

# 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 : HP-2-ID-4FT-S-S-835-F-DSO-ITL85132-ITL94139.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85132-ITL94139.003 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/11/15

[ISSUEDATE]12/17/2020

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-2-ID-4ft-S-S-835-F-DSO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.4 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 31.0 WATTS

[ABSOLUTE LUMENS]2901

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85132 and ITL94139. 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	2901
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	28.4
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)	4.00 ft
Luminous Width (90-270)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5661	7155	7349
55	5147	6589	6589
65	4618	5854	5692
75	4107	4995	4731
85	3566	3780	3423

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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	477.372	477.372	477.372	477.372	477.372
2.5	476.554	476.554	476.963	477.782	477.782
5.0	474.097	474.507	476.554	478.601	479.420
7.5	469.594	471.231	474.916	479.420	481.876
10.0	463.862	465.909	474.097	482.695	485.561
12.5	456.902	459.358	473.278	485.151	488.426
15.0	447.485	451.580	470.822	485.970	490.064
17.5	437.660	442.982	467.547	485.970	490.883
20.0	425.377	433.156	463.452	483.923	489.245
22.5	412.276	421.693	456.493	479.420	485.561
25.0	397.537	410.229	448.714	473.278	479.010
27.5	382.799	397.947	439.707	464.681	470.412
30.0	366.832	384.846	428.243	453.217	457.721
32.5	350.455	370.107	416.370	440.116	443.801
35.0	333.260	354.549	402.860	424.149	426.606
37.5	316.474	338.992	386.893	406.544	407.773
40.0	298.460	322.615	369.697	387.712	386.893
42.5	281.265	305.420	352.093	366.422	364.785
45.0	263.660	287.815	333.260	344.724	342.267
47.5	246.465	270.211	312.789	322.206	319.750
50.0	228.451	252.197	291.909	298.870	294.775
52.5	210.846	233.364	270.620	275.942	271.848
55.0	194.470	214.940	248.922	252.197	248.922
57.5	177.275	196.517	227.223	229.270	223.947
60.0	160.898	177.684	205.524	207.162	201.839
62.5	145.341	159.670	184.644	184.235	180.141
65.0	128.555	142.475	162.945	162.536	158.442
67.5	113.816	124.870	142.475	141.247	137.153
70.0	98.668	108.084	122.823	120.776	117.091
72.5	83.929	91.708	103.581	101.534	98.258
75.0	70.009	75.741	85.157	83.110	80.654
77.5	56.908	61.002	67.553	65.506	63.459
80.0	44.626	46.673	51.586	49.129	47.492
82.5	32.753	33.572	36.028	34.391	33.162
85.0	20.471	21.289	21.699	20.471	19.652
87.5	9.416	9.416	8.598	8.188	7.369
90.0	0.000	0.000	0.000	0.000	0.000
92.5	12.282	12.282	12.282	13.510	13.510
95.0	29.067	27.838	27.838	28.248	28.657
97.5	45.852	44.623	43.805	44.214	44.214
100.0	63.046	60.999	60.999	60.999	60.590
102.5	81.059	79.421	78.603	78.193	78.193
105.0	99.891	98.663	96.616	96.206	95.797
107.5	119.132	117.904	115.448	115.038	114.629
110.0	139.192	137.964	135.917	135.098	133.870
112.5	160.071	158.024	156.796	154.749	153.521
115.0	180.950	179.722	178.903	174.809	173.990
117.5	203.057	201.010	201.010	196.097	195.279
120.0	225.573	222.298	223.117	218.204	216.567
122.5	246.862	243.587	245.224	241.130	238.264
125.0	270.606	265.693	267.331	263.237	261.190
127.5	293.941	288.619	289.438	286.163	285.344
130.0	316.867	311.545	312.364	308.270	308.679
132.5	339.793	334.061	335.290	331.196	331.196

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-S-835-F-DSO-ITL85132-ITL94139.003.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	361.900	356.578	358.215	354.531	354.531
<b>137.5</b>	384.416	379.094	380.732	377.457	377.047
<b>140.0</b>	406.933	401.611	402.839	400.792	399.564
<b>142.5</b>	428.221	422.489	424.127	422.080	420.442
<b>145.0</b>	449.918	443.778	445.415	443.778	440.912
<b>147.5</b>	469.979	463.838	465.885	463.428	460.563
<b>150.0</b>	489.220	483.079	485.535	482.670	480.213
<b>152.5</b>	507.642	501.502	503.958	501.502	499.045
<b>155.0</b>	525.246	519.105	521.971	519.515	517.058
<b>157.5</b>	540.394	534.662	537.937	535.481	533.024
<b>160.0</b>	555.131	549.809	552.675	550.219	547.763
<b>162.5</b>	567.823	563.319	565.366	563.729	562.091
<b>165.0</b>	579.285	575.192	576.420	575.601	574.373
<b>167.5</b>	587.883	585.426	586.245	585.426	585.017
<b>170.0</b>	595.661	594.433	594.842	594.023	593.614
<b>172.5</b>	602.211	601.802	601.802	601.393	601.393
<b>175.0</b>	606.715	606.715	606.715	606.715	606.305
<b>177.5</b>	609.171	609.580	609.580	609.580	609.171
<b>180.0</b>	610.808	610.808	610.808	610.808	610.808

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-S-835-F-DSO-ITL85132-ITL94139.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	178.00	N.A.	6.10
0-30	381.83	N.A.	13.20
0-40	625.66	N.A.	21.60
0-60	1079.72	N.A.	37.20
0-80	1316.27	N.A.	45.40
0-90	1340.2	N.A.	46.20
10-90	1294.79	N.A.	44.60
20-40	447.66	N.A.	15.40
20-50	692.11	N.A.	23.90
40-70	605.71	N.A.	20.90
60-80	236.56	N.A.	8.20
70-80	84.90	N.A.	2.90
80-90	23.92	N.A.	0.80
90-110	134.78	N.A.	4.60
90-120	311.03	N.A.	10.70
90-130	548.75	N.A.	18.90
90-150	1101.93	N.A.	38.00
90-180	1561.15	N.A.	53.80
110-180	1426.37	N.A.	49.20
0-180	2901.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	45.41
10-20	132.59
20-30	203.83
30-40	243.84
40-50	244.45
50-60	209.60
60-70	151.65
70-80	84.90
80-90	23.92
90-100	31.55
100-110	103.23
110-120	176.25
120-130	237.72
130-140	275.34
140-150	277.84
150-160	239.40
160-170	162.30
170-180	57.52

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

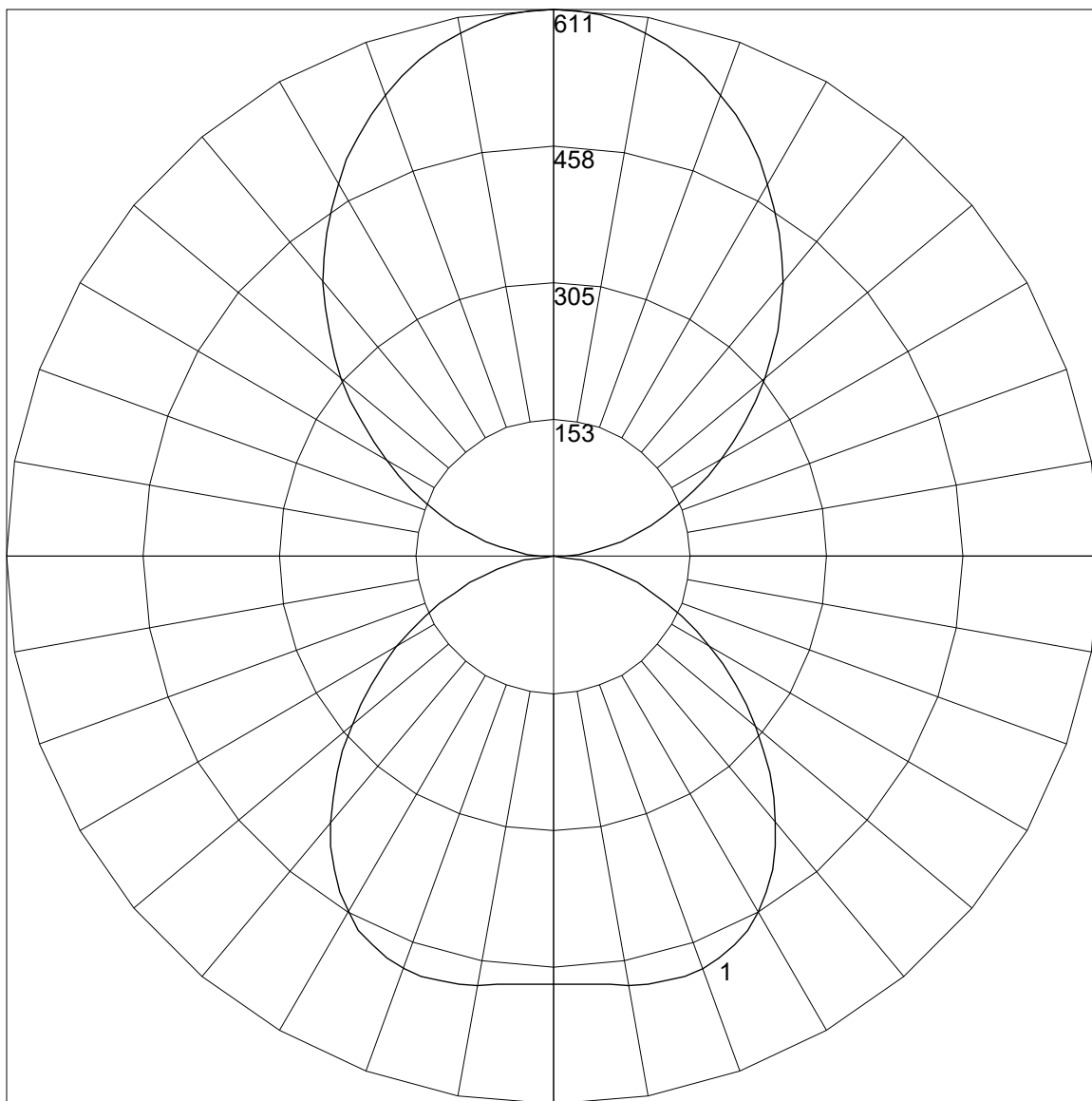
Effective Floor Cavity Reflectance 0.20

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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	97	93	89	85	89	85	82	79	71	69	67	58	57	55	46	45	44	39
2	88	81	75	70	81	74	69	65	62	59	55	51	48	46	41	39	37	33
3	80	71	64	58	74	65	59	54	55	50	46	45	42	39	36	34	32	28
4	74	63	55	49	67	58	51	46	49	44	39	40	36	33	32	30	27	24
5	68	56	48	42	62	52	45	39	44	38	34	36	32	29	29	26	24	20
6	62	50	42	36	57	46	39	34	39	34	30	33	28	25	26	23	21	18
7	57	45	37	32	53	42	35	30	36	30	26	30	25	22	24	21	19	16
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17	14
9	50	37	30	25	45	35	28	23	30	24	21	25	21	18	20	17	15	13
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	14	12

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POLAR GRAPH



Maximum Candela = 610.808 Located At Horizontal Angle = 0, Vertical Angle = 180

# 1 - Vertical Plane Through Horizontal Angles (90 - 270)