

# 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-B-835-ASY-ITL89988-ITL90233.202.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988-ITL90233.202 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-B-835-ASY

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 35.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 38.3 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]4371

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4371
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	35.7
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	5459	5150	5114
55	5475	5243	5199
65	5494	5525	6133
75	5496	7333	8392
85	5555	9585	3687

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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	641.181	641.181	641.181	641.181	641.181	641.181	641.181	641.181	641.181
2.5	640.667	640.152	638.094	636.550	636.550	636.550	638.094	640.152	640.667
5.0	639.637	636.550	632.948	630.889	629.346	630.375	632.948	636.550	639.637
7.5	637.065	631.919	626.773	623.171	622.656	622.656	626.773	631.919	637.065
10.0	633.462	625.743	619.054	615.452	613.908	614.937	619.054	625.229	633.462
12.5	628.831	617.510	610.820	606.704	604.131	606.189	610.820	616.995	628.831
15.0	623.171	609.277	602.072	597.441	594.868	596.926	602.072	608.247	623.171
17.5	616.481	599.499	591.780	587.149	584.576	587.149	591.780	598.470	616.481
20.0	608.762	589.722	581.489	576.857	574.284	576.343	581.489	588.178	608.762
22.5	598.985	578.401	570.168	566.051	563.478	565.536	570.168	576.857	598.985
25.0	588.178	565.536	557.817	554.215	552.157	553.701	557.817	563.992	588.178
27.5	576.343	552.671	545.467	541.865	539.807	541.350	545.467	551.128	576.343
30.0	563.478	539.292	531.573	529.000	527.456	528.486	531.573	537.234	563.478
32.5	549.069	524.369	517.679	515.106	513.563	514.592	517.679	522.311	549.069
35.0	534.146	508.931	502.756	500.698	499.669	500.698	502.756	506.873	534.146
37.5	519.223	492.979	487.833	486.289	485.260	486.289	487.833	490.920	519.223
40.0	501.212	475.997	471.366	470.337	469.822	470.337	471.366	473.939	501.212
42.5	482.687	457.987	454.384	453.870	451.812	453.870	454.384	455.928	482.687
45.0	463.647	439.461	437.403	436.374	434.315	436.374	437.403	437.403	463.647
47.5	443.063	419.907	419.392	417.334	414.761	416.819	419.392	417.848	443.063
50.0	421.451	400.867	400.867	397.779	394.177	397.779	400.867	398.294	421.451
52.5	399.838	380.283	381.827	377.196	373.079	377.196	381.827	378.225	399.838
55.0	377.196	359.700	361.243	355.583	358.156	355.068	361.243	357.641	377.196
57.5	353.010	338.601	339.631	341.174	345.291	340.660	339.631	336.543	353.010
60.0	328.824	316.474	317.503	327.795	333.970	327.795	317.503	314.930	328.824
62.5	305.153	294.861	295.890	314.930	322.649	315.959	295.890	293.317	305.153
65.0	278.909	272.219	280.452	303.095	311.328	304.124	280.452	270.675	278.909
67.5	253.179	250.092	266.044	291.259	301.036	292.803	266.044	248.033	253.179
70.0	226.420	227.964	253.179	280.452	289.715	281.996	253.179	225.391	226.420
72.5	198.632	204.293	240.829	268.617	276.850	270.161	240.829	201.205	198.632
75.0	170.844	183.195	227.964	254.208	260.898	256.267	227.964	180.107	170.844
77.5	142.542	166.728	213.556	235.683	238.771	237.227	213.556	164.155	142.542
80.0	114.239	150.775	195.030	206.351	203.778	207.895	195.030	149.746	114.239
82.5	85.937	133.794	165.184	155.921	140.998	156.436	165.184	135.338	85.937
85.0	58.149	110.123	100.345	59.693	38.594	57.634	100.345	115.783	58.149
87.5	32.419	56.605	40.138	31.905	24.700	31.390	40.138	60.207	32.419
90.0	16.467	36.021	33.448	26.759	20.584	26.244	33.448	38.080	16.467
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	47.342	72.557	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	204.807	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	156.950	165.184
105.0	299.492	322.649	332.941	228.993	106.520	112.696	151.290	177.020	182.680
107.5	368.962	408.586	401.382	262.956	127.104	127.104	166.728	194.516	199.662
110.0	464.676	503.785	466.735	291.773	147.688	141.513	182.680	212.526	217.672
112.5	580.974	597.956	531.059	316.988	168.786	155.407	198.632	230.022	236.198
115.0	686.980	690.067	583.547	340.145	189.884	169.815	213.041	247.004	253.694
117.5	786.296	770.858	620.598	360.214	210.983	184.738	226.420	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	923.692	870.689	656.104	398.809	257.810	216.129	249.577	293.832	304.638
125.0	957.655	889.214	662.794	417.334	280.452	231.052	259.354	305.153	319.047
127.5	969.491	891.787	666.911	435.345	303.609	246.489	268.617	314.416	331.912
130.0	964.345	884.069	669.998	454.384	326.251	261.413	277.365	320.076	339.631
132.5	948.392	871.204	673.601	473.939	349.408	276.336	286.628	324.193	342.203

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-B-B-835-ASY-ITL89988-ITL90233.202.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	927.809	856.281	678.232	493.493	372.564	293.832	295.376	327.280	343.233
<b>137.5</b>	906.711	841.872	683.892	514.077	396.236	312.872	304.638	330.368	343.233
<b>140.0</b>	885.612	828.493	690.067	534.661	420.421	333.455	313.386	332.941	343.233
<b>142.5</b>	867.087	818.715	696.757	555.244	444.093	355.068	322.134	335.514	343.233
<b>145.0</b>	852.678	810.482	703.447	575.314	467.764	376.167	331.397	339.116	343.747
<b>147.5</b>	840.328	804.307	711.680	594.868	491.435	397.779	342.718	344.262	346.320
<b>150.0</b>	830.551	799.675	720.428	613.393	515.106	420.936	357.127	349.922	350.437
<b>152.5</b>	821.803	795.559	729.176	630.375	536.719	445.636	377.710	357.127	355.068
<b>155.0</b>	813.569	792.986	736.895	645.298	557.817	471.881	402.925	367.933	363.302
<b>157.5</b>	808.938	791.957	742.556	658.677	577.886	498.639	430.199	386.458	376.681
<b>160.0</b>	805.336	790.927	746.158	669.998	596.412	524.369	457.987	415.275	401.382
<b>162.5</b>	798.646	787.325	746.673	678.746	613.393	549.584	486.804	447.695	434.315
<b>165.0</b>	790.927	779.606	744.100	685.436	627.802	572.741	519.223	480.114	468.278
<b>167.5</b>	778.063	768.800	737.410	689.038	640.152	593.839	550.099	515.106	503.271
<b>170.0</b>	761.596	754.391	728.662	690.582	650.958	613.393	579.430	554.215	544.953
<b>172.5</b>	741.012	736.381	716.312	689.038	658.677	630.375	606.189	588.693	582.518
<b>175.0</b>	720.943	716.312	702.932	685.436	665.367	645.813	630.375	619.568	615.452
<b>177.5</b>	695.213	693.155	686.465	678.232	668.455	658.677	650.958	645.298	643.240
<b>180.0</b>	669.998	669.998	669.998	669.998	669.998	669.998	669.998	669.998	669.998

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-B-B-835-ASY-ITL89988-ITL90233.202.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	230.67	N.A.	5.30
0-30	489.79	N.A.	11.20
0-40	807.35	N.A.	18.50
0-60	1470.59	N.A.	33.60
0-80	1987.47	N.A.	45.50
0-90	2086.94	N.A.	47.70
10-90	2026.85	N.A.	46.40
20-40	576.68	N.A.	13.20
20-50	916.27	N.A.	21.00
40-70	948.81	N.A.	21.70
60-80	516.88	N.A.	11.80
70-80	231.32	N.A.	5.30
80-90	99.46	N.A.	2.30
90-110	301.14	N.A.	6.90
90-120	657.39	N.A.	15.00
90-130	1067.16	N.A.	24.40
90-150	1779.69	N.A.	40.70
90-180	2284.12	N.A.	52.30
110-180	1982.99	N.A.	45.40
0-180	4371.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	60.09
10-20	170.58
20-30	259.12
30-40	317.56
40-50	339.59
50-60	323.66
60-70	285.57
70-80	231.32
80-90	99.46
90-100	78.97
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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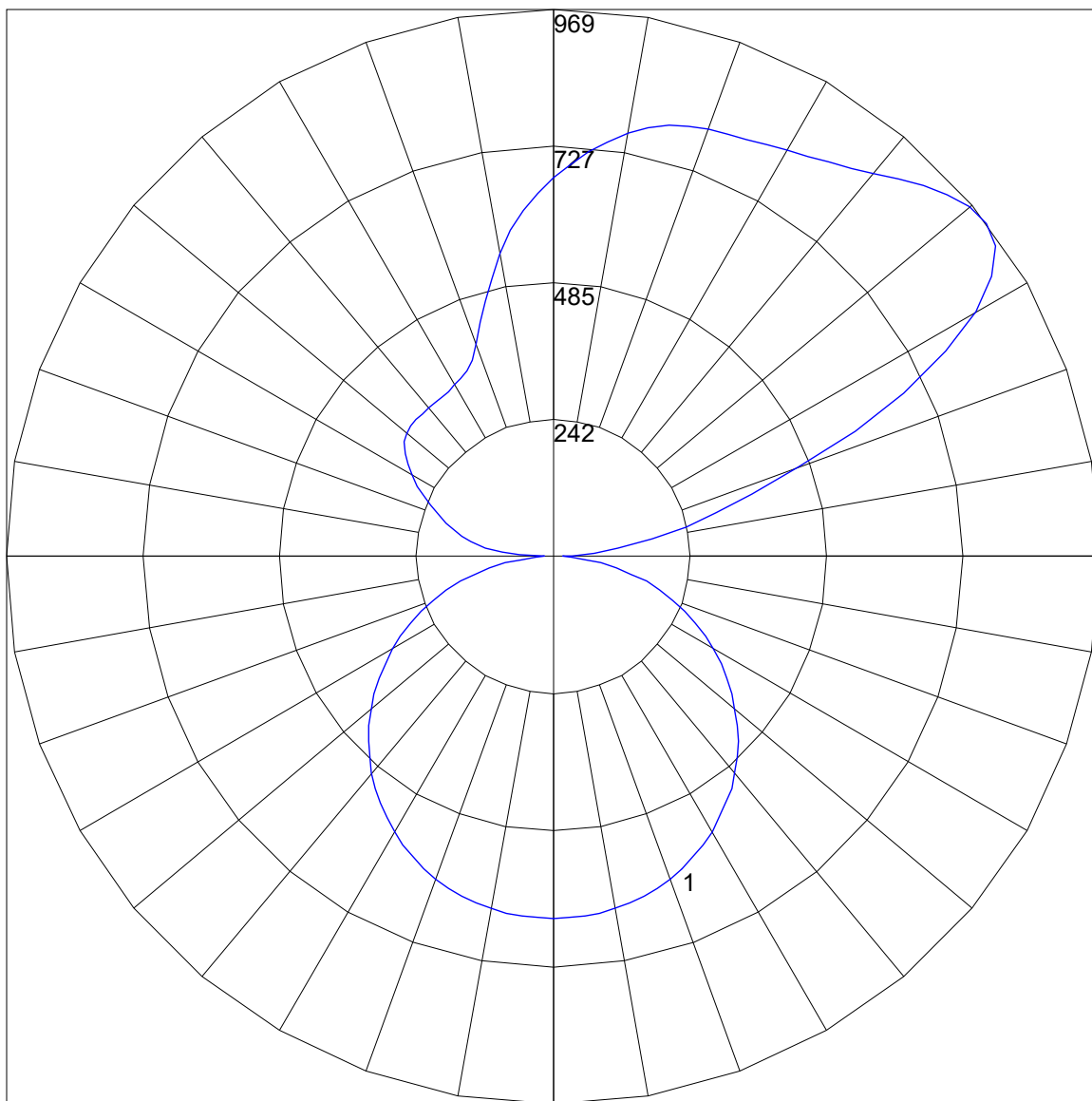
PHOTOMETRIC FILENAME : HO4-ID-RO-4FT-B-B-835-ASY-ITL89988-ITL90233.202.IES

## 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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48
1	96	91	87	83	88	84	80	77	70	68	65	58	56	54	46	45	43	38
2	87	79	72	67	80	73	67	62	61	57	53	50	47	44	40	37	36	31
3	79	69	61	55	72	63	57	51	53	48	44	44	40	37	35	32	30	25
4	72	61	52	46	66	56	49	43	47	41	37	39	34	31	31	28	25	21
5	66	54	45	39	60	50	42	37	42	36	32	34	30	27	28	24	22	18
6	61	48	40	34	55	44	37	32	37	32	27	31	26	23	25	21	19	16
7	56	43	35	29	51	40	33	28	34	28	24	28	24	20	23	19	17	14
8	52	39	31	26	47	36	29	24	31	25	21	26	21	18	21	17	15	12
9	48	36	28	23	44	33	26	22	28	23	19	24	19	16	19	16	13	11
10	45	33	25	21	41	30	24	19	26	21	17	22	17	14	18	14	12	10

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.)