

# 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-H-835-WSOTG-F-ITL90350 ITL89456.011.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90350 ITL89456.011 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-H-835-WSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 45.8 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 48.2 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)

[\_ABSOLUTE]LUMENS]4313

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4313
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	45.8
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	14275	10151	8047
55	12844	8068	6278
65	11370	6118	4777
75	9670	4698	4288
85	7721	3793	3522

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-B-H-835-WSOTG-F-ITL90350 ITL89456.011.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>	1188.987	1188.987	1188.987	1188.987	1188.987
<b>2.5</b>	1187.432	1186.654	1185.876	1185.099	1184.321
<b>5.0</b>	1181.988	1180.433	1176.545	1171.879	1169.546
<b>7.5</b>	1172.657	1168.769	1157.882	1148.550	1143.885
<b>10.0</b>	1159.437	1150.106	1133.775	1116.668	1109.669
<b>12.5</b>	1143.107	1125.999	1101.893	1077.009	1066.900
<b>15.0</b>	1122.111	1098.005	1065.345	1031.907	1017.910
<b>17.5</b>	1098.783	1066.900	1023.353	982.139	964.254
<b>20.0</b>	1071.566	1031.907	978.251	929.260	908.265
<b>22.5</b>	1038.905	993.026	930.038	872.494	849.165
<b>25.0</b>	1005.468	951.812	879.493	815.727	790.843
<b>27.5</b>	968.919	908.265	827.392	758.183	731.744
<b>30.0</b>	930.038	863.940	775.291	699.861	674.200
<b>32.5</b>	887.269	818.838	722.413	642.317	618.211
<b>35.0</b>	844.500	772.181	670.312	588.661	561.444
<b>37.5</b>	800.953	724.745	618.989	536.560	510.121
<b>40.0</b>	755.850	676.533	568.443	487.570	461.909
<b>42.5</b>	710.748	629.875	519.453	440.913	416.806
<b>45.0</b>	664.868	582.440	472.795	397.366	374.815
<b>47.5</b>	618.211	537.338	427.693	356.152	336.711
<b>50.0</b>	572.331	491.458	384.146	317.271	300.163
<b>52.5</b>	529.562	446.356	343.710	283.055	267.503
<b>55.0</b>	485.237	401.254	304.829	250.395	237.175
<b>57.5</b>	441.690	359.262	267.503	220.068	208.403
<b>60.0</b>	398.921	318.826	232.510	191.296	181.186
<b>62.5</b>	356.929	279.167	200.627	164.856	155.525
<b>65.0</b>	316.493	241.841	170.300	138.417	132.974
<b>67.5</b>	275.279	206.070	142.305	119.754	118.199
<b>70.0</b>	237.175	171.855	116.644	104.202	102.646
<b>72.5</b>	200.627	139.972	96.425	89.427	87.094
<b>75.0</b>	164.856	109.645	80.095	73.874	73.097
<b>77.5</b>	132.974	81.650	63.765	59.877	59.099
<b>80.0</b>	101.869	57.544	48.990	45.880	45.880
<b>82.5</b>	71.541	40.436	34.993	32.660	32.660
<b>85.0</b>	44.325	24.884	21.773	20.218	20.218
<b>87.5</b>	18.663	10.887	9.332	8.554	8.554
<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-H-835-WSOTG-F-ITL90350 ITL89456.011.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-H-835-WSOTG-F-ITL90350 ITL89456.011.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	410.09	N.A.	9.50
0-30	817.18	N.A.	18.90
0-40	1244.56	N.A.	28.90
0-60	1921.03	N.A.	44.50
0-80	2217.03	N.A.	51.40
0-90	2245.25	N.A.	52.10
10-90	2134.34	N.A.	49.50
20-40	834.47	N.A.	19.30
20-50	1215.47	N.A.	28.20
40-70	870.44	N.A.	20.20
60-80	296.01	N.A.	6.90
70-80	102.03	N.A.	2.40
80-90	28.21	N.A.	0.70
90-110	270.61	N.A.	6.30
90-120	627.65	N.A.	14.60
90-130	1035.78	N.A.	24.00
90-150	1711.6	N.A.	39.70
90-180	2067.9	N.A.	47.90
110-180	1797.28	N.A.	41.70
0-180	4313.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	110.91
10-20	299.19
20-30	407.09
30-40	427.38
40-50	381.00
50-60	295.46
60-70	193.97
70-80	102.03
80-90	28.21
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

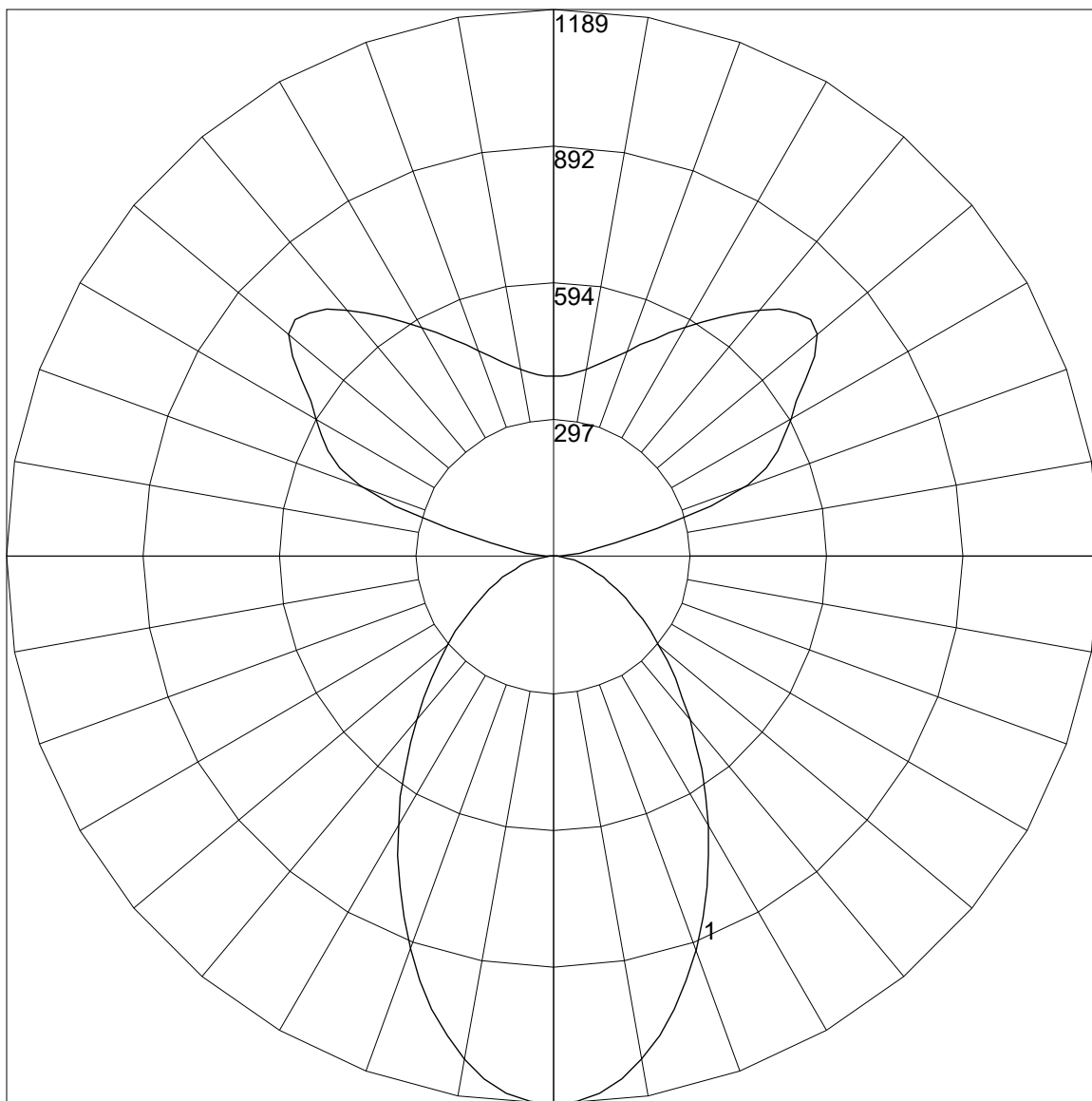
Effective Floor Cavity Reflectance 0.20

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	108	108	108	108	100	100	100	100	84	84	84	71	71	71	58	58	58	52
1	99	95	91	88	91	88	85	82	75	73	71	63	61	60	52	51	50	45
2	90	83	78	73	84	77	72	68	66	63	59	56	53	51	47	45	43	39
3	83	74	67	61	77	69	63	58	59	54	51	50	47	44	42	39	37	33
4	76	66	58	52	70	61	55	49	53	48	44	45	41	38	38	35	33	29
5	70	59	51	45	65	55	48	43	48	42	38	41	37	34	34	31	29	26
6	65	53	45	40	60	50	43	38	43	38	34	37	33	30	32	28	26	23
7	60	48	41	35	56	45	38	33	39	34	30	34	30	27	29	26	23	21
8	56	44	36	31	52	41	35	30	36	31	27	31	27	24	27	24	21	19
9	52	40	33	28	48	38	31	27	33	28	24	29	25	22	25	22	19	17
10	49	37	30	25	45	35	29	24	31	26	22	27	23	20	23	20	18	16

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POLAR GRAPH



Maximum Candela = 1188.987 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)