

# 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 : HPR-LED-F-2X4-DD-H-8-35-ITL85156.003.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85156.003 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]09/01/15  
[ISSUE DATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-F-2X4-DD-H-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 40.6 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.4 WATTS  
[ABSOLUTE LUMENS]4417  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85156. 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	4417
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	40.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	1.80 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2250	2242	2225
55	2026	2020	2005
65	1792	1787	1778
75	1503	1517	1512
85	1178	1192	1178

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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	1782.614	1782.614	1782.614	1782.614	1782.614
2.5	1780.286	1780.286	1780.286	1780.286	1780.286
5.0	1771.749	1772.525	1771.749	1772.525	1772.525
7.5	1759.332	1759.332	1758.556	1758.556	1759.332
10.0	1738.378	1739.154	1739.930	1739.930	1741.483
12.5	1711.992	1713.544	1715.873	1715.097	1714.320
15.0	1683.278	1684.054	1685.606	1683.278	1683.278
17.5	1648.355	1649.131	1649.907	1648.355	1648.355
20.0	1611.104	1609.552	1610.328	1608.000	1608.000
22.5	1566.093	1563.764	1564.541	1561.436	1562.212
25.0	1517.977	1515.649	1514.873	1512.544	1512.544
27.5	1465.981	1462.100	1462.876	1459.772	1458.996
30.0	1410.104	1407.776	1406.224	1403.896	1401.568
32.5	1348.795	1348.795	1347.243	1344.915	1342.587
35.0	1289.815	1285.934	1284.382	1281.278	1278.950
37.5	1225.402	1221.521	1219.969	1218.417	1215.313
40.0	1157.884	1155.556	1153.228	1151.676	1148.571
42.5	1090.367	1088.039	1085.710	1084.158	1077.950
45.0	1022.073	1018.193	1018.193	1015.865	1010.432
47.5	953.004	949.900	949.124	946.795	941.363
50.0	885.486	881.606	879.278	879.278	873.846
52.5	817.193	812.537	812.537	810.208	805.552
55.0	746.571	745.019	744.243	739.587	738.811
57.5	679.830	679.830	677.502	673.622	672.069
60.0	613.865	613.089	611.537	608.432	606.104
62.5	550.228	551.004	548.676	544.795	548.676
65.0	486.591	486.591	485.039	481.934	482.710
67.5	424.506	425.282	423.730	420.625	421.402
70.0	364.749	365.525	364.749	361.645	363.197
72.5	305.768	307.320	306.544	305.768	305.768
75.0	249.892	252.220	252.220	251.444	251.444
77.5	200.224	200.224	200.224	200.224	200.224
80.0	152.108	151.332	152.108	152.108	152.884
82.5	107.097	107.097	107.873	107.873	107.873
85.0	65.965	65.965	66.741	65.965	65.965
87.5	30.266	27.938	28.714	27.938	25.610
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	642.62	N.A.	14.60
0-30	1339.66	N.A.	30.30
0-40	2142.3	N.A.	48.50
0-60	3592.25	N.A.	81.30
0-80	4340.93	N.A.	98.30
0-90	4416.52	N.A.	100.00
10-90	4248.38	N.A.	96.20
20-40	1499.68	N.A.	34.00
20-50	2284.31	N.A.	51.70
40-70	1930.69	N.A.	43.70
60-80	748.67	N.A.	17.00
70-80	267.94	N.A.	6.10
80-90	75.59	N.A.	1.70
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	4416.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	168.14
10-20	474.48
20-30	697.04
30-40	802.63
40-50	784.64
50-60	665.32
60-70	480.73
70-80	267.94
80-90	75.59
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

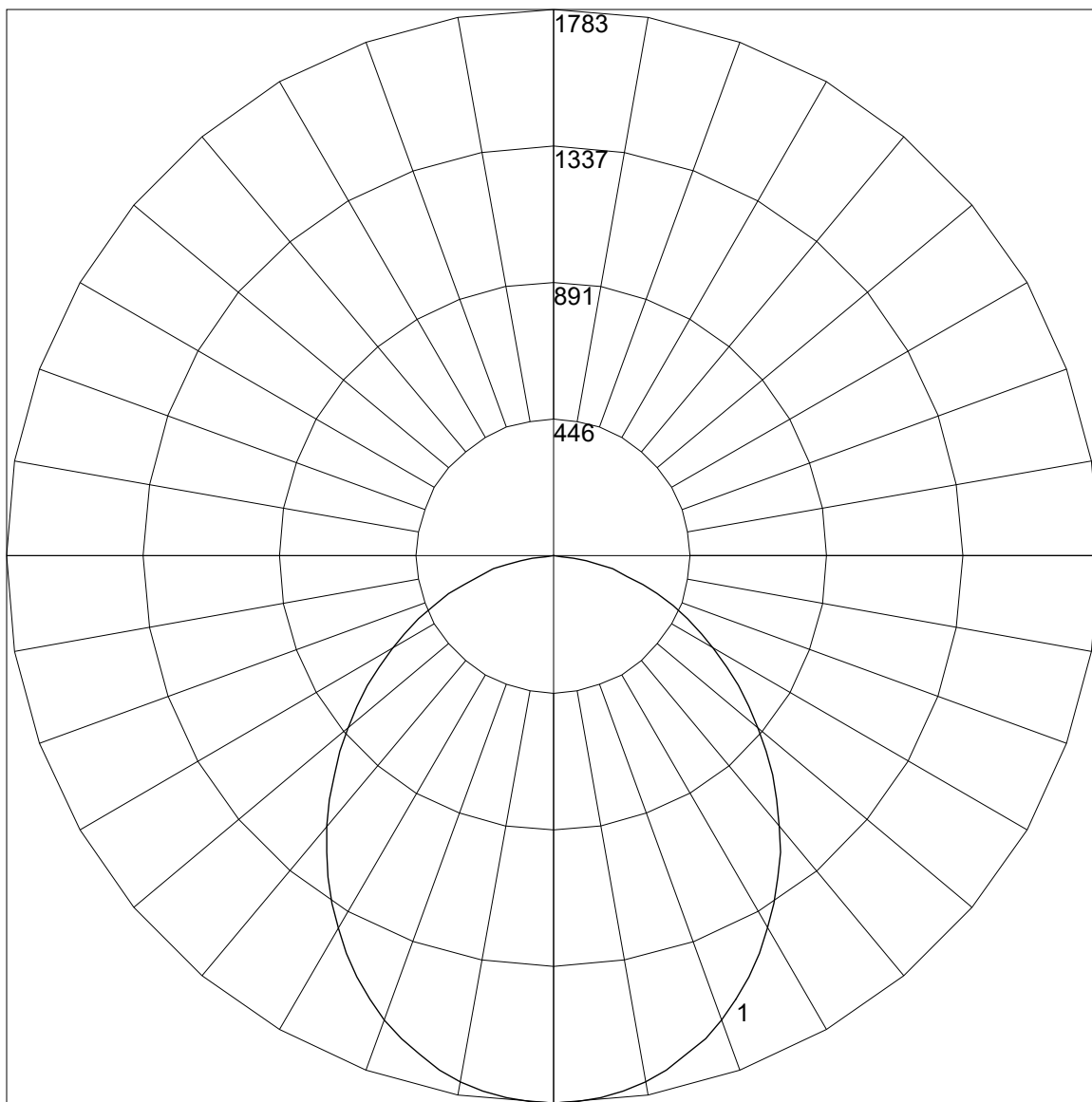
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	49	75	63	55	49	61	54	49	59	53	48	58	52	47	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	47	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	36
8	62	49	40	34	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 1782.614 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)