

# 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-H-S-835-WSO-MLB-ITL89456-KPL2008-6.007.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-KPL2008-6.007 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/19/17  
[ISSUE DATE]02/07/23  
[MANUFACT]FINELITE, INC.  
[LUMCAT]HP2ID-4ft-H-S-835-WSO-MLB  
[INPUT\_ELECTRICAL]120.0 VOLTS, 42.0 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 43.2 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]4131

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4131
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
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	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	14.000	24.111	24.111	23.333	23.333
95.0	36.556	64.556	64.556	53.667	52.889
97.5	61.444	105.778	129.889	93.333	87.889
100.0	87.111	137.667	258.222	150.111	132.222
102.5	115.111	168.000	357.000	265.222	210.778
105.0	142.333	200.667	413.778	432.444	356.222
107.5	169.556	232.556	448.778	583.333	543.667
110.0	196.778	262.111	479.889	672.000	679.000
112.5	224.000	290.889	516.445	730.333	759.889
115.0	252.000	318.111	560.000	772.333	815.111
117.5	280.000	345.333	607.445	812.000	857.889
120.0	308.000	374.111	646.333	854.000	900.667
122.5	333.667	398.222	674.333	913.111	945.778
125.0	357.778	421.556	689.889	977.667	1010.333
127.5	380.333	443.333	699.222	1021.222	1081.889
130.0	399.000	462.000	704.667	1039.111	1133.222
132.5	417.667	479.111	706.222	1032.111	1149.556

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-WSO-MLB-ITL89456-KPL2008-6.007.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	434.000	493.111	705.445	1010.333	1133.222
<b>137.5</b>	448.778	506.333	703.111	980.778	1099.000
<b>140.0</b>	463.556	518.000	699.222	948.111	1055.444
<b>142.5</b>	477.556	528.889	693.778	911.555	1008.778
<b>145.0</b>	492.333	539.000	688.333	876.555	961.333
<b>147.5</b>	504.778	546.778	682.111	840.778	913.111
<b>150.0</b>	517.222	555.333	674.333	808.889	868.000
<b>152.5</b>	528.889	561.555	665.000	778.555	826.000
<b>155.0</b>	539.778	566.222	655.667	749.000	787.111
<b>157.5</b>	549.889	572.445	647.111	721.778	752.111
<b>160.0</b>	558.445	576.333	637.000	695.333	719.445
<b>162.5</b>	566.222	579.445	626.889	672.778	689.111
<b>165.0</b>	572.445	582.555	616.778	651.000	663.445
<b>167.5</b>	577.889	584.889	609.000	632.333	640.889
<b>170.0</b>	582.555	587.222	603.555	617.555	623.000
<b>172.5</b>	584.889	588.778	597.333	605.111	609.778
<b>175.0</b>	588.000	589.555	593.445	597.333	598.889
<b>177.5</b>	589.555	589.555	591.111	591.111	591.889
<b>180.0</b>	590.333	590.333	590.333	590.333	590.333

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-WSO-MLB-ITL89456-KPL2008-6.007.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	733.87	N.A.	17.80
0-30	963.61	N.A.	23.30
0-40	998.97	N.A.	24.20
0-60	1004.94	N.A.	24.30
0-80	1005.81	N.A.	24.30
0-90	1005.85	N.A.	24.30
10-90	740.28	N.A.	17.90
20-40	265.10	N.A.	6.40
20-50	269.45	N.A.	6.50
40-70	6.61	N.A.	0.20
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	408.95	N.A.	9.90
90-120	948.49	N.A.	23.00
90-130	1565.25	N.A.	37.90
90-150	2586.53	N.A.	62.60
90-180	3124.96	N.A.	75.70
110-180	2716.01	N.A.	65.80
0-180	4130.8	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	71.33
100-110	337.61
110-120	539.54
120-130	616.76
130-140	576.44
140-150	444.84
150-160	305.78
160-170	175.72
170-180	56.93

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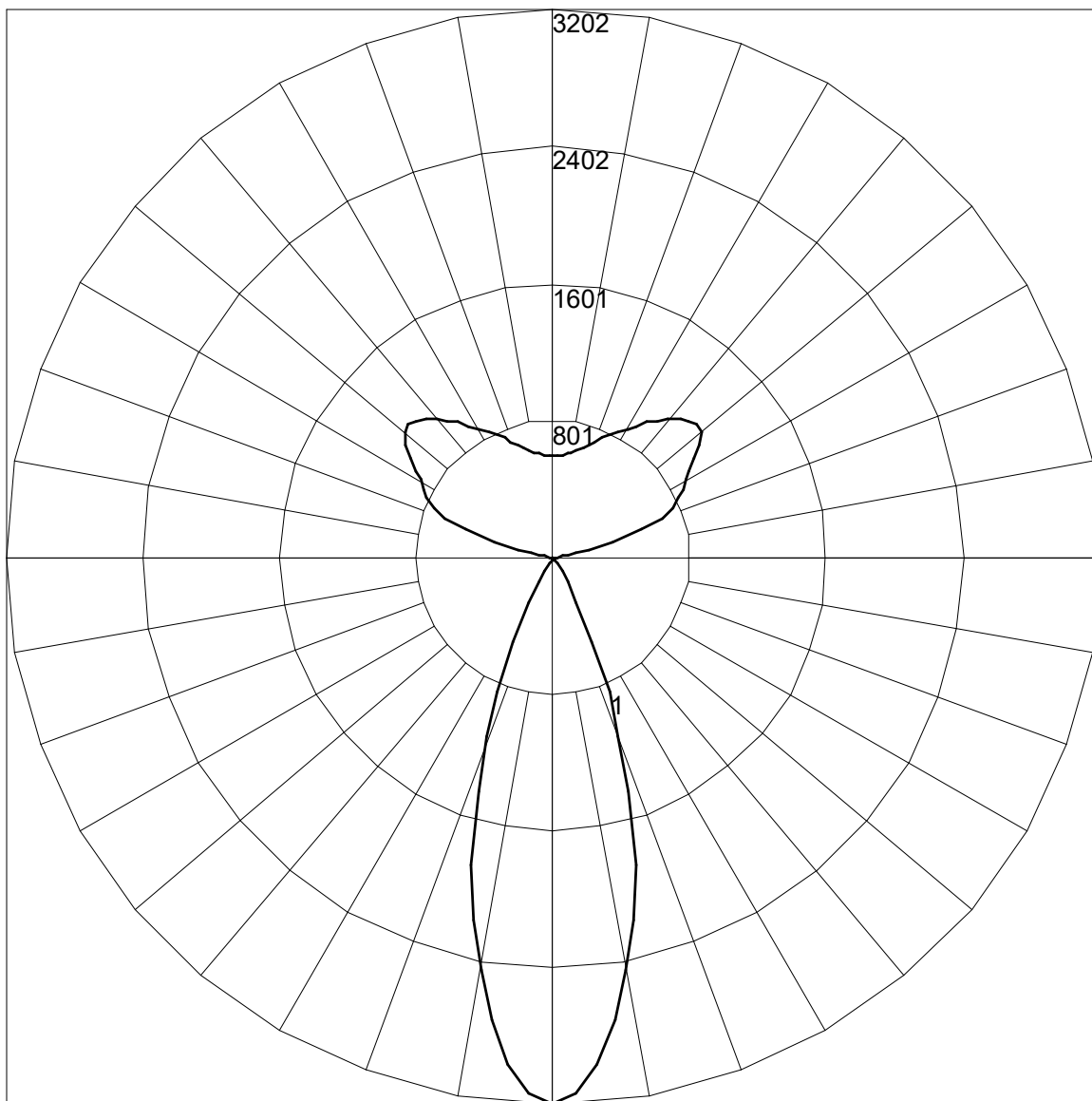
PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-WSO-MLB-ITL89456-KPL2008-6.007.IES

## 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	90	90	90	90	69	69	69	50	50	50	33	33	33	24
1	93	90	87	84	83	80	78	75	62	61	59	46	45	44	31	31	30	23
2	87	81	76	71	77	72	68	65	57	54	52	43	41	40	29	29	28	22
3	80	73	67	62	72	65	61	57	52	49	46	40	38	36	28	27	27	22
4	75	66	59	54	67	60	54	50	48	44	41	37	35	33	27	26	25	21
5	70	60	53	48	62	55	49	45	44	40	38	35	32	31	26	25	24	20
6	65	55	48	44	58	50	45	41	41	37	34	33	30	28	24	23	22	19
7	61	51	44	40	55	46	41	37	38	34	32	31	28	26	23	22	21	19
8	57	47	41	36	52	43	38	34	36	32	29	29	27	25	23	21	20	18
9	54	44	38	33	49	40	35	31	34	30	27	28	25	23	22	20	20	17
10	51	41	35	31	46	38	33	29	32	28	26	26	24	22	21	20	19	17

POLAR GRAPH



Maximum Candela = 3202.124 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)