

# 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-4-ID-4FT-S-H-835-F-DL-ITL90629 ITL85125.014.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90629 ITL85125.014 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/09/18

[ISSUEDATE]08/10/18

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-4-ID-4ft-S-H-835-F-DL

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 42.9 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 45.2 WATTS

[\_ABSOLUTE]LUMENS]4732

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90629 and ITL85125. 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	4732
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	42.9
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.08 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6746	6257	6122
55	6238	5735	5634
65	5603	5137	5129
75	4620	4425	4563
85	3000	3767	4120

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	973.012	973.012	973.012	973.012	973.012
<b>2.5</b>	971.456	971.456	972.234	973.012	973.789
<b>5.0</b>	966.789	967.567	969.900	971.456	972.234
<b>7.5</b>	959.789	962.123	966.011	967.567	969.123
<b>10.0</b>	950.456	952.011	958.234	961.345	962.900
<b>12.5</b>	938.789	938.789	948.900	953.567	953.567
<b>15.0</b>	923.233	924.011	936.456	941.122	941.122
<b>17.5</b>	905.344	906.900	920.900	927.122	927.122
<b>20.0</b>	885.122	886.677	902.233	909.233	909.233
<b>22.5</b>	861.788	864.899	882.788	889.788	889.011
<b>25.0</b>	837.677	841.566	860.232	868.010	868.788
<b>27.5</b>	810.454	816.677	837.677	844.677	845.455
<b>30.0</b>	782.454	789.454	811.232	819.788	821.343
<b>32.5</b>	752.898	761.454	785.565	794.121	794.898
<b>35.0</b>	718.675	731.120	756.787	766.898	767.676
<b>37.5</b>	686.786	702.342	728.009	737.342	741.231
<b>40.0</b>	654.897	670.452	698.453	709.342	711.675
<b>42.5</b>	619.896	637.785	667.341	680.564	682.897
<b>45.0</b>	584.896	605.896	636.230	650.230	654.119
<b>47.5</b>	549.118	573.229	604.341	619.896	624.563
<b>50.0</b>	514.117	539.784	571.673	588.007	593.452
<b>52.5</b>	479.895	505.562	539.784	558.451	563.118
<b>55.0</b>	442.561	469.783	506.339	526.562	531.229
<b>57.5</b>	405.227	436.339	472.894	493.895	500.895
<b>60.0</b>	369.449	402.116	439.450	462.005	470.561
<b>62.5</b>	332.893	366.338	405.227	429.339	437.116
<b>65.0</b>	297.115	330.560	371.004	396.671	404.449
<b>67.5</b>	259.003	297.115	338.337	364.004	373.338
<b>70.0</b>	224.003	261.337	304.115	331.337	342.226
<b>72.5</b>	189.002	227.892	269.892	299.448	309.559
<b>75.0</b>	154.780	193.669	238.781	268.337	278.448
<b>77.5</b>	120.557	161.780	206.891	238.003	248.892
<b>80.0</b>	89.445	131.446	177.335	209.225	220.892
<b>82.5</b>	62.223	104.224	150.891	182.780	195.225
<b>85.0</b>	38.889	80.890	128.335	160.224	170.335
<b>87.5</b>	21.778	62.223	108.112	140.002	149.335
<b>90.0</b>	7.778	47.445	93.334	124.446	134.557
<b>92.5</b>	18.011	38.887	61.809	77.364	82.686
<b>95.0</b>	34.384	54.851	77.773	92.919	97.831
<b>97.5</b>	52.395	71.633	94.147	109.292	114.204
<b>100.0</b>	70.405	89.235	111.748	126.484	131.396
<b>102.5</b>	90.053	107.246	129.759	144.086	148.588
<b>105.0</b>	110.520	127.303	148.588	162.506	166.599
<b>107.5</b>	132.215	147.360	169.055	182.154	185.838
<b>110.0</b>	155.138	168.236	188.703	201.802	205.486
<b>112.5</b>	178.060	190.750	209.988	223.087	225.952
<b>115.0</b>	201.392	212.854	230.864	244.782	246.419
<b>117.5</b>	224.724	234.958	252.559	265.248	267.295
<b>120.0</b>	247.238	257.471	274.663	284.078	287.762
<b>122.5</b>	269.751	279.984	296.767	305.363	309.047
<b>125.0</b>	293.902	304.954	319.281	326.239	330.332
<b>127.5</b>	317.643	328.286	342.613	347.934	351.618
<b>130.0</b>	340.975	351.618	364.717	369.219	372.903
<b>132.5</b>	363.898	373.722	386.411	390.914	393.370

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<b>135.0</b>	387.230	396.235	408.106	413.018	414.655
<b>137.5</b>	409.334	416.293	428.982	433.894	434.713
<b>140.0</b>	432.666	437.169	449.858	454.770	455.179
<b>142.5</b>	454.361	457.635	469.915	474.009	474.827
<b>145.0</b>	476.055	476.055	490.382	493.247	493.657
<b>147.5</b>	496.113	495.704	509.212	511.258	512.077
<b>150.0</b>	514.942	514.533	525.176	528.860	529.269
<b>152.5</b>	533.362	531.316	541.139	545.233	544.005
<b>155.0</b>	550.145	547.279	555.875	559.969	558.741
<b>157.5</b>	565.700	562.425	570.202	573.068	572.658
<b>160.0</b>	579.617	575.933	582.892	584.529	584.938
<b>162.5</b>	592.716	589.032	595.581	596.400	596.809
<b>165.0</b>	604.177	600.902	605.405	606.633	607.042
<b>167.5</b>	613.592	610.726	613.592	615.229	615.638
<b>170.0</b>	621.369	619.732	620.960	622.188	622.597
<b>172.5</b>	627.100	626.690	627.100	627.509	627.918
<b>175.0</b>	631.193	631.193	631.602	631.602	631.193
<b>177.5</b>	634.468	634.058	634.058	634.058	634.468
<b>180.0</b>	635.286	635.286	635.286	635.286	635.286

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-F-DL-ITL90629 ITL85125.014.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	355.38	N.A.	7.50
0-30	749.63	N.A.	15.80
0-40	1218.84	N.A.	25.80
0-60	2148.67	N.A.	45.40
0-80	2750.73	N.A.	58.10
0-90	2883.00	N.A.	60.90
10-90	2790.83	N.A.	59.00
20-40	863.46	N.A.	18.20
20-50	1348.12	N.A.	28.50
40-70	1288.93	N.A.	27.20
60-80	602.06	N.A.	12.70
70-80	242.95	N.A.	5.10
80-90	132.27	N.A.	2.80
90-110	238.93	N.A.	5.00
90-120	464.72	N.A.	9.80
90-130	747.15	N.A.	15.80
90-150	1363.19	N.A.	28.80
90-180	1849.03	N.A.	39.10
110-180	1610.1	N.A.	34.00
0-180	4732.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	92.17
10-20	263.21
20-30	394.25
30-40	469.21
40-50	484.66
50-60	445.17
60-70	359.11
70-80	242.95
80-90	132.27
90-100	85.92
100-110	153.01
110-120	225.80
120-130	282.43
130-140	311.94
140-150	304.10
150-160	255.43
160-170	170.46
170-180	59.95

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

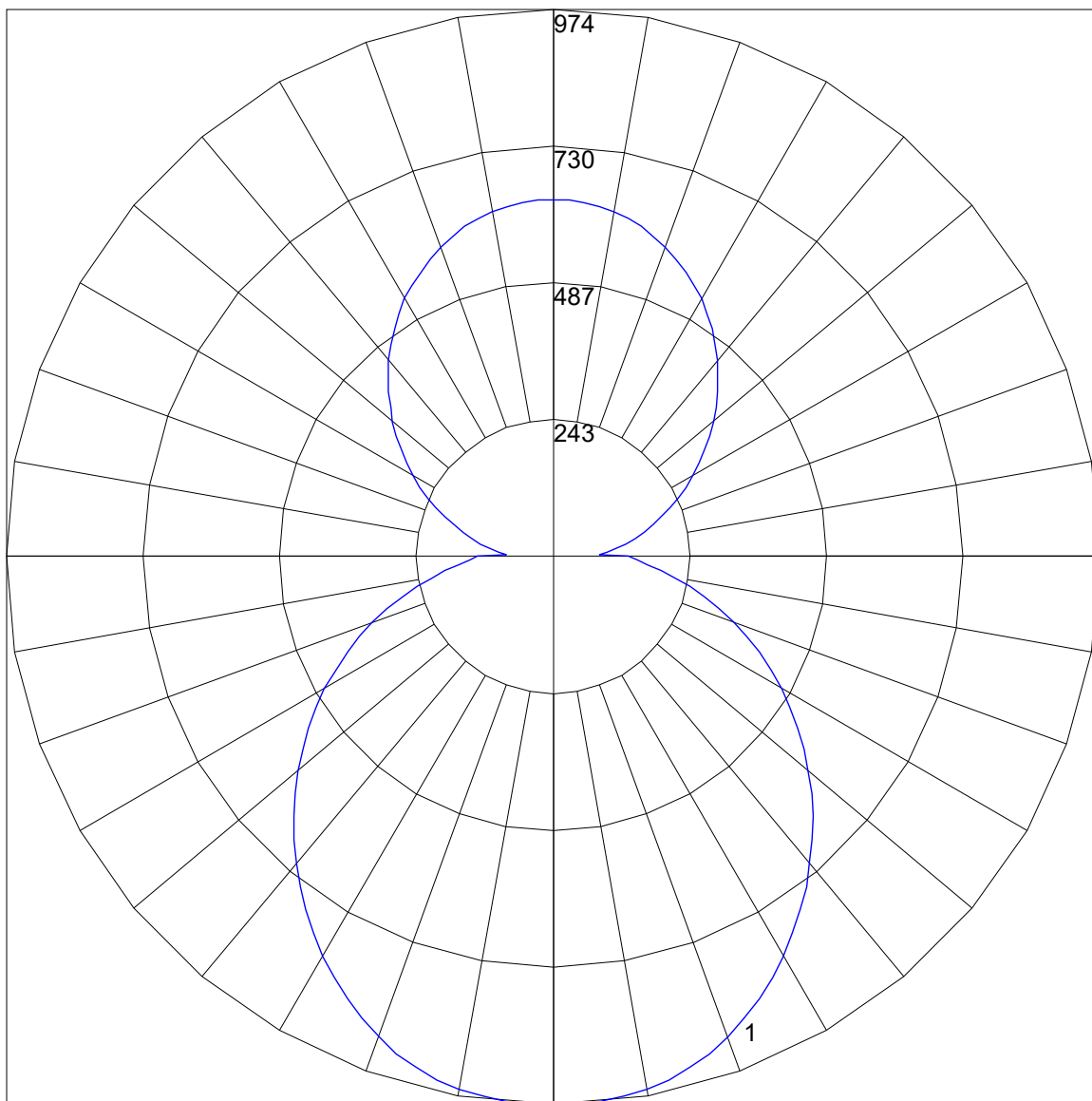
Effective Floor Cavity Reflectance 0.20

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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	99	94	90	86	93	88	85	81	77	74	72	67	64	62	57	55	54	49
2	90	82	75	70	84	77	71	66	67	62	59	58	55	51	50	47	45	41
3	82	72	64	58	76	67	60	55	59	53	49	51	47	43	44	40	38	34
4	75	63	55	49	70	59	52	46	52	46	41	45	41	37	39	35	32	29
5	69	56	48	42	64	53	45	40	47	40	36	41	36	32	35	31	28	25
6	63	51	42	36	59	48	40	34	42	36	31	37	32	28	32	28	25	22
7	58	46	37	32	54	43	35	30	38	32	27	33	28	24	29	25	22	19
8	54	41	33	28	51	39	32	27	35	29	24	30	25	22	26	22	19	17
9	51	38	30	25	47	36	29	24	32	26	22	28	23	20	24	20	18	15
10	47	35	27	22	44	33	26	21	29	24	20	26	21	18	23	19	16	14

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## POLAR GRAPH



Maximum Candela = 973.789 Located At Horizontal Angle = 90, Vertical Angle = 2.5

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