	130.215	173.448	317.560	444.687	449.319
<b>112.5</b>	148.229	192.492	341.750	483.288	502.846
<b>115.0</b>	166.758	210.506	370.572	511.081	539.389
<b>117.5</b>	185.286	228.520	401.968	537.330	567.696
<b>120.0</b>	203.815	247.563	427.702	565.123	596.004
<b>122.5</b>	220.799	263.518	446.231	604.239	625.856
<b>125.0</b>	236.755	278.959	456.525	646.958	668.574
<b>127.5</b>	251.680	293.370	462.701	675.780	715.925
<b>130.0</b>	264.033	305.722	466.304	687.618	749.894
<b>132.5</b>	276.385	317.045	467.333	682.986	760.703

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-B-B-835-WSOTG-F-ITL90350 ITL89456.002.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	287.194	326.310	466.818	668.574	749.894
<b>137.5</b>	296.973	335.059	465.274	649.016	727.248
<b>140.0</b>	306.752	342.779	462.701	627.400	698.426
<b>142.5</b>	316.016	349.985	459.098	603.210	667.545
<b>145.0</b>	325.795	356.676	455.495	580.049	636.149
<b>147.5</b>	334.030	361.823	451.378	556.373	604.239
<b>150.0</b>	342.265	367.484	446.231	535.271	574.387
<b>152.5</b>	349.985	371.602	440.055	515.199	546.594
<b>155.0</b>	357.191	374.690	433.878	495.641	520.860
<b>157.5</b>	363.882	378.807	428.217	477.627	497.699
<b>160.0</b>	369.543	381.381	421.526	460.127	476.083
<b>162.5</b>	374.690	383.440	414.835	445.202	456.010
<b>165.0</b>	378.807	385.498	408.144	430.790	439.025
<b>167.5</b>	382.410	387.042	402.998	418.438	424.099
<b>170.0</b>	385.498	388.586	399.395	408.659	412.262
<b>172.5</b>	387.042	389.616	395.277	400.424	403.512
<b>175.0</b>	389.101	390.130	392.704	395.277	396.307
<b>177.5</b>	390.130	390.130	391.160	391.160	391.675
<b>180.0</b>	390.645	390.645	390.645	390.645	390.645

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-B-B-835-WSOTG-F-ITL90350 ITL89456.002.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	271.45	N.A.	7.60
0-30	540.90	N.A.	15.20
0-40	823.79	N.A.	23.20
0-60	1271.56	N.A.	35.80
0-80	1467.49	N.A.	41.30
0-90	1486.16	N.A.	41.80
10-90	1412.75	N.A.	39.80
20-40	552.35	N.A.	15.50
20-50	804.54	N.A.	22.60
40-70	576.16	N.A.	16.20
60-80	195.93	N.A.	5.50
70-80	67.54	N.A.	1.90
80-90	18.68	N.A.	0.50
90-110	270.61	N.A.	7.60
90-120	627.65	N.A.	17.70
90-130	1035.78	N.A.	29.10
90-150	1711.6	N.A.	48.20
90-180	2067.9	N.A.	58.20
110-180	1797.28	N.A.	50.60
0-180	3554.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	73.41
10-20	198.04
20-30	269.46
30-40	282.89
40-50	252.19
50-60	195.57
60-70	128.39
70-80	67.54
80-90	18.68
90-100	47.20
100-110	223.41
110-120	357.04
120-130	408.13
130-140	381.45
140-150	294.37
150-160	202.34
160-170	116.28
170-180	37.67

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

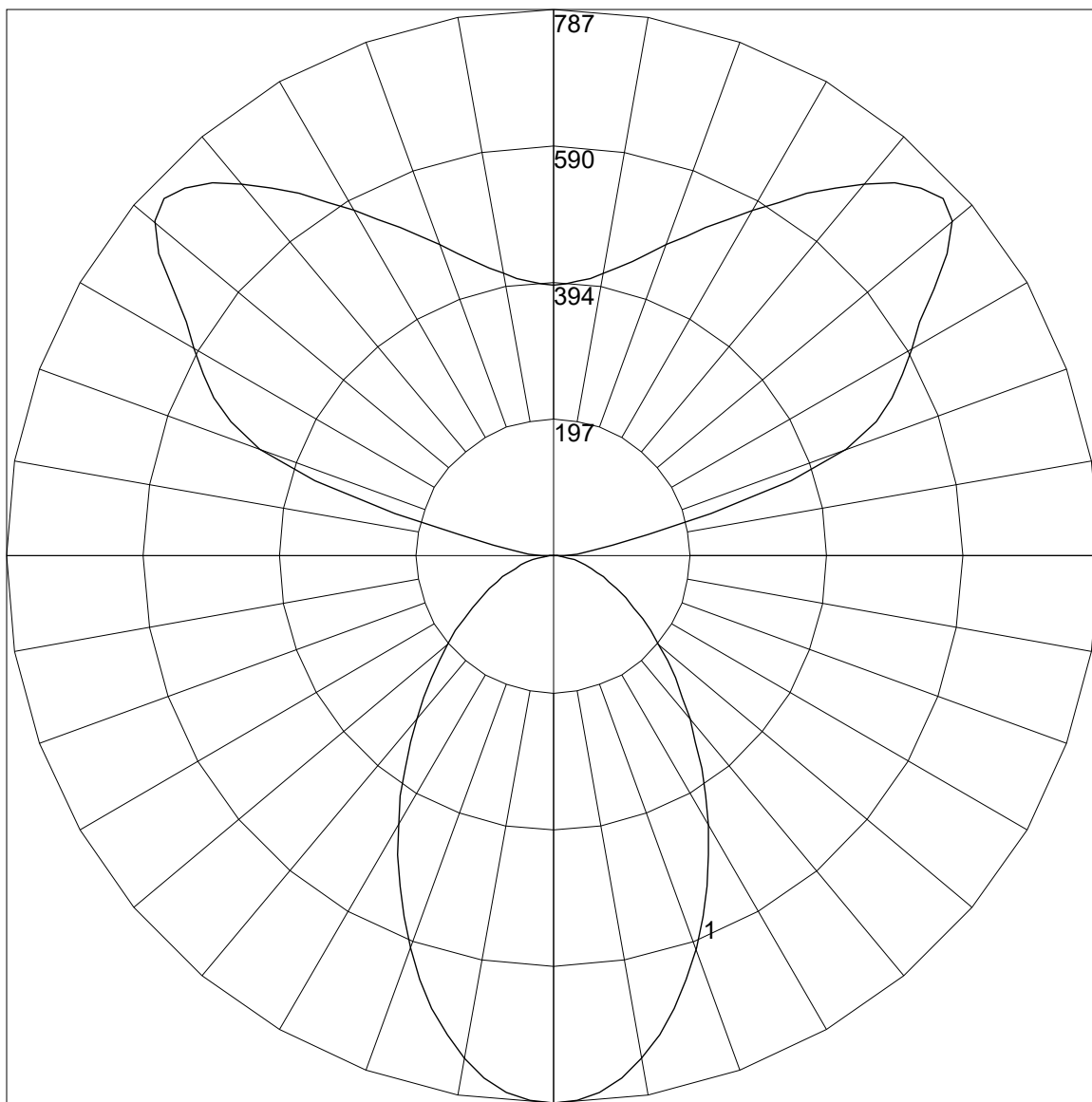
Effective Floor Cavity Reflectance 0.20

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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	96	92	89	85	88	84	81	79	70	68	66	56	55	53	44	43	42	36
2	88	81	75	70	80	74	69	65	62	58	55	50	47	45	39	37	36	31
3	81	72	65	59	73	66	60	55	55	50	47	45	41	39	35	33	31	27
4	74	64	56	51	67	59	52	47	49	44	40	40	37	34	32	29	27	24
5	68	57	49	44	62	53	46	41	44	39	35	36	32	30	29	26	24	21
6	63	51	44	38	57	47	41	36	40	35	31	33	29	26	26	24	22	19
7	58	46	39	34	53	43	36	31	36	31	27	30	26	23	24	21	19	17
8	54	42	35	30	49	39	33	28	33	28	24	28	24	21	22	20	18	15
9	50	39	31	27	46	36	29	25	31	25	22	25	22	19	21	18	16	14
10	47	36	29	24	43	33	27	23	28	23	20	24	20	17	19	17	15	13

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POLAR GRAPH



Maximum Candela = 787.009 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)