

# 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-H-835-WSO-MLB-ITL89456-KPL2008-6.014.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-KPL2008-6.014 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/19/17  
[ISSUE DATE]02/07/23  
[MANUFACTURER]FINELITE, INC.  
[LUMCAT]HP2ID-4ft-S-H-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]3558

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3556
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	85
Total Luminaire Watts	42
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	293	174	182
55	130	68	77
65	63	34	38
75	33	19	19
85	12	5	5

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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	6084.714	6084.714	6084.714	6084.714	6084.714
2.5	5931.128	5984.797	5959.409	5952.525	5977.540
5.0	5590.253	5668.189	5630.870	5628.692	5661.625
7.5	5074.891	5171.021	5173.090	5180.051	5202.973
10.0	4411.863	4495.088	4637.855	4674.296	4679.336
12.5	3540.109	3674.608	4010.583	4128.040	4135.833
15.0	2845.027	2988.704	3347.990	3589.757	3539.821
17.5	2139.934	2340.391	2842.997	2907.835	2747.839
20.0	1447.170	1664.280	2110.128	2184.938	2138.915
22.5	901.637	1161.566	1549.724	1643.715	1621.376
25.0	530.886	640.355	1063.080	1157.654	1026.383
27.5	315.589	412.605	632.982	643.661	572.499
30.0	178.850	239.130	376.343	358.298	315.106
32.5	88.165	136.700	193.239	186.394	175.295
35.0	41.628	59.370	103.947	104.825	87.667
37.5	27.807	28.779	51.880	50.830	32.481
40.0	22.175	20.036	25.318	20.628	13.954
42.5	17.407	15.743	12.251	9.964	10.952
45.0	13.635	12.157	8.105	7.630	8.455
47.5	10.765	9.209	6.005	5.771	6.487
50.0	8.097	7.016	4.496	4.356	4.994
52.5	6.324	5.328	3.399	3.360	3.803
55.0	4.900	4.091	2.582	2.543	2.901
57.5	3.772	3.135	1.976	1.937	2.217
60.0	2.901	2.435	1.540	1.509	1.727
62.5	2.263	1.859	1.190	1.167	1.346
65.0	1.758	1.447	0.933	0.910	1.058
67.5	1.361	1.112	0.731	0.708	0.801
70.0	1.042	0.856	0.576	0.552	0.622
72.5	0.786	0.646	0.436	0.420	0.451
75.0	0.568	0.474	0.327	0.319	0.319
77.5	0.404	0.342	0.249	0.241	0.249
80.0	0.264	0.241	0.171	0.163	0.148
82.5	0.171	0.140	0.101	0.086	0.086
85.0	0.070	0.062	0.031	0.039	0.031
87.5	0.016	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-H-835-WSO-MLB-ITL89456-KPL2008-6.014.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-H-835-WSO-MLB-ITL89456-KPL2008-6.014.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1394.52	N.A.	39.20
0-30	1831.07	N.A.	51.50
0-40	1898.25	N.A.	53.40
0-60	1909.6	N.A.	53.70
0-80	1911.25	N.A.	53.70
0-90	1911.32	N.A.	53.70
10-90	1406.69	N.A.	39.60
20-40	503.74	N.A.	14.20
20-50	512.01	N.A.	14.40
40-70	12.56	N.A.	0.40
60-80	1.65	N.A.	0.00
70-80	0.44	N.A.	0.00
80-90	0.07	N.A.	0.00
90-110	215.23	N.A.	6.10
90-120	499.21	N.A.	14.00
90-130	823.81	N.A.	23.20
90-150	1361.33	N.A.	38.30
90-180	1644.71	N.A.	46.30
110-180	1429.48	N.A.	40.20
0-180	3556.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	504.63
10-20	889.89
20-30	436.56
30-40	67.18
40-50	8.27
50-60	3.08
60-70	1.21
70-80	0.44
80-90	0.07
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

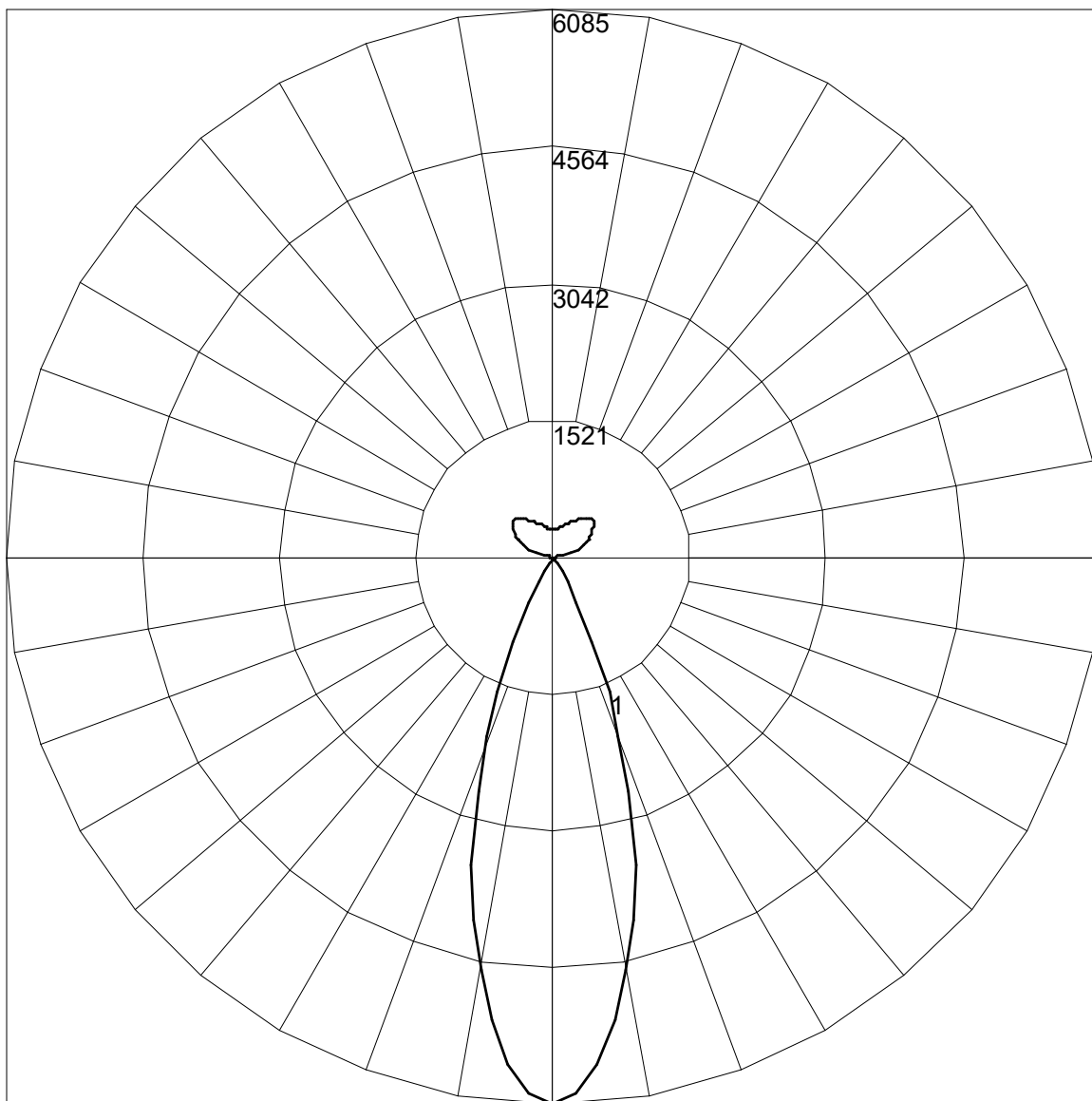
Effective Floor Cavity Reflectance 0.20

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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54
1	102	99	96	94	95	92	90	88	80	78	77	68	67	66	58	57	57	52
2	96	91	87	83	89	85	82	78	74	72	70	65	63	62	56	55	54	50
3	91	84	79	75	85	79	75	71	70	67	64	61	59	58	54	52	51	48
4	86	78	73	68	80	74	69	65	66	63	60	59	56	54	52	50	49	46
5	81	73	67	63	76	69	64	61	62	59	56	56	53	51	50	48	47	44
6	77	69	63	59	73	65	60	57	59	56	53	54	51	49	48	46	45	43
7	74	65	59	55	70	62	57	53	56	53	50	51	49	47	47	45	43	41
8	70	61	56	52	66	59	54	50	54	50	47	49	47	44	45	43	42	40
9	67	58	53	49	64	56	51	48	52	48	45	47	45	43	44	42	40	38
10	64	55	50	46	61	53	49	45	49	46	43	46	43	41	42	40	39	37

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POLAR GRAPH



Maximum Candela = 6084.714 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)