

# 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-EP-A-2X2-DCO-B-8-TW-ITL85144.906.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85144.906 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/19/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HPR-LED-EP-A-2X2-DCO-B-8-TW

[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 40.9 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.9 WATTS

[ABSOLUTE]LUMENS]3984

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85144. 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	3984
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	40.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.82 ft
Luminous Width (90-270)	1.81 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4254	4273	4329
55	4035	4051	4093
65	3721	3700	3752
75	3157	3098	3140
85	2129	1977	2027

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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>	1458.250	1458.250	1458.250	1458.250	1458.250
<b>2.5</b>	1456.214	1456.893	1456.893	1456.893	1456.893
<b>5.0</b>	1451.464	1451.464	1451.464	1451.464	1451.464
<b>7.5</b>	1441.964	1442.643	1441.964	1442.643	1442.643
<b>10.0</b>	1431.107	1431.107	1429.750	1429.071	1429.071
<b>12.5</b>	1412.786	1412.786	1412.107	1412.786	1413.464
<b>15.0</b>	1391.750	1392.429	1392.429	1393.786	1393.786
<b>17.5</b>	1368.000	1368.000	1368.000	1370.714	1371.393
<b>20.0</b>	1340.179	1340.179	1342.214	1344.250	1345.607
<b>22.5</b>	1308.286	1309.643	1311.679	1314.393	1316.429
<b>25.0</b>	1275.036	1275.714	1277.750	1282.500	1285.214
<b>27.5</b>	1240.429	1239.071	1242.464	1247.893	1248.571
<b>30.0</b>	1200.393	1200.393	1203.107	1209.893	1211.929
<b>32.5</b>	1160.357	1159.000	1162.393	1169.179	1172.571
<b>35.0</b>	1116.250	1114.893	1118.964	1127.786	1129.821
<b>37.5</b>	1070.786	1069.429	1074.857	1083.000	1085.036
<b>40.0</b>	1023.286	1022.607	1028.036	1036.179	1038.893
<b>42.5</b>	974.429	973.750	979.179	986.643	990.714
<b>45.0</b>	924.214	923.536	928.286	936.429	940.500
<b>47.5</b>	872.643	871.964	876.714	884.857	888.929
<b>50.0</b>	820.393	819.036	823.786	831.929	834.643
<b>52.5</b>	766.786	764.750	769.500	776.964	779.000
<b>55.0</b>	711.143	709.786	713.857	719.286	721.321
<b>57.5</b>	655.500	653.464	657.536	662.286	663.643
<b>60.0</b>	598.500	596.464	599.179	603.250	604.607
<b>62.5</b>	541.500	538.786	540.143	543.536	544.214
<b>65.0</b>	483.143	480.429	480.429	483.821	487.214
<b>67.5</b>	424.107	422.750	420.036	423.429	426.821
<b>70.0</b>	365.750	365.071	362.357	363.714	366.429
<b>72.5</b>	308.071	306.036	303.321	304.679	306.714
<b>75.0</b>	251.071	249.036	246.321	247.679	249.714
<b>77.5</b>	196.107	194.071	190.679	192.714	194.750
<b>80.0</b>	145.214	143.179	139.786	141.143	141.143
<b>82.5</b>	98.393	96.357	93.643	95.000	95.679
<b>85.0</b>	57.000	55.643	52.929	53.607	54.286
<b>87.5</b>	22.393	21.036	19.679	19.000	19.679
<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	530.68	N.A.	13.30
0-30	1119.92	N.A.	28.10
0-40	1821.18	N.A.	45.70
0-60	3177.48	N.A.	79.80
0-80	3918.27	N.A.	98.40
0-90	3983.83	N.A.	100.00
10-90	3845.97	N.A.	96.50
20-40	1290.5	N.A.	32.40
20-50	2007.96	N.A.	50.40
40-70	1833.47	N.A.	46.00
60-80	740.79	N.A.	18.60
70-80	263.61	N.A.	6.60
80-90	65.56	N.A.	1.60
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	3983.83	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	137.86
10-20	392.82
20-30	589.24
30-40	701.26
40-50	717.46
50-60	638.84
60-70	477.18
70-80	263.61
80-90	65.56
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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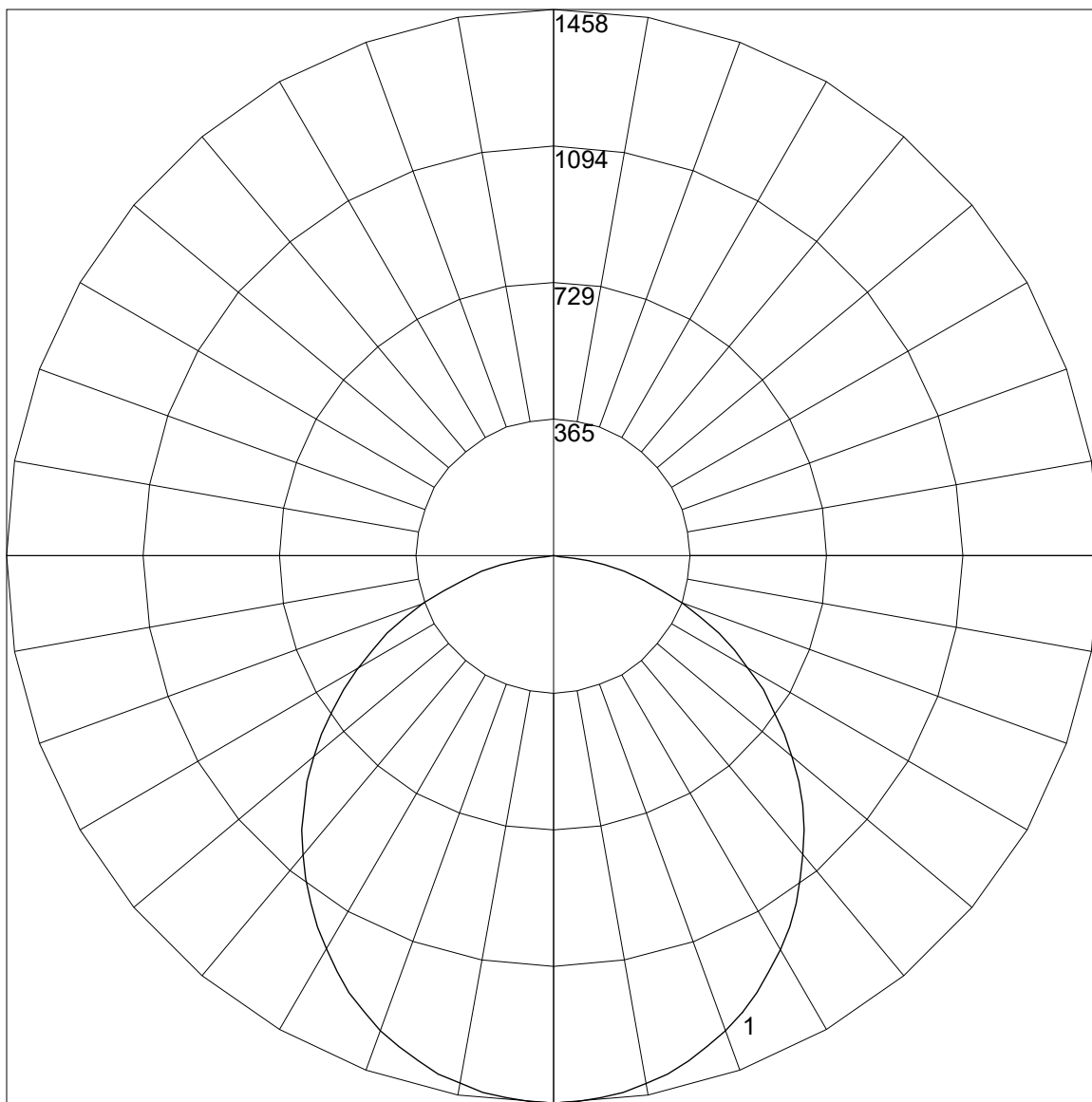
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	78	85	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

POLAR GRAPH



Maximum Candela = 1458.25 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)