

# 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-S-8-35-ITL85144.005.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85144.005 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-S-8-35

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.4 WATTS

[ABSOLUTE]LUMENS]3099

[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	3099
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	28.5
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	3309	3323	3367
55	3139	3151	3184
65	2894	2878	2918
75	2456	2409	2442
85	1656	1537	1577

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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>	1134.194	1134.194	1134.194	1134.194	1134.194
<b>2.5</b>	1132.611	1133.139	1133.139	1133.139	1133.139
<b>5.0</b>	1128.917	1128.917	1128.917	1128.917	1128.917
<b>7.5</b>	1121.528	1122.056	1121.528	1122.056	1122.056
<b>10.0</b>	1113.083	1113.083	1112.028	1111.500	1111.500
<b>12.5</b>	1098.833	1098.833	1098.306	1098.833	1099.361
<b>15.0</b>	1082.472	1083.000	1083.000	1084.056	1084.056
<b>17.5</b>	1064.000	1064.000	1064.000	1066.111	1066.639
<b>20.0</b>	1042.361	1042.361	1043.944	1045.528	1046.583
<b>22.5</b>	1017.556	1018.611	1020.194	1022.306	1023.889
<b>25.0</b>	991.694	992.222	993.806	997.500	999.611
<b>27.5</b>	964.778	963.722	966.361	970.583	971.111
<b>30.0</b>	933.639	933.639	935.750	941.028	942.611
<b>32.5</b>	902.500	901.444	904.083	909.361	912.000
<b>35.0</b>	868.194	867.139	870.306	877.167	878.750
<b>37.5</b>	832.833	831.778	836.000	842.333	843.917
<b>40.0</b>	795.889	795.361	799.583	805.917	808.028
<b>42.5</b>	757.889	757.361	761.583	767.389	770.556
<b>45.0</b>	718.833	718.306	722.000	728.333	731.500
<b>47.5</b>	678.722	678.194	681.889	688.222	691.389
<b>50.0</b>	638.083	637.028	640.722	647.056	649.167
<b>52.5</b>	596.389	594.806	598.500	604.306	605.889
<b>55.0</b>	553.111	552.056	555.222	559.444	561.028
<b>57.5</b>	509.833	508.250	511.417	515.111	516.167
<b>60.0</b>	465.500	463.917	466.028	469.194	470.250
<b>62.5</b>	421.167	419.056	420.111	422.750	423.278
<b>65.0</b>	375.778	373.667	373.667	376.306	378.944
<b>67.5</b>	329.861	328.806	326.694	329.333	331.972
<b>70.0</b>	284.472	283.944	281.833	282.889	285.000
<b>72.5</b>	239.611	238.028	235.917	236.972	238.556
<b>75.0</b>	195.278	193.694	191.583	192.639	194.222
<b>77.5</b>	152.528	150.944	148.306	149.889	151.472
<b>80.0</b>	112.944	111.361	108.722	109.778	109.778
<b>82.5</b>	76.528	74.944	72.833	73.889	74.417
<b>85.0</b>	44.333	43.278	41.167	41.694	42.222
<b>87.5</b>	17.417	16.361	15.306	14.778	15.306
<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	412.75	N.A.	13.30
0-30	871.05	N.A.	28.10
0-40	1416.47	N.A.	45.70
0-60	2471.37	N.A.	79.80
0-80	3047.54	N.A.	98.40
0-90	3098.53	N.A.	100.00
10-90	2991.31	N.A.	96.50
20-40	1003.72	N.A.	32.40
20-50	1561.75	N.A.	50.40
40-70	1426.04	N.A.	46.00
60-80	576.17	N.A.	18.60
70-80	205.03	N.A.	6.60
80-90	50.99	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	3098.53	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	107.23
10-20	305.52
20-30	458.30
30-40	545.43
40-50	558.02
50-60	496.87
60-70	371.14
70-80	205.03
80-90	50.99
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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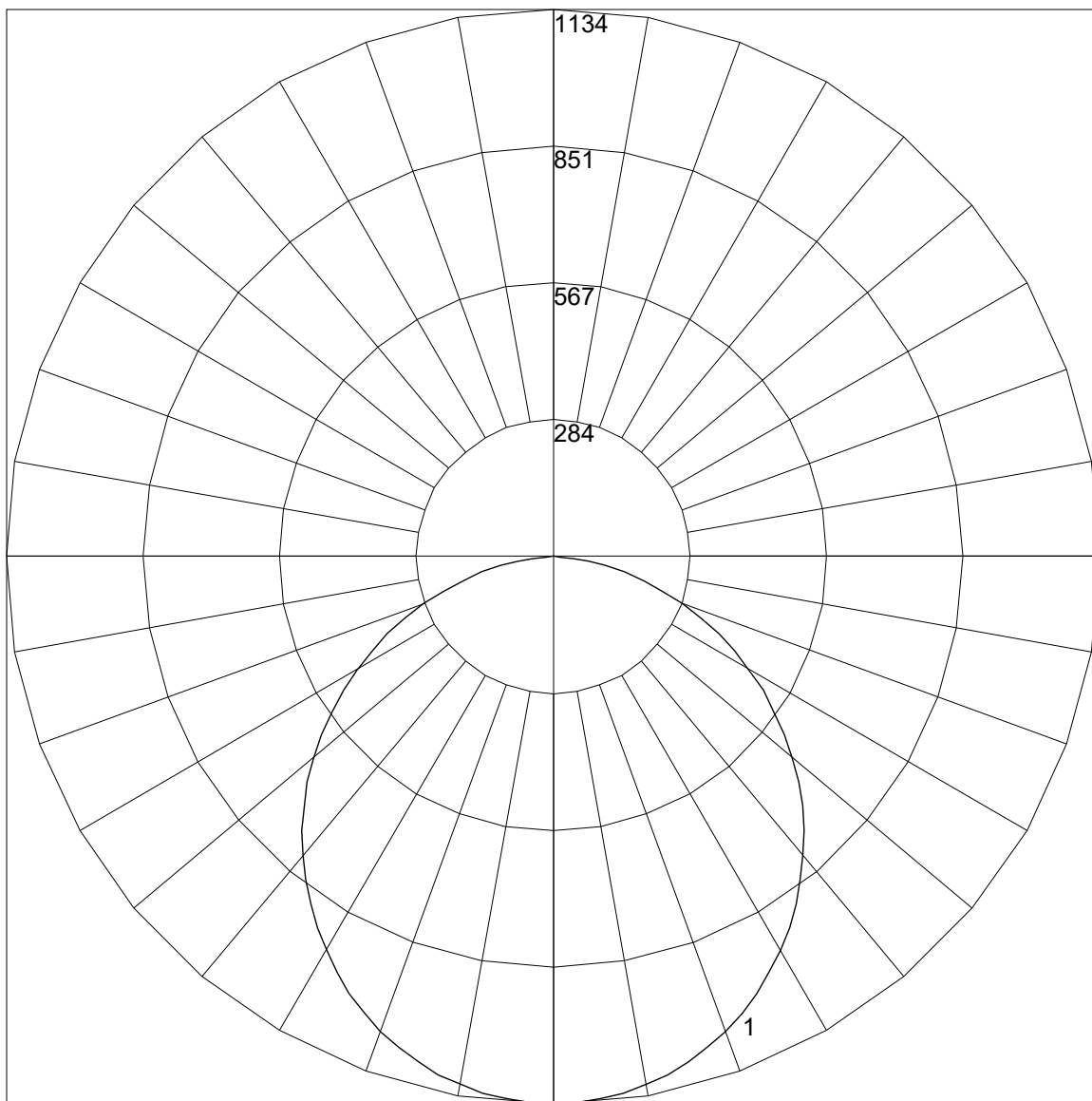
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	39	32	27	39	32	27	38	31	27	37	31	26	25

POLAR GRAPH



Maximum Candela = 1134.194 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)