

# 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-S-B-835-OPN-ITL89462.013.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89462.013 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-S-B-835-OPN

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 31.1 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 33.9 WATTS

[\_ABSOLUTE]LUMENS]3863

[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	3863
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	31.1
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	5591	3625	3231
55	5526	3221	2784
65	5380	2782	2595
75	5062	2584	2338
85	3841	1207	326

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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	531.053	531.053	531.053	531.053	531.053
2.5	530.538	530.024	528.994	528.480	527.965
5.0	528.994	527.451	524.878	522.819	522.819
7.5	526.936	523.849	519.732	517.159	516.644
10.0	523.849	518.703	514.586	511.498	509.955
12.5	520.246	512.528	507.896	504.809	502.236
15.0	515.615	505.324	501.207	497.605	495.032
17.5	509.955	497.605	493.488	489.886	487.827
20.0	503.265	489.371	485.255	482.682	479.594
22.5	496.061	480.109	475.992	473.419	470.846
25.0	487.313	469.817	466.215	464.157	462.098
27.5	477.536	459.525	455.923	454.379	452.321
30.0	466.729	447.690	445.117	444.088	442.544
32.5	455.409	435.854	433.281	432.767	431.738
35.0	443.058	422.990	421.446	421.961	420.931
37.5	428.650	409.610	408.581	409.610	408.581
40.0	414.756	395.717	396.231	396.746	395.717
42.5	400.348	380.794	382.852	383.367	382.337
45.0	384.396	365.871	368.958	368.958	367.414
47.5	368.444	349.918	355.064	354.035	351.462
50.0	350.948	333.966	339.627	337.568	334.995
52.5	332.937	317.500	323.160	320.072	316.985
55.0	313.897	300.004	306.179	301.033	303.091
57.5	294.858	283.022	288.683	288.683	292.799
60.0	274.274	265.526	269.643	276.847	281.993
62.5	253.691	247.001	251.633	266.041	271.701
65.0	232.078	228.476	237.739	255.749	261.410
67.5	210.466	209.951	225.389	244.943	251.118
70.0	188.339	190.911	213.553	234.137	239.282
72.5	165.697	171.357	202.232	221.787	225.903
75.0	142.540	153.347	189.368	206.864	209.436
77.5	118.869	139.453	175.474	187.309	188.339
80.0	95.713	126.588	157.463	158.493	154.376
82.5	72.042	113.209	128.132	109.607	98.286
85.0	47.342	93.140	71.013	34.992	24.700
87.5	22.127	45.284	25.729	13.379	6.690
90.0	0.000	27.273	20.069	10.806	4.117
92.5	5.731	28.654	24.969	17.601	12.280
95.0	15.964	38.887	36.022	27.835	22.513
97.5	31.519	52.804	49.939	41.343	34.794
100.0	50.348	69.178	65.494	55.670	49.120
102.5	71.634	90.872	83.504	73.271	65.903
105.0	97.831	114.614	105.199	94.147	85.960
107.5	128.122	142.449	131.397	118.707	109.702
110.0	162.097	173.967	161.687	146.951	137.537
112.5	199.346	208.351	197.299	179.698	169.465
115.0	239.052	245.601	234.549	217.357	206.305
117.5	279.985	284.079	272.208	258.290	247.238
120.0	321.737	322.965	312.732	300.861	290.628
122.5	361.852	361.034	352.847	340.976	334.017
125.0	400.739	397.874	391.734	381.909	376.179
127.5	437.170	434.714	428.983	420.387	415.884
130.0	471.554	468.279	463.777	455.590	451.906
132.5	503.891	500.617	496.933	489.155	484.653

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-UD-RO-4FT-S-B-835-OPN-ITL89462.013.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	534.182	530.498	528.452	519.446	514.943
<b>137.5</b>	562.426	558.333	557.105	548.509	543.188
<b>140.0</b>	588.214	583.302	583.302	574.706	569.385
<b>142.5</b>	612.365	607.453	608.272	600.085	594.354
<b>145.0</b>	635.288	629.148	631.195	623.827	618.096
<b>147.5</b>	655.755	649.205	651.661	645.112	639.791
<b>150.0</b>	674.175	668.444	671.719	664.351	659.439
<b>152.5</b>	691.367	684.408	688.911	681.952	677.449
<b>155.0</b>	705.284	699.963	704.466	697.507	694.641
<b>157.5</b>	719.202	713.880	718.383	711.834	709.378
<b>160.0</b>	731.891	726.160	731.072	724.932	723.295
<b>162.5</b>	741.715	736.803	741.306	736.803	734.756
<b>165.0</b>	750.720	746.627	749.902	747.036	745.399
<b>167.5</b>	758.498	756.042	756.860	756.042	755.223
<b>170.0</b>	764.638	763.000	763.410	763.410	762.591
<b>172.5</b>	769.140	768.731	768.322	768.731	768.731
<b>175.0</b>	772.415	772.824	772.415	772.824	772.824
<b>177.5</b>	774.462	774.871	774.462	774.462	774.871
<b>180.0</b>	775.280	775.280	775.280	775.280	775.280

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-UD-RO-4FT-S-B-835-OPN-ITL89462.013.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	191.71	N.A.	5.00
0-30	407.94	N.A.	10.60
0-40	673.65	N.A.	17.40
0-60	1232.07	N.A.	31.90
0-80	1662.64	N.A.	43.00
0-90	1736.36	N.A.	44.90
10-90	1686.53	N.A.	43.70
20-40	481.94	N.A.	12.50
20-50	767.42	N.A.	19.90
40-70	798.66	N.A.	20.70
60-80	430.57	N.A.	11.10
70-80	190.33	N.A.	4.90
80-90	73.73	N.A.	1.90
90-110	146.09	N.A.	3.80
90-120	375.02	N.A.	9.70
90-130	722.45	N.A.	18.70
90-150	1519.4	N.A.	39.30
90-180	2127.01	N.A.	55.10
110-180	1980.92	N.A.	51.30
0-180	3863.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	49.83
10-20	141.88
20-30	216.23
30-40	265.71
40-50	285.48
50-60	272.94
60-70	240.24
70-80	190.33
80-90	73.73
90-100	36.05
100-110	110.04
110-120	228.93
120-130	347.43
130-140	404.64
140-150	392.32
150-160	322.93
160-170	211.23
170-180	73.45

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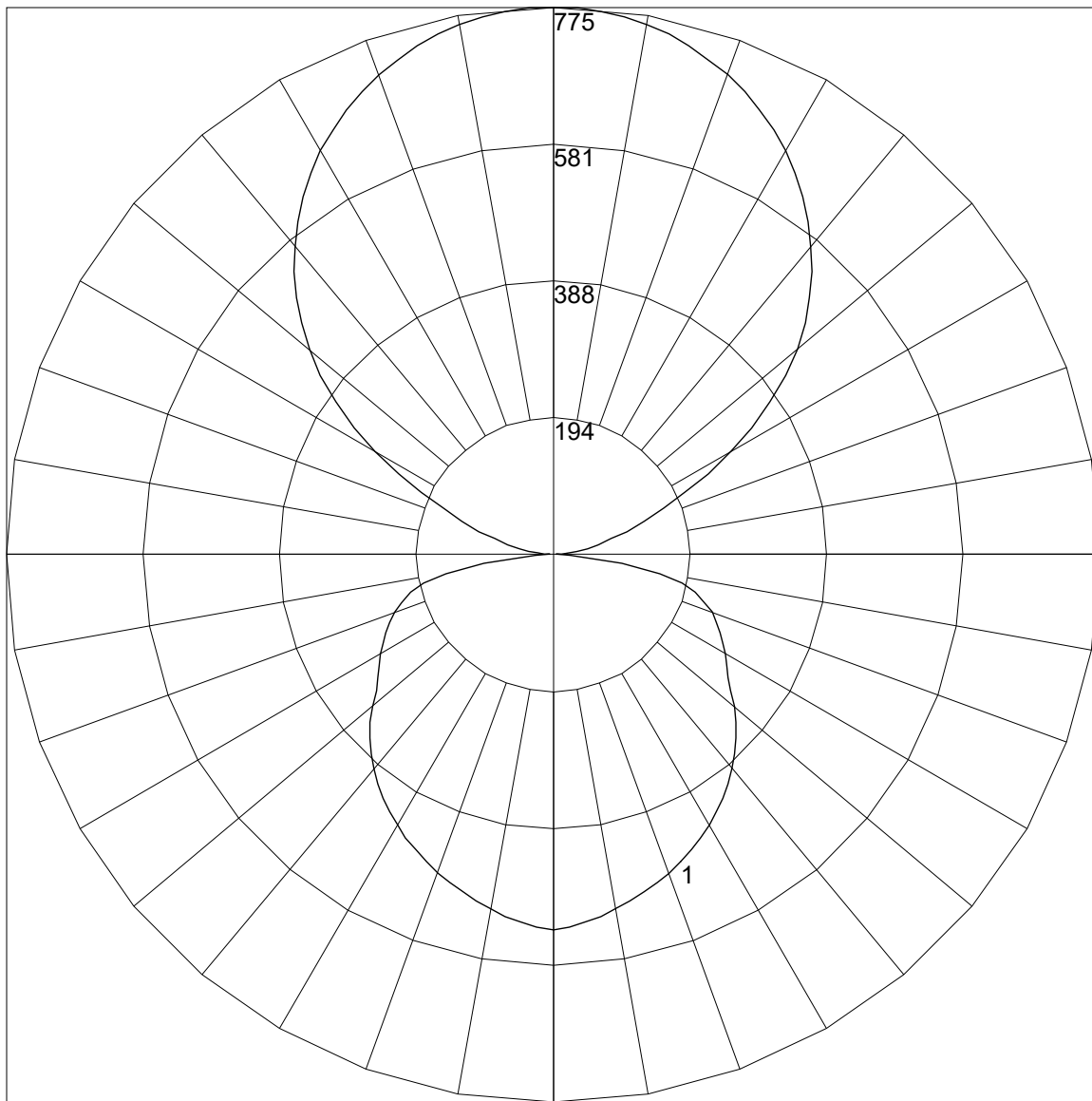
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	106	106	106	106	97	97	97	97	81	81	81	65	65	65	51	51	51	45
1	96	91	87	83	87	83	80	77	69	67	64	56	54	53	44	43	42	36
2	87	79	72	67	79	72	67	62	60	56	52	48	45	43	38	36	34	29
3	79	69	61	55	72	63	56	51	52	47	43	42	39	36	33	31	28	24
4	72	61	52	46	65	56	48	43	46	41	36	37	33	30	29	26	24	20
5	66	54	45	39	60	49	42	36	41	35	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	33	27	33	28	23	27	23	20	22	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	17	20	17	14	12
9	48	36	28	23	44	33	26	21	28	22	18	23	19	16	18	15	13	10
10	45	33	25	20	41	30	24	19	25	20	17	21	17	14	17	14	11	9

POLAR GRAPH



Maximum Candela = 775.28 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)