

# 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-MLW-ITL89456-KPL2008-7.007.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-KPL2008-7.007 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/19/17  
[ISSUE DATE]02/07/23  
[MANUFACTURER]FINELITE, INC.  
[LUMCAT]HP2ID-4ft-H-S-835-WSO-MLW  
[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 KPL2008-7. For further details on Finelite family correlation files, go to [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]4542

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4542
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
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	2074	2027	1962
55	1728	1679	1599
65	1474	1395	1305
75	1249	1158	1046
85	982	887	796

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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	3561.620	3561.620	3561.620	3561.620	3561.620
2.5	3480.884	3501.838	3485.882	3488.768	3495.493
5.0	3284.043	3308.074	3302.880	3305.766	3315.569
7.5	2971.631	3010.636	3022.842	3049.314	3048.217
10.0	2539.577	2621.394	2708.933	2759.337	2766.099
12.5	2073.770	2159.717	2352.809	2439.448	2457.920
15.0	1689.694	1780.429	1971.311	2102.644	2097.990
17.5	1315.384	1415.174	1612.801	1703.111	1650.018
20.0	918.008	1055.186	1260.329	1314.405	1292.396
22.5	617.438	770.822	949.457	1007.647	979.907
25.0	416.675	496.683	721.052	762.226	727.318
27.5	299.002	331.875	477.342	476.998	427.441
30.0	218.286	251.270	304.990	300.234	277.050
32.5	166.416	189.453	215.139	206.977	204.210
35.0	138.897	147.743	161.885	160.043	154.984
37.5	126.593	127.850	134.018	129.863	122.794
40.0	115.922	116.957	115.398	110.740	108.496
42.5	106.274	107.080	103.396	100.355	100.269
45.0	96.597	97.674	94.391	92.082	91.395
47.5	84.657	88.857	85.897	84.178	82.836
50.0	79.442	80.310	78.374	77.023	76.606
52.5	72.508	72.942	70.613	68.448	67.666
55.0	65.296	65.591	63.446	61.825	60.392
57.5	58.554	58.685	56.532	54.641	53.810
60.0	52.177	52.386	50.245	48.448	47.642
62.5	46.549	46.332	44.322	42.697	41.723
65.0	41.035	40.769	38.825	37.224	36.324
67.5	35.464	35.505	33.581	32.140	31.158
70.0	30.479	30.380	28.718	27.339	26.336
72.5	25.468	25.526	24.085	22.783	21.866
75.0	21.293	21.076	19.746	18.657	17.838
77.5	16.963	16.557	15.681	14.793	14.142
80.0	13.139	12.820	11.944	11.171	10.827
82.5	9.157	9.050	8.350	7.896	7.466
85.0	5.636	5.411	5.092	4.748	4.568
87.5	2.300	2.349	2.112	1.973	1.875
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	432.445	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	516.444	730.333	759.889
115.0	252.000	318.111	560.000	772.333	815.111
117.5	280.000	345.333	607.444	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	421.555	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	1149.555

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-WSO-MLW-ITL89456-KPL2008-7.007.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	434.000	493.111	705.444	1010.333	1133.222
<b>137.5</b>	448.778	506.333	703.111	980.778	1099.000
<b>140.0</b>	463.555	518.000	699.222	948.111	1055.445
<b>142.5</b>	477.555	528.889	693.778	911.556	1008.778
<b>145.0</b>	492.333	539.000	688.333	876.556	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	561.556	665.000	778.556	826.000
<b>155.0</b>	539.778	566.222	655.667	749.000	787.111
<b>157.5</b>	549.889	572.444	647.111	721.778	752.111
<b>160.0</b>	558.444	576.333	637.000	695.333	719.444
<b>162.5</b>	566.222	579.444	626.889	672.778	689.111
<b>165.0</b>	572.444	582.556	616.778	651.000	663.444
<b>167.5</b>	577.889	584.889	609.000	632.333	640.889
<b>170.0</b>	582.556	587.222	603.556	617.556	623.000
<b>172.5</b>	584.889	588.778	597.333	605.111	609.778
<b>175.0</b>	588.000	589.556	593.444	597.333	598.889
<b>177.5</b>	589.556	589.556	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-MLW-ITL89456-KPL2008-7.007.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	821.56	N.A.	18.10
0-30	1117.11	N.A.	24.60
0-40	1221.62	N.A.	26.90
0-60	1351.69	N.A.	29.80
0-80	1411.39	N.A.	31.10
0-90	1417.27	N.A.	31.20
10-90	1121.81	N.A.	24.70
20-40	400.06	N.A.	8.80
20-50	473.23	N.A.	10.40
40-70	168.74	N.A.	3.70
60-80	59.70	N.A.	1.30
70-80	21.03	N.A.	0.50
80-90	5.88	N.A.	0.10
90-110	408.95	N.A.	9.00
90-120	948.49	N.A.	20.90
90-130	1565.25	N.A.	34.50
90-150	2586.53	N.A.	56.90
90-180	3124.96	N.A.	68.80
110-180	2716.01	N.A.	59.80
0-180	4542.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	295.46
10-20	526.10
20-30	295.56
30-40	104.50
40-50	73.17
50-60	56.91
60-70	38.67
70-80	21.03
80-90	5.88
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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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

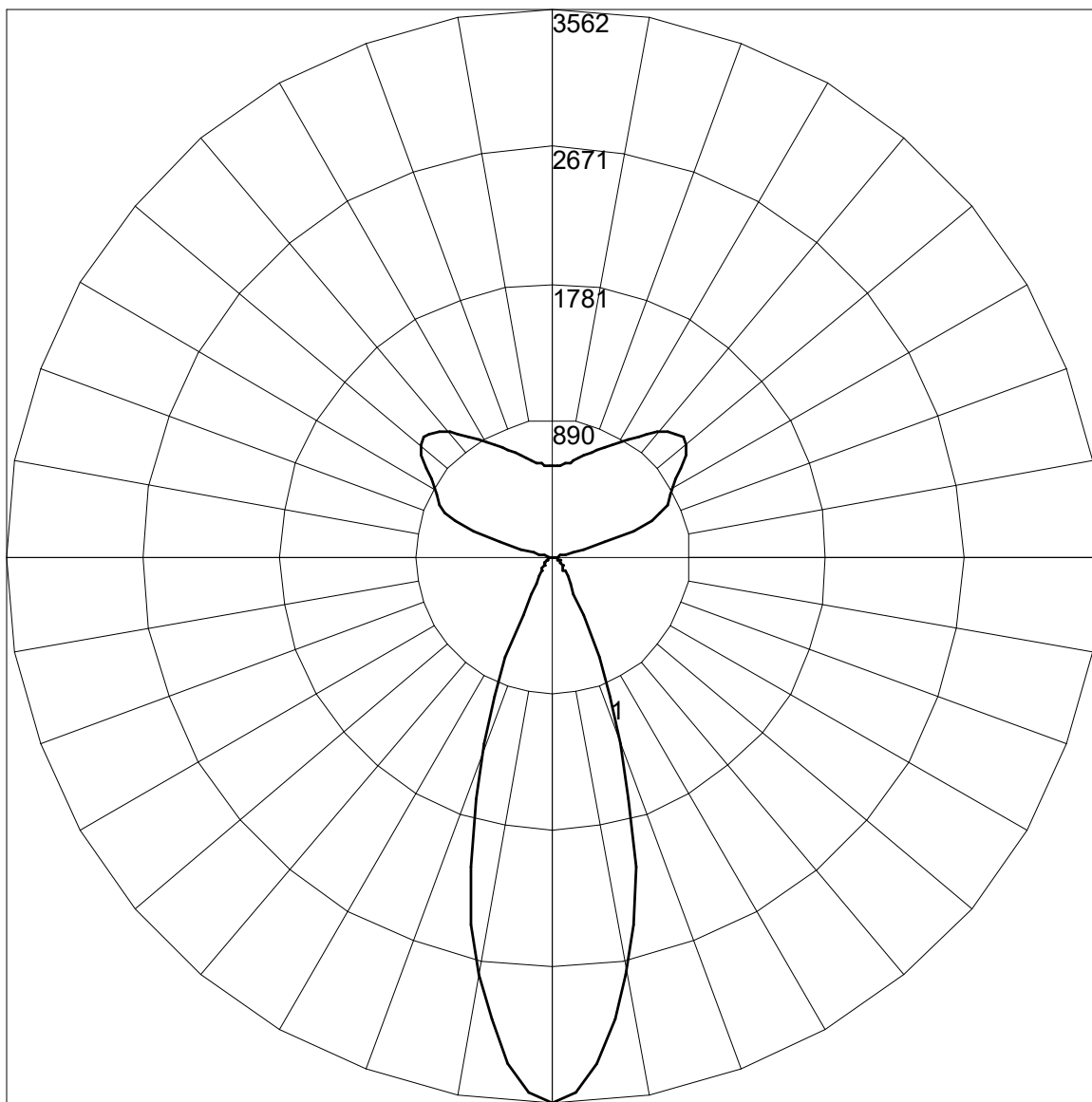
Effective Floor Cavity Reflectance 0.20

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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	31
1	95	91	88	85	85	82	80	77	66	64	63	51	50	49	36	36	35	29
2	88	82	77	72	79	74	70	66	60	57	55	46	45	43	34	33	33	27
3	81	74	68	63	73	67	62	58	54	51	48	43	41	39	32	31	30	25
4	76	67	60	55	68	61	55	51	50	46	43	40	37	35	30	29	28	24
5	71	61	54	49	64	56	50	46	46	42	39	37	35	33	29	27	26	23
6	66	56	49	44	60	51	45	41	43	39	36	35	32	30	27	26	25	22
7	62	51	45	40	56	47	42	38	40	36	33	33	30	28	26	25	23	21
8	58	48	41	37	53	44	38	34	37	33	30	31	28	26	25	23	22	20
9	55	44	38	34	50	41	36	32	35	31	28	29	27	25	24	22	21	19
10	52	41	35	31	47	39	33	30	33	29	26	28	25	23	23	21	20	18

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POLAR GRAPH



Maximum Candela = 3561.62 Located At Horizontal Angle = 0, Vertical Angle = 0

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