

# 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 : HPO-P-D-4FT-S-835-F-ITL92552.303.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92552.303 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[ISSUE DATE]12/13/19  
[TEST DATE]09/08/20  
[MANUFACT]FINELITE, INC.  
[LUMCAT]HPO-P-D-4ft-S-835-F  
[INPUT\_ELECTRICAL]120.0 VOLTS, 13.1 WATTS  
[INPUT\_ELECTRICAL]120.0 VOLTS, 14.1 WATTS  
[ABSOLUTE LUMENS]1642  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL92552. 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	1642
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	13.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.20 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7235	7243	7196
55	7010	7010	6971
65	6671	6697	6671
75	6231	6274	6317
85	5615	5806	5998

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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>
<b>0.0</b>	561.252	561.252	561.252	561.252	561.252
<b>2.5</b>	560.843	560.433	560.433	560.433	560.843
<b>5.0</b>	558.796	558.386	558.386	558.386	558.386
<b>7.5</b>	555.930	555.111	555.521	555.111	555.521
<b>10.0</b>	551.836	550.608	551.427	551.836	551.018
<b>12.5</b>	546.924	544.468	546.105	546.924	546.105
<b>15.0</b>	540.783	537.099	539.555	540.374	539.146
<b>17.5</b>	533.415	528.911	532.186	532.186	531.368
<b>20.0</b>	523.999	518.677	522.771	523.180	521.952
<b>22.5</b>	513.355	508.852	512.946	512.946	511.718
<b>25.0</b>	502.712	497.390	501.483	501.483	500.665
<b>27.5</b>	490.430	485.518	490.021	489.202	488.793
<b>30.0</b>	476.921	471.599	476.512	475.693	474.874
<b>32.5</b>	461.774	458.090	461.774	461.774	460.137
<b>35.0</b>	447.037	442.534	447.037	446.218	444.990
<b>37.5</b>	430.662	426.977	431.071	429.434	428.615
<b>40.0</b>	414.287	410.193	413.877	412.240	411.012
<b>42.5</b>	396.684	392.999	396.274	395.046	393.818
<b>45.0</b>	376.624	374.577	377.034	376.215	374.577
<b>47.5</b>	357.793	355.746	358.202	356.565	355.746
<b>50.0</b>	338.143	336.506	338.552	336.506	336.096
<b>52.5</b>	317.265	316.037	317.674	316.037	315.628
<b>55.0</b>	295.978	295.159	295.978	295.568	294.340
<b>57.5</b>	274.281	273.462	274.690	274.281	273.462
<b>60.0</b>	252.175	251.356	252.993	252.175	252.175
<b>62.5</b>	230.478	229.250	231.296	230.068	230.887
<b>65.0</b>	207.553	207.553	208.371	208.371	207.553
<b>67.5</b>	185.037	185.447	185.856	186.265	186.265
<b>70.0</b>	162.931	162.522	163.750	163.340	164.568
<b>72.5</b>	140.006	140.006	141.643	141.643	142.462
<b>75.0</b>	118.719	117.900	119.537	119.947	120.356
<b>77.5</b>	96.612	96.612	98.250	99.069	99.887
<b>80.0</b>	75.325	76.144	76.962	78.190	78.600
<b>82.5</b>	55.675	55.675	56.903	58.131	58.950
<b>85.0</b>	36.025	36.434	37.253	38.481	38.481
<b>87.5</b>	16.375	17.194	18.831	19.650	20.059
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	205.25	N.A.	12.50
0-30	435.98	N.A.	26.60
0-40	714.59	N.A.	43.50
0-60	1268.76	N.A.	77.30
0-80	1600.87	N.A.	97.50
0-90	1642.06	N.A.	100.00
10-90	1588.98	N.A.	96.80
20-40	509.34	N.A.	31.00
20-50	799.40	N.A.	48.70
40-70	760.03	N.A.	46.30
60-80	332.11	N.A.	20.20
70-80	126.25	N.A.	7.70
80-90	41.19	N.A.	2.50
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1642.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	53.08
10-20	152.17
20-30	230.72
30-40	278.62
40-50	290.06
50-60	264.11
60-70	205.87
70-80	126.25
80-90	41.19
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

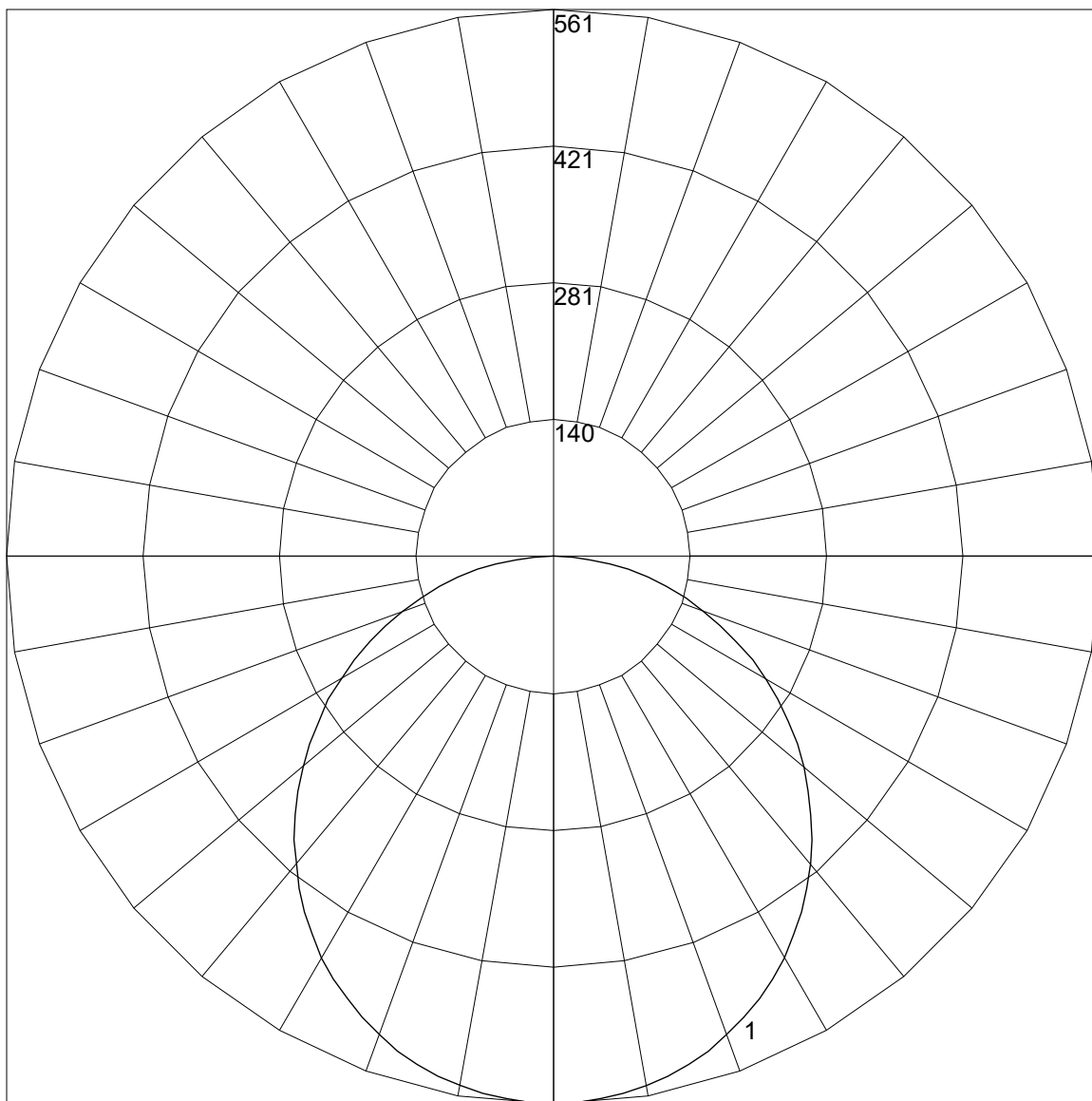
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	57
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

POLAR GRAPH



Maximum Candela = 561.252 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)