

# 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 : HO4-UD-RO-4FT-B-V-835-OPN-ITL89462.012.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89462.012 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/25/17

[ISSUEDATE]08/31/17

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HO4-UD-RO-4ft-B-V-835-OPN

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 52.4 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 54.7 WATTS

[\_ABSOLUTE]LUMENS]6050

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL89462. 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](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	6050
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	52.4
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 w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.25 ft
Luminous Height	0.18 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	10865	7045	6280
55	10738	6259	5410
65	10454	5405	5042
75	9836	5022	4544
85	7464	2345	634

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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	1032.000	1032.000	1032.000	1032.000	1032.000
2.5	1031.000	1030.000	1028.000	1027.000	1026.000
5.0	1028.000	1025.000	1020.000	1016.000	1016.000
7.5	1024.000	1018.000	1010.000	1005.000	1004.000
10.0	1018.000	1008.000	1000.000	994.000	991.000
12.5	1011.000	996.000	987.000	981.000	976.000
15.0	1002.000	982.000	974.000	967.000	962.000
17.5	991.000	967.000	959.000	952.000	948.000
20.0	978.000	951.000	943.000	938.000	932.000
22.5	964.000	933.000	925.000	920.000	915.000
25.0	947.000	913.000	906.000	902.000	898.000
27.5	928.000	893.000	886.000	883.000	879.000
30.0	907.000	870.000	865.000	863.000	860.000
32.5	885.000	847.000	842.000	841.000	839.000
35.0	861.000	822.000	819.000	820.000	818.000
37.5	833.000	796.000	794.000	796.000	794.000
40.0	806.000	769.000	770.000	771.000	769.000
42.5	778.000	740.000	744.000	745.000	743.000
45.0	747.000	711.000	717.000	717.000	714.000
47.5	716.000	680.000	690.000	688.000	683.000
50.0	682.000	649.000	660.000	656.000	651.000
52.5	647.000	617.000	628.000	622.000	616.000
55.0	610.000	583.000	595.000	585.000	589.000
57.5	573.000	550.000	561.000	561.000	569.000
60.0	533.000	516.000	524.000	538.000	548.000
62.5	493.000	480.000	489.000	517.000	528.000
65.0	451.000	444.000	462.000	497.000	508.000
67.5	409.000	408.000	438.000	476.000	488.000
70.0	366.000	371.000	415.000	455.000	465.000
72.5	322.000	333.000	393.000	431.000	439.000
75.0	277.000	298.000	368.000	402.000	407.000
77.5	231.000	271.000	341.000	364.000	366.000
80.0	186.000	246.000	306.000	308.000	300.000
82.5	140.000	220.000	249.000	213.000	191.000
85.0	92.000	181.000	138.000	68.000	48.000
87.5	43.000	88.000	50.000	26.000	13.000
90.0	0.000	53.000	39.000	21.000	8.000
92.5	7.204	36.021	31.390	22.127	15.438
95.0	20.069	48.886	45.284	34.992	28.302
97.5	39.623	66.382	62.779	51.973	43.740
100.0	63.294	86.965	82.334	69.984	61.750
102.5	90.053	114.238	104.975	92.111	82.848
105.0	122.986	144.084	132.249	118.355	108.063
107.5	161.065	179.076	165.182	149.230	137.909
110.0	203.776	218.699	203.262	184.736	172.901
112.5	250.603	261.924	248.030	225.903	213.039
115.0	300.518	308.752	294.858	273.245	259.351
117.5	351.977	357.123	342.200	324.704	310.810
120.0	404.465	406.008	393.144	378.221	365.356
122.5	454.894	453.865	443.573	428.650	419.902
125.0	503.780	500.178	492.459	480.109	472.904
127.5	549.578	546.490	539.286	528.480	522.819
130.0	592.803	588.686	583.026	572.734	568.103
132.5	633.455	629.339	624.707	614.930	609.270

CANDELA TABULATION - (Cont.)

135.0	671.535	666.903	664.331	653.010	647.349
137.5	707.041	701.895	700.352	689.545	682.856
140.0	739.460	733.285	733.285	722.479	715.789
142.5	769.821	763.646	764.675	754.383	747.179
145.0	798.638	790.919	793.492	784.229	777.025
147.5	824.367	816.133	819.221	810.987	804.298
150.0	847.523	840.319	844.436	835.173	828.998
152.5	869.136	860.388	866.048	857.300	851.640
155.0	886.632	879.942	885.602	876.855	873.252
157.5	904.128	897.438	903.098	894.865	891.778
160.0	920.080	912.875	919.051	911.332	909.273
162.5	932.430	926.255	931.915	926.255	923.682
165.0	943.751	938.605	942.722	939.119	937.061
167.5	953.528	950.440	951.470	950.440	949.411
170.0	961.247	959.188	959.703	959.703	958.674
172.5	966.907	966.393	965.878	966.393	966.393
175.0	971.024	971.538	971.024	971.538	971.538
177.5	973.597	974.111	973.597	973.597	974.111
180.0	974.626	974.626	974.626	974.626	974.626

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	372.55	N.A.	6.20
0-30	792.74	N.A.	13.10
0-40	1309.11	N.A.	21.60
0-60	2394.3	N.A.	39.60
0-80	3231.02	N.A.	53.40
0-90	3374.29	N.A.	55.80
10-90	3277.45	N.A.	54.20
20-40	936.56	N.A.	15.50
20-50	1491.33	N.A.	24.70
40-70	1552.05	N.A.	25.70
60-80	836.72	N.A.	13.80
70-80	369.86	N.A.	6.10
80-90	143.27	N.A.	2.40
90-110	185.07	N.A.	3.10
90-120	472.86	N.A.	7.80
90-130	909.63	N.A.	15.00
90-150	1911.5	N.A.	31.60
90-180	2675.34	N.A.	44.20
110-180	2490.27	N.A.	41.20
0-180	6049.63	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	96.84
10-20	275.71
20-30	420.20
30-40	516.36
40-50	554.78
50-60	530.41
60-70	466.86
70-80	369.86
80-90	143.27
90-100	46.74
100-110	138.33
110-120	287.79
120-130	436.77
130-140	508.68
140-150	493.19
150-160	405.96
160-170	265.55
170-180	92.34

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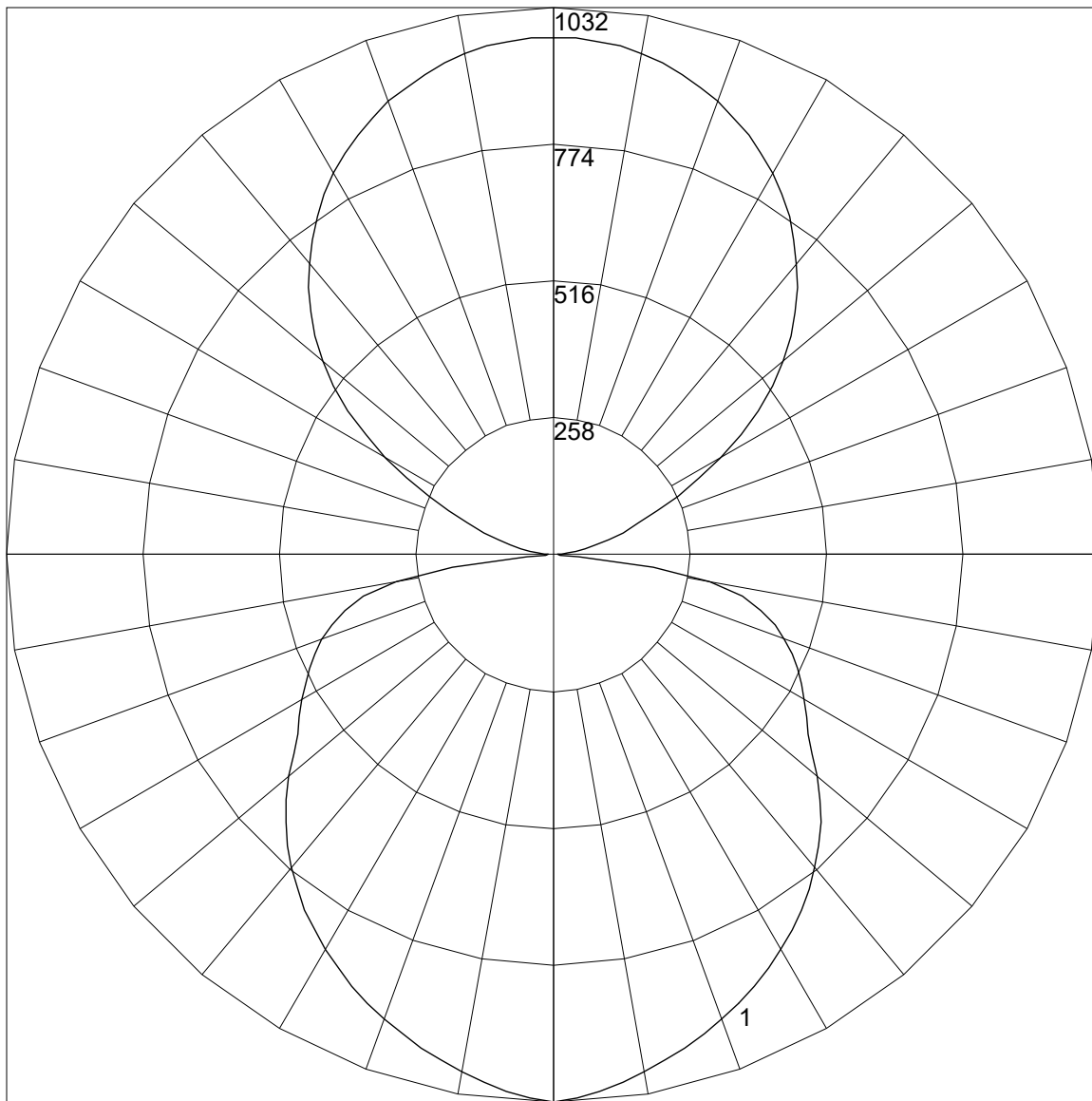
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	109	109	109	109	101	101	101	101	87	87	87	73	73	73	61	61	61	56
1	98	93	89	85	91	86	83	79	74	71	69	63	61	59	52	51	50	45
2	88	80	74	68	82	75	69	64	64	60	56	54	51	48	45	43	41	36
3	80	70	62	56	74	65	58	52	56	50	46	47	43	40	40	36	34	30
4	73	62	53	47	68	57	50	44	49	43	39	42	37	34	35	31	29	25
5	67	55	46	40	62	51	43	38	44	38	33	37	33	29	31	28	25	21
6	62	49	40	34	57	46	38	32	39	33	29	34	29	25	28	24	21	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	26	22	19	16
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15
9	49	36	29	23	46	34	27	22	30	24	20	26	21	17	22	18	15	13
10	46	33	26	21	43	31	25	20	27	22	18	24	19	16	20	16	14	12

POLAR GRAPH



Maximum Candela = 1032 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)