

# 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-S-V-835-WSOTG-ITL90232.016.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90232.0016 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-S-V-835-WSOTG

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 49.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 52.0 WATTS

[\_ABSOLUTE]LUMENS]5682

[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	5682
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	49.7
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.40
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	12301	7920	7009
55	12152	6984	6014
65	11861	6034	5643
75	11032	5639	5158
85	8566	2864	1141

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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	1171.573	1171.573	1171.573	1171.573	1171.573
2.5	1171.573	1170.558	1169.543	1168.527	1167.512
5.0	1168.527	1165.482	1160.406	1156.345	1155.330
7.5	1162.436	1157.360	1148.223	1142.132	1141.116
10.0	1156.345	1146.192	1135.025	1128.934	1123.857
12.5	1148.223	1130.964	1120.812	1112.690	1106.599
15.0	1138.071	1115.736	1103.553	1096.446	1090.355
17.5	1126.903	1098.477	1086.294	1079.187	1073.096
20.0	1110.659	1078.172	1065.989	1057.868	1052.791
22.5	1093.401	1057.868	1045.685	1037.563	1032.487
25.0	1074.111	1035.533	1023.350	1017.258	1012.182
27.5	1051.776	1011.167	998.984	993.908	990.863
30.0	1029.441	986.802	975.634	971.573	968.528
32.5	1003.045	959.390	950.253	947.208	945.177
35.0	974.619	930.964	923.858	921.827	918.781
37.5	947.208	901.522	896.446	894.416	891.370
40.0	914.720	868.020	867.005	864.974	860.913
42.5	882.233	836.548	837.563	834.517	830.457
45.0	845.685	800.000	806.091	802.030	796.954
47.5	809.137	765.482	772.589	766.497	761.421
50.0	771.573	729.949	737.056	729.949	721.827
52.5	731.979	693.401	701.523	690.355	682.233
55.0	690.355	655.837	663.959	651.776	654.822
57.5	647.715	617.259	625.380	623.350	631.472
60.0	603.045	577.665	584.771	600.000	610.152
62.5	557.360	537.056	545.177	577.665	588.832
65.0	511.675	496.447	515.736	555.330	568.528
67.5	463.959	454.822	489.340	534.010	546.193
70.0	414.213	412.183	463.959	510.660	522.842
72.5	364.467	368.528	439.594	485.279	495.431
75.0	310.660	329.949	413.198	454.822	461.929
77.5	261.929	300.507	383.756	414.213	416.243
80.0	209.137	272.081	345.178	355.330	348.223
82.5	157.360	242.639	284.264	255.837	235.533
85.0	105.584	202.030	168.528	111.675	86.294
87.5	54.822	101.523	75.127	62.944	52.792
90.0	12.183	67.005	59.898	49.746	39.594
92.5	11.218	34.081	29.086	24.518	19.949
95.0	18.701	54.020	63.167	34.081	26.183
97.5	29.503	76.883	131.736	67.736	50.284
100.0	41.970	95.167	233.553	126.751	86.437
102.5	55.269	111.787	308.355	236.873	155.421
105.0	68.569	126.335	334.122	414.325	290.487
107.5	82.284	139.218	336.619	568.924	489.959
110.0	95.584	151.685	334.954	644.974	629.177
112.5	109.299	163.736	336.203	672.396	706.061
115.0	123.838	176.203	338.690	669.492	735.563
117.5	140.051	189.086	342.853	654.528	738.477
120.0	153.350	201.137	347.421	634.995	728.091
122.5	164.568	211.117	350.741	615.462	709.391
125.0	174.954	220.254	352.822	594.690	686.944
127.5	184.934	227.736	353.238	572.660	661.594
130.0	194.071	234.802	354.071	550.223	633.756
132.5	201.553	241.035	354.071	529.441	605.492

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-S-V-835-WSOTG-ITL90232.016.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	209.035	246.853	354.071	509.908	577.644
<b>137.5</b>	216.518	252.254	351.990	490.792	551.056
<b>140.0</b>	223.990	257.238	349.086	471.259	524.873
<b>142.5</b>	232.304	262.640	346.589	452.142	499.523
<b>145.0</b>	239.787	267.634	342.853	433.441	473.756
<b>147.5</b>	246.436	270.954	338.274	415.990	450.487
<b>150.0</b>	253.919	275.523	334.122	399.787	428.040
<b>152.5</b>	260.568	278.853	330.386	384.406	407.259
<b>155.0</b>	267.218	281.340	325.807	369.858	388.142
<b>157.5</b>	273.035	285.086	320.406	355.736	371.106
<b>160.0</b>	278.020	287.574	316.254	343.269	355.320
<b>162.5</b>	283.421	289.655	312.924	332.873	342.020
<b>165.0</b>	287.574	292.152	309.604	323.320	330.386
<b>167.5</b>	291.320	294.223	305.858	315.837	320.822
<b>170.0</b>	294.223	296.304	302.954	309.604	312.924
<b>172.5</b>	296.304	297.969	301.705	305.035	307.106
<b>175.0</b>	297.969	298.802	300.457	302.122	302.538
<b>177.5</b>	298.802	299.218	299.624	300.041	300.041
<b>180.0</b>	299.218	299.218	299.218	299.218	299.218

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-S-V-835-WSOTG-ITL90232.016.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	422.76	N.A.	7.40
0-30	897.65	N.A.	15.80
0-40	1480.38	N.A.	26.10
0-60	2696.39	N.A.	47.50
0-80	3634.83	N.A.	64.00
0-90	3810.21	N.A.	67.10
10-90	3700.14	N.A.	65.10
20-40	1057.62	N.A.	18.60
20-50	1680.57	N.A.	29.60
40-70	1738.56	N.A.	30.60
60-80	938.44	N.A.	16.50
70-80	415.88	N.A.	7.30
80-90	175.38	N.A.	3.10
90-110	338.63	N.A.	6.00
90-120	734.20	N.A.	12.90
90-130	1092.01	N.A.	19.20
90-150	1603.65	N.A.	28.20
90-180	1871.54	N.A.	32.90
110-180	1532.91	N.A.	27.00
0-180	5681.75	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	110.07
10-20	312.69
20-30	474.89
30-40	582.73
40-50	622.95
50-60	593.05
60-70	522.56
70-80	415.88
80-90	175.38
90-100	64.95
100-110	273.68
110-120	395.56
120-130	357.82
130-140	291.34
140-150	220.30
150-160	151.38
160-170	87.75
170-180	28.76

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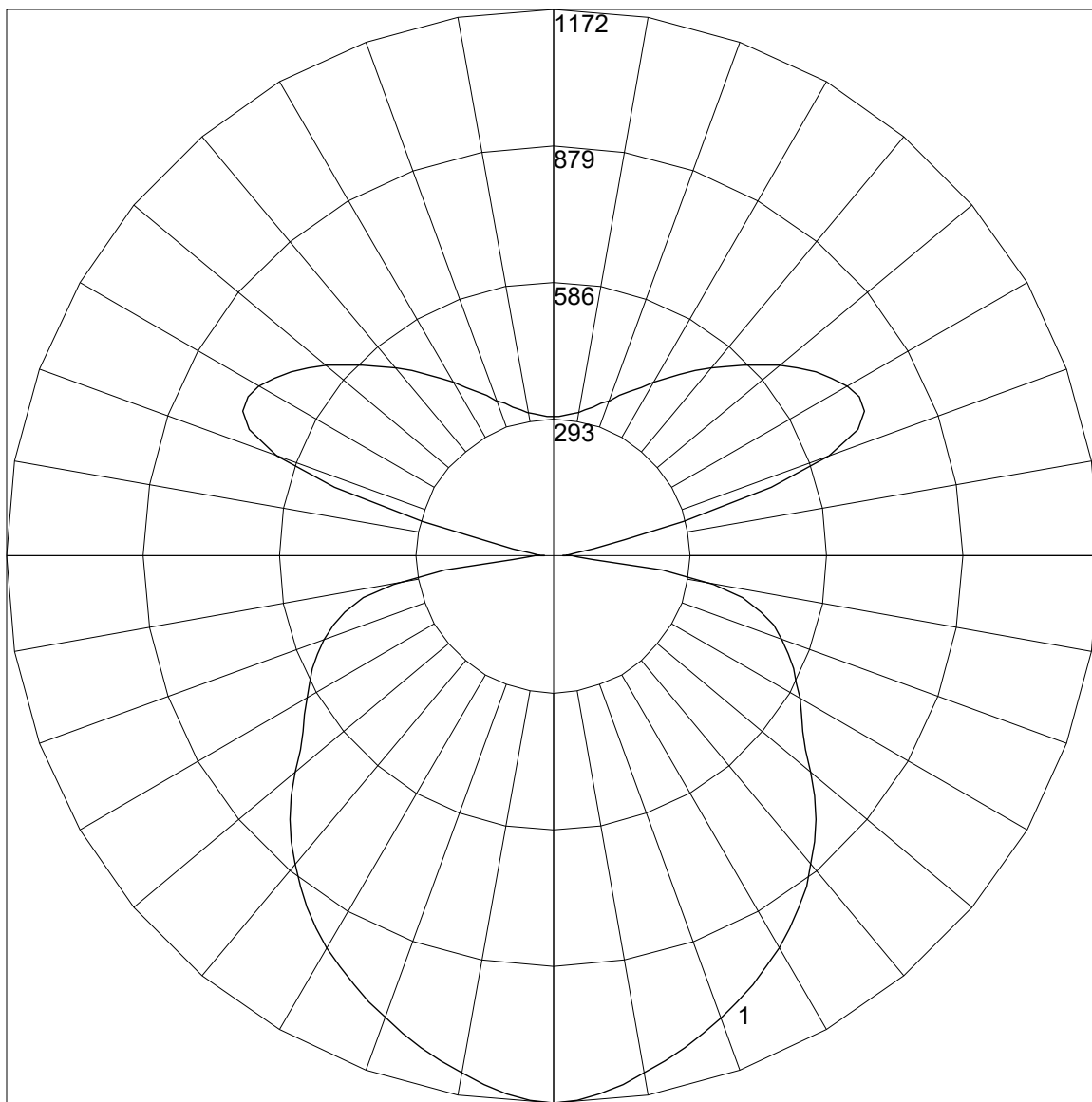
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67
1	100	95	90	86	94	90	86	82	79	76	73	70	67	65	61	59	58	53
2	90	82	75	69	85	77	71	66	68	63	59	60	56	53	53	50	47	43
3	82	71	63	57	77	67	60	54	60	54	49	53	48	44	46	42	39	36
4	75	63	54	47	70	59	51	45	53	46	41	47	41	37	41	37	33	30
5	69	56	47	40	64	53	45	39	47	40	35	42	36	32	37	32	29	26
6	63	50	41	35	59	47	39	33	42	36	31	37	32	28	33	29	25	22
7	58	45	37	31	55	43	35	29	38	32	27	34	29	24	30	26	22	20
8	54	41	33	27	51	39	31	26	35	28	24	31	26	22	28	23	20	17
9	50	37	29	24	47	36	28	23	32	26	21	29	23	20	25	21	18	16
10	47	34	27	22	44	33	26	21	29	23	19	26	21	18	24	19	16	14

POLAR GRAPH



Maximum Candela = 1171.573 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)