

# 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-2X4-CS-H-8-35-ITL86020.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL86020.003 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]11/10/15

[ISSUEDATE]04/28/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HPR-LED-2X4-CS-H-8-35

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 40.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.4 WATTS

[ABSOLUTE]LUMENS]5123

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL86020. 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	5123
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	40.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.20
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	2626	2570	2563
55	2473	2412	2402
65	2254	2211	2214
75	1898	1935	1991
85	1240	1585	1544

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1940.154	1940.154	1940.154	1940.154	1940.154
2.5	1938.602	1937.826	1937.826	1937.050	1937.826
5.0	1930.842	1930.066	1929.290	1928.514	1927.737
7.5	1917.649	1915.320	1913.768	1912.216	1910.664
10.0	1896.695	1895.919	1893.591	1889.710	1888.158
12.5	1871.085	1870.309	1867.981	1864.876	1861.772
15.0	1842.371	1840.819	1836.938	1832.282	1829.178
17.5	1809.000	1806.672	1799.687	1795.031	1793.479
20.0	1770.197	1767.093	1759.332	1754.676	1753.124
22.5	1728.290	1723.633	1715.873	1709.664	1708.112
25.0	1680.950	1674.741	1666.981	1659.996	1658.444
27.5	1629.730	1622.745	1614.208	1607.224	1605.672
30.0	1575.405	1566.869	1558.332	1550.571	1549.019
32.5	1518.753	1509.440	1500.127	1492.367	1490.815
35.0	1458.220	1448.907	1438.042	1430.282	1429.506
37.5	1396.135	1386.046	1375.181	1368.973	1367.421
40.0	1331.722	1320.857	1309.992	1306.112	1303.008
42.5	1268.085	1255.668	1244.027	1240.147	1237.819
45.0	1199.792	1185.046	1174.181	1172.629	1171.077
47.5	1129.946	1115.201	1105.888	1103.560	1102.784
50.0	1059.324	1044.579	1034.490	1034.490	1033.714
52.5	988.703	973.181	963.869	964.645	960.764
55.0	916.529	901.784	894.023	893.247	890.143
57.5	842.027	828.058	821.849	821.849	818.745
60.0	764.421	753.556	748.900	748.124	747.347
62.5	689.919	679.830	676.726	676.726	675.950
65.0	615.417	605.328	603.776	605.328	604.552
67.5	540.139	531.602	531.602	533.931	533.931
70.0	464.085	458.653	460.981	464.085	467.965
72.5	389.583	388.807	391.135	395.792	399.672
75.0	317.409	318.961	323.618	329.050	332.931
77.5	248.340	252.220	259.205	265.413	269.293
80.0	183.151	190.135	199.448	204.880	207.985
82.5	124.170	133.483	142.795	145.900	147.452
85.0	69.846	81.486	89.247	87.695	86.919
87.5	24.058	34.923	37.251	36.475	34.923
90.0	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	700.62	N.A.	13.70
0-30	1468.58	N.A.	28.70
0-40	2369.62	N.A.	46.30
0-60	4081.93	N.A.	79.70
0-80	5026.34	N.A.	98.10
0-90	5123.45	N.A.	100.00
10-90	4940.47	N.A.	96.40
20-40	1669.01	N.A.	32.60
20-50	2578.9	N.A.	50.30
40-70	2312.43	N.A.	45.10
60-80	944.42	N.A.	18.40
70-80	344.29	N.A.	6.70
80-90	97.11	N.A.	1.90
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	5123.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	182.98
10-20	517.63
20-30	767.97
30-40	901.04
40-50	909.90
50-60	802.41
60-70	600.12
70-80	344.29
80-90	97.11
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

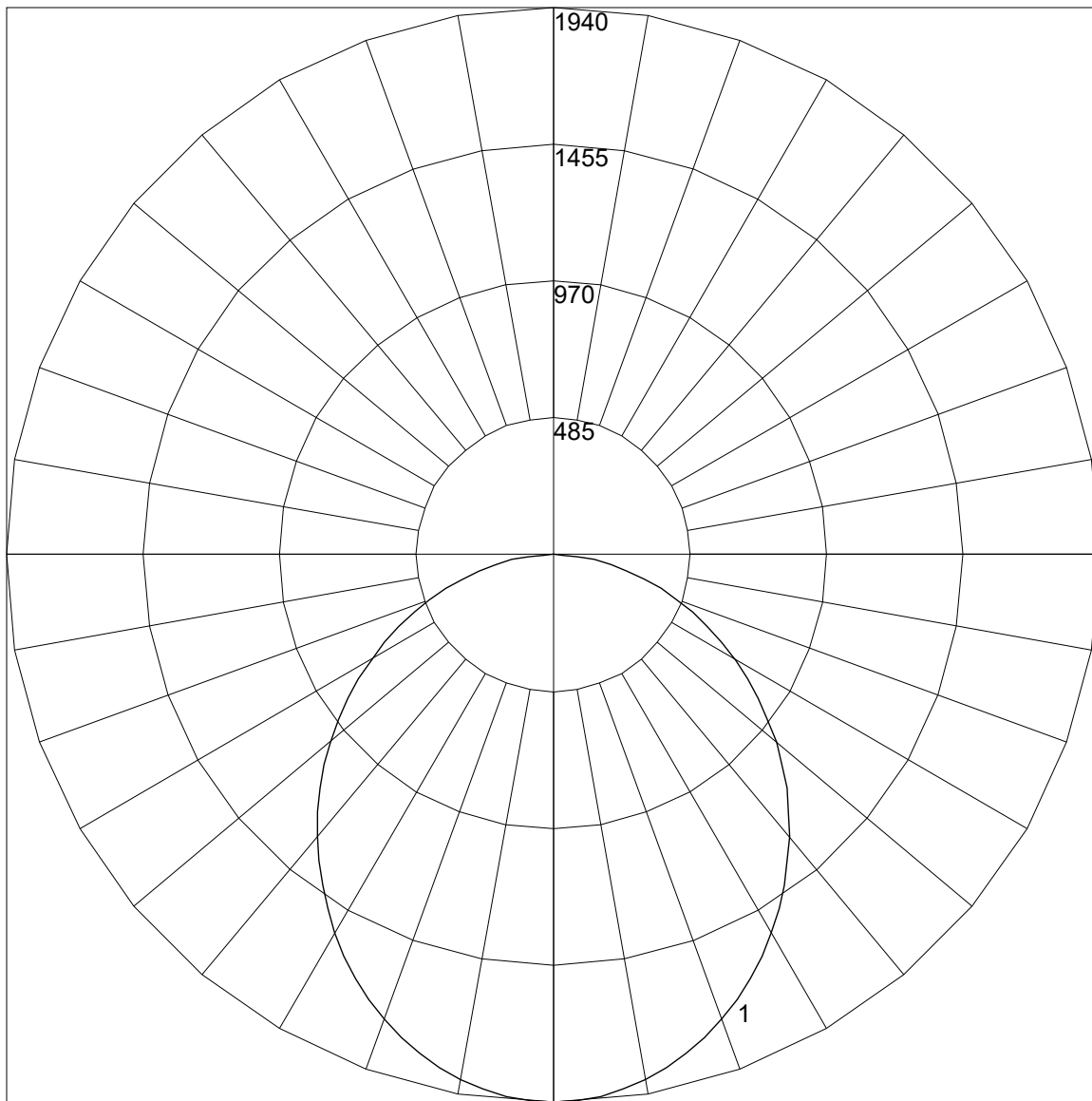
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	61	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 1940.154 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)