

# 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-WSO-MLW-ITL89456-KPL2008-7.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-KPL2008-7.902 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]07/19/17  
[ISSUE DATE]02/07/23  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-2-ID-4ft-B-B-8TW-WSO-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 & CRI's  
[INPUT\_ELECTRICAL]120.0 VOLTS, 41.8 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 41.8 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  
[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]3850

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3849
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
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	2548	2467
55	2173	2111	2010
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	4477.584	4477.584	4477.584	4477.584	4477.584
2.5	4376.086	4402.428	4382.369	4385.997	4394.451
5.0	4128.621	4158.833	4152.302	4155.930	4168.255
7.5	3735.864	3784.900	3800.246	3833.525	3832.146
10.0	3192.696	3295.554	3405.606	3468.974	3477.475
12.5	2607.095	2715.145	2957.896	3066.816	3090.039
15.0	2124.243	2238.314	2478.286	2643.395	2637.544
17.5	1653.669	1779.123	2027.576	2141.111	2074.363
20.0	1154.098	1326.555	1584.456	1652.439	1624.770
22.5	776.229	969.059	1193.635	1266.790	1231.915
25.0	523.835	624.418	906.489	958.253	914.368
27.5	375.898	417.225	600.103	599.671	537.368
30.0	274.425	315.891	383.427	377.447	348.300
32.5	209.215	238.176	270.467	260.206	256.728
35.0	174.618	185.739	203.518	201.202	194.842
37.5	159.150	160.729	168.484	163.261	154.374
40.0	145.734	147.036	145.075	139.219	136.399
42.5	133.605	134.619	129.987	126.164	126.056
45.0	121.440	122.793	118.666	115.764	114.899
47.5	106.429	111.709	107.988	105.827	104.139
50.0	99.873	100.964	98.530	96.832	96.307
52.5	91.156	91.701	88.773	86.051	85.068
55.0	82.089	82.459	79.763	77.725	75.924
57.5	73.613	73.778	71.071	68.694	67.649
60.0	65.596	65.858	63.167	60.908	59.894
62.5	58.520	58.247	55.721	53.678	52.453
65.0	51.588	51.254	48.810	46.797	45.665
67.5	44.585	44.636	42.218	40.406	39.171
70.0	38.317	38.193	36.104	34.370	33.109
72.5	32.018	32.090	30.279	28.642	27.490
75.0	26.769	26.497	24.824	23.455	22.426
77.5	21.325	20.815	19.714	18.598	17.779
80.0	16.519	16.117	15.016	14.043	13.611
82.5	11.512	11.378	10.498	9.927	9.386
85.0	7.086	6.803	6.402	5.969	5.743
87.5	2.892	2.954	2.655	2.480	2.357
90.0	0.000	0.000	0.000	0.000	0.000
92.5	9.263	15.953	15.953	15.438	15.438
95.0	24.186	42.712	42.712	35.507	34.993
97.5	40.653	69.985	85.938	61.752	58.150
100.0	57.635	91.084	170.846	99.317	87.482
102.5	76.160	111.153	236.200	175.478	139.456
105.0	94.171	132.766	273.766	286.116	235.686
107.5	112.182	153.865	296.923	385.948	359.704
110.0	130.193	173.419	317.507	444.612	449.244
112.5	148.204	192.459	341.693	483.207	502.762
115.0	166.730	210.470	370.510	510.995	539.298
117.5	185.255	228.481	401.901	537.240	567.601
120.0	203.781	247.521	427.631	565.028	595.904
122.5	220.762	263.474	446.156	604.137	625.751
125.0	236.715	278.912	456.448	646.849	668.462
127.5	251.638	293.321	462.623	675.666	715.805
130.0	263.989	305.671	466.225	687.502	749.769
132.5	276.339	316.992	467.255	682.871	760.575

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-WSO-MLW-ITL89456-KPL2008-7.902.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	287.145	326.255	466.740	668.462	749.769
<b>137.5</b>	296.923	335.003	465.196	648.907	727.126
<b>140.0</b>	306.700	342.722	462.623	627.294	698.309
<b>142.5</b>	315.963	349.926	459.021	603.108	667.433
<b>145.0</b>	325.740	356.616	455.419	579.951	636.042
<b>147.5</b>	333.974	361.762	451.302	556.280	604.137
<b>150.0</b>	342.207	367.423	446.156	535.181	574.291
<b>152.5</b>	349.926	371.539	439.981	515.112	546.503
<b>155.0</b>	357.131	374.627	433.806	495.557	520.773
<b>157.5</b>	363.820	378.744	428.145	477.546	497.616
<b>160.0</b>	369.481	381.317	421.455	460.050	476.003
<b>162.5</b>	374.627	383.375	414.766	445.127	455.933
<b>165.0</b>	378.744	385.434	408.076	430.718	438.952
<b>167.5</b>	382.346	386.977	402.930	418.368	424.028
<b>170.0</b>	385.434	388.521	399.328	408.590	412.193
<b>172.5</b>	386.977	389.550	395.211	400.357	403.444
<b>175.0</b>	389.036	390.065	392.638	395.211	396.240
<b>177.5</b>	390.065	390.065	391.094	391.094	391.609
<b>180.0</b>	390.579	390.579	390.579	390.579	390.579

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-B-B-8TW-WSO-MLW-ITL89456-KPL2008-7.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1032.84	N.A.	26.80
0-30	1404.41	N.A.	36.50
0-40	1535.79	N.A.	39.90
0-60	1699.32	N.A.	44.10
0-80	1774.37	N.A.	46.10
0-90	1781.76	N.A.	46.30
10-90	1410.32	N.A.	36.60
20-40	502.95	N.A.	13.10
20-50	594.93	N.A.	15.50
40-70	212.14	N.A.	5.50
60-80	75.05	N.A.	1.90
70-80	26.44	N.A.	0.70
80-90	7.39	N.A.	0.20
90-110	270.57	N.A.	7.00
90-120	627.55	N.A.	16.30
90-130	1035.61	N.A.	26.90
90-150	1711.31	N.A.	44.50
90-180	2067.55	N.A.	53.70
110-180	1796.98	N.A.	46.70
0-180	3849.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	371.44
10-20	661.40
20-30	371.57
30-40	131.38
40-50	91.99
50-60	71.54
60-70	48.61
70-80	26.44
80-90	7.39
90-100	47.20
100-110	223.37
110-120	356.98
120-130	408.06
130-140	381.39
140-150	294.32
150-160	202.31
160-170	116.26
170-180	37.67

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

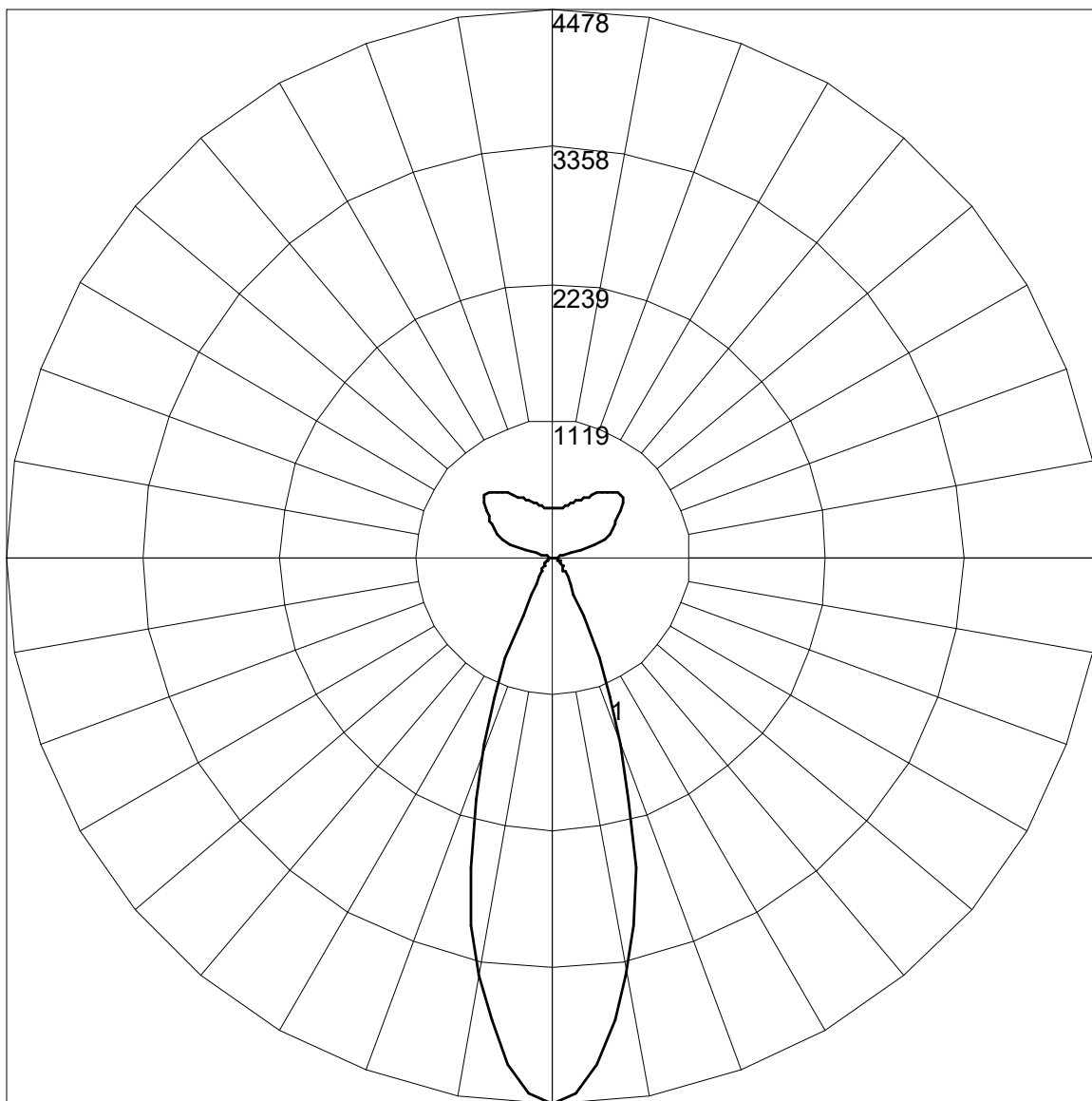
Effective Floor Cavity Reflectance 0.20

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	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	99	96	92	90	91	88	86	83	74	73	71	62	60	59	50	49	49	43
2	92	86	82	77	85	80	76	72	68	65	63	57	55	54	47	46	45	40
3	86	79	73	68	79	73	68	64	63	59	56	53	51	49	44	43	42	38
4	81	72	66	61	75	67	62	58	58	54	51	50	47	45	42	40	39	36
5	76	66	60	55	70	62	57	52	54	50	47	47	44	42	40	38	37	34
6	71	61	55	50	66	58	52	48	51	47	43	44	41	39	38	36	35	32
7	67	57	51	46	63	54	48	44	48	44	40	42	39	37	37	35	33	31
8	64	54	47	43	59	51	45	41	45	41	38	40	37	35	35	33	31	29
9	60	50	44	40	56	48	42	39	43	39	36	38	35	33	34	32	30	28
10	57	47	41	37	54	45	40	36	41	36	34	36	33	31	32	30	29	27

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POLAR GRAPH



Maximum Candela = 4477.584 Located At Horizontal Angle = 0, Vertical Angle = 0

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