

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-ITL89456.007.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456.007 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]07/19/17
[ISSUE DATE]08/23/17
[MANUFAC]FINELITE, INC.
[LUMCAT]HP2ID-4ft-H-S-835-WSO
[INPUT_ELECTRICAL]120.0 VOLTS, 42.0 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 44.5 WATTS
[OTHER]see www.finelite.com for source file ITL89456. 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
[ABSOLUTE LUMENS]4481

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4481
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
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	6979	6584	6197
55	6155	5798	5408
65	5354	5059	4736
75	4491	4323	4083
85	3494	3423	3209

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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	598.153	598.153	598.153	598.153	598.153
2.5	597.334	597.334	596.925	596.925	597.334
5.0	594.059	593.649	592.831	592.421	592.421
7.5	589.146	588.736	586.689	585.052	585.461
10.0	583.414	580.548	578.092	576.454	576.045
12.5	573.588	570.722	567.856	565.400	564.172
15.0	563.353	557.621	556.393	551.889	549.433
17.5	550.661	543.292	540.835	535.103	531.828
20.0	535.922	527.734	524.459	517.499	512.995
22.5	519.546	510.948	505.625	497.847	493.343
25.0	501.122	492.934	485.974	476.967	472.054
27.5	483.517	472.873	465.094	455.268	450.355
30.0	462.637	452.402	442.985	432.341	427.018
32.5	441.348	431.112	421.286	409.413	404.091
35.0	418.830	408.595	398.359	385.667	380.345
37.5	395.903	386.077	375.432	362.331	357.418
40.0	372.157	362.740	352.096	338.585	333.672
42.5	348.411	339.813	329.578	315.658	310.745
45.0	325.074	316.477	306.651	293.549	288.636
47.5	301.328	293.549	284.133	271.032	266.528
50.0	277.992	271.032	262.025	249.742	244.829
52.5	255.474	249.333	240.326	228.862	224.358
55.0	232.547	228.043	219.036	208.391	204.297
57.5	210.848	206.754	198.565	188.740	185.055
60.0	189.558	186.283	178.914	169.907	166.631
62.5	169.088	165.812	159.671	151.892	148.617
65.0	149.026	145.751	140.838	134.288	131.831
67.5	129.784	127.328	122.824	117.502	115.045
70.0	111.360	109.723	105.629	101.125	99.487
72.5	93.346	92.527	89.252	85.977	84.749
75.0	76.560	76.151	73.694	71.238	69.600
77.5	61.003	60.593	58.546	57.318	56.090
80.0	46.264	45.854	44.626	43.398	42.579
82.5	32.753	32.753	31.934	31.115	29.887
85.0	20.061	20.061	19.652	18.833	18.424
87.5	8.188	8.188	7.779	6.960	6.960
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	36.555	64.554	64.554	53.666	52.888
97.5	61.443	105.776	129.886	93.332	87.887
100.0	87.109	137.664	258.217	150.108	132.220
102.5	115.109	167.997	356.993	265.217	210.774
105.0	142.331	200.663	413.770	432.436	356.215
107.5	169.552	232.551	448.769	583.322	543.656
110.0	196.774	262.106	479.880	671.987	678.987
112.5	223.996	290.883	516.434	730.319	759.874
115.0	251.995	318.105	559.989	772.318	815.095
117.5	279.995	345.327	607.433	811.984	857.872
120.0	307.994	374.104	646.321	853.983	900.649
122.5	333.660	398.214	674.320	913.093	945.759
125.0	357.771	421.547	689.875	977.648	1010.314
127.5	380.326	443.325	699.209	1021.202	1081.868
130.0	398.992	461.991	704.653	1039.091	1133.200
132.5	417.659	479.102	706.208	1032.091	1149.533

CANDELA TABULATION - (Cont.)

135.0	433.991	493.101	705.431	1010.314	1133.200
137.5	448.769	506.324	703.097	980.759	1098.978
140.0	463.546	517.990	699.209	948.093	1055.424
142.5	477.546	528.879	693.764	911.538	1008.758
145.0	492.324	538.990	688.320	876.538	961.315
147.5	504.768	546.767	682.098	840.761	913.093
150.0	517.212	555.322	674.320	808.873	867.983
152.5	528.879	561.545	664.987	778.540	825.984
155.0	539.767	566.211	655.654	748.985	787.096
157.5	549.878	572.433	647.098	721.764	752.096
160.0	558.433	576.322	636.987	695.320	719.430
162.5	566.211	579.433	626.877	672.765	689.098
165.0	572.433	582.544	616.766	650.987	663.432
167.5	577.878	584.878	608.988	632.321	640.876
170.0	582.544	587.211	603.544	617.543	622.988
172.5	584.878	588.766	597.322	605.099	609.766
175.0	587.989	589.544	593.433	597.322	598.877
177.5	589.544	589.544	591.100	591.100	591.877
180.0	590.322	590.322	590.322	590.322	590.322

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	212.33	N.A.	4.70
0-30	435.64	N.A.	9.70
0-40	684.48	N.A.	15.30
0-60	1116.22	N.A.	24.90
0-80	1333.86	N.A.	29.80
0-90	1355.93	N.A.	30.30
10-90	1299.77	N.A.	29.00
20-40	472.16	N.A.	10.50
20-50	708.18	N.A.	15.80
40-70	571.18	N.A.	12.70
60-80	217.63	N.A.	4.90
70-80	78.19	N.A.	1.70
80-90	22.07	N.A.	0.50
90-110	408.94	N.A.	9.10
90-120	948.47	N.A.	21.20
90-130	1565.22	N.A.	34.90
90-150	2586.48	N.A.	57.70
90-180	3124.9	N.A.	69.70
110-180	2715.96	N.A.	60.60
0-180	4480.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	56.16
10-20	156.17
20-30	223.31
30-40	248.85
40-50	236.03
50-60	195.71
60-70	139.45
70-80	78.19
80-90	22.07
90-100	71.33
100-110	337.61
110-120	539.53
120-130	616.75
130-140	576.43
140-150	444.83
150-160	305.77
160-170	175.72
170-180	56.93

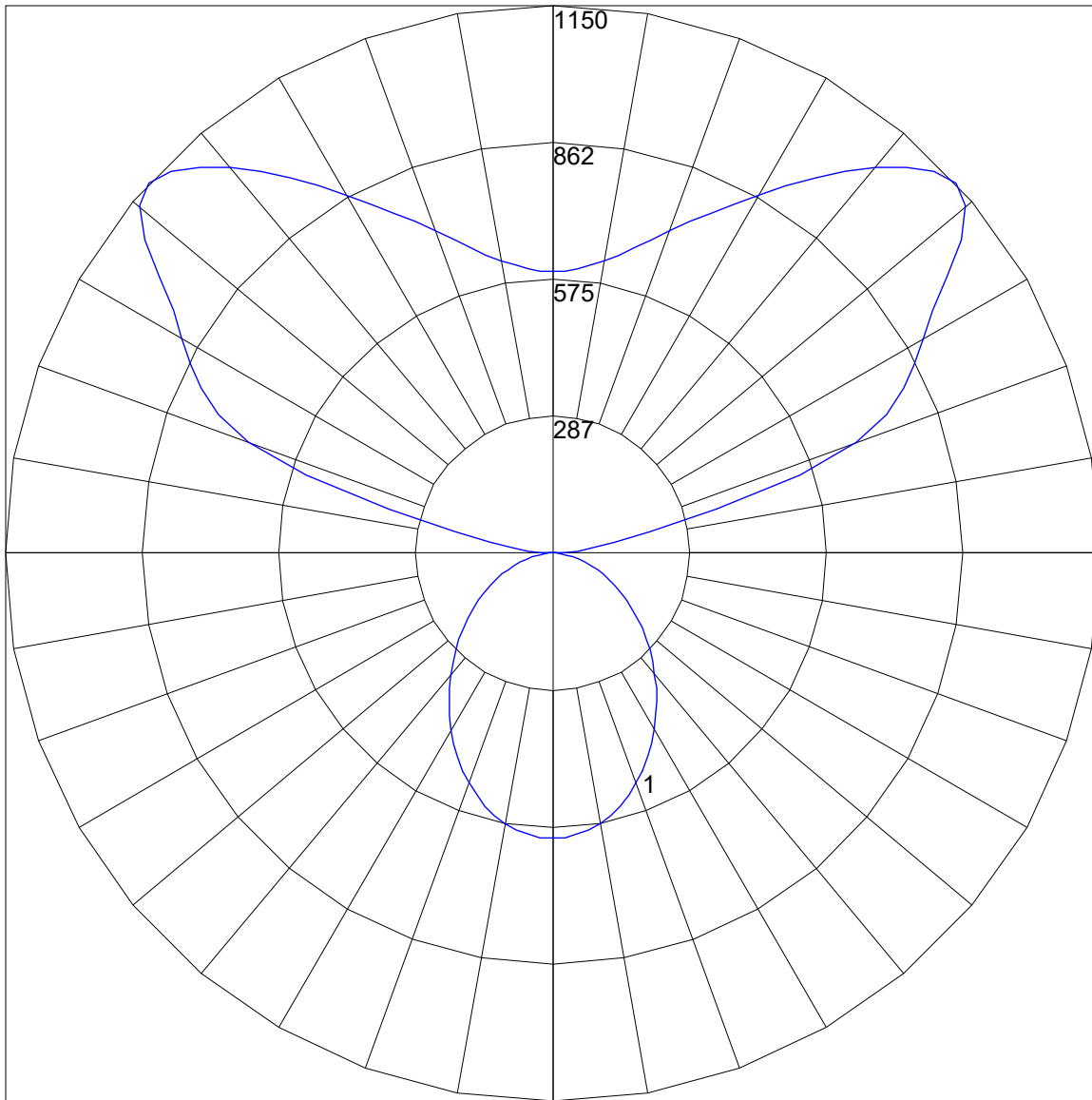
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	38	38	38	30
1	93	89	86	82	84	80	77	74	63	61	59	48	47	45	34	33	32	26
2	85	78	72	67	76	70	65	61	56	52	49	42	40	38	30	29	27	22
3	78	69	62	56	70	62	56	51	49	45	42	37	35	32	27	25	23	19
4	71	61	53	48	64	55	48	43	44	39	36	33	30	28	24	22	20	16
5	65	54	46	41	58	49	42	37	39	34	31	30	27	24	22	19	18	14
6	60	49	41	35	54	44	37	32	35	30	27	27	24	21	20	17	16	12
7	55	44	36	31	50	40	33	28	32	27	23	25	21	19	18	16	14	11
8	51	40	32	27	46	36	29	25	29	24	21	23	19	17	16	14	13	10
9	48	36	29	24	43	33	27	22	27	22	19	21	17	15	15	13	11	9
10	45	33	26	21	40	30	24	20	24	20	17	19	16	13	14	12	10	8

POLAR GRAPH



Maximum Candela = 1149.533 Located At Horizontal Angle = 90, Vertical Angle = 132.5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)