

# 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-S-B-835-WSO-MLB-ITL89456-KPL2008-6.013.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-KPL2008-6.013 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/19/17  
[ISSUEDATE]02/07/23  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-2-ID-4ft-S-B-835-WSO-MLB  
[INPUT\_ELECTRICAL]120.0 VOLTS, 32.4 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 34.4 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]2910

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2909
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
Total Luminaire Watts	32.4
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	194	115	120
55	86	45	51
65	42	22	25
75	22	13	12
85	8	4	4

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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	4024.747	4024.747	4024.747	4024.747	4024.747
2.5	3923.156	3958.656	3941.863	3937.310	3953.856
5.0	3697.684	3749.235	3724.550	3723.110	3744.893
7.5	3356.797	3420.382	3421.751	3426.355	3441.517
10.0	2918.236	2973.285	3067.719	3091.823	3095.156
12.5	2341.612	2430.577	2652.808	2730.500	2735.656
15.0	1881.849	1976.884	2214.535	2374.452	2341.422
17.5	1415.464	1548.057	1880.506	1923.393	1817.564
20.0	957.234	1100.841	1395.749	1445.232	1414.790
22.5	596.390	768.320	1025.068	1087.238	1072.463
25.0	351.156	423.564	703.176	765.732	678.903
27.5	208.747	272.918	418.687	425.751	378.681
30.0	118.300	158.173	248.933	236.997	208.428
32.5	58.317	90.421	127.818	123.291	115.949
35.0	27.535	39.271	68.756	69.337	57.987
37.5	18.393	19.036	34.316	33.622	21.485
40.0	14.668	13.253	16.746	13.644	9.230
42.5	11.514	10.413	8.103	6.591	7.244
45.0	9.019	8.041	5.361	5.047	5.592
47.5	7.120	6.091	3.972	3.817	4.291
50.0	5.356	4.641	2.974	2.881	3.303
52.5	4.183	3.524	2.248	2.223	2.516
55.0	3.241	2.706	1.708	1.682	1.919
57.5	2.495	2.073	1.307	1.281	1.466
60.0	1.919	1.610	1.019	0.998	1.142
62.5	1.497	1.230	0.787	0.772	0.890
65.0	1.163	0.957	0.617	0.602	0.700
67.5	0.900	0.736	0.484	0.468	0.530
70.0	0.689	0.566	0.381	0.365	0.412
72.5	0.520	0.427	0.288	0.278	0.298
75.0	0.376	0.314	0.216	0.211	0.211
77.5	0.268	0.226	0.165	0.159	0.165
80.0	0.175	0.159	0.113	0.108	0.098
82.5	0.113	0.093	0.067	0.057	0.057
85.0	0.046	0.041	0.021	0.026	0.021
87.5	0.010	0.000	0.000	0.000	0.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	7.368	12.690	12.690	12.281	12.281
95.0	19.240	33.977	33.977	28.246	27.836
97.5	32.339	55.673	68.363	49.123	46.257
100.0	45.848	72.456	135.906	79.006	69.591
102.5	60.585	88.421	187.895	139.591	110.936
105.0	74.912	105.614	217.778	227.602	187.485
107.5	89.240	122.398	236.199	307.017	286.140
110.0	103.567	137.953	252.573	353.684	357.368
112.5	117.895	153.099	271.813	384.386	399.941
115.0	132.632	167.427	294.737	406.491	429.006
117.5	147.368	181.754	319.708	427.368	451.520
120.0	162.105	196.901	340.175	449.474	474.035
122.5	175.614	209.591	354.912	480.585	497.778
125.0	188.304	221.871	363.099	514.561	531.754
127.5	200.175	233.333	368.012	537.485	569.415
130.0	210.000	243.158	370.877	546.901	596.433
132.5	219.825	252.164	371.696	543.216	605.029

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-B-835-WSO-MLB-ITL89456-KPL2008-6.013.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	228.421	259.532	371.286	531.754	596.433
<b>137.5</b>	236.199	266.491	370.059	516.199	578.421
<b>140.0</b>	243.977	272.632	368.012	499.006	555.497
<b>142.5</b>	251.345	278.362	365.146	479.766	530.936
<b>145.0</b>	259.123	283.684	362.281	461.345	505.965
<b>147.5</b>	265.672	287.778	359.006	442.515	480.585
<b>150.0</b>	272.222	292.281	354.912	425.731	456.842
<b>152.5</b>	278.362	295.556	350.000	409.766	434.737
<b>155.0</b>	284.094	298.012	345.088	394.211	414.269
<b>157.5</b>	289.415	301.286	340.585	379.883	395.848
<b>160.0</b>	293.918	303.333	335.263	365.965	378.655
<b>162.5</b>	298.012	304.971	329.941	354.094	362.690
<b>165.0</b>	301.286	306.608	324.620	342.632	349.181
<b>167.5</b>	304.152	307.836	320.526	332.807	337.310
<b>170.0</b>	306.608	309.064	317.661	325.029	327.895
<b>172.5</b>	307.836	309.883	314.386	318.479	320.936
<b>175.0</b>	309.474	310.292	312.339	314.386	315.205
<b>177.5</b>	310.292	310.292	311.111	311.111	311.520
<b>180.0</b>	310.702	310.702	310.702	310.702	310.702

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-B-835-WSO-MLB-ITL89456-KPL2008-6.013.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	922.40	N.A.	31.70
0-30	1211.17	N.A.	41.60
0-40	1255.6	N.A.	43.20
0-60	1263.11	N.A.	43.40
0-80	1264.2	N.A.	43.50
0-90	1264.25	N.A.	43.50
10-90	930.46	N.A.	32.00
20-40	333.20	N.A.	11.50
20-50	338.67	N.A.	11.60
40-70	8.31	N.A.	0.30
60-80	1.09	N.A.	0.00
70-80	0.29	N.A.	0.00
80-90	0.05	N.A.	0.00
90-110	215.23	N.A.	7.40
90-120	499.21	N.A.	17.20
90-130	823.81	N.A.	28.30
90-150	1361.33	N.A.	46.80
90-180	1644.71	N.A.	56.50
110-180	1429.48	N.A.	49.10
0-180	2908.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	333.79
10-20	588.62
20-30	288.76
30-40	44.44
40-50	5.47
50-60	2.03
60-70	0.80
70-80	0.29
80-90	0.05
90-100	37.54
100-110	177.69
110-120	283.97
120-130	324.61
130-140	303.39
140-150	234.13
150-160	160.94
160-170	92.48
170-180	29.96

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

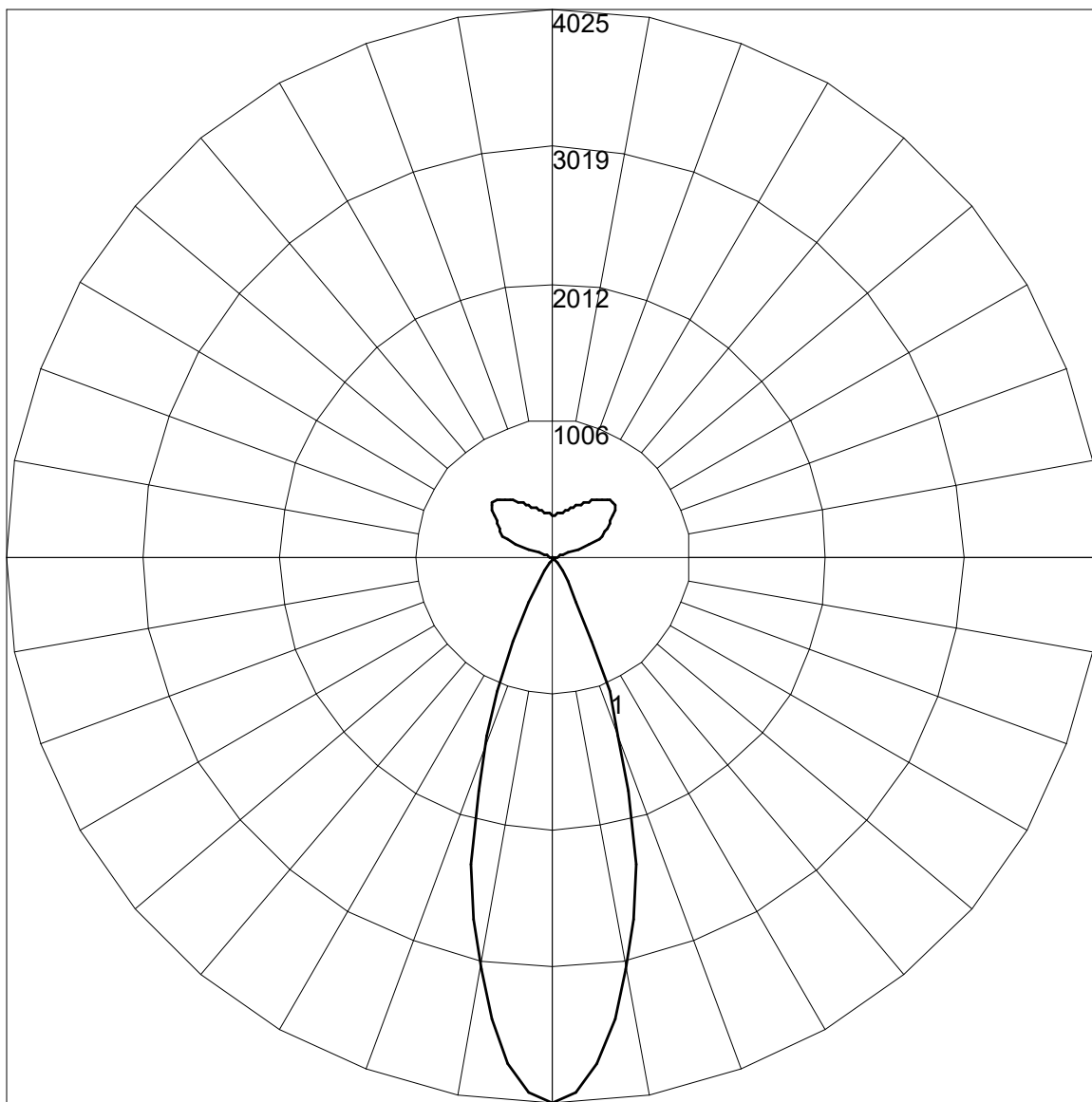
Effective Floor Cavity Reflectance 0.20

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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	43
1	99	96	93	90	91	88	86	83	74	72	71	60	59	59	48	48	47	42
2	93	87	83	79	85	81	77	74	68	66	64	57	55	54	46	46	45	40
3	87	80	75	70	80	74	70	66	64	61	58	54	52	50	45	44	43	39
4	82	74	68	63	76	69	64	60	60	56	53	51	49	47	43	42	41	37
5	77	69	62	58	72	64	59	55	56	52	50	48	46	44	41	40	39	36
6	73	64	58	53	68	60	55	51	53	49	46	46	44	42	40	38	37	35
7	69	60	54	50	64	56	51	48	50	46	43	44	41	40	38	37	36	33
8	66	56	50	46	61	53	48	45	48	44	41	42	40	38	37	35	34	32
9	63	53	47	43	59	50	45	42	45	42	39	40	38	36	36	34	33	31
10	60	50	45	41	56	48	43	40	43	40	37	39	36	34	35	33	32	30

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POLAR GRAPH



Maximum Candela = 4024.747 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)