

# 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-MLB-ITL85132-KPL2008-6.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85132-KPL2008-6.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/11/15

[ISSUEDATE]02/10/17

[MANUFAC]FINELITE, INC.

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

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 41.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.8 WATTS

[ABSOLUTE]LUMENS]3228

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

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3227
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	41.8
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	194	115	120
55	86	45	51
65	42	22	25
75	22	13	12
85	8	4	4

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-F-MLB-ITL85132-KPL2008-6.902.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	4025.810	4025.810	4025.810	4025.810	4025.810
<b>2.5</b>	3924.193	3959.701	3942.904	3938.350	3954.900
<b>5.0</b>	3698.661	3750.226	3725.534	3724.093	3745.882
<b>7.5</b>	3357.684	3421.286	3422.654	3427.260	3442.426
<b>10.0</b>	2919.006	2974.071	3068.529	3092.639	3095.974
<b>12.5</b>	2342.231	2431.219	2653.509	2731.221	2736.378
<b>15.0</b>	1882.346	1977.406	2215.119	2375.079	2342.040
<b>17.5</b>	1415.838	1548.466	1881.003	1923.901	1818.044
<b>20.0</b>	957.486	1101.132	1396.117	1445.614	1415.163
<b>22.5</b>	596.547	768.523	1025.339	1087.526	1072.746
<b>25.0</b>	351.249	423.676	703.362	765.935	679.082
<b>27.5</b>	208.802	272.990	418.798	425.863	378.781
<b>30.0</b>	118.332	158.215	248.999	237.060	208.483
<b>32.5</b>	58.332	90.444	127.852	123.324	115.980
<b>35.0</b>	27.542	39.281	68.774	69.355	58.003
<b>37.5</b>	18.398	19.041	34.325	33.630	21.491
<b>40.0</b>	14.672	13.257	16.751	13.648	9.232
<b>42.5</b>	11.517	10.416	8.105	6.592	7.246
<b>45.0</b>	9.021	8.044	5.362	5.048	5.594
<b>47.5</b>	7.122	6.093	3.973	3.818	4.292
<b>50.0</b>	5.357	4.642	2.975	2.882	3.304
<b>52.5</b>	4.184	3.525	2.249	2.223	2.516
<b>55.0</b>	3.242	2.707	1.709	1.683	1.920
<b>57.5</b>	2.496	2.074	1.307	1.281	1.467
<b>60.0</b>	1.920	1.611	1.019	0.998	1.142
<b>62.5</b>	1.498	1.230	0.787	0.772	0.890
<b>65.0</b>	1.163	0.957	0.618	0.602	0.700
<b>67.5</b>	0.901	0.736	0.484	0.468	0.530
<b>70.0</b>	0.690	0.566	0.381	0.365	0.412
<b>72.5</b>	0.520	0.427	0.288	0.278	0.298
<b>75.0</b>	0.376	0.314	0.216	0.211	0.211
<b>77.5</b>	0.268	0.226	0.165	0.160	0.165
<b>80.0</b>	0.175	0.160	0.113	0.108	0.098
<b>82.5</b>	0.113	0.093	0.067	0.057	0.057
<b>85.0</b>	0.046	0.041	0.021	0.026	0.021
<b>87.5</b>	0.010	0.000	0.000	0.000	0.000
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	15.439	15.439	15.439	16.982	16.982
<b>95.0</b>	36.538	34.994	34.994	35.509	36.023
<b>97.5</b>	57.637	56.094	55.064	55.579	55.579
<b>100.0</b>	79.251	76.678	76.678	76.678	76.164
<b>102.5</b>	101.895	99.836	98.807	98.292	98.292
<b>105.0</b>	125.567	124.023	121.450	120.936	120.421
<b>107.5</b>	149.754	148.211	145.123	144.608	144.094
<b>110.0</b>	174.971	173.427	170.854	169.825	168.281
<b>112.5</b>	201.216	198.643	197.099	194.526	192.982
<b>115.0</b>	227.462	225.918	224.889	219.743	218.713
<b>117.5</b>	255.251	252.678	252.678	246.503	245.474
<b>120.0</b>	283.556	279.439	280.468	274.292	272.234
<b>122.5</b>	310.316	306.199	308.257	303.111	299.509
<b>125.0</b>	340.164	333.988	336.047	330.901	328.327
<b>127.5</b>	369.497	362.807	363.836	359.719	358.690
<b>130.0</b>	398.316	391.626	392.655	387.509	388.023
<b>132.5</b>	427.135	419.930	421.474	416.327	416.327

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-F-MLB-ITL85132-KPL2008-6.902.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	474.480	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	585.637	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-MLB-ITL85132-KPL2008-6.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	922.65	N.A.	28.60
0-30	1211.49	N.A.	37.50
0-40	1255.93	N.A.	38.90
0-60	1263.44	N.A.	39.20
0-80	1264.53	N.A.	39.20
0-90	1264.58	N.A.	39.20
10-90	930.71	N.A.	28.80
20-40	333.29	N.A.	10.30
20-50	338.76	N.A.	10.50
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	169.42	N.A.	5.30
90-120	390.97	N.A.	12.10
90-130	689.80	N.A.	21.40
90-150	1385.17	N.A.	42.90
90-180	1962.43	N.A.	60.80
110-180	1793.01	N.A.	55.60
0-180	3227.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	333.87
10-20	588.77
20-30	288.84
30-40	44.45
40-50	5.47
50-60	2.04
60-70	0.80
70-80	0.29
80-90	0.05
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

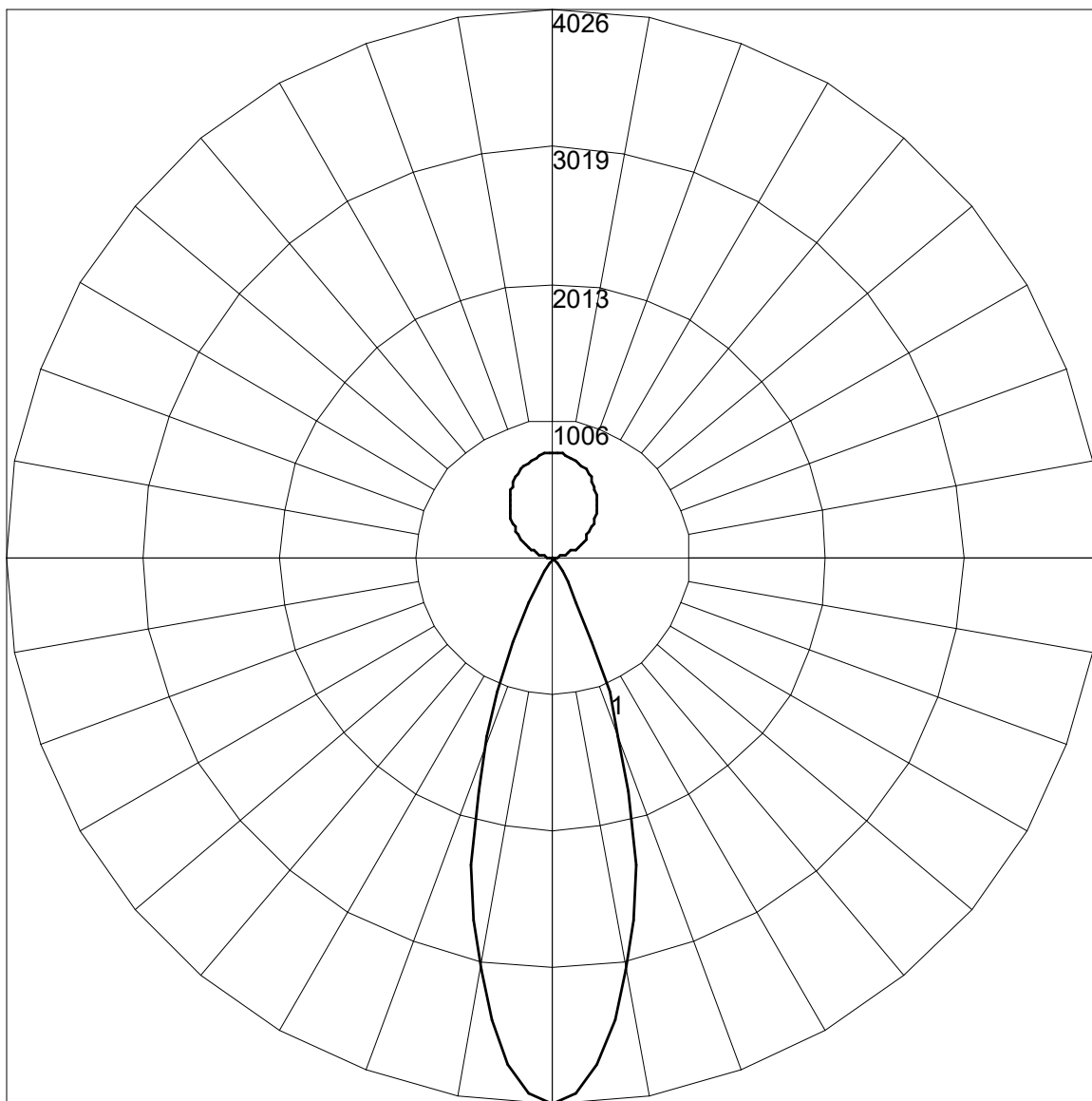
Effective Floor Cavity Reflectance 0.20

RC	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	105	105	105	105	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	98	94	91	89	89	86	84	82	71	70	68	57	56	55	44	44	43	38
2	91	86	81	77	83	79	75	72	66	63	61	54	52	51	43	42	41	36
3	86	78	73	68	78	72	68	64	61	58	55	51	49	47	41	40	39	35
4	80	72	66	61	74	67	62	58	57	53	51	48	46	44	39	38	37	34
5	76	67	60	56	69	62	57	53	53	50	47	45	43	41	38	36	35	32
6	71	62	56	51	66	58	53	49	50	46	44	43	41	39	36	35	34	31
7	67	58	52	47	62	54	49	45	47	44	41	41	39	37	35	34	32	30
8	64	54	48	44	59	51	46	42	45	41	38	39	37	35	34	32	31	29
9	61	51	45	41	56	48	43	40	43	39	36	38	35	33	33	31	30	28
10	58	48	43	39	54	46	41	37	41	37	34	36	33	32	32	30	29	27

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POLAR GRAPH



Maximum Candela = 4025.81 Located At Horizontal Angle = 0, Vertical Angle = 0

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