

# 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-B-B-8TW-F-MLW-ITL85132-KPL2008-7.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85132-KPL2008-7.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/11/15

[ISSUEDATE]02/03/23

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-B-B-8TW-F-MLW

[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & C

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 41.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.8 WATTS

[ABSOLUTE]LUMENS]3745

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL85132 and KPL2008-7. 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)

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3744
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
Total Luminaire Watts	41.8
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	2607	2547	2466
55	2172	2111	2009
65	1853	1753	1640
75	1570	1456	1315
85	1234	1115	1000

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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	4476.597	4476.597	4476.597	4476.597	4476.597
2.5	4375.121	4401.457	4381.402	4385.029	4393.482
5.0	4127.710	4157.916	4151.387	4155.014	4167.336
7.5	3735.041	3784.066	3799.408	3832.679	3831.300
10.0	3191.992	3294.828	3404.855	3468.209	3476.708
12.5	2606.520	2714.546	2957.244	3066.139	3089.358
15.0	2123.774	2237.820	2477.740	2642.812	2636.962
17.5	1653.305	1778.731	2027.129	2140.639	2073.905
20.0	1153.843	1326.263	1584.107	1652.075	1624.411
22.5	776.058	968.845	1193.371	1266.510	1231.644
25.0	523.719	624.280	906.289	958.041	914.166
27.5	375.815	417.133	599.971	599.538	537.250
30.0	274.364	315.821	383.342	377.364	348.223
32.5	209.169	238.124	270.408	260.149	256.671
35.0	174.580	185.698	203.473	201.158	194.799
37.5	159.114	160.694	168.447	163.225	154.340
40.0	145.702	147.004	145.043	139.189	136.369
42.5	133.576	134.589	129.959	126.136	126.028
45.0	121.413	122.766	118.640	115.738	114.874
47.5	106.406	111.684	107.965	105.804	104.116
50.0	99.851	100.942	98.508	96.811	96.286
52.5	91.136	91.681	88.754	86.032	85.049
55.0	82.070	82.441	79.745	77.708	75.907
57.5	73.597	73.762	71.055	68.678	67.634
60.0	65.581	65.844	63.153	60.894	59.881
62.5	58.507	58.234	55.708	53.666	52.441
65.0	51.577	51.243	48.799	46.787	45.655
67.5	44.575	44.626	42.208	40.397	39.163
70.0	38.309	38.185	36.096	34.362	33.102
72.5	32.011	32.083	30.272	28.636	27.484
75.0	26.764	26.491	24.819	23.450	22.421
77.5	21.320	20.811	19.710	18.593	17.775
80.0	16.515	16.114	15.013	14.040	13.608
82.5	11.509	11.375	10.495	9.924	9.384
85.0	7.084	6.801	6.400	5.968	5.742
87.5	2.891	2.953	2.655	2.480	2.356
90.0	0.000	0.000	0.000	0.000	0.000
92.5	15.439	15.439	15.439	16.983	16.983
95.0	36.538	34.994	34.994	35.509	36.023
97.5	57.637	56.094	55.064	55.579	55.579
100.0	79.251	76.678	76.678	76.678	76.164
102.5	101.895	99.836	98.807	98.292	98.292
105.0	125.567	124.023	121.450	120.936	120.421
107.5	149.754	148.210	145.123	144.608	144.094
110.0	174.971	173.427	170.854	169.825	168.281
112.5	201.216	198.643	197.099	194.526	192.982
115.0	227.462	225.918	224.889	219.743	218.714
117.5	255.251	252.678	252.678	246.503	245.474
120.0	283.555	279.439	280.468	274.292	272.234
122.5	310.316	306.199	308.257	303.111	299.509
125.0	340.164	333.988	336.047	330.901	328.327
127.5	369.497	362.807	363.836	359.719	358.690
130.0	398.316	391.626	392.655	387.509	388.023
132.5	427.135	419.930	421.474	416.327	416.327

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-F-MLW-ITL85132-KPL2008-7.902.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	454.924	448.234	450.292	445.661	445.661
<b>137.5</b>	483.228	476.538	478.596	474.479	473.965
<b>140.0</b>	511.532	504.842	506.386	503.813	502.269
<b>142.5</b>	538.292	531.088	533.146	530.573	528.515
<b>145.0</b>	565.567	557.848	559.906	557.848	554.246
<b>147.5</b>	590.784	583.064	585.638	582.550	578.947
<b>150.0</b>	614.971	607.251	610.339	606.737	603.649
<b>152.5</b>	638.129	630.409	633.497	630.409	627.322
<b>155.0</b>	660.257	652.538	656.140	653.053	649.965
<b>157.5</b>	679.298	672.094	676.211	673.123	670.035
<b>160.0</b>	697.825	691.135	694.737	691.649	688.561
<b>162.5</b>	713.778	708.117	710.690	708.632	706.573
<b>165.0</b>	728.187	723.041	724.585	723.556	722.012
<b>167.5</b>	738.994	735.906	736.936	735.906	735.392
<b>170.0</b>	748.772	747.228	747.743	746.713	746.199
<b>172.5</b>	757.006	756.491	756.491	755.977	755.977
<b>175.0</b>	762.667	762.667	762.667	762.667	762.152
<b>177.5</b>	765.754	766.269	766.269	766.269	765.754
<b>180.0</b>	767.813	767.813	767.813	767.813	767.813

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-F-MLW-ITL85132-KPL2008-7.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1032.61	N.A.	27.60
0-30	1404.1	N.A.	37.50
0-40	1535.45	N.A.	41.00
0-60	1698.94	N.A.	45.40
0-80	1773.98	N.A.	47.40
0-90	1781.36	N.A.	47.60
10-90	1410.00	N.A.	37.70
20-40	502.83	N.A.	13.40
20-50	594.80	N.A.	15.90
40-70	212.09	N.A.	5.70
60-80	75.03	N.A.	2.00
70-80	26.44	N.A.	0.70
80-90	7.39	N.A.	0.20
90-110	169.42	N.A.	4.50
90-120	390.97	N.A.	10.40
90-130	689.80	N.A.	18.40
90-150	1385.17	N.A.	37.00
90-180	1962.43	N.A.	52.40
110-180	1793.01	N.A.	47.90
0-180	3743.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	371.36
10-20	661.25
20-30	371.48
30-40	131.35
40-50	91.97
50-60	71.53
60-70	48.60
70-80	26.44
80-90	7.39
90-100	39.66
100-110	129.76
110-120	221.56
120-130	298.83
130-140	346.11
140-150	349.26
150-160	300.94
160-170	204.02
170-180	72.31

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

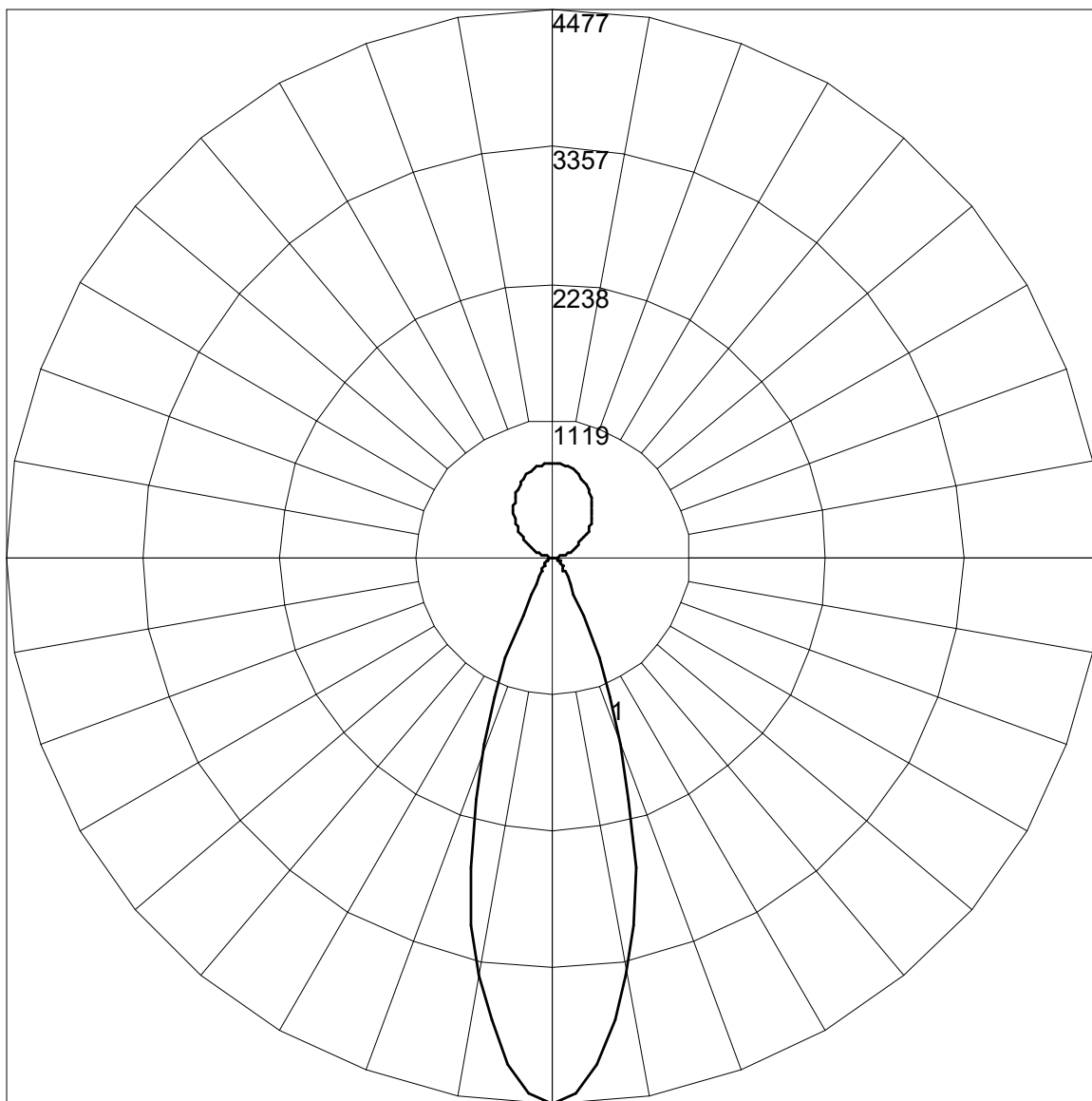
Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48
1	99	96	93	90	91	89	86	84	75	73	72	62	61	60	51	50	50	44
2	93	87	82	78	85	81	76	73	69	66	64	58	56	55	48	47	46	41
3	87	79	73	69	80	74	69	65	64	60	57	54	52	50	45	44	43	39
4	81	72	66	61	75	68	62	58	59	55	52	51	48	46	43	41	40	37
5	76	67	60	56	71	63	57	53	55	51	48	48	45	43	41	39	38	35
6	72	62	55	51	67	58	53	49	52	47	44	45	42	40	39	37	36	33
7	68	58	51	47	63	55	49	45	48	44	41	43	40	37	37	35	34	31
8	64	54	48	43	60	51	46	42	46	42	39	41	38	35	36	34	32	30
9	61	51	45	40	57	48	43	39	43	39	36	39	36	33	34	32	31	29
10	58	48	42	38	54	46	40	37	41	37	34	37	34	32	33	31	29	28

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POLAR GRAPH



Maximum Candela = 4476.597 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)