

# 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-S-835-WSOTG-F-ITL90350 ITL89456.001.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90350 ITL89456.001 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-S-S-835-WSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 28.4 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 31.5 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]2827

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2827
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	28.4
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	7516	5345	4237
55	6762	4248	3305
65	5986	3221	2515
75	5091	2474	2258
85	4065	1997	1854

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## CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	626.006	626.006	626.006	626.006	626.006
2.5	625.187	624.777	624.368	623.958	623.549
5.0	622.321	621.502	619.455	616.998	615.770
7.5	617.408	615.361	609.629	604.716	602.259
10.0	610.447	605.534	596.937	587.929	584.245
12.5	601.850	592.842	580.150	567.049	561.726
15.0	590.795	578.103	560.908	543.302	535.933
17.5	578.513	561.726	538.799	517.099	507.683
20.0	564.183	543.302	515.052	489.259	478.204
22.5	546.987	522.831	489.668	459.371	447.088
25.0	529.382	501.132	463.056	429.483	416.382
27.5	510.139	478.204	435.625	399.186	385.266
30.0	489.668	454.867	408.193	368.479	354.969
32.5	467.150	431.121	380.353	338.182	325.490
35.0	444.632	406.556	352.921	309.932	295.602
37.5	421.704	381.581	325.899	282.501	268.580
40.0	397.958	356.197	299.287	256.707	243.196
42.5	374.211	331.631	273.494	232.142	219.450
45.0	350.055	306.657	248.928	209.214	197.341
47.5	325.490	282.910	225.182	187.515	177.280
50.0	301.334	258.754	202.254	167.044	158.037
52.5	278.816	235.008	180.964	149.029	140.841
55.0	255.479	211.262	160.493	131.834	124.874
57.5	232.551	189.153	140.841	115.866	109.725
60.0	210.033	167.863	122.417	100.718	95.395
62.5	187.924	146.982	105.631	86.797	81.884
65.0	166.635	127.330	89.663	72.877	70.011
67.5	144.935	108.497	74.924	63.051	62.232
70.0	124.874	90.482	61.413	54.862	54.044
72.5	105.631	73.696	50.768	47.084	45.855
75.0	86.797	57.728	42.170	38.895	38.486
77.5	70.011	42.989	33.573	31.526	31.116
80.0	53.634	30.297	25.794	24.156	24.156
82.5	37.667	21.290	18.424	17.196	17.196
85.0	23.337	13.101	11.464	10.645	10.645
87.5	9.826	5.732	4.913	4.504	4.504
90.0	0.000	0.000	0.000	0.000	0.000
92.5	7.369	12.692	12.692	12.282	12.282
95.0	19.242	33.981	33.981	28.249	27.840
97.5	32.343	55.679	68.371	49.129	46.263
100.0	45.854	72.465	135.923	79.016	69.599
102.5	60.592	88.432	187.918	139.608	110.950
105.0	74.922	105.627	217.805	227.631	187.509
107.5	89.251	122.413	236.228	307.056	286.176
110.0	103.580	137.970	252.605	353.728	357.413
112.5	117.909	153.119	271.847	384.434	399.991
115.0	132.648	167.448	294.774	406.542	429.059
117.5	147.387	181.777	319.747	427.422	451.577
120.0	162.125	196.925	340.218	449.530	474.094
122.5	175.636	209.617	354.957	480.645	497.840
125.0	188.327	221.899	363.145	514.625	531.821
127.5	200.200	233.362	368.058	537.552	569.486
130.0	210.026	243.188	370.923	546.969	596.507
132.5	219.852	252.195	371.742	543.284	605.105

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-S-S-835-WSOTG-F-ITL90350 ITL89456.001.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	228.450	259.565	371.333	531.821	596.507
<b>137.5</b>	236.228	266.524	370.104	516.263	578.493
<b>140.0</b>	244.007	272.666	368.058	499.068	555.566
<b>142.5</b>	251.376	278.397	365.192	479.826	531.002
<b>145.0</b>	259.155	283.719	362.326	461.402	506.028
<b>147.5</b>	265.706	287.814	359.050	442.570	480.645
<b>150.0</b>	272.256	292.317	354.957	425.784	456.899
<b>152.5</b>	278.397	295.592	350.043	409.817	434.791
<b>155.0</b>	284.129	298.049	345.131	394.260	414.321
<b>157.5</b>	289.451	301.324	340.627	379.930	395.897
<b>160.0</b>	293.955	303.371	335.305	366.010	378.702
<b>162.5</b>	298.049	305.009	329.983	354.138	362.735
<b>165.0</b>	301.324	306.646	324.660	342.674	349.225
<b>167.5</b>	304.190	307.875	320.566	332.848	337.352
<b>170.0</b>	306.646	309.103	317.700	325.070	327.935
<b>172.5</b>	307.875	309.922	314.425	318.519	320.976
<b>175.0</b>	309.512	310.331	312.378	314.425	315.244
<b>177.5</b>	310.331	310.331	311.150	311.150	311.559
<b>180.0</b>	310.740	310.740	310.740	310.740	310.740

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-S-S-835-WSOTG-F-ITL90350 ITL89456.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	215.92	N.A.	7.60
0-30	430.25	N.A.	15.20
0-40	655.27	N.A.	23.20
0-60	1011.43	N.A.	35.80
0-80	1167.27	N.A.	41.30
0-90	1182.13	N.A.	41.80
10-90	1123.74	N.A.	39.70
20-40	439.35	N.A.	15.50
20-50	639.95	N.A.	22.60
40-70	458.29	N.A.	16.20
60-80	155.85	N.A.	5.50
70-80	53.72	N.A.	1.90
80-90	14.85	N.A.	0.50
90-110	215.26	N.A.	7.60
90-120	499.27	N.A.	17.70
90-130	823.92	N.A.	29.10
90-150	1361.5	N.A.	48.20
90-180	1644.92	N.A.	58.20
110-180	1429.66	N.A.	50.60
0-180	2827.05	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	37.55
100-110	177.71
110-120	284.01
120-130	324.65
130-140	303.43
140-150	234.16
150-160	160.96
160-170	92.50
170-180	29.97

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

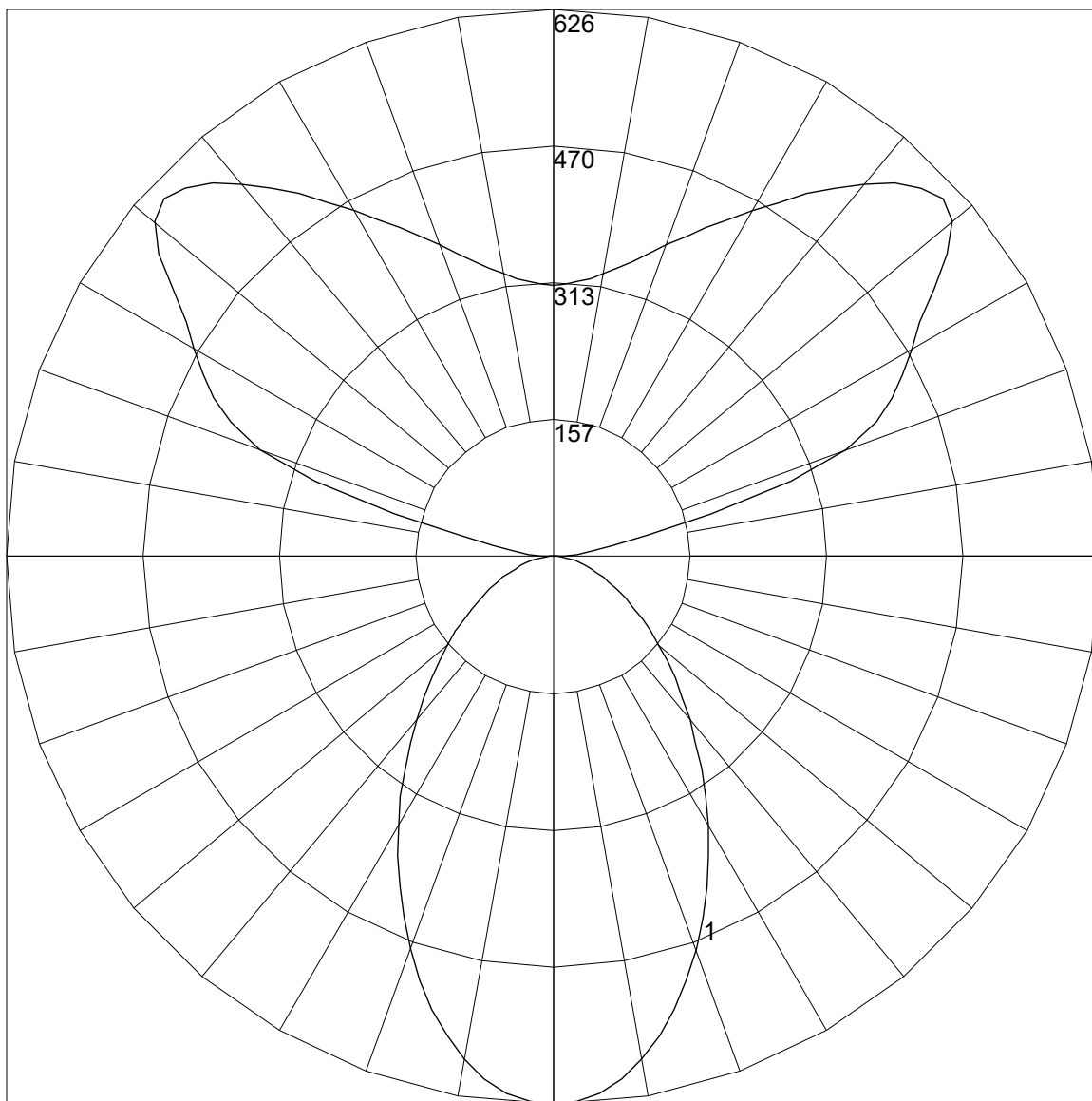
Effective Floor Cavity Reflectance 0.20

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 = 626.006 Located At Horizontal Angle = 0, Vertical Angle = 0

# 1 - Vertical Plane Through Horizontal Angles (90 - 270)