

# 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-4FT-V-S-835-WSO-MLB-ITL89456-KPL2008-6.004.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-KPL2008-6.004 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/19/17  
[ISSUEDATE]02/07/23  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-2-ID-4ft-V-S-835-WSO-MLB  
[INPUT\_ELECTRICAL]120.0 VOLTS, 50.4 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 51.6 WATTS  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89456 and KPL2008-6. For further details on Finelite family correlation files, go  
[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]5024

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5024
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
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	154	92	96
55	68	36	40
65	33	18	20
75	18	10	10
85	6	3	3

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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	3202.124	3202.124	3202.124	3202.124	3202.124
2.5	3121.298	3149.542	3136.181	3132.559	3145.722
5.0	2941.910	2982.925	2963.285	2962.139	2979.470
7.5	2670.697	2721.286	2722.375	2726.039	2738.101
10.0	2321.774	2365.572	2440.704	2459.881	2462.534
12.5	1863.007	1933.788	2110.597	2172.410	2176.511
15.0	1497.215	1572.826	1761.903	1889.135	1862.856
17.5	1126.156	1231.647	1496.147	1530.269	1446.070
20.0	761.583	875.839	1110.470	1149.839	1125.619
22.5	474.493	611.282	815.553	865.016	853.261
25.0	279.383	336.992	559.453	609.223	540.141
27.5	166.081	217.136	333.111	338.731	301.282
30.0	94.121	125.844	198.053	188.557	165.827
32.5	46.397	71.939	101.693	98.091	92.250
35.0	21.907	31.244	54.703	55.165	46.135
37.5	14.633	15.145	27.302	26.750	17.094
40.0	11.670	10.544	13.324	10.855	7.343
42.5	9.161	8.285	6.447	5.243	5.763
45.0	7.176	6.398	4.265	4.016	4.449
47.5	5.665	4.846	3.160	3.037	3.414
50.0	4.261	3.692	2.366	2.292	2.628
52.5	3.328	2.804	1.789	1.768	2.002
55.0	2.579	2.153	1.359	1.339	1.527
57.5	1.985	1.650	1.040	1.019	1.167
60.0	1.527	1.281	0.810	0.794	0.909
62.5	1.191	0.978	0.626	0.614	0.708
65.0	0.925	0.761	0.491	0.479	0.557
67.5	0.716	0.585	0.385	0.372	0.422
70.0	0.548	0.450	0.303	0.291	0.327
72.5	0.413	0.340	0.229	0.221	0.237
75.0	0.299	0.250	0.172	0.168	0.168
77.5	0.213	0.180	0.131	0.127	0.131
80.0	0.139	0.127	0.090	0.086	0.078
82.5	0.090	0.074	0.053	0.045	0.045
85.0	0.037	0.033	0.016	0.020	0.016
87.5	0.008	0.000	0.000	0.000	0.000
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-4FT-V-S-835-WSO-MLB-ITL89456-KPL2008-6.004.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-4FT-V-S-835-WSO-MLB-ITL89456-KPL2008-6.004.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	733.87	N.A.	14.60
0-30	963.61	N.A.	19.20
0-40	998.97	N.A.	19.90
0-60	1004.94	N.A.	20.00
0-80	1005.81	N.A.	20.00
0-90	1005.85	N.A.	20.00
10-90	740.28	N.A.	14.70
20-40	265.10	N.A.	5.30
20-50	269.45	N.A.	5.40
40-70	6.61	N.A.	0.10
60-80	0.87	N.A.	0.00
70-80	0.23	N.A.	0.00
80-90	0.04	N.A.	0.00
90-110	525.79	N.A.	10.50
90-120	1219.49	N.A.	24.30
90-130	2012.46	N.A.	40.10
90-150	3325.54	N.A.	66.20
90-180	4017.8	N.A.	80.00
110-180	3492.02	N.A.	69.50
0-180	5023.65	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	265.56
10-20	468.31
20-30	229.74
30-40	35.35
40-50	4.35
50-60	1.62
60-70	0.64
70-80	0.23
80-90	0.04
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

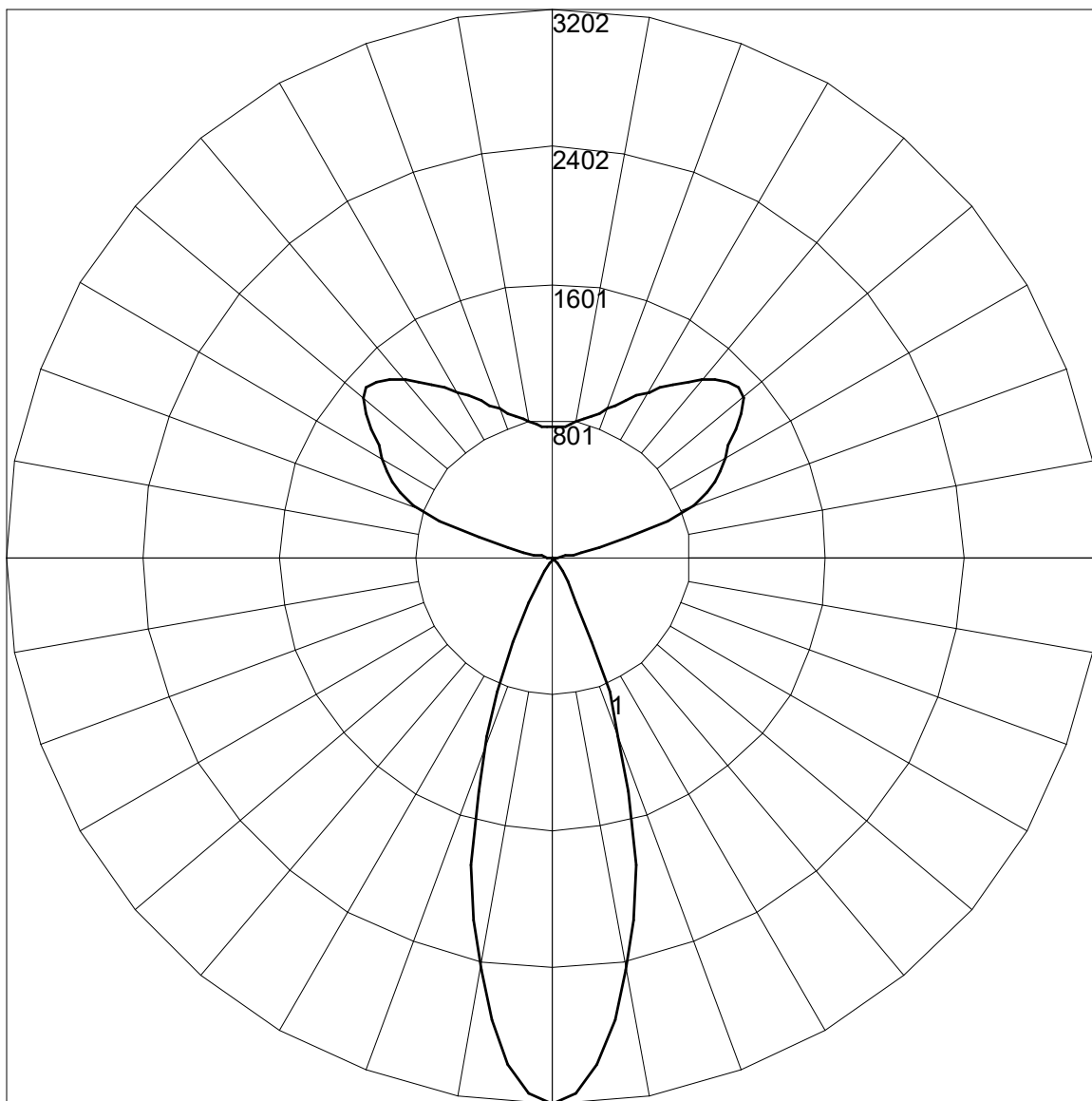
Effective Floor Cavity Reflectance 0.20

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	78	78	78	78	69	69	69	69	52	52	52	36	36	36	22	22	22	16
1	72	69	66	64	63	61	59	57	47	45	44	33	33	32	21	21	20	15
2	66	61	57	54	58	55	51	49	42	40	38	31	29	28	20	19	19	14
3	61	55	50	47	54	49	45	42	38	36	34	28	27	26	19	18	18	14
4	57	50	45	41	50	45	40	37	35	32	30	26	25	23	18	17	17	13
5	53	45	40	36	47	41	36	33	32	29	27	24	23	21	17	16	16	13
6	49	41	36	32	44	37	33	30	30	27	25	23	21	20	16	15	15	12
7	46	38	33	29	41	34	30	27	28	25	22	21	20	18	16	15	14	12
8	43	35	30	26	38	32	27	24	26	23	21	20	18	17	15	14	13	12
9	40	32	27	24	36	30	25	22	24	21	19	19	17	16	14	13	13	11
10	38	30	25	22	34	28	24	21	23	20	18	18	16	15	14	13	12	11

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POLAR GRAPH



Maximum Candela = 3202.124 Located At Horizontal Angle = 0, Vertical Angle = 0

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