

# 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-S-835-F-DL-ITL90629 ITL85125.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90629 ITL85125.003 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/09/18

[ISSUEDATE]08/01/18

[MANUFAC]FINELITE, INC.

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

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 29.0 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 32.0 WATTS

[\_ABSOLUTE]LUMENS]3361

[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	3361
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	29
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 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	3551	3294	3223
55	3284	3019	2966
65	2949	2704	2700
75	2432	2329	2402
85	1579	1983	2169

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-S-835-F-DL-ITL90629 ITL85125.003.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>	512.189	512.189	512.189	512.189	512.189
<b>2.5</b>	511.370	511.370	511.780	512.189	512.599
<b>5.0</b>	508.914	509.323	510.551	511.370	511.780
<b>7.5</b>	505.229	506.457	508.504	509.323	510.142
<b>10.0</b>	500.316	501.135	504.410	506.048	506.867
<b>12.5</b>	494.175	494.175	499.497	501.954	501.954
<b>15.0</b>	485.986	486.396	492.946	495.403	495.403
<b>17.5</b>	476.569	477.388	484.758	488.033	488.033
<b>20.0</b>	465.924	466.743	474.932	478.616	478.616
<b>22.5</b>	453.642	455.279	464.696	468.381	467.971
<b>25.0</b>	440.950	442.997	452.823	456.917	457.326
<b>27.5</b>	426.620	429.895	440.950	444.634	445.044
<b>30.0</b>	411.880	415.565	427.029	431.533	432.352
<b>32.5</b>	396.322	400.826	413.518	418.022	418.431
<b>35.0</b>	378.308	384.858	398.369	403.692	404.101
<b>37.5</b>	361.521	369.710	383.221	388.134	390.181
<b>40.0</b>	344.735	352.923	367.663	373.394	374.623
<b>42.5</b>	326.311	335.728	351.286	358.246	359.474
<b>45.0</b>	307.887	318.941	334.909	342.278	344.325
<b>47.5</b>	289.053	301.745	318.122	326.311	328.767
<b>50.0</b>	270.629	284.140	300.926	309.524	312.390
<b>52.5</b>	252.614	266.125	284.140	293.966	296.423
<b>55.0</b>	232.962	247.292	266.535	277.180	279.637
<b>57.5</b>	213.310	229.687	248.930	259.984	263.669
<b>60.0</b>	194.476	211.672	231.325	243.198	247.701
<b>62.5</b>	175.233	192.839	213.310	226.002	230.096
<b>65.0</b>	156.400	174.005	195.295	208.806	212.900
<b>67.5</b>	136.338	156.400	178.099	191.610	196.523
<b>70.0</b>	117.914	137.566	160.085	174.415	180.147
<b>72.5</b>	99.490	119.961	142.070	157.628	162.951
<b>75.0</b>	81.475	101.947	125.693	141.251	146.574
<b>77.5</b>	63.461	85.160	108.907	125.284	131.016
<b>80.0</b>	47.084	69.193	93.349	110.135	116.276
<b>82.5</b>	32.754	54.863	79.428	96.215	102.765
<b>85.0</b>	20.471	42.580	67.555	84.341	89.664
<b>87.5</b>	11.464	32.754	56.910	73.696	78.609
<b>90.0</b>	4.094	24.975	49.131	65.508	70.830
<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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-S-835-F-DL-ITL90629 ITL85125.003.IES****CANDELA TABULATION - (Cont.)**

<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-S-835-F-DL-ITL90629 ITL85125.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	187.07	N.A.	5.60
0-30	394.60	N.A.	11.70
0-40	641.59	N.A.	19.10
0-60	1131.05	N.A.	33.70
0-80	1447.97	N.A.	43.10
0-90	1517.6	N.A.	45.20
10-90	1469.08	N.A.	43.70
20-40	454.52	N.A.	13.50
20-50	709.64	N.A.	21.10
40-70	678.49	N.A.	20.20
60-80	316.92	N.A.	9.40
70-80	127.89	N.A.	3.80
80-90	69.63	N.A.	2.10
90-110	233.47	N.A.	6.90
90-120	459.26	N.A.	13.70
90-130	741.70	N.A.	22.10
90-150	1357.73	N.A.	40.40
90-180	1843.57	N.A.	54.80
110-180	1610.1	N.A.	47.90
0-180	3361.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	48.52
10-20	138.55
20-30	207.53
30-40	246.99
40-50	255.12
50-60	234.33
60-70	189.03
70-80	127.89
80-90	69.63
90-100	80.46
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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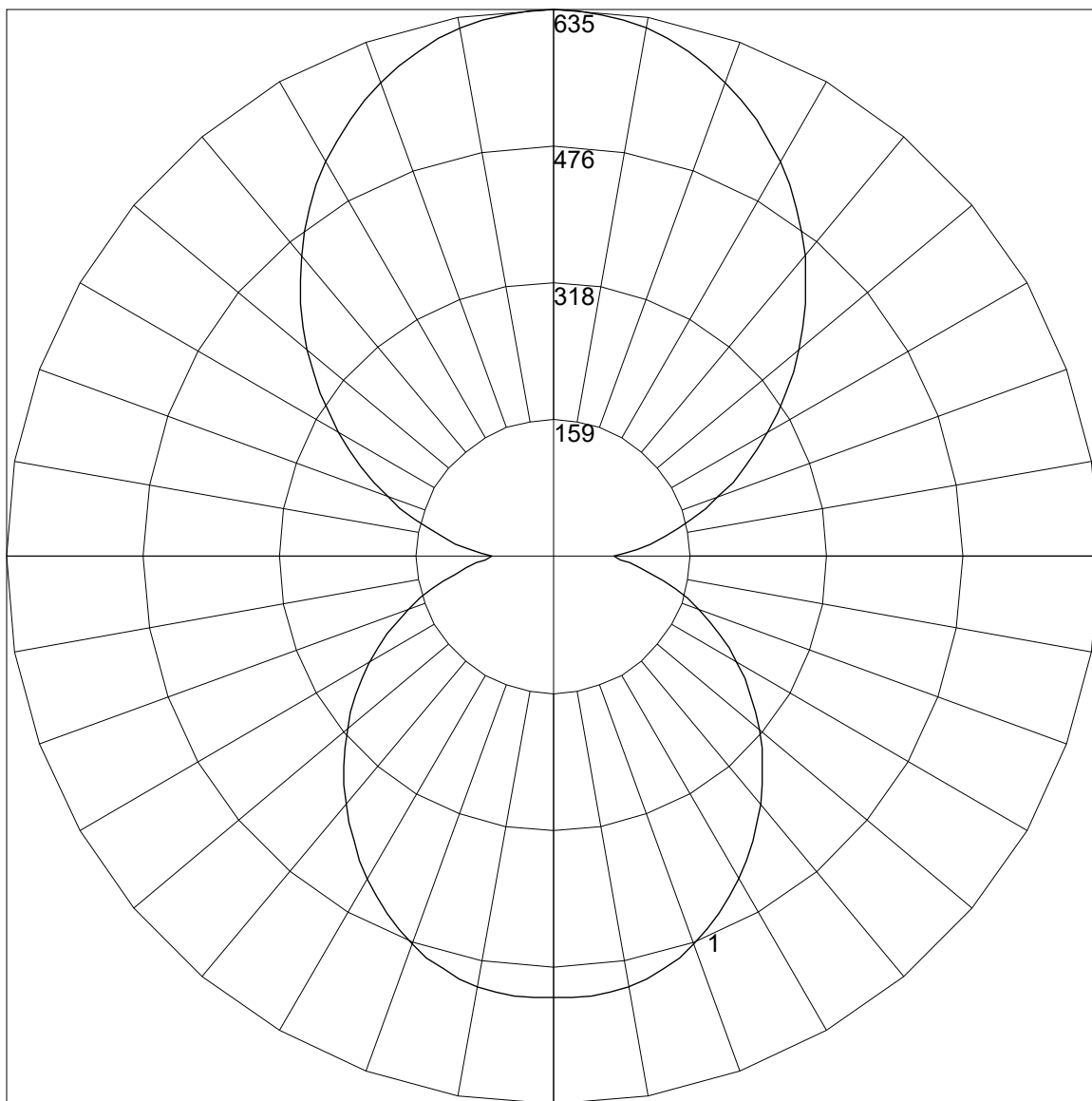
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	97	97	97	97	81	81	81	66	66	66	52	52	52	45
1	96	91	87	84	88	84	80	77	70	67	65	57	55	53	45	43	42	37
2	87	79	73	68	79	73	67	63	61	57	53	49	46	44	39	37	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	32	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	28	25	21
5	66	55	46	40	60	50	43	38	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	25	22	19	16
7	56	44	36	30	51	41	33	28	34	29	25	28	24	21	23	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	21	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	12	10

POLAR GRAPH



Maximum Candela = 635.286 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)