

# 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-H-835-F-ITL92552.301.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL92552.301 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[ISSUE DATE]12/13/19  
[TEST DATE]09/08/20  
[MANUFACTURER]FINELITE, INC.  
[LUMEN CATEGORY]HPO-P-D-4ft-H-835-F  
[INPUT ELECTRICAL]120.0 VOLTS, 25.7 WATTS  
[INPUT ELECTRICAL]120.0 VOLTS, 25.8 WATTS  
[ABSOLUTE LUMENS]3120  
[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	3120
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	25.7
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	13748	13762	13673
55	13319	13319	13245
65	12676	12726	12676
75	11839	11921	12003
85	10669	11032	11396

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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	1066.447	1066.447	1066.447	1066.447	1066.447
2.5	1065.669	1064.892	1064.892	1064.892	1065.669
5.0	1061.780	1061.002	1061.002	1061.002	1061.002
7.5	1056.335	1054.779	1055.557	1054.779	1055.557
10.0	1048.556	1046.223	1047.779	1048.556	1047.001
12.5	1039.222	1034.555	1037.666	1039.222	1037.666
15.0	1027.554	1020.553	1025.221	1026.776	1024.443
17.5	1013.553	1004.996	1011.219	1011.219	1009.663
20.0	995.662	985.550	993.328	994.106	991.773
22.5	975.438	966.881	974.660	974.660	972.326
25.0	955.213	945.101	952.880	952.880	951.324
27.5	931.877	922.543	931.099	929.544	928.766
30.0	906.208	896.096	905.430	903.874	902.319
32.5	877.427	870.426	877.427	877.427	874.316
35.0	849.424	840.868	849.424	847.868	845.535
37.5	818.310	811.309	819.088	815.976	814.420
40.0	787.195	779.417	786.417	783.306	780.972
42.5	753.747	746.746	752.969	750.636	748.302
45.0	715.632	711.743	716.410	714.854	711.743
47.5	679.850	675.961	680.628	677.517	675.961
50.0	642.513	639.402	643.291	639.402	638.624
52.5	602.842	600.509	603.620	600.509	599.731
55.0	562.393	560.838	562.393	561.616	559.282
57.5	521.167	519.611	521.945	521.167	519.611
60.0	479.162	477.607	480.718	479.162	479.162
62.5	437.936	435.602	439.491	437.158	438.714
65.0	394.375	394.375	395.931	395.931	394.375
67.5	351.593	352.371	353.149	353.927	353.927
70.0	309.589	308.811	311.144	310.366	312.700
72.5	266.028	266.028	269.140	269.140	270.696
75.0	225.580	224.024	227.135	227.913	228.691
77.5	183.575	183.575	186.687	188.242	189.798
80.0	143.126	144.682	146.238	148.571	149.349
82.5	105.789	105.789	108.123	110.456	112.012
85.0	68.452	69.230	70.785	73.119	73.119
87.5	31.114	32.670	35.782	37.337	38.115
90.0	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	390.01	N.A.	12.50
0-30	828.41	N.A.	26.60
0-40	1357.82	N.A.	43.50
0-60	2410.8	N.A.	77.30
0-80	3041.85	N.A.	97.50
0-90	3120.11	N.A.	100.00
10-90	3019.25	N.A.	96.80
20-40	967.81	N.A.	31.00
20-50	1518.96	N.A.	48.70
40-70	1444.15	N.A.	46.30
60-80	631.06	N.A.	20.20
70-80	239.89	N.A.	7.70
80-90	78.26	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	3120.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	100.86
10-20	289.15
20-30	438.40
30-40	529.41
40-50	551.15
50-60	501.83
60-70	391.17
70-80	239.89
80-90	78.26
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

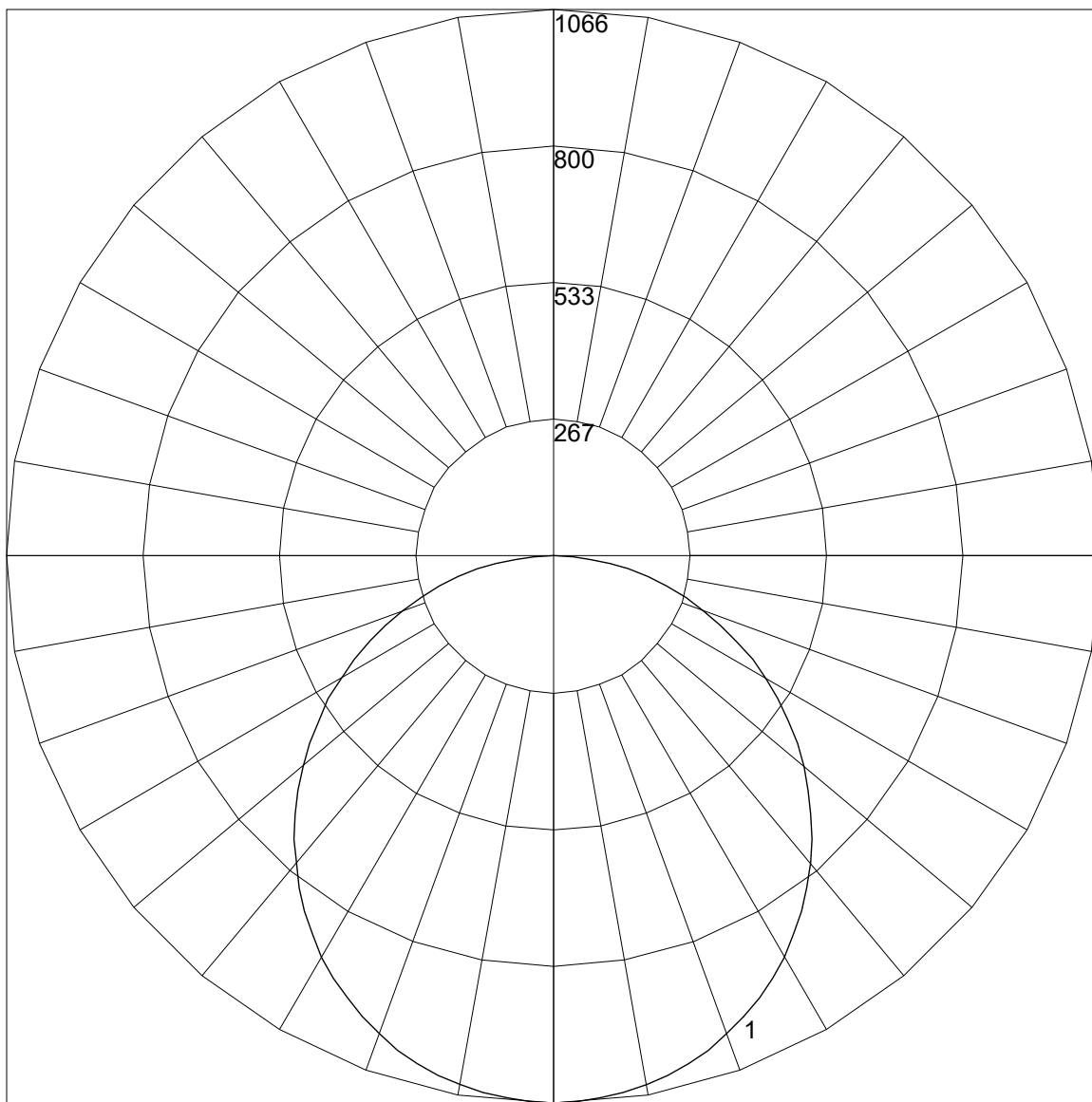
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 = 1066.447 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)