

# 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-1X4-DD-H-8-35-ITL85153.002.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85153.002 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/26/15  
[ISSUEDATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-F-1X4-DD-H-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 42.6 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 43.0 WATTS  
[ABSOLUTE]LUMENS]3950  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85153. 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	3950
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	42.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	0.81 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4549	4482	4421
55	4100	4011	3949
65	3619	3517	3433
75	3069	2947	2856
85	2436	2030	1714

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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>	1621.553	1621.553	1621.553	1621.553	1621.553
<b>2.5</b>	1619.290	1619.290	1620.421	1620.421	1620.421
<b>5.0</b>	1612.500	1612.500	1612.500	1611.369	1611.369
<b>7.5</b>	1598.921	1598.921	1598.921	1596.658	1597.790
<b>10.0</b>	1583.079	1579.684	1579.684	1579.684	1576.290
<b>12.5</b>	1561.579	1554.790	1557.053	1557.053	1551.395
<b>15.0</b>	1536.684	1525.369	1529.895	1528.763	1520.842
<b>17.5</b>	1503.869	1492.553	1497.079	1494.816	1488.026
<b>20.0</b>	1467.658	1455.211	1458.605	1455.211	1448.421
<b>22.5</b>	1425.790	1415.605	1416.737	1413.342	1405.421
<b>25.0</b>	1382.790	1369.211	1370.342	1365.816	1357.895
<b>27.5</b>	1334.132	1320.553	1320.553	1316.026	1309.237
<b>30.0</b>	1282.079	1269.632	1268.500	1261.711	1256.053
<b>32.5</b>	1226.632	1214.184	1213.053	1205.132	1199.474
<b>35.0</b>	1170.053	1157.605	1155.342	1147.421	1141.763
<b>37.5</b>	1110.079	1099.895	1095.369	1086.316	1081.790
<b>40.0</b>	1050.105	1039.921	1036.526	1026.342	1020.684
<b>42.5</b>	987.869	979.947	974.290	962.974	961.842
<b>45.0</b>	925.632	917.711	912.053	901.868	899.605
<b>47.5</b>	863.395	857.737	848.684	840.763	837.368
<b>50.0</b>	798.895	795.500	786.447	776.263	775.132
<b>52.5</b>	737.790	732.132	724.211	712.895	712.895
<b>55.0</b>	676.684	671.026	661.974	652.921	651.790
<b>57.5</b>	616.711	609.921	602.000	592.947	591.816
<b>60.0</b>	556.737	551.079	542.026	534.105	532.974
<b>62.5</b>	496.763	494.500	484.316	475.263	475.263
<b>65.0</b>	440.184	435.658	427.737	418.684	417.553
<b>67.5</b>	383.605	380.211	373.421	366.632	363.237
<b>70.0</b>	329.290	327.026	320.237	313.447	311.184
<b>72.5</b>	278.368	274.974	268.184	262.526	261.395
<b>75.0</b>	228.579	225.184	219.526	213.868	212.737
<b>77.5</b>	183.316	177.658	173.132	168.605	166.342
<b>80.0</b>	139.184	134.658	129.000	124.474	122.211
<b>82.5</b>	98.447	93.921	88.263	83.737	81.474
<b>85.0</b>	61.105	57.711	50.921	46.395	43.000
<b>87.5</b>	27.158	22.632	16.974	15.842	14.711
<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	583.20	N.A.	14.80
0-30	1213.12	N.A.	30.70
0-40	1934.38	N.A.	49.00
0-60	3230.24	N.A.	81.80
0-80	3889.03	N.A.	98.50
0-90	3950.14	N.A.	100.00
10-90	3797.31	N.A.	96.10
20-40	1351.18	N.A.	34.20
20-50	2054.06	N.A.	52.00
40-70	1720.74	N.A.	43.60
60-80	658.79	N.A.	16.70
70-80	233.91	N.A.	5.90
80-90	61.11	N.A.	1.50
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	3950.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	152.83
10-20	430.36
20-30	629.92
30-40	721.25
40-50	702.88
50-60	592.99
60-70	424.87
70-80	233.91
80-90	61.11
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

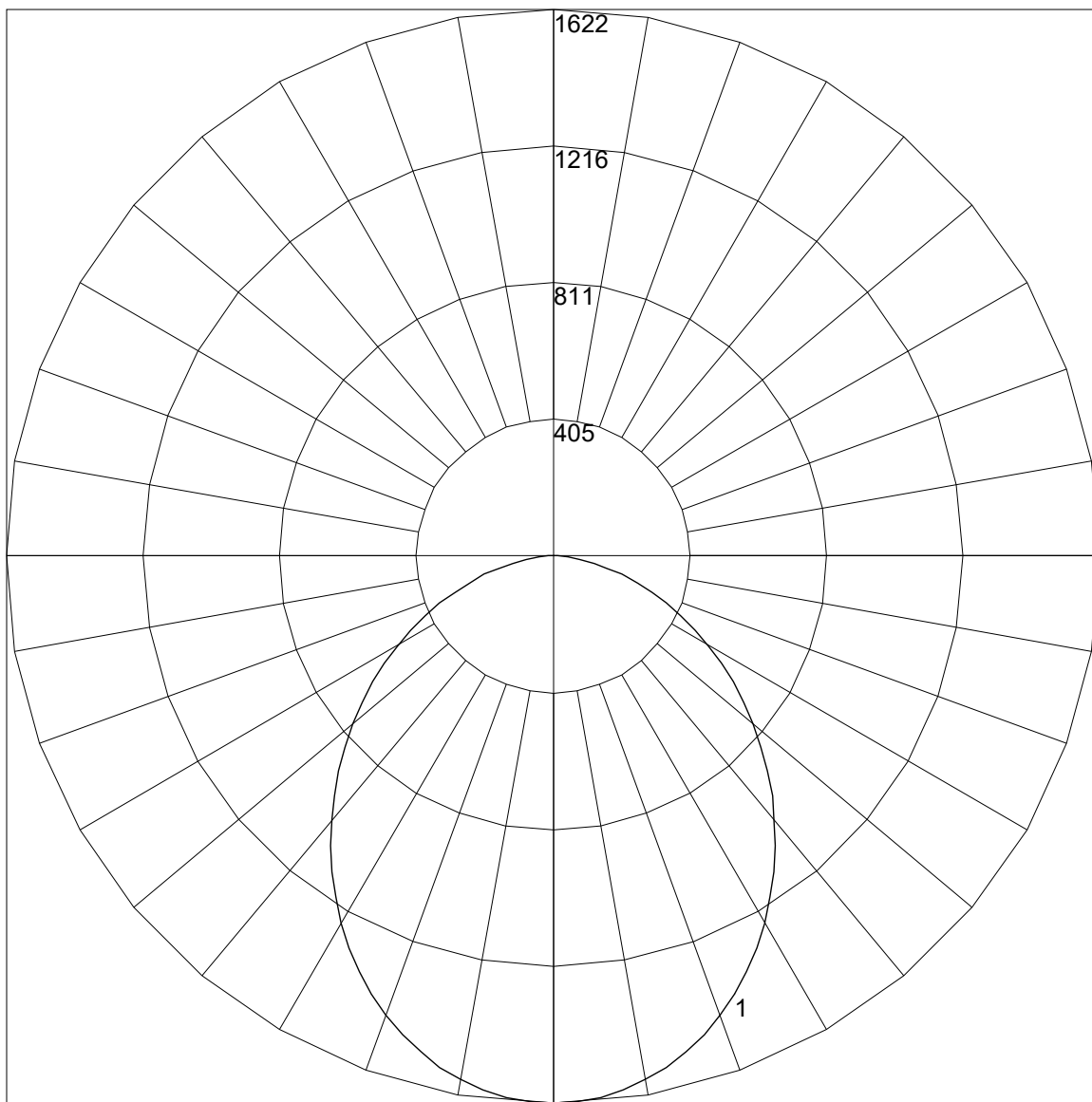
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	101	97	107	102	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	68	62	56	66	60	55	64	59	55	52
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	49	43	54	48	43	53	47	42	40
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	40	34	46	39	34	44	38	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 1621.553 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)