

# 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-H-S-835-WSO-DSO-ITL89456-ITL94139.009.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89456-ITL94139.009 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/19/17

[ISSUEDATE]12/15/2020

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-H-S-835-WSO-DSO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 41.8 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 43.9 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89456 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)

[\_ABSOLUTE]LUMENS]4465

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4465
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	41.8
Ballast Factor	1.00
CIE Type	Semi-Indirect
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-WSO-DSO-ITL89456-ITL94139.009.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	477.372	477.372	477.372	477.372	477.372
<b>2.5</b>	476.554	476.554	476.963	477.782	477.782
<b>5.0</b>	474.097	474.507	476.554	478.601	479.420
<b>7.5</b>	469.594	471.231	474.916	479.420	481.876
<b>10.0</b>	463.862	465.909	474.097	482.695	485.561
<b>12.5</b>	456.902	459.358	473.278	485.151	488.426
<b>15.0</b>	447.485	451.580	470.822	485.970	490.064
<b>17.5</b>	437.660	442.982	467.547	485.970	490.883
<b>20.0</b>	425.377	433.156	463.452	483.923	489.245
<b>22.5</b>	412.276	421.693	456.493	479.420	485.561
<b>25.0</b>	397.537	410.229	448.714	473.278	479.010
<b>27.5</b>	382.799	397.947	439.707	464.681	470.412
<b>30.0</b>	366.832	384.846	428.243	453.217	457.721
<b>32.5</b>	350.455	370.107	416.370	440.116	443.801
<b>35.0</b>	333.260	354.549	402.860	424.149	426.606
<b>37.5</b>	316.474	338.992	386.893	406.544	407.773
<b>40.0</b>	298.460	322.615	369.697	387.712	386.893
<b>42.5</b>	281.265	305.420	352.093	366.422	364.785
<b>45.0</b>	263.660	287.815	333.260	344.724	342.267
<b>47.5</b>	246.465	270.211	312.789	322.206	319.750
<b>50.0</b>	228.451	252.197	291.909	298.870	294.775
<b>52.5</b>	210.846	233.364	270.620	275.942	271.848
<b>55.0</b>	194.470	214.940	248.922	252.197	248.922
<b>57.5</b>	177.275	196.517	227.223	229.270	223.947
<b>60.0</b>	160.898	177.684	205.524	207.162	201.839
<b>62.5</b>	145.341	159.670	184.644	184.235	180.141
<b>65.0</b>	128.555	142.475	162.945	162.536	158.442
<b>67.5</b>	113.816	124.870	142.475	141.247	137.153
<b>70.0</b>	98.668	108.084	122.823	120.776	117.091
<b>72.5</b>	83.929	91.708	103.581	101.534	98.258
<b>75.0</b>	70.009	75.741	85.157	83.110	80.654
<b>77.5</b>	56.908	61.002	67.553	65.506	63.459
<b>80.0</b>	44.626	46.673	51.586	49.129	47.492
<b>82.5</b>	32.753	33.572	36.028	34.391	33.162
<b>85.0</b>	20.471	21.289	21.699	20.471	19.652
<b>87.5</b>	9.416	9.416	8.598	8.188	7.369
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	13.999	24.110	24.110	23.332	23.332
<b>95.0</b>	36.554	64.553	64.553	53.665	52.887
<b>97.5</b>	61.442	105.774	129.884	93.330	87.886
<b>100.0</b>	87.108	137.662	258.213	150.106	132.218
<b>102.5</b>	115.107	167.994	356.987	265.213	210.770
<b>105.0</b>	142.328	200.660	413.763	432.429	356.209
<b>107.5</b>	169.549	232.547	448.762	583.313	543.647
<b>110.0</b>	196.771	262.102	479.872	671.976	678.976
<b>112.5</b>	223.992	290.878	516.426	730.307	759.862
<b>115.0</b>	251.991	318.100	559.980	772.306	815.082
<b>117.5</b>	279.990	345.321	607.423	811.971	857.858
<b>120.0</b>	307.989	374.098	646.310	853.970	900.635
<b>122.5</b>	333.655	398.208	674.309	913.078	945.744
<b>125.0</b>	357.765	421.541	689.864	977.632	1010.297
<b>127.5</b>	380.320	443.317	699.197	1021.186	1081.850
<b>130.0</b>	398.986	461.983	704.641	1039.074	1133.182
<b>132.5</b>	417.652	479.094	706.197	1032.074	1149.514

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-WSO-DSO-ITL89456-ITL94139.009.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	433.985	493.094	705.419	1010.297	1133.182
<b>137.5</b>	448.762	506.315	703.086	980.743	1098.961
<b>140.0</b>	463.539	517.981	699.197	948.077	1055.407
<b>142.5</b>	477.538	528.870	693.753	911.523	1008.742
<b>145.0</b>	492.316	538.981	688.309	876.524	961.299
<b>147.5</b>	504.760	546.758	682.087	840.748	913.078
<b>150.0</b>	517.204	555.313	674.309	808.860	867.969
<b>152.5</b>	528.870	561.535	664.976	778.528	825.971
<b>155.0</b>	539.759	566.202	655.643	748.973	787.083
<b>157.5</b>	549.869	572.424	647.088	721.752	752.084
<b>160.0</b>	558.424	576.313	636.977	695.308	719.419
<b>162.5</b>	566.202	579.424	626.866	672.754	689.087
<b>165.0</b>	572.424	582.535	616.756	650.977	663.421
<b>167.5</b>	577.868	584.868	608.978	632.311	640.866
<b>170.0</b>	582.535	587.201	603.534	617.534	622.978
<b>172.5</b>	584.868	588.757	597.312	605.090	609.756
<b>175.0</b>	587.979	589.534	593.423	597.312	598.867
<b>177.5</b>	589.534	589.534	591.090	591.090	591.868
<b>180.0</b>	590.312	590.312	590.312	590.312	590.312

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-S-835-WSO-DSO-ITL89456-ITL94139.009.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	178.00	N.A.	4.00
0-30	381.83	N.A.	8.60
0-40	625.66	N.A.	14.00
0-60	1079.72	N.A.	24.20
0-80	1316.27	N.A.	29.50
0-90	1340.2	N.A.	30.00
10-90	1294.79	N.A.	29.00
20-40	447.66	N.A.	10.00
20-50	692.11	N.A.	15.50
40-70	605.71	N.A.	13.60
60-80	236.56	N.A.	5.30
70-80	84.90	N.A.	1.90
80-90	23.92	N.A.	0.50
90-110	408.93	N.A.	9.20
90-120	948.46	N.A.	21.20
90-130	1565.19	N.A.	35.10
90-150	2586.44	N.A.	57.90
90-180	3124.85	N.A.	70.00
110-180	2715.92	N.A.	60.80
0-180	4465.04	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	71.33
100-110	337.60
110-120	539.53
120-130	616.74
130-140	576.42
140-150	444.83
150-160	305.77
160-170	175.71
170-180	56.93

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

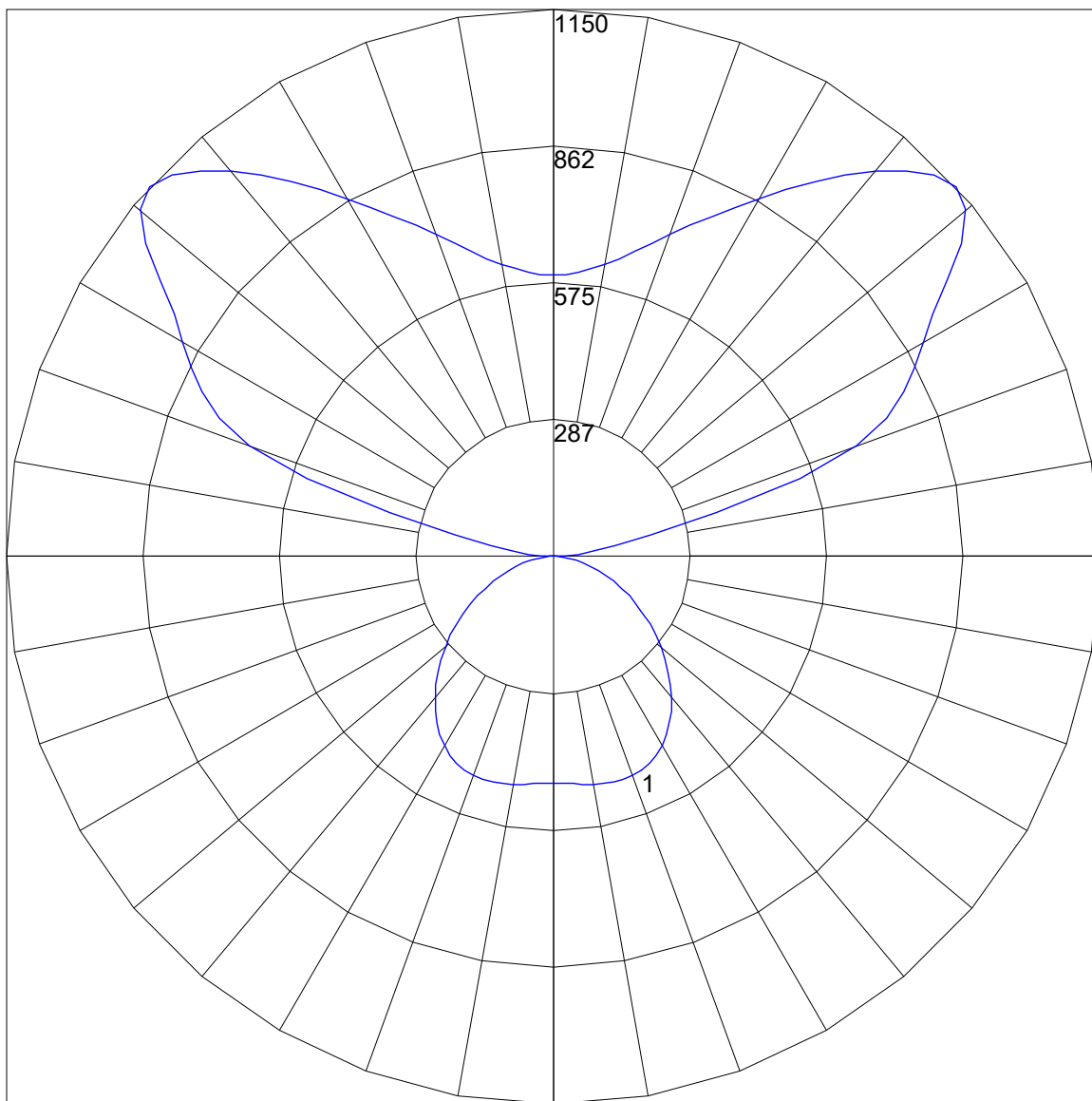
Effective Floor Cavity Reflectance 0.20

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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	38	38	38	30
1	93	89	85	82	84	80	77	74	63	61	59	48	46	45	33	33	32	25
2	85	78	72	67	76	70	65	61	55	52	49	42	40	38	29	28	27	21
3	77	68	61	56	69	61	55	51	49	44	41	37	34	32	26	24	23	18
4	71	60	53	47	63	54	48	43	43	39	35	33	30	27	23	21	20	15
5	65	54	46	40	58	48	42	37	39	34	30	29	26	23	21	19	17	13
6	60	48	40	34	53	43	37	32	35	30	26	26	23	20	19	17	15	12
7	55	43	35	30	49	39	32	28	31	26	23	24	21	18	17	15	13	10
8	51	39	31	26	46	35	29	24	28	24	20	22	18	16	16	13	12	9
9	47	35	28	23	42	32	26	21	26	21	18	20	17	14	14	12	11	8
10	44	32	25	21	40	29	23	19	24	19	16	18	15	13	13	11	10	8

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## POLAR GRAPH



Maximum Candela = 1149.514 Located At Horizontal Angle = 90, Vertical Angle = 132.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)