

# 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-B-H-835-ASY-ITL89988-ITL90233.211.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988-ITL90233.0211 Family Correlation file

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]11/16/17

[ISSUEDATE]03/26/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HO4-ID-RO-4ft-B-H-835-ASY

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 45.4 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 47.5 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]5440

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5441
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	45.4
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
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	8252	7784	7730
55	8276	7926	7858
65	8305	8351	9271
75	8307	11084	12686
85	8396	14489	5573

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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	969.176	969.176	969.176	969.176	969.176	969.176	969.176	969.176	969.176
2.5	968.398	967.620	964.509	962.176	962.176	962.176	964.509	967.620	968.398
5.0	966.843	962.176	956.731	953.620	951.286	952.842	956.731	962.176	966.843
7.5	962.954	955.175	947.397	941.952	941.174	941.174	947.397	955.175	962.954
10.0	957.509	945.841	935.730	930.285	927.951	929.507	935.730	945.063	957.509
12.5	950.508	933.396	923.284	917.062	913.172	916.284	923.284	932.618	950.508
15.0	941.952	920.951	910.061	903.061	899.172	902.283	910.061	919.395	941.952
17.5	931.840	906.172	894.505	887.504	883.615	887.504	894.505	904.616	931.840
20.0	920.173	891.393	878.948	871.947	868.058	871.170	878.948	889.060	920.173
22.5	905.394	874.281	861.836	855.613	851.724	854.835	861.836	871.947	905.394
25.0	889.060	854.835	843.168	837.723	834.612	836.945	843.168	852.502	889.060
27.5	871.170	835.389	824.500	819.055	815.944	818.277	824.500	833.056	871.170
30.0	851.724	815.166	803.498	799.609	797.276	798.831	803.498	812.054	851.724
32.5	829.945	792.609	782.497	778.608	776.274	777.830	782.497	789.497	829.945
35.0	807.388	769.274	759.940	756.829	755.273	756.829	759.940	766.163	807.388
37.5	784.830	745.161	737.383	735.049	733.494	735.049	737.383	742.050	784.830
40.0	757.606	719.493	712.492	710.937	710.159	710.937	712.492	716.381	757.606
42.5	729.605	692.269	686.824	686.046	682.935	686.046	686.824	689.157	729.605
45.0	700.825	664.267	661.155	659.600	656.489	659.600	661.155	661.155	700.825
47.5	669.712	634.709	633.932	630.820	626.931	630.042	633.932	631.598	669.712
50.0	637.043	605.930	605.930	601.263	595.818	601.263	605.930	602.040	637.043
52.5	604.374	574.816	577.150	570.149	563.927	570.149	577.150	571.705	604.374
55.0	570.149	543.703	546.037	537.481	541.370	536.703	546.037	540.592	570.149
57.5	533.591	511.812	513.368	515.701	521.924	514.923	513.368	508.701	533.591
60.0	497.033	478.365	479.921	495.478	504.812	495.478	479.921	476.032	497.033
62.5	461.253	445.697	447.252	476.032	487.699	477.588	447.252	443.363	461.253
65.0	421.584	411.472	423.917	458.142	470.587	459.697	423.917	409.139	421.584
67.5	382.692	378.025	402.138	440.252	455.031	442.585	402.138	374.914	382.692
70.0	342.245	344.579	382.692	423.917	437.918	426.251	382.692	340.690	342.245
72.5	300.242	308.798	364.024	406.027	418.473	408.361	364.024	304.132	300.242
75.0	258.240	276.908	344.579	384.248	394.360	387.359	344.579	272.240	258.240
77.5	215.459	252.017	322.799	356.246	360.913	358.580	322.799	248.128	215.459
80.0	172.678	227.904	294.798	311.910	308.021	314.243	294.798	226.349	172.678
82.5	129.898	202.236	249.683	235.683	213.125	236.460	249.683	204.569	129.898
85.0	87.895	166.456	151.677	90.228	58.337	87.117	151.677	175.012	87.895
87.5	49.003	85.561	60.671	48.225	37.336	47.448	60.671	91.006	49.003
90.0	24.891	54.448	50.559	40.447	31.113	39.669	50.559	57.559	24.891
92.5	34.478	34.992	29.846	31.390	11.321	29.846	46.828	56.090	59.693
95.0	73.072	74.616	75.130	76.674	29.332	47.343	72.558	85.937	90.054
97.5	115.269	122.987	139.969	116.298	47.857	62.780	95.714	115.269	120.929
100.0	178.563	188.855	204.808	154.378	66.897	79.762	114.754	138.940	147.173
102.5	241.344	253.179	267.588	191.943	86.966	96.743	135.338	156.951	165.184
105.0	299.493	322.649	332.941	228.993	106.520	112.696	151.290	177.020	182.680
107.5	368.962	408.586	401.382	262.957	127.104	127.104	166.728	194.516	199.662
110.0	464.677	503.786	466.735	291.774	147.688	141.513	182.680	212.526	217.672
112.5	580.974	597.956	531.059	316.989	168.786	155.407	198.632	230.023	236.198
115.0	686.980	690.068	583.547	340.145	189.884	169.815	213.041	247.004	253.694
117.5	786.297	770.859	620.598	360.214	210.983	184.738	226.421	263.986	271.190
120.0	866.058	831.066	643.240	379.254	234.139	200.691	238.256	278.909	288.171
122.5	923.693	870.690	656.105	398.809	257.811	216.129	249.577	293.832	304.639
125.0	957.656	889.215	662.794	417.334	280.453	231.052	259.354	305.153	319.047
127.5	969.491	891.788	666.911	435.345	303.609	246.490	268.617	314.416	331.912
130.0	964.345	884.069	669.999	454.385	326.251	261.413	277.365	320.076	339.631
132.5	948.393	871.204	673.601	473.939	349.408	276.336	286.628	324.193	342.204

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-B-H-835-ASY-ITL89988-ITL90233.211.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	927.809	856.281	678.232	493.494	372.565	293.832	295.376	327.281	343.233
<b>137.5</b>	906.711	841.872	683.893	514.077	396.236	312.872	304.639	330.368	343.233
<b>140.0</b>	885.613	828.493	690.068	534.661	420.422	333.456	313.387	332.941	343.233
<b>142.5</b>	867.087	818.716	696.758	555.245	444.093	355.068	322.135	335.514	343.233
<b>145.0</b>	852.679	810.482	703.447	575.314	467.764	376.167	331.397	339.116	343.748
<b>147.5</b>	840.329	804.307	711.681	594.868	491.435	397.780	342.718	344.262	346.320
<b>150.0</b>	830.552	799.676	720.429	613.394	515.107	420.936	357.127	349.923	350.437
<b>152.5</b>	821.803	795.559	729.177	630.375	536.720	445.637	377.711	357.127	355.068
<b>155.0</b>	813.570	792.986	736.896	645.298	557.818	471.881	402.925	367.933	363.302
<b>157.5</b>	808.939	791.957	742.556	658.678	577.887	498.640	430.199	386.459	376.681
<b>160.0</b>	805.337	790.928	746.158	669.999	596.412	524.369	457.987	415.276	401.382
<b>162.5</b>	798.647	787.326	746.673	678.747	613.394	549.584	486.804	447.695	434.316
<b>165.0</b>	790.928	779.607	744.100	685.437	627.802	572.741	519.223	480.114	468.279
<b>167.5</b>	778.063	768.801	737.410	689.039	640.153	593.839	550.099	515.107	503.271
<b>170.0</b>	761.596	754.392	728.662	690.582	650.959	613.394	579.431	554.216	544.953
<b>172.5</b>	741.013	736.381	716.312	689.039	658.678	630.375	606.189	588.693	582.518
<b>175.0</b>	720.943	716.312	702.933	685.437	665.367	645.813	630.375	619.569	615.452
<b>177.5</b>	695.214	693.155	686.466	678.232	668.455	658.678	650.959	645.298	643.240
<b>180.0</b>	669.999	669.999	669.999	669.999	669.999	669.999	669.999	669.999	669.999

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-B-H-835-ASY-ITL89988-ITL90233.211.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	348.66	N.A.	6.40
0-30	740.33	N.A.	13.60
0-40	1220.34	N.A.	22.40
0-60	2222.87	N.A.	40.90
0-80	3004.16	N.A.	55.20
0-90	3154.51	N.A.	58.00
10-90	3063.68	N.A.	56.30
20-40	871.68	N.A.	16.00
20-50	1384.98	N.A.	25.50
40-70	1434.17	N.A.	26.40
60-80	781.29	N.A.	14.40
70-80	349.64	N.A.	6.40
80-90	150.34	N.A.	2.80
90-110	303.16	N.A.	5.60
90-120	659.42	N.A.	12.10
90-130	1069.18	N.A.	19.70
90-150	1781.72	N.A.	32.70
90-180	2286.15	N.A.	42.00
110-180	1982.99	N.A.	36.40
0-180	5440.66	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	90.83
10-20	257.83
20-30	391.67
30-40	480.01
40-50	513.30
50-60	489.22
60-70	431.65
70-80	349.64
80-90	150.34
90-100	80.99
100-110	222.17
110-120	356.26
120-130	409.76
130-140	382.55
140-150	329.99
150-160	263.81
160-170	177.43
170-180	63.19

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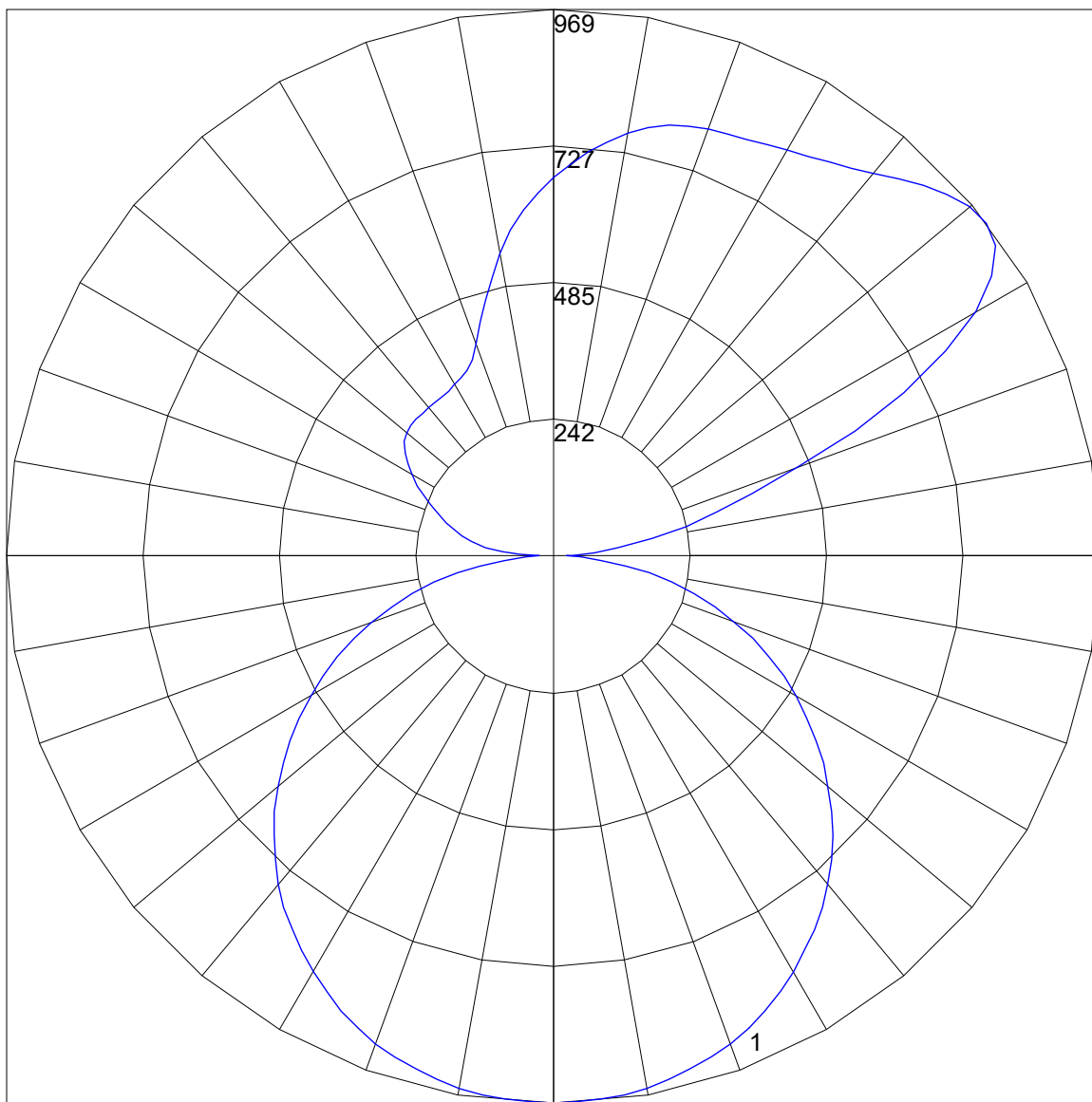
PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-B-H-835-ASY-ITL89988-ITL90233.211.IES

## 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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	98	93	89	85	91	87	83	80	75	72	69	64	62	60	54	52	51	46
2	89	81	74	68	82	75	69	64	65	60	56	55	52	49	47	44	42	37
3	81	70	62	56	75	65	58	53	57	51	46	48	44	40	41	37	35	31
4	73	62	53	47	68	58	50	44	50	44	39	43	38	34	36	32	29	26
5	67	55	46	40	62	51	43	38	44	38	33	38	33	29	32	28	25	22
6	62	49	41	34	57	46	38	33	40	34	29	34	29	26	29	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	27	23	20	17
8	53	40	32	26	49	38	30	25	33	27	22	28	24	20	24	20	17	15
9	49	37	29	23	46	34	27	22	30	24	20	26	21	18	22	18	16	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	21	17	14	12

POLAR GRAPH



Maximum Candela = 969.491 Located At Horizontal Angle = 0, Vertical Angle = 127.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)