

# 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-ID-RO-4FT-V-S-835-WSOTG-ITL90232.005.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90232.005 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[ISSUEDATE]03/01/18

[TESTDATE]03/26/18

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HO4-ID-RO-4ft-V-S-835-WSOTG

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 49.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 52.0 WATTS

[\_ABSOLUTE]LUMENS]6118

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90232. 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	6118
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	49.7
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 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	5035	3242	2869
55	4974	2859	2462
65	4855	2470	2310
75	4516	2308	2111
85	3506	1172	467

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	479.573	479.573	479.573	479.573	479.573
2.5	479.573	479.157	478.741	478.325	477.908
5.0	478.325	477.076	475.005	473.340	472.924
7.5	475.837	473.756	470.010	467.523	467.106
10.0	473.340	469.188	464.609	462.122	460.040
12.5	470.010	462.954	458.792	455.472	452.974
15.0	465.858	456.721	451.726	448.822	446.325
17.5	461.289	449.655	444.660	441.756	439.259
20.0	454.639	441.340	436.355	433.025	430.954
22.5	447.573	433.025	428.040	424.721	422.639
25.0	439.675	423.888	418.903	416.406	414.325
27.5	430.538	413.908	408.924	406.842	405.604
30.0	421.391	403.939	399.370	397.705	396.457
32.5	410.589	392.721	388.974	387.736	386.903
35.0	398.954	381.086	378.172	377.340	376.091
37.5	387.736	369.025	366.954	366.122	364.873
40.0	374.436	355.320	354.903	354.071	352.406
42.5	361.137	342.436	342.853	341.604	339.939
45.0	346.172	327.472	329.969	328.304	326.223
47.5	331.208	313.340	316.254	313.756	311.685
50.0	315.837	298.802	301.705	298.802	295.472
52.5	299.624	283.837	287.157	282.589	279.269
55.0	282.589	268.457	271.787	266.802	268.040
57.5	265.137	252.670	255.990	255.167	258.487
60.0	246.853	236.467	239.370	245.604	249.756
62.5	228.152	219.837	223.167	236.467	241.035
65.0	209.452	203.218	211.117	227.320	232.721
67.5	189.919	186.173	200.304	218.589	223.584
70.0	169.553	168.721	189.919	209.035	214.020
72.5	149.188	150.853	179.939	198.640	202.802
75.0	127.167	135.066	169.137	186.173	189.086
77.5	107.218	123.005	157.086	169.553	170.386
80.0	85.604	111.371	141.299	145.452	142.538
82.5	64.416	99.320	116.365	104.721	96.416
85.0	43.218	82.700	68.985	45.716	35.320
87.5	22.437	41.553	30.751	25.766	21.614
90.0	4.985	27.431	24.518	20.365	16.203
92.5	27.411	83.249	71.066	59.898	48.731
95.0	45.685	131.980	154.315	83.249	63.959
97.5	72.081	187.817	321.827	165.482	122.843
100.0	102.538	232.487	570.558	309.645	211.167
102.5	135.025	273.096	753.299	578.680	379.695
105.0	167.513	308.629	816.243	1012.182	709.644
107.5	201.015	340.101	822.335	1389.847	1196.954
110.0	233.502	370.558	818.274	1575.634	1537.055
112.5	267.005	400.000	821.319	1642.639	1724.872
115.0	302.538	430.457	827.411	1635.532	1796.954
117.5	342.132	461.929	837.563	1598.984	1804.060
120.0	374.619	491.370	848.731	1551.268	1778.680
122.5	402.030	515.736	856.852	1503.553	1732.994
125.0	427.411	538.071	861.929	1452.791	1678.172
127.5	451.776	556.345	862.944	1398.984	1616.243
130.0	474.111	573.604	864.974	1344.162	1548.223
132.5	492.386	588.832	864.974	1293.401	1479.187

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-V-S-835-WSOTG-ITL90232.005.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	510.660	603.045	864.974	1245.685	1411.167
<b>137.5</b>	528.934	616.243	859.898	1198.984	1346.192
<b>140.0</b>	547.208	628.426	852.792	1151.269	1282.233
<b>142.5</b>	567.512	641.624	846.700	1104.568	1220.304
<b>145.0</b>	585.787	653.807	837.563	1058.883	1157.360
<b>147.5</b>	602.030	661.929	826.396	1016.243	1100.507
<b>150.0</b>	620.304	673.096	816.243	976.649	1045.685
<b>152.5</b>	636.548	681.218	807.106	939.086	994.923
<b>155.0</b>	652.792	687.309	795.939	903.553	948.223
<b>157.5</b>	667.005	696.446	782.741	869.035	906.599
<b>160.0</b>	679.188	702.538	772.589	838.578	868.020
<b>162.5</b>	692.386	707.614	764.467	813.198	835.533
<b>165.0</b>	702.538	713.705	756.345	789.847	807.106
<b>167.5</b>	711.675	718.781	747.208	771.573	783.756
<b>170.0</b>	718.781	723.858	740.101	756.345	764.467
<b>172.5</b>	723.858	727.918	737.056	745.177	750.254
<b>175.0</b>	727.918	729.949	734.010	738.071	739.086
<b>177.5</b>	729.949	730.964	731.979	732.995	732.995
<b>180.0</b>	730.964	730.964	730.964	730.964	730.964

**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	173.05	N.A.	2.80
0-30	367.45	N.A.	6.00
0-40	605.98	N.A.	9.90
0-60	1103.74	N.A.	18.00
0-80	1487.88	N.A.	24.30
0-90	1559.67	N.A.	25.50
10-90	1514.62	N.A.	24.80
20-40	432.93	N.A.	7.10
20-50	687.93	N.A.	11.20
40-70	711.67	N.A.	11.60
60-80	384.14	N.A.	6.30
70-80	170.24	N.A.	2.80
80-90	71.79	N.A.	1.20
90-110	813.15	N.A.	13.30
90-120	1779.5	N.A.	29.10
90-130	2653.63	N.A.	43.40
90-150	3903.53	N.A.	63.80
90-180	4557.98	N.A.	74.50
110-180	3744.83	N.A.	61.20
0-180	6117.65	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	45.06
10-20	128.00
20-30	194.39
30-40	238.54
40-50	255.00
50-60	242.76
60-70	213.90
70-80	170.24
80-90	71.79
90-100	144.55
100-110	668.60
110-120	966.34
120-130	874.13
130-140	711.72
140-150	538.18
150-160	369.82
160-170	214.36
170-180	70.26

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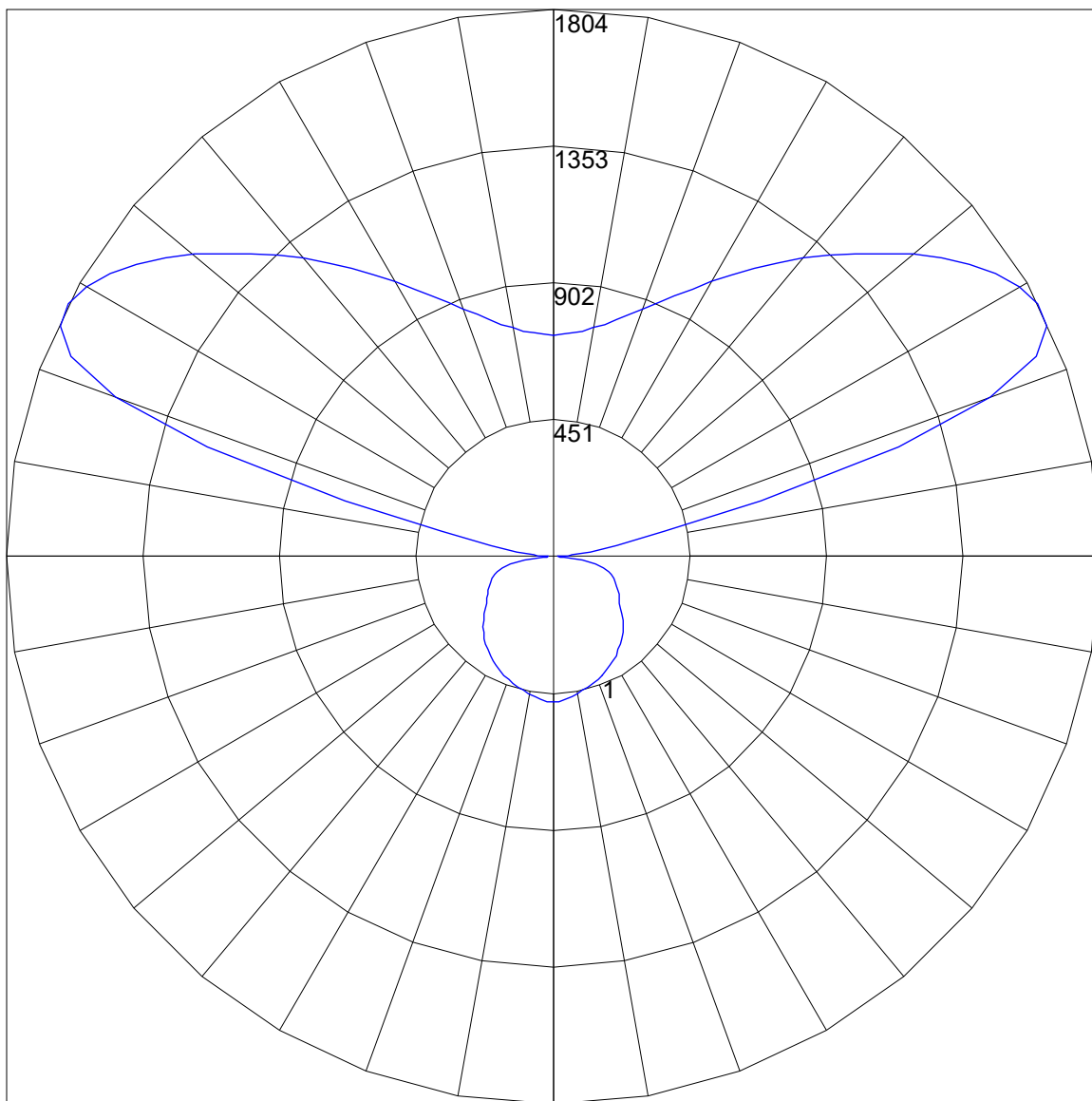
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	25
1	92	87	83	80	82	78	75	72	60	58	56	44	42	41	29	28	27	20
2	83	76	70	65	74	68	62	58	52	49	46	38	36	34	25	24	22	16
3	76	66	59	53	67	59	53	48	46	41	38	33	30	28	22	20	19	14
4	69	58	51	45	61	52	45	40	40	36	32	29	26	24	19	17	16	11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	14	10
6	58	46	38	33	51	41	35	30	32	27	24	24	20	18	16	13	12	9
7	53	41	34	28	47	37	30	26	29	24	21	21	18	15	14	12	10	7
8	49	37	30	25	44	34	27	22	26	21	18	19	16	14	13	11	9	7
9	46	34	27	22	41	31	24	20	24	19	16	18	14	12	12	10	8	6
10	43	31	24	19	38	28	22	18	22	17	14	16	13	11	11	9	7	5

POLAR GRAPH



Maximum Candela = 1804.06 Located At Horizontal Angle = 90, Vertical Angle = 117.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)