

# 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-ASY-ITL89988-ITL90233.215.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988-ITL90233.215 Family Correlation file

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]11/16/17

[ISSUEDATE]03/26/18

[MANUFAC]FINELITE, INC.

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

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 50.0 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 52.3 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89988 AND ITL90233. 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)

[\_ABSOLUTE LUMENS]5877

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5877
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	50
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
Luminous Length (0-180)	0.32 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	10608	10008	9937
55	10640	10190	10103
65	10677	10736	11918
75	10680	14250	16309
85	10794	18627	7164

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	1246.000	1246.000	1246.000	1246.000	1246.000	1246.000	1246.000	1246.000	1246.000
2.5	1245.000	1244.000	1240.000	1237.000	1237.000	1237.000	1240.000	1244.000	1245.000
5.0	1243.000	1237.000	1230.000	1226.000	1223.000	1225.000	1230.000	1237.000	1243.000
7.5	1238.000	1228.000	1218.000	1211.000	1210.000	1210.000	1218.000	1228.000	1238.000
10.0	1231.000	1216.000	1203.000	1196.000	1193.000	1195.000	1203.000	1215.000	1231.000
12.5	1222.000	1200.000	1187.000	1179.000	1174.000	1178.000	1187.000	1199.000	1222.000
15.0	1211.000	1184.000	1170.000	1161.000	1156.000	1160.000	1170.000	1182.000	1211.000
17.5	1198.000	1165.000	1150.000	1141.000	1136.000	1141.000	1150.000	1163.000	1198.000
20.0	1183.000	1146.000	1130.000	1121.000	1116.000	1120.000	1130.000	1143.000	1183.000
22.5	1164.000	1124.000	1108.000	1100.000	1095.000	1099.000	1108.000	1121.000	1164.000
25.0	1143.000	1099.000	1084.000	1077.000	1073.000	1076.000	1084.000	1096.000	1143.000
27.5	1120.000	1074.000	1060.000	1053.000	1049.000	1052.000	1060.000	1071.000	1120.000
30.0	1095.000	1048.000	1033.000	1028.000	1025.000	1027.000	1033.000	1044.000	1095.000
32.5	1067.000	1019.000	1006.000	1001.000	998.000	1000.000	1006.000	1015.000	1067.000
35.0	1038.000	989.000	977.000	973.000	971.000	973.000	977.000	985.000	1038.000
37.5	1009.000	958.000	948.000	945.000	943.000	945.000	948.000	954.000	1009.000
40.0	974.000	925.000	916.000	914.000	913.000	914.000	916.000	921.000	974.000
42.5	938.000	890.000	883.000	882.000	878.000	882.000	883.000	886.000	938.000
45.0	901.000	854.000	850.000	848.000	844.000	848.000	850.000	850.000	901.000
47.5	861.000	816.000	815.000	811.000	806.000	810.000	815.000	812.000	861.000
50.0	819.000	779.000	779.000	773.000	766.000	773.000	779.000	774.000	819.000
52.5	777.000	739.000	742.000	733.000	725.000	733.000	742.000	735.000	777.000
55.0	733.000	699.000	702.000	691.000	696.000	690.000	702.000	695.000	733.000
57.5	686.000	658.000	660.000	663.000	671.000	662.000	660.000	654.000	686.000
60.0	639.000	615.000	617.000	637.000	649.000	637.000	617.000	612.000	639.000
62.5	593.000	573.000	575.000	612.000	627.000	614.000	575.000	570.000	593.000
65.0	542.000	529.000	545.000	589.000	605.000	591.000	545.000	526.000	542.000
67.5	492.000	486.000	517.000	566.000	585.000	569.000	517.000	482.000	492.000
70.0	440.000	443.000	492.000	545.000	563.000	548.000	492.000	438.000	440.000
72.5	386.000	397.000	468.000	522.000	538.000	525.000	468.000	391.000	386.000
75.0	332.000	356.000	443.000	494.000	507.000	498.000	443.000	350.000	332.000
77.5	277.000	324.000	415.000	458.000	464.000	461.000	415.000	319.000	277.000
80.0	222.000	293.000	379.000	401.000	396.000	404.000	379.000	291.000	222.000
82.5	167.000	260.000	321.000	303.000	274.000	304.000	321.000	263.000	167.000
85.0	113.000	214.000	195.000	116.000	75.000	112.000	195.000	225.000	113.000
87.5	63.000	110.000	78.000	62.000	48.000	61.000	78.000	117.000	63.000
90.0	32.000	70.000	65.000	52.000	40.000	51.000	65.000	74.000	32.000
92.5	27.429	27.838	23.745	24.973	9.007	23.745	37.255	44.623	47.489
95.0	58.133	59.361	59.771	60.999	23.335	37.664	57.724	68.368	71.643
97.5	91.703	97.844	111.354	92.522	38.073	49.946	76.147	91.703	96.207
100.0	142.058	150.246	162.937	122.817	53.221	63.455	91.294	110.535	117.085
102.5	192.004	201.420	212.883	152.702	69.187	76.965	107.670	124.864	131.414
105.0	238.265	256.688	264.875	182.179	84.744	89.656	120.361	140.830	145.333
107.5	293.533	325.056	319.324	209.198	101.119	101.119	132.642	154.749	158.843
110.0	369.679	400.793	371.317	232.124	117.495	112.582	145.333	169.078	173.172
112.5	462.201	475.711	422.490	252.184	134.280	123.636	158.024	182.997	187.910
115.0	546.536	548.992	464.248	270.607	151.065	135.099	169.488	196.507	201.829
117.5	625.548	613.266	493.724	286.573	167.850	146.971	180.132	210.017	215.749
120.0	689.003	661.165	511.738	301.720	186.272	159.662	189.548	221.889	229.258
122.5	734.855	692.688	521.972	317.277	205.104	171.944	198.554	233.762	242.359
125.0	761.875	707.426	527.294	332.015	223.118	183.816	206.333	242.768	253.822
127.5	771.291	709.473	530.569	346.344	241.540	196.098	213.702	250.137	264.057
130.0	767.197	703.332	533.026	361.491	259.553	207.970	220.661	254.641	270.197
132.5	754.506	693.097	535.891	377.048	277.976	219.842	228.030	257.916	272.244

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-S-V-835-ASY-ITL89988-ITL90233.215.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	738.130	681.225	539.576	392.605	296.398	233.762	234.990	260.372	273.063
<b>137.5</b>	721.345	669.762	544.079	408.981	315.230	248.909	242.359	262.828	273.063
<b>140.0</b>	704.560	659.118	548.992	425.356	334.472	265.285	249.319	264.875	273.063
<b>142.5</b>	689.822	651.340	554.314	441.732	353.304	282.479	256.278	266.922	273.063
<b>145.0</b>	678.359	644.789	559.636	457.698	372.135	299.264	263.647	269.788	273.473
<b>147.5</b>	668.534	639.877	566.186	473.255	390.967	316.459	272.654	273.882	275.519
<b>150.0</b>	660.755	636.192	573.146	487.993	409.799	334.881	284.117	278.385	278.795
<b>152.5</b>	653.796	632.917	580.106	501.503	426.994	354.532	300.492	284.117	282.479
<b>155.0</b>	647.246	630.870	586.246	513.375	443.779	375.411	320.552	292.714	289.029
<b>157.5</b>	643.561	630.051	590.750	524.019	459.745	396.699	342.250	307.452	299.673
<b>160.0</b>	640.695	629.232	593.615	533.026	474.483	417.168	364.357	330.378	319.324
<b>162.5</b>	635.373	626.367	594.025	539.985	487.993	437.228	387.283	356.169	345.525
<b>165.0</b>	629.232	620.226	591.978	545.308	499.456	455.651	413.075	381.961	372.545
<b>167.5</b>	618.998	611.629	586.656	548.173	509.281	472.436	437.638	409.799	400.383
<b>170.0</b>	605.897	600.166	579.696	549.401	517.878	487.993	460.973	440.913	433.544
<b>172.5</b>	589.522	585.837	569.871	548.173	524.019	501.503	482.261	468.342	463.430
<b>175.0</b>	573.555	569.871	559.227	545.308	529.341	513.784	501.503	492.906	489.630
<b>177.5</b>	553.086	551.448	546.126	539.576	531.798	524.019	517.878	513.375	511.738
<b>180.0</b>	533.026	533.026	533.026	533.026	533.026	533.026	533.026	533.026	533.026

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-S-V-835-ASY-ITL89988-ITL90233.215.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	448.25	N.A.	7.60
0-30	951.79	N.A.	16.20
0-40	1568.91	N.A.	26.70
0-60	2857.78	N.A.	48.60
0-80	3862.24	N.A.	65.70
0-90	4055.52	N.A.	69.00
10-90	3938.75	N.A.	67.00
20-40	1120.66	N.A.	19.10
20-50	1780.57	N.A.	30.30
40-70	1843.82	N.A.	31.40
60-80	1004.45	N.A.	17.10
70-80	449.51	N.A.	7.60
80-90	193.29	N.A.	3.30
90-110	244.12	N.A.	4.20
90-120	527.54	N.A.	9.00
90-130	853.53	N.A.	14.50
90-150	1420.4	N.A.	24.20
90-180	1821.71	N.A.	31.00
110-180	1577.59	N.A.	26.80
0-180	5877.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	116.77
10-20	331.48
20-30	503.54
30-40	617.11
40-50	659.92
50-60	628.96
60-70	554.94
70-80	449.51
80-90	193.29
90-100	67.36
100-110	176.75
110-120	283.43
120-130	325.99
130-140	304.34
140-150	262.52
150-160	209.88
160-170	141.16
170-180	50.27

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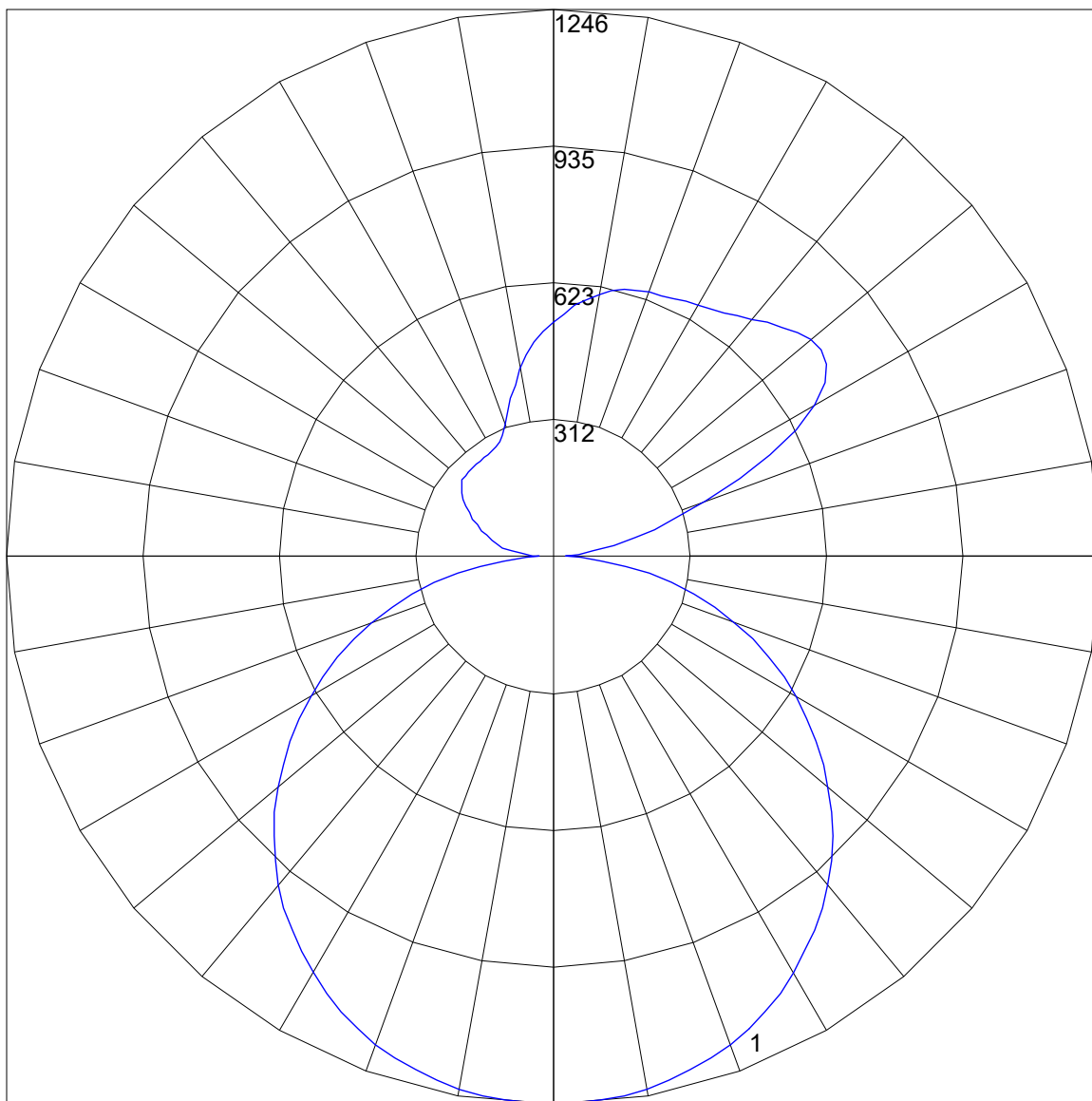
PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-S-V-835-ASY-ITL89988-ITL90233.215.IES

## 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	112	112	112	112	105	105	105	105	94	94	94	83	83	83	74	74	74	69
1	100	95	91	87	95	90	86	82	80	77	74	71	69	66	63	61	59	55
2	91	82	75	69	85	78	71	66	69	64	60	61	57	54	54	51	48	44
3	82	72	63	57	77	68	60	54	60	54	49	53	49	45	47	43	40	37
4	75	63	54	47	70	60	52	45	53	47	42	47	42	38	42	37	34	31
5	69	56	47	40	64	53	45	39	47	41	36	42	37	32	37	33	29	26
6	63	50	41	35	59	48	39	34	43	36	31	38	32	28	34	29	26	23
7	58	45	37	31	55	43	35	29	39	32	27	35	29	25	31	26	23	20
8	54	41	33	27	51	39	31	26	35	29	24	32	26	22	28	24	20	18
9	51	37	29	24	48	36	28	23	32	26	21	29	24	20	26	21	18	16
10	47	34	27	22	45	33	26	21	30	24	19	27	22	18	24	20	16	14

POLAR GRAPH



Maximum Candela = 1246 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)