

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-H-835-WSO-F-ITL92549.314.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL92549.314 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]11/20/19
[ISSUEDATE]09/09/20
[MANUFAC]FINELITE, INC.
[LUMCAT]HPO-ID-4ft-S-H-835-WSO-F
[INPUT_ELECTRICAL]120.0 VOLTS, 40.0 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 41.3 WATTS
[ABSOLUTE LUMENS]4844
[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	4844
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	40
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	13777	13777	13672
55	13318	13318	13189
65	12676	12676	12626
75	11676	11839	11880
85	10305	10911	11032

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HPO-ID-4FT-S-H-835-WSO-F-ITL92549.314.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1069.519	1069.519	1069.519	1069.519	1069.519
2.5	1067.185	1067.963	1067.963	1067.963	1068.741
5.0	1063.296	1064.074	1064.074	1064.074	1064.852
7.5	1057.851	1058.629	1059.407	1059.407	1059.407
10.0	1050.073	1049.295	1050.851	1050.851	1049.295
12.5	1041.517	1037.628	1041.517	1042.295	1039.961
15.0	1028.294	1023.627	1028.294	1029.071	1026.738
17.5	1014.293	1007.292	1013.515	1014.293	1010.404
20.0	997.958	988.624	995.625	996.403	993.291
22.5	980.068	968.401	976.179	976.957	973.845
25.0	956.733	947.399	954.400	955.177	952.844
27.5	932.620	924.842	931.065	932.620	929.509
30.0	907.730	898.396	906.952	905.396	903.841
32.5	879.728	871.172	878.950	878.172	875.839
35.0	850.948	843.170	849.392	848.615	845.503
37.5	819.057	812.056	819.057	817.501	815.168
40.0	785.610	779.388	787.166	784.832	783.277
42.5	752.163	746.719	752.941	750.608	746.719
45.0	717.161	711.716	717.161	714.050	711.716
47.5	679.047	675.158	679.825	676.714	675.936
50.0	641.711	636.266	642.489	638.600	637.044
52.5	602.042	598.153	602.042	599.708	597.375
55.0	562.372	558.483	562.372	559.261	556.928
57.5	521.147	518.036	520.369	518.814	517.258
60.0	479.144	476.033	479.144	476.811	476.811
62.5	435.586	433.252	436.364	434.030	435.586
65.0	394.361	392.027	394.361	392.805	392.805
67.5	350.024	348.469	351.580	350.024	352.358
70.0	308.021	307.244	308.799	308.799	308.799
72.5	263.685	264.463	266.796	267.574	268.352
75.0	222.460	222.460	225.571	226.349	226.349
77.5	181.235	182.790	184.346	186.680	186.680
80.0	142.343	143.121	145.454	146.232	147.788
82.5	104.229	105.007	107.341	108.896	108.896
85.0	66.116	66.894	70.005	71.561	70.783
87.5	30.335	31.113	33.447	35.002	35.780
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-H-835-WSO-F-ITL92549.314.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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HPO-ID-4FT-S-H-835-WSO-F-ITL92549.314.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	391.02	N.A.	8.10
0-30	830.28	N.A.	17.10
0-40	1360.32	N.A.	28.10
0-60	2411.61	N.A.	49.80
0-80	3038.37	N.A.	62.70
0-90	3115.05	N.A.	64.30
10-90	3013.89	N.A.	62.20
20-40	969.31	N.A.	20.00
20-50	1520.17	N.A.	31.40
40-70	1440.12	N.A.	29.70
60-80	626.76	N.A.	12.90
70-80	237.92	N.A.	4.90
80-90	76.68	N.A.	1.60
90-110	313.77	N.A.	6.50
90-120	692.88	N.A.	14.30
90-130	1028.69	N.A.	21.20
90-150	1495.05	N.A.	30.90
90-180	1728.51	N.A.	35.70
110-180	1414.74	N.A.	29.20
0-180	4843.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	101.16
10-20	289.85
20-30	439.27
30-40	530.04
40-50	550.87
50-60	500.42
60-70	388.84
70-80	237.92
80-90	76.68
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

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : HPO-ID-4FT-S-H-835-WSO-F-ITL92549.314.IES

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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	64
1	101	96	92	88	94	90	87	83	80	77	74	70	68	66	61	59	58	53
2	91	83	77	71	85	79	73	68	69	65	61	61	57	54	53	50	48	44
3	83	73	65	59	78	69	62	56	61	55	51	54	49	46	47	43	41	37
4	76	65	56	50	71	61	53	48	54	48	43	48	43	39	42	38	35	32
5	70	58	49	43	65	54	47	41	48	42	37	43	38	34	37	33	30	27
6	64	52	43	37	60	49	41	35	43	37	32	38	33	29	34	30	26	24
7	59	47	38	32	56	44	37	31	39	33	29	35	30	26	31	27	23	21
8	55	42	34	29	52	40	33	28	36	30	25	32	27	23	28	24	21	19
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	26	22	19	17
10	48	35	28	23	45	34	27	22	30	24	20	27	22	19	24	20	17	15

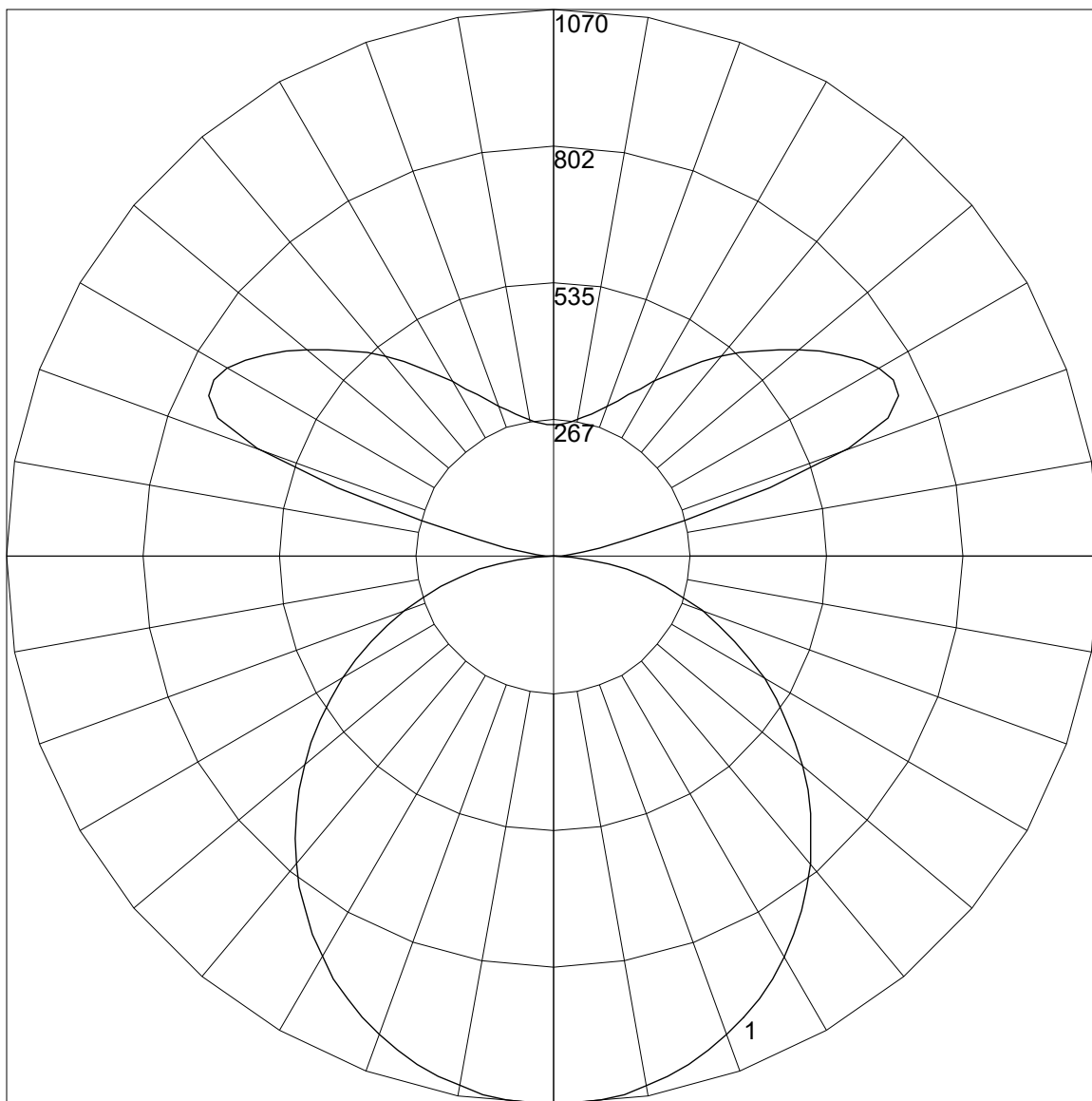
IES INDOOR REPORT
PHOTOMETRIC FILENAME : HPO-ID-4FT-S-H-835-WSO-F-ITL92549.314.IES

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	18.6	19.6	19.4	20.4	21.5	18.6	19.6	19.4	20.4	21.5
	3H	20.4	21.3	21.3	22.2	23.3	20.4	21.4	21.3	22.2	23.3
	4H	21.2	22.0	22.0	22.9	24.0	21.2	22.1	22.0	22.9	24.0
	6H	21.7	22.5	22.6	23.4	24.5	21.8	22.6	22.6	23.5	24.6
	8H	21.9	22.7	22.8	23.6	24.7	22.0	22.8	22.9	23.6	24.8
	12H	22.0	22.8	22.9	23.7	24.8	22.1	22.9	23.0	23.8	24.9
4H	2H	19.2	20.0	20.0	20.9	22.0	19.2	20.0	20.0	20.9	22.0
	3H	21.2	22.0	22.1	22.9	24.0	21.3	22.0	22.1	22.9	24.0
	4H	22.1	22.8	23.0	23.7	24.8	22.1	22.8	23.0	23.7	24.8
	6H	22.8	23.4	23.7	24.3	25.4	22.9	23.5	23.8	24.4	25.5
	8H	23.1	23.6	24.0	24.5	25.7	23.1	23.7	24.0	24.6	25.8
	12H	23.3	23.7	24.2	24.7	25.8	23.4	23.8	24.3	24.8	25.9
8H	4H	22.4	23.0	23.3	23.9	25.0	22.5	23.0	23.4	23.9	25.1
	6H	23.3	23.7	24.2	24.7	25.8	23.3	23.8	24.3	24.7	25.9
	8H	23.6	24.0	24.6	25.0	26.1	23.7	24.1	24.7	25.1	26.2
	12H	23.9	24.2	24.8	25.2	26.4	24.0	24.4	25.0	25.3	26.5
12H	4H	22.4	22.9	23.4	23.9	25.0	22.5	23.0	23.4	23.9	25.0
	6H	23.4	23.7	24.3	24.7	25.9	23.4	23.8	24.4	24.7	25.9
	8H	23.8	24.1	24.7	25.0	26.3	23.8	24.2	24.8	25.1	26.3

Maximum UGR = 26.5

POLAR GRAPH



Maximum Candela = 1069.519 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)