

# 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-V-S-835-WSOTG-F-ITL90350 ITL89456.004.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90350 ITL89456.004 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-V-S-835-WSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 50.4 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 53.0 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]5200

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5200
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	50.4
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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## 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	18.000	31.000	31.000	30.000	30.000
95.0	47.000	83.000	83.000	69.000	68.000
97.5	79.000	136.000	167.000	120.000	113.000
100.0	112.000	177.000	332.000	193.000	170.000
102.5	148.000	216.000	459.000	341.000	271.000
105.0	183.000	258.000	532.000	556.000	458.000
107.5	218.000	299.000	577.000	750.000	699.000
110.0	253.000	337.000	617.000	864.000	873.000
112.5	288.000	374.000	664.000	939.000	977.000
115.0	324.000	409.000	720.000	993.000	1048.000
117.5	360.000	444.000	781.000	1044.000	1103.000
120.0	396.000	481.000	831.000	1098.000	1158.000
122.5	429.000	512.000	867.000	1174.000	1216.000
125.0	460.000	542.000	887.000	1257.000	1299.000
127.5	489.000	570.000	899.000	1313.000	1391.000
130.0	513.000	594.000	906.000	1336.000	1457.000
132.5	537.000	616.000	908.000	1327.000	1478.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-V-S-835-WSOTG-F-ITL90350 ITL89456.004.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	558.000	634.000	907.000	1299.000	1457.000
<b>137.5</b>	577.000	651.000	904.000	1261.000	1413.000
<b>140.0</b>	596.000	666.000	899.000	1219.000	1357.000
<b>142.5</b>	614.000	680.000	892.000	1172.000	1297.000
<b>145.0</b>	633.000	693.000	885.000	1127.000	1236.000
<b>147.5</b>	649.000	703.000	877.000	1081.000	1174.000
<b>150.0</b>	665.000	714.000	867.000	1040.000	1116.000
<b>152.5</b>	680.000	722.000	855.000	1001.000	1062.000
<b>155.0</b>	694.000	728.000	843.000	963.000	1012.000
<b>157.5</b>	707.000	736.000	832.000	928.000	967.000
<b>160.0</b>	718.000	741.000	819.000	894.000	925.000
<b>162.5</b>	728.000	745.000	806.000	865.000	886.000
<b>165.0</b>	736.000	749.000	793.000	837.000	853.000
<b>167.5</b>	743.000	752.000	783.000	813.000	824.000
<b>170.0</b>	749.000	755.000	776.000	794.000	801.000
<b>172.5</b>	752.000	757.000	768.000	778.000	784.000
<b>175.0</b>	756.000	758.000	763.000	768.000	770.000
<b>177.5</b>	758.000	758.000	760.000	760.000	761.000
<b>180.0</b>	759.000	759.000	759.000	759.000	759.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-V-S-835-WSOTG-F-ITL90350 ITL89456.004.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	215.92	N.A.	4.20
0-30	430.25	N.A.	8.30
0-40	655.27	N.A.	12.60
0-60	1011.43	N.A.	19.50
0-80	1167.27	N.A.	22.40
0-90	1182.13	N.A.	22.70
10-90	1123.74	N.A.	21.60
20-40	439.35	N.A.	8.40
20-50	639.95	N.A.	12.30
40-70	458.29	N.A.	8.80
60-80	155.85	N.A.	3.00
70-80	53.72	N.A.	1.00
80-90	14.85	N.A.	0.30
90-110	525.79	N.A.	10.10
90-120	1219.49	N.A.	23.50
90-130	2012.46	N.A.	38.70
90-150	3325.54	N.A.	64.00
90-180	4017.8	N.A.	77.30
110-180	3492.02	N.A.	67.20
0-180	5199.93	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	91.71
100-110	434.08
110-120	693.70
120-130	792.97
130-140	741.14
140-150	571.94
150-160	393.14
160-170	225.92
170-180	73.20

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

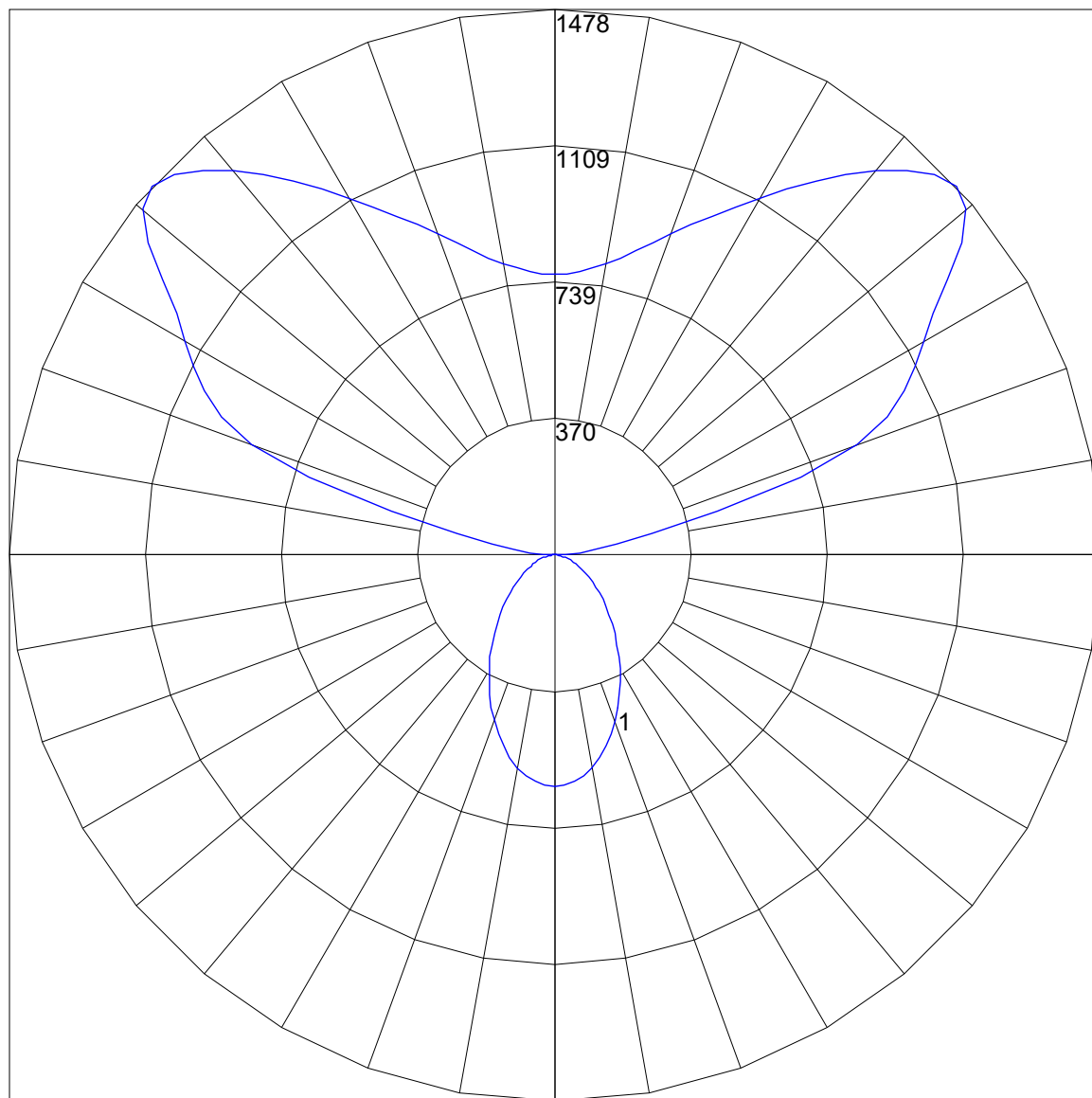
Effective Floor Cavity Reflectance 0.20

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	101	101	101	101	89	89	89	89	68	68	68	49	49	49	31	31	31	23
1	92	88	84	81	81	78	75	72	60	58	56	43	42	41	28	27	27	20
2	84	77	71	67	74	69	64	60	53	50	47	38	36	35	25	24	23	17
3	77	68	61	56	68	60	55	50	47	43	40	34	32	30	22	21	20	15
4	70	60	53	47	62	54	47	43	42	37	34	30	28	25	20	18	17	13
5	64	54	46	40	57	48	41	37	37	33	29	27	24	22	18	16	15	11
6	59	48	40	35	52	43	36	32	34	29	26	25	22	19	16	15	13	10
7	55	43	36	30	48	39	32	28	30	26	22	23	19	17	15	13	12	9
8	51	39	32	27	45	35	29	25	28	23	20	21	18	15	14	12	11	8
9	47	36	29	24	42	32	26	22	25	21	18	19	16	14	13	11	10	7
10	44	33	26	21	39	29	23	19	23	19	16	17	14	12	12	10	9	7

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## POLAR GRAPH



Maximum Candela = 1478 Located At Horizontal Angle = 90, Vertical Angle = 132.5

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