

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 : HPT-RES-2X2-S-835-ITL89598.001.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89598.001 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]08/28/17
[ISSUEDATE]03/22/19
[MANUFAC]FINELITE, INC.
[LUMCAT]HPT-RES-2X2-S-835
[INPUT_ELECTRICAL]120.0 VOLTS, 27.7 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 27.8 WATTS
[ABSOLUTE LUMENS]3521
[OTHER]see www.finelite.com for source file ITL89598. For further details on Finelite family correlation files, go to
[more]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	3521
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	27.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3391	3361	3400
55	3144	3098	3154
65	2848	2778	2844
75	2376	2304	2388
85	1684	1560	1666

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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	1377.048	1377.048	1377.048	1377.048	1377.048
2.5	1374.409	1374.409	1374.937	1374.937	1375.465
5.0	1368.075	1367.548	1368.075	1368.603	1368.603
7.5	1356.464	1356.464	1356.464	1357.519	1357.519
10.0	1341.685	1340.629	1341.157	1341.685	1342.213
12.5	1322.684	1321.101	1321.628	1323.212	1323.740
15.0	1299.988	1298.405	1298.405	1300.516	1301.044
17.5	1273.598	1271.487	1271.487	1274.126	1274.654
20.0	1244.041	1241.402	1240.874	1243.513	1245.096
22.5	1211.845	1208.678	1207.622	1210.789	1212.900
25.0	1175.954	1172.787	1171.731	1174.898	1177.537
27.5	1137.952	1134.257	1133.201	1136.896	1139.535
30.0	1097.310	1093.616	1092.032	1096.255	1098.366
32.5	1055.086	1050.336	1048.752	1053.503	1056.669
35.0	1010.750	1006.000	1004.416	1009.167	1012.334
37.5	964.831	959.553	957.969	962.720	966.414
40.0	917.328	912.050	910.467	915.745	918.912
42.5	869.298	863.492	861.381	866.659	870.881
45.0	819.156	813.878	811.767	817.045	821.268
47.5	769.542	763.209	761.098	766.903	771.126
50.0	720.984	712.011	709.900	715.706	720.456
52.5	667.148	660.814	658.703	664.509	669.259
55.0	615.951	609.089	606.978	612.784	618.062
57.5	564.226	557.892	555.781	561.587	566.337
60.0	514.612	506.695	504.056	509.861	514.612
62.5	460.248	454.970	452.330	458.136	462.359
65.0	411.162	403.772	401.133	406.939	410.634
67.5	357.325	352.575	349.936	355.742	359.436
70.0	307.184	300.850	299.794	305.072	308.767
72.5	257.570	251.764	251.236	255.986	259.153
75.0	210.067	204.261	203.733	207.956	211.123
77.5	164.676	159.398	158.870	162.565	165.731
80.0	122.979	117.701	117.701	120.868	123.507
82.5	84.449	80.227	79.171	83.393	86.033
85.0	50.142	46.975	46.447	49.086	49.614
87.5	20.057	19.001	19.001	20.584	19.529
90.0	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	495.87	N.A.	14.10
0-30	1036.39	N.A.	29.40
0-40	1666.44	N.A.	47.30
0-60	2842.6	N.A.	80.70
0-80	3463.87	N.A.	98.40
0-90	3520.89	N.A.	100.00
10-90	3391.14	N.A.	96.30
20-40	1170.58	N.A.	33.20
20-50	1799.8	N.A.	51.10
40-70	1577.53	N.A.	44.80
60-80	621.26	N.A.	17.60
70-80	219.90	N.A.	6.20
80-90	57.02	N.A.	1.60
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3520.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	129.74
10-20	366.13
20-30	540.53
30-40	630.05
40-50	629.23
50-60	546.93
60-70	401.37
70-80	219.90
80-90	57.02
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

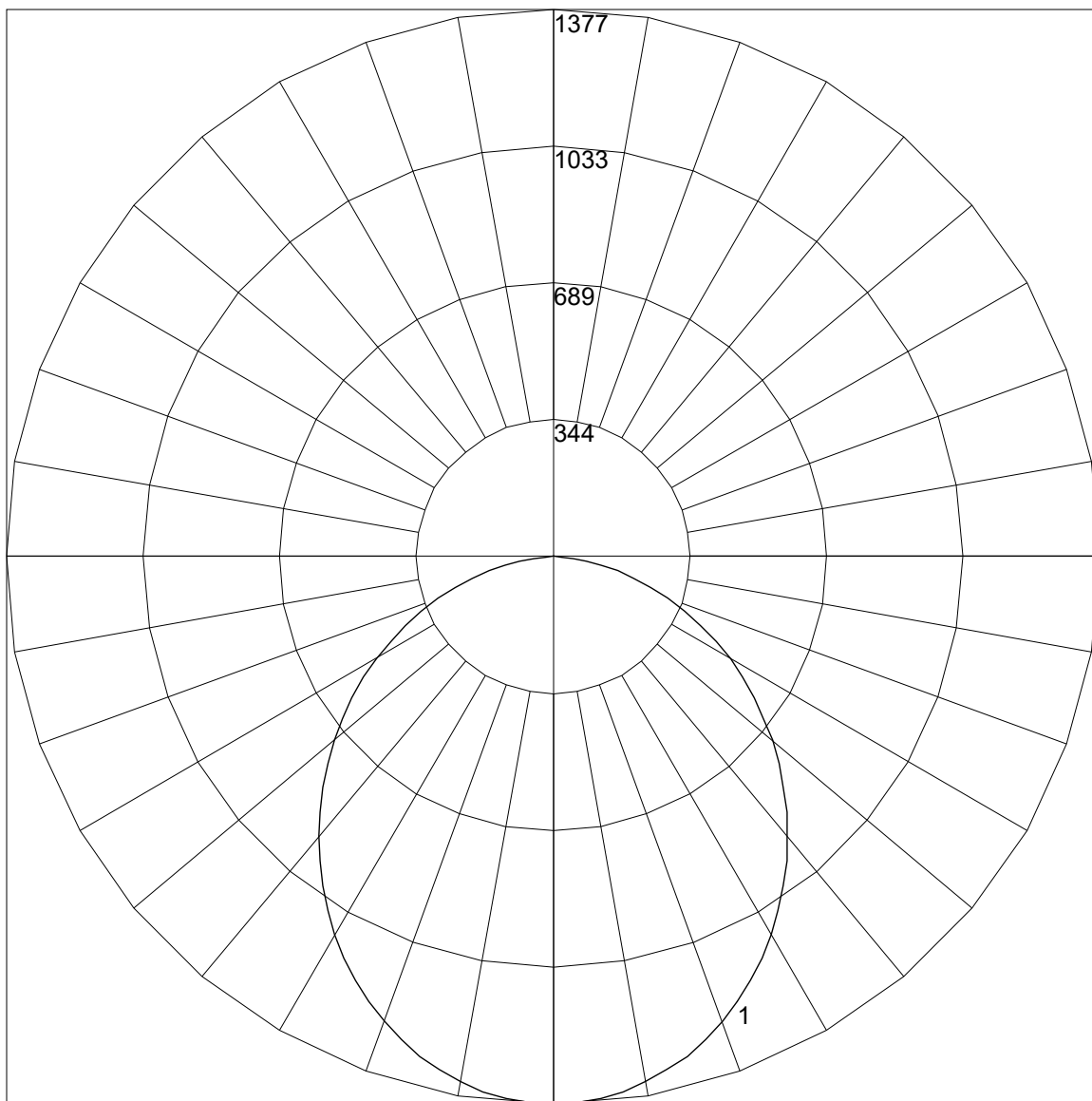
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	87	84
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

POLAR GRAPH



Maximum Candela = 1377.048 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)