

# 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-A-2X4-DCO-H-8-35-ITL85145.007.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85145.007 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/20/15  
[ISSUE DATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-A-2X4-DCO-H-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 40.6 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.4 WATTS  
[ABSOLUTE LUMENS]5416  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85145. 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	5416
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	40.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 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	2777	2764	2769
55	2513	2505	2486
65	2217	2200	2163
75	1861	1824	1805
85	1420	1337	1227

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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	2127.185	2127.185	2127.185	2127.185	2127.185
2.5	2125.633	2125.633	2125.633	2124.857	2124.857
5.0	2118.649	2117.097	2117.097	2116.320	2116.320
7.5	2105.456	2103.903	2103.127	2101.575	2100.799
10.0	2083.726	2082.950	2082.174	2081.398	2078.293
12.5	2058.116	2055.012	2056.564	2054.236	2052.683
15.0	2027.849	2023.193	2024.745	2021.641	2019.313
17.5	1991.375	1987.494	1985.942	1982.838	1982.838
20.0	1948.691	1944.811	1941.707	1938.602	1938.602
22.5	1900.575	1896.695	1894.367	1890.486	1890.486
25.0	1847.027	1842.371	1840.042	1836.162	1836.938
27.5	1788.822	1783.390	1780.286	1777.181	1778.734
30.0	1725.185	1719.753	1717.425	1714.320	1715.873
32.5	1656.892	1652.236	1649.131	1646.803	1648.355
35.0	1585.494	1580.062	1577.734	1575.405	1577.734
37.5	1510.216	1505.560	1503.232	1500.903	1504.008
40.0	1431.834	1426.402	1424.849	1423.297	1425.625
42.5	1351.124	1346.467	1344.915	1343.363	1346.467
45.0	1268.861	1263.429	1262.653	1261.876	1264.981
47.5	1184.270	1179.614	1179.614	1178.838	1181.166
50.0	1099.680	1095.799	1095.799	1094.247	1096.575
52.5	1015.089	1011.208	1011.208	1012.761	1006.552
55.0	931.274	927.394	928.170	927.394	921.185
57.5	848.236	846.683	846.683	842.803	840.475
60.0	765.197	763.645	763.645	758.988	755.884
62.5	684.486	682.934	681.382	676.726	674.398
65.0	605.328	603.776	600.672	594.463	590.583
67.5	526.946	526.170	522.290	516.081	512.977
70.0	451.668	452.444	447.012	441.579	438.475
72.5	379.494	380.270	374.062	371.734	370.181
75.0	311.201	310.425	304.992	301.112	301.888
77.5	246.012	244.459	240.579	237.475	237.475
80.0	185.479	183.151	180.046	177.718	177.718
82.5	130.378	128.826	126.498	121.842	121.842
85.0	79.934	77.606	75.278	70.622	69.069
87.5	33.371	31.819	26.386	23.282	22.506
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	771.32	N.A.	14.20
0-30	1618.28	N.A.	29.90
0-40	2604.91	N.A.	48.10
0-60	4409.17	N.A.	81.40
0-80	5329.65	N.A.	98.40
0-90	5416.13	N.A.	100.00
10-90	5215.16	N.A.	96.30
20-40	1833.59	N.A.	33.90
20-50	2807.98	N.A.	51.80
40-70	2398.97	N.A.	44.30
60-80	920.47	N.A.	17.00
70-80	325.76	N.A.	6.00
80-90	86.49	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	5416.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	200.97
10-20	570.34
20-30	846.97
30-40	986.63
40-50	974.38
50-60	829.88
60-70	594.71
70-80	325.76
80-90	86.49
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

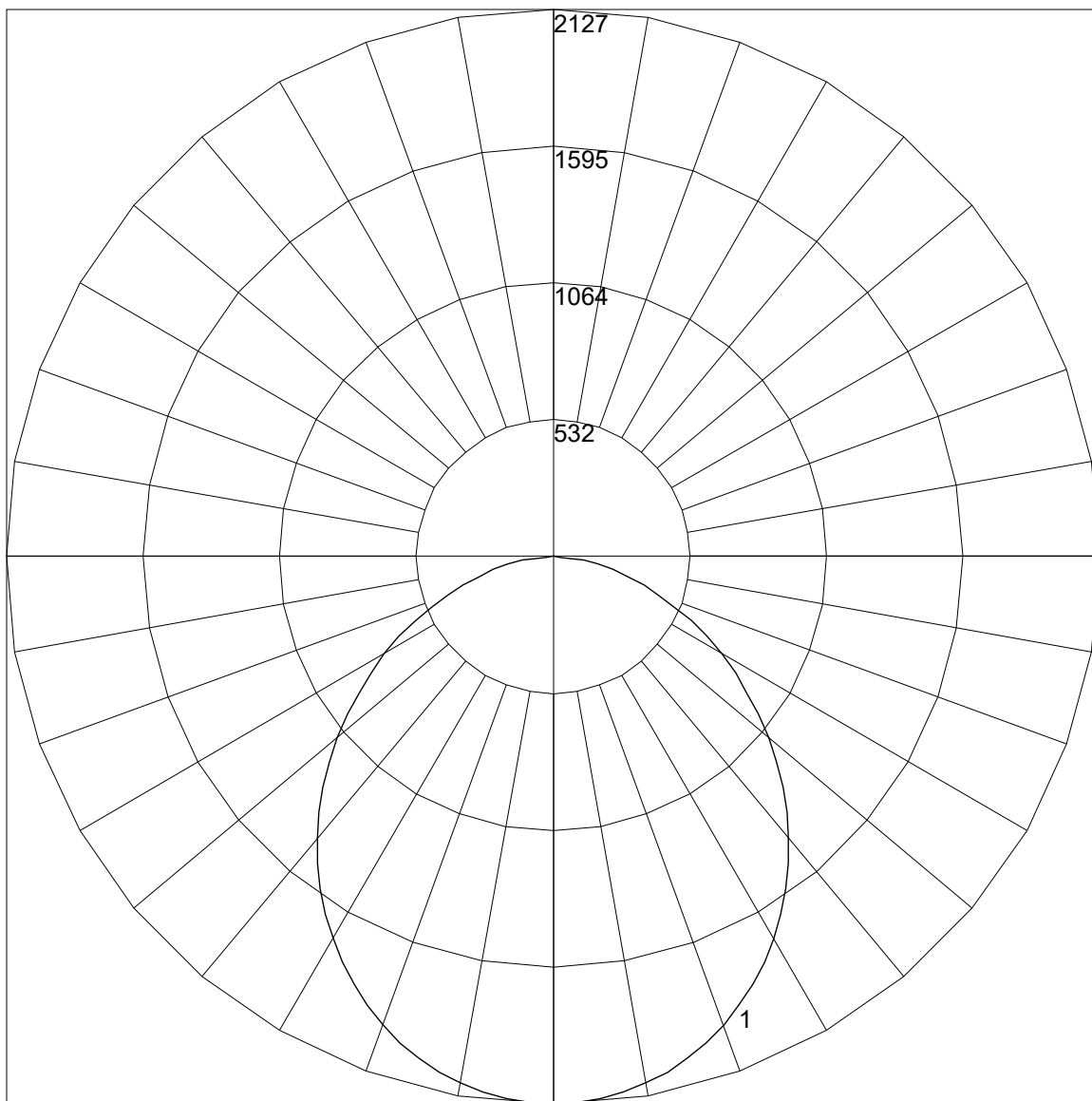
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	60
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	43	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	51	43	38	49	42	38	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	33	32
9	58	44	36	31	56	44	36	31	43	36	31	42	35	30	41	35	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 2127.185 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)