

# 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-H-S-835-WSOTG-F-ITL90350 ITL89456.007.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90350 ITL89456.007 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-H-S-835-WSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 42.0 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 44.5 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]4307

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4307
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	42
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	7516	5345	4237
55	6762	4248	3305
65	5986	3221	2515
75	5091	2474	2258
85	4065	1997	1854

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	626.006	626.006	626.006	626.006	626.006
<b>2.5</b>	625.187	624.777	624.368	623.958	623.549
<b>5.0</b>	622.321	621.502	619.455	616.998	615.770
<b>7.5</b>	617.408	615.361	609.629	604.716	602.259
<b>10.0</b>	610.447	605.534	596.937	587.929	584.245
<b>12.5</b>	601.850	592.842	580.150	567.049	561.726
<b>15.0</b>	590.795	578.103	560.908	543.302	535.933
<b>17.5</b>	578.513	561.726	538.799	517.099	507.683
<b>20.0</b>	564.183	543.302	515.052	489.259	478.204
<b>22.5</b>	546.987	522.831	489.668	459.371	447.088
<b>25.0</b>	529.382	501.132	463.056	429.483	416.382
<b>27.5</b>	510.139	478.204	435.625	399.186	385.266
<b>30.0</b>	489.668	454.867	408.193	368.479	354.969
<b>32.5</b>	467.150	431.121	380.353	338.182	325.490
<b>35.0</b>	444.632	406.556	352.921	309.932	295.602
<b>37.5</b>	421.704	381.581	325.899	282.501	268.580
<b>40.0</b>	397.958	356.197	299.287	256.707	243.196
<b>42.5</b>	374.211	331.631	273.494	232.142	219.450
<b>45.0</b>	350.055	306.657	248.928	209.214	197.341
<b>47.5</b>	325.490	282.910	225.182	187.515	177.280
<b>50.0</b>	301.334	258.754	202.254	167.044	158.037
<b>52.5</b>	278.816	235.008	180.964	149.029	140.841
<b>55.0</b>	255.479	211.262	160.493	131.834	124.874
<b>57.5</b>	232.551	189.153	140.841	115.866	109.725
<b>60.0</b>	210.033	167.863	122.417	100.718	95.395
<b>62.5</b>	187.924	146.982	105.631	86.797	81.884
<b>65.0</b>	166.635	127.330	89.663	72.877	70.011
<b>67.5</b>	144.935	108.497	74.924	63.051	62.232
<b>70.0</b>	124.874	90.482	61.413	54.862	54.044
<b>72.5</b>	105.631	73.696	50.768	47.084	45.855
<b>75.0</b>	86.797	57.728	42.170	38.895	38.486
<b>77.5</b>	70.011	42.989	33.573	31.526	31.116
<b>80.0</b>	53.634	30.297	25.794	24.156	24.156
<b>82.5</b>	37.667	21.290	18.424	17.196	17.196
<b>85.0</b>	23.337	13.101	11.464	10.645	10.645
<b>87.5</b>	9.826	5.732	4.913	4.504	4.504
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	13.999	24.110	24.110	23.332	23.332
<b>95.0</b>	36.554	64.553	64.553	53.665	52.887
<b>97.5</b>	61.442	105.774	129.884	93.330	87.886
<b>100.0</b>	87.108	137.662	258.213	150.106	132.218
<b>102.5</b>	115.107	167.994	356.987	265.213	210.770
<b>105.0</b>	142.328	200.660	413.763	432.429	356.210
<b>107.5</b>	169.549	232.547	448.762	583.313	543.647
<b>110.0</b>	196.771	262.102	479.872	671.976	678.976
<b>112.5</b>	223.992	290.878	516.426	730.307	759.862
<b>115.0</b>	251.991	318.100	559.980	772.306	815.082
<b>117.5</b>	279.990	345.321	607.423	811.971	857.858
<b>120.0</b>	307.989	374.098	646.310	853.970	900.635
<b>122.5</b>	333.655	398.208	674.309	913.079	945.744
<b>125.0</b>	357.765	421.541	689.864	977.632	1010.297
<b>127.5</b>	380.320	443.318	699.197	1021.186	1081.851
<b>130.0</b>	398.986	461.984	704.642	1039.074	1133.182
<b>132.5</b>	417.652	479.094	706.197	1032.074	1149.515

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-H-S-835-WSOTG-F-ITL90350 ITL89456.007.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	433.985	493.094	705.419	1010.297	1133.182
<b>137.5</b>	448.762	506.315	703.086	980.743	1098.961
<b>140.0</b>	463.539	517.982	699.197	948.077	1055.407
<b>142.5</b>	477.539	528.870	693.753	911.523	1008.742
<b>145.0</b>	492.316	538.981	688.309	876.524	961.299
<b>147.5</b>	504.760	546.758	682.087	840.748	913.079
<b>150.0</b>	517.204	555.314	674.309	808.860	867.969
<b>152.5</b>	528.870	561.536	664.976	778.528	825.971
<b>155.0</b>	539.759	566.202	655.643	748.973	787.083
<b>157.5</b>	549.869	572.424	647.088	721.752	752.084
<b>160.0</b>	558.425	576.313	636.977	695.309	719.419
<b>162.5</b>	566.202	579.424	626.867	672.754	689.087
<b>165.0</b>	572.424	582.535	616.756	650.977	663.421
<b>167.5</b>	577.868	584.868	608.978	632.311	640.866
<b>170.0</b>	582.535	587.201	603.534	617.534	622.978
<b>172.5</b>	584.868	588.757	597.312	605.090	609.756
<b>175.0</b>	587.979	589.535	593.423	597.312	598.868
<b>177.5</b>	589.535	589.535	591.090	591.090	591.868
<b>180.0</b>	590.312	590.312	590.312	590.312	590.312

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-H-S-835-WSOTG-F-ITL90350 ITL89456.007.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	215.92	N.A.	5.00
0-30	430.25	N.A.	10.00
0-40	655.27	N.A.	15.20
0-60	1011.43	N.A.	23.50
0-80	1167.27	N.A.	27.10
0-90	1182.13	N.A.	27.40
10-90	1123.74	N.A.	26.10
20-40	439.35	N.A.	10.20
20-50	639.95	N.A.	14.90
40-70	458.29	N.A.	10.60
60-80	155.85	N.A.	3.60
70-80	53.72	N.A.	1.20
80-90	14.85	N.A.	0.30
90-110	408.93	N.A.	9.50
90-120	948.46	N.A.	22.00
90-130	1565.19	N.A.	36.30
90-150	2586.44	N.A.	60.10
90-180	3124.85	N.A.	72.60
110-180	2715.92	N.A.	63.10
0-180	4306.98	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	58.39
10-20	157.52
20-30	214.33
30-40	225.02
40-50	200.60
50-60	155.56
60-70	102.13
70-80	53.72
80-90	14.85
90-100	71.33
100-110	337.60
110-120	539.53
120-130	616.74
130-140	576.42
140-150	444.83
150-160	305.77
160-170	175.71
170-180	56.93

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

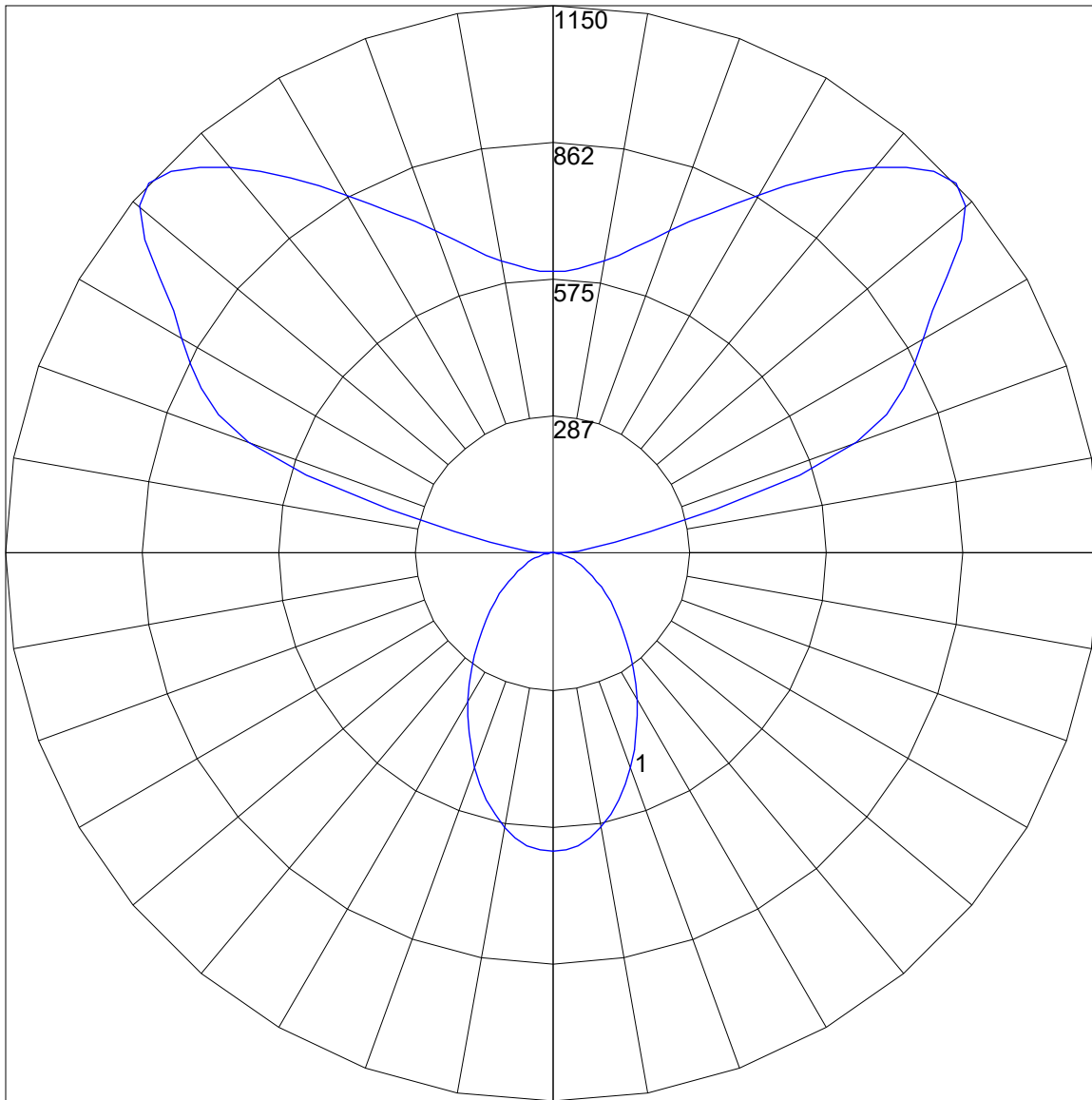
Effective Floor Cavity Reflectance 0.20

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	102	102	102	102	91	91	91	91	71	71	71	52	52	52	35	35	35	27
1	93	89	85	82	83	80	77	74	62	60	59	46	45	44	32	31	30	24
2	85	78	72	68	76	70	65	61	55	52	49	41	39	37	28	27	26	20
3	78	69	62	56	69	62	56	51	49	45	41	37	34	32	25	24	23	18
4	71	61	54	48	63	55	49	44	43	39	35	33	30	27	23	21	20	15
5	65	54	47	41	58	49	43	38	39	34	31	30	26	24	21	19	17	14
6	60	49	41	36	54	44	37	33	35	30	27	27	24	21	19	17	15	12
7	56	44	36	31	50	40	33	29	32	27	24	24	21	19	17	15	14	11
8	52	40	33	28	46	36	30	25	29	24	21	22	19	17	16	14	12	10
9	48	36	29	25	43	33	27	23	27	22	19	21	17	15	15	13	11	9
10	45	33	26	22	40	30	24	20	24	20	17	19	16	14	14	12	10	8

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POLAR GRAPH



Maximum Candela = 1149.515 Located At Horizontal Angle = 90, Vertical Angle = 132.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)