

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 : HPO-ID-4FT-S-V-835-WSO-F-ITL92549.313.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL92549.313 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]11/20/19
[ISSUEDATE]09/09/20
[MANUFAC]FINELITE, INC.
[LUMCAT]HPO-ID-4ft-S-V-835-WSO-F
[INPUT_ELECTRICAL]120.0 VOLTS, 48.0 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 49.2 WATTS
[ABSOLUTE LUMENS]5734
[OTHER]see www.finelite.com for source files ITL92549. 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	5733
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	48
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.20 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	17712	17712	17577
55	17123	17123	16957
65	16296	16296	16232
75	15010	15220	15273
85	13248	14027	14183

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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	1375.000	1375.000	1375.000	1375.000	1375.000
2.5	1372.000	1373.000	1373.000	1373.000	1374.000
5.0	1367.000	1368.000	1368.000	1368.000	1369.000
7.5	1360.000	1361.000	1362.000	1362.000	1362.000
10.0	1350.000	1349.000	1351.000	1351.000	1349.000
12.5	1339.000	1334.000	1339.000	1340.000	1337.000
15.0	1322.000	1316.000	1322.000	1323.000	1320.000
17.5	1304.000	1295.000	1303.000	1304.000	1299.000
20.0	1283.000	1271.000	1280.000	1281.000	1277.000
22.5	1260.000	1245.000	1255.000	1256.000	1252.000
25.0	1230.000	1218.000	1227.000	1228.000	1225.000
27.5	1199.000	1189.000	1197.000	1199.000	1195.000
30.0	1167.000	1155.000	1166.000	1164.000	1162.000
32.5	1131.000	1120.000	1130.000	1129.000	1126.000
35.0	1094.000	1084.000	1092.000	1091.000	1087.000
37.5	1053.000	1044.000	1053.000	1051.000	1048.000
40.0	1010.000	1002.000	1012.000	1009.000	1007.000
42.5	967.000	960.000	968.000	965.000	960.000
45.0	922.000	915.000	922.000	918.000	915.000
47.5	873.000	868.000	874.000	870.000	869.000
50.0	825.000	818.000	826.000	821.000	819.000
52.5	774.000	769.000	774.000	771.000	768.000
55.0	723.000	718.000	723.000	719.000	716.000
57.5	670.000	666.000	669.000	667.000	665.000
60.0	616.000	612.000	616.000	613.000	613.000
62.5	560.000	557.000	561.000	558.000	560.000
65.0	507.000	504.000	507.000	505.000	505.000
67.5	450.000	448.000	452.000	450.000	453.000
70.0	396.000	395.000	397.000	397.000	397.000
72.5	339.000	340.000	343.000	344.000	345.000
75.0	286.000	286.000	290.000	291.000	291.000
77.5	233.000	235.000	237.000	240.000	240.000
80.0	183.000	184.000	187.000	188.000	190.000
82.5	134.000	135.000	138.000	140.000	140.000
85.0	85.000	86.000	90.000	92.000	91.000
87.5	39.000	40.000	43.000	45.000	46.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	5.731	15.964	34.384	17.602	15.146
95.0	15.146	33.975	87.599	40.525	31.928
97.5	25.788	50.758	162.099	78.184	57.308
100.0	36.431	65.904	243.148	135.901	93.329
102.5	47.483	77.365	304.549	232.505	153.912
105.0	59.354	89.236	331.975	377.821	266.480
107.5	70.816	100.698	331.565	546.878	443.724
110.0	81.868	112.159	322.151	648.394	615.238
112.5	93.739	124.439	315.192	679.504	709.386
115.0	106.019	136.719	312.326	676.229	744.998
117.5	118.709	149.818	313.554	657.809	749.501
120.0	129.351	160.870	314.782	632.839	737.221
122.5	139.994	170.695	316.420	607.870	715.117
125.0	149.000	179.291	318.057	582.490	688.100
127.5	157.186	187.068	318.876	557.521	658.218
130.0	164.555	193.618	319.285	534.598	628.746
132.5	171.513	199.758	318.876	511.675	599.273

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HPO-ID-4FT-S-V-835-WSO-F-ITL92549.313.IES****CANDELA TABULATION - (Cont.)**

135.0	178.472	205.489	317.238	489.980	568.982
137.5	185.431	210.401	314.373	468.694	539.919
140.0	192.390	216.131	310.689	446.180	509.628
142.5	198.939	221.044	305.777	423.257	478.518
145.0	205.898	225.956	300.865	401.562	449.046
147.5	212.447	230.049	295.953	381.095	421.211
150.0	218.178	234.142	291.041	361.447	394.194
152.5	224.318	237.826	286.538	343.845	369.634
155.0	229.640	241.101	282.035	327.881	348.348
157.5	234.961	243.967	277.942	313.554	329.519
160.0	239.873	247.241	274.258	301.683	313.554
162.5	244.376	250.107	270.574	291.450	300.046
165.0	247.651	252.153	267.299	282.444	287.766
167.5	250.925	254.200	264.434	274.667	278.351
170.0	253.381	255.837	261.978	268.936	270.983
172.5	255.428	257.065	260.340	264.024	265.661
175.0	256.656	257.475	259.112	260.340	261.159
177.5	257.884	258.293	258.703	259.112	258.703
180.0	257.884	257.884	257.884	257.884	257.884

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	502.70	N.A.	8.80
0-30	1067.43	N.A.	18.60
0-40	1748.87	N.A.	30.50
0-60	3100.42	N.A.	54.10
0-80	3906.21	N.A.	68.10
0-90	4004.79	N.A.	69.90
10-90	3874.73	N.A.	67.60
20-40	1246.16	N.A.	21.70
20-50	1954.37	N.A.	34.10
40-70	1851.46	N.A.	32.30
60-80	805.78	N.A.	14.10
70-80	305.88	N.A.	5.30
80-90	98.58	N.A.	1.70
90-110	313.77	N.A.	5.50
90-120	692.88	N.A.	12.10
90-130	1028.69	N.A.	17.90
90-150	1495.05	N.A.	26.10
90-180	1728.51	N.A.	30.10
110-180	1414.74	N.A.	24.70
0-180	5733.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	130.06
10-20	372.64
20-30	564.73
30-40	681.43
40-50	708.21
50-60	643.35
60-70	499.90
70-80	305.88
80-90	98.58
90-100	57.90
100-110	255.87
110-120	379.11
120-130	335.81
130-140	268.58
140-150	197.77
150-160	132.50
160-170	76.13
170-180	24.83

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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	102	97	93	89	96	92	88	85	82	79	77	73	71	69	65	63	62	58
2	92	84	78	72	87	80	74	69	72	67	63	64	60	57	57	54	52	48
3	84	74	66	60	79	70	63	57	63	57	53	56	52	48	50	47	44	40
4	77	65	57	51	72	62	54	49	56	50	45	50	45	41	45	41	37	34
5	71	58	50	43	66	55	48	42	50	43	38	45	40	35	40	36	32	30
6	65	52	44	38	61	50	42	36	45	38	34	40	35	31	36	32	28	26
7	60	47	39	33	57	45	37	32	41	34	30	37	31	27	33	29	25	23
8	56	43	35	29	53	41	33	28	37	31	26	34	28	24	30	26	22	20
9	52	39	31	26	49	37	30	25	34	28	24	31	26	22	28	24	20	18
10	49	36	28	23	46	34	27	23	31	25	21	29	23	20	26	22	18	16

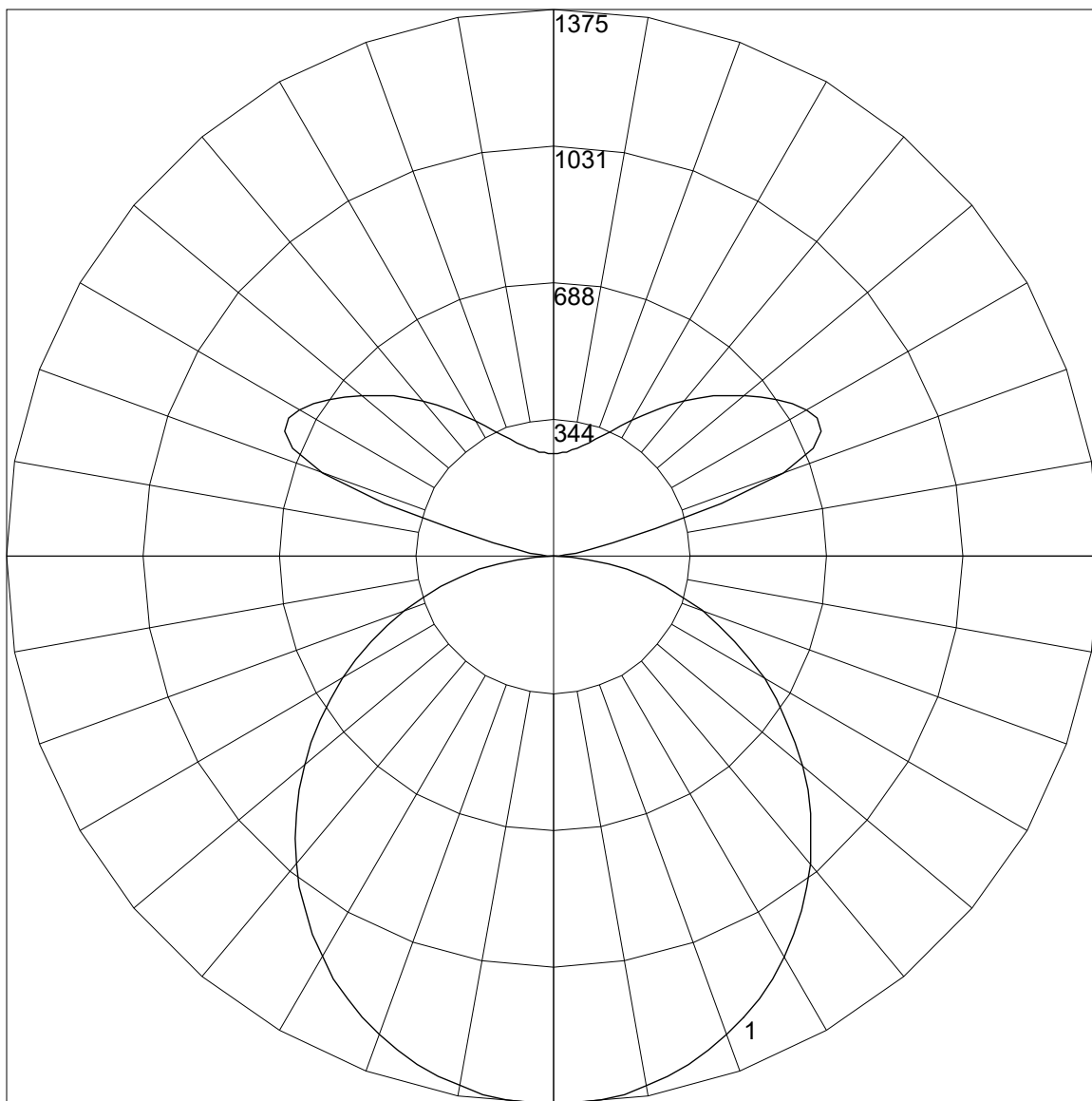
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UGR TABLE - CORRECTED

Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	19.9	21.0	20.7	21.8	22.7	19.9	21.0	20.7	21.8	22.7
	3H	21.7	22.7	22.5	23.5	24.5	21.8	22.8	22.5	23.6	24.5
	4H	22.5	23.4	23.3	24.2	25.2	22.5	23.5	23.3	24.3	25.2
	6H	23.0	23.9	23.8	24.7	25.7	23.1	24.0	23.9	24.8	25.8
	8H	23.2	24.1	24.1	24.9	25.9	23.3	24.2	24.1	25.0	26.0
	12H	23.4	24.2	24.2	25.0	26.0	23.5	24.3	24.3	25.1	26.1
4H	2H	20.5	21.4	21.3	22.2	23.2	20.5	21.4	21.3	22.2	23.2
	3H	22.6	23.4	23.4	24.2	25.2	22.6	23.4	23.4	24.2	25.2
	4H	23.5	24.2	24.3	25.0	26.0	23.5	24.2	24.3	25.0	26.1
	6H	24.2	24.8	25.0	25.6	26.7	24.2	24.8	25.1	25.7	26.8
	8H	24.4	25.0	25.2	25.8	26.9	24.5	25.1	25.3	25.9	27.0
	12H	24.6	25.1	25.5	26.0	27.1	24.7	25.2	25.6	26.1	27.2
8H	4H	23.8	24.3	24.6	25.2	26.3	23.8	24.4	24.6	25.2	26.3
	6H	24.6	25.1	25.5	26.0	27.1	24.7	25.2	25.6	26.1	27.1
	8H	25.0	25.4	25.8	26.3	27.4	25.1	25.5	25.9	26.4	27.5
	12H	25.2	25.6	26.1	26.5	27.6	25.4	25.7	26.2	26.6	27.8
12H	4H	23.8	24.3	24.7	25.2	26.3	23.8	24.4	24.7	25.2	26.3
	6H	24.7	25.1	25.6	26.0	27.1	24.8	25.2	25.6	26.1	27.2
	8H	25.1	25.5	26.0	26.4	27.5	25.2	25.6	26.1	26.5	27.6

Maximum UGR = 27.8

POLAR GRAPH



Maximum Candela = 1375 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)