

# 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 : HP-4-RG-4FT-B-8TW-ITL85129.902.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85129.902 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/10/15  
[ISSUEDATE]02/10/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-4-RG-4ft-B-8TW  
[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, 20.3 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 21.8 WATTS  
[ABSOLUTE]LUMENS]1790  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85129. 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	1790
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	20.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.10
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5484	4829	4429
55	5087	4258	3787
65	4643	3569	3011
75	4072	2632	2003
85	3294	1868	1819

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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>	778.105	778.105	778.105	778.105	778.105
<b>2.5</b>	777.076	777.076	777.076	776.561	776.561
<b>5.0</b>	773.988	772.959	771.930	770.386	770.386
<b>7.5</b>	768.327	766.269	763.696	760.608	759.064
<b>10.0</b>	760.608	755.977	751.345	747.228	743.626
<b>12.5</b>	750.316	743.626	736.936	731.789	726.643
<b>15.0</b>	738.480	728.187	720.982	713.778	707.602
<b>17.5</b>	724.070	710.690	701.942	692.678	685.988
<b>20.0</b>	707.088	690.620	681.357	670.035	662.830
<b>22.5</b>	689.076	670.035	658.199	645.333	637.614
<b>25.0</b>	667.977	648.421	634.012	618.573	610.339
<b>27.5</b>	646.363	625.778	608.795	591.298	584.094
<b>30.0</b>	624.234	601.591	583.064	563.509	555.789
<b>32.5</b>	599.532	575.860	555.275	534.175	526.456
<b>35.0</b>	574.316	549.614	526.971	504.842	496.094
<b>37.5</b>	548.070	522.854	498.152	475.509	466.246
<b>40.0</b>	520.281	495.064	469.333	445.661	436.398
<b>42.5</b>	494.035	467.275	440.000	416.327	406.550
<b>45.0</b>	465.731	438.456	410.152	385.450	376.187
<b>47.5</b>	436.398	410.152	380.819	355.602	346.339
<b>50.0</b>	408.094	381.333	351.485	326.269	317.520
<b>52.5</b>	379.275	352.515	322.152	297.965	289.216
<b>55.0</b>	350.456	324.211	293.333	269.146	260.912
<b>57.5</b>	322.667	295.392	265.029	241.871	233.123
<b>60.0</b>	293.333	266.573	236.211	213.567	204.819
<b>62.5</b>	264.515	238.269	208.421	186.807	178.573
<b>65.0</b>	235.696	210.994	181.146	160.561	152.842
<b>67.5</b>	207.906	183.719	154.901	135.860	128.140
<b>70.0</b>	180.117	156.959	129.684	111.158	104.468
<b>72.5</b>	152.842	130.713	105.497	88.000	82.339
<b>75.0</b>	126.596	105.497	81.825	66.901	62.269
<b>77.5</b>	101.380	82.339	60.211	51.462	50.433
<b>80.0</b>	77.708	59.696	42.199	40.140	39.626
<b>82.5</b>	55.579	38.596	30.363	29.333	29.333
<b>85.0</b>	34.480	21.099	19.556	18.526	19.041
<b>87.5</b>	14.409	9.778	8.749	8.234	8.749
<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	276.02	N.A.	15.40
0-30	568.35	N.A.	31.80
0-40	899.21	N.A.	50.20
0-60	1485.16	N.A.	83.00
0-80	1764.7	N.A.	98.60
0-90	1789.55	N.A.	100.00
10-90	1716.51	N.A.	95.90
20-40	623.19	N.A.	34.80
20-50	942.48	N.A.	52.70
40-70	771.22	N.A.	43.10
60-80	279.55	N.A.	15.60
70-80	94.27	N.A.	5.30
80-90	24.85	N.A.	1.40
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	1789.55	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	73.04
10-20	202.98
20-30	292.33
30-40	330.86
40-50	319.29
50-60	266.66
60-70	185.27
70-80	94.27
80-90	24.85
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

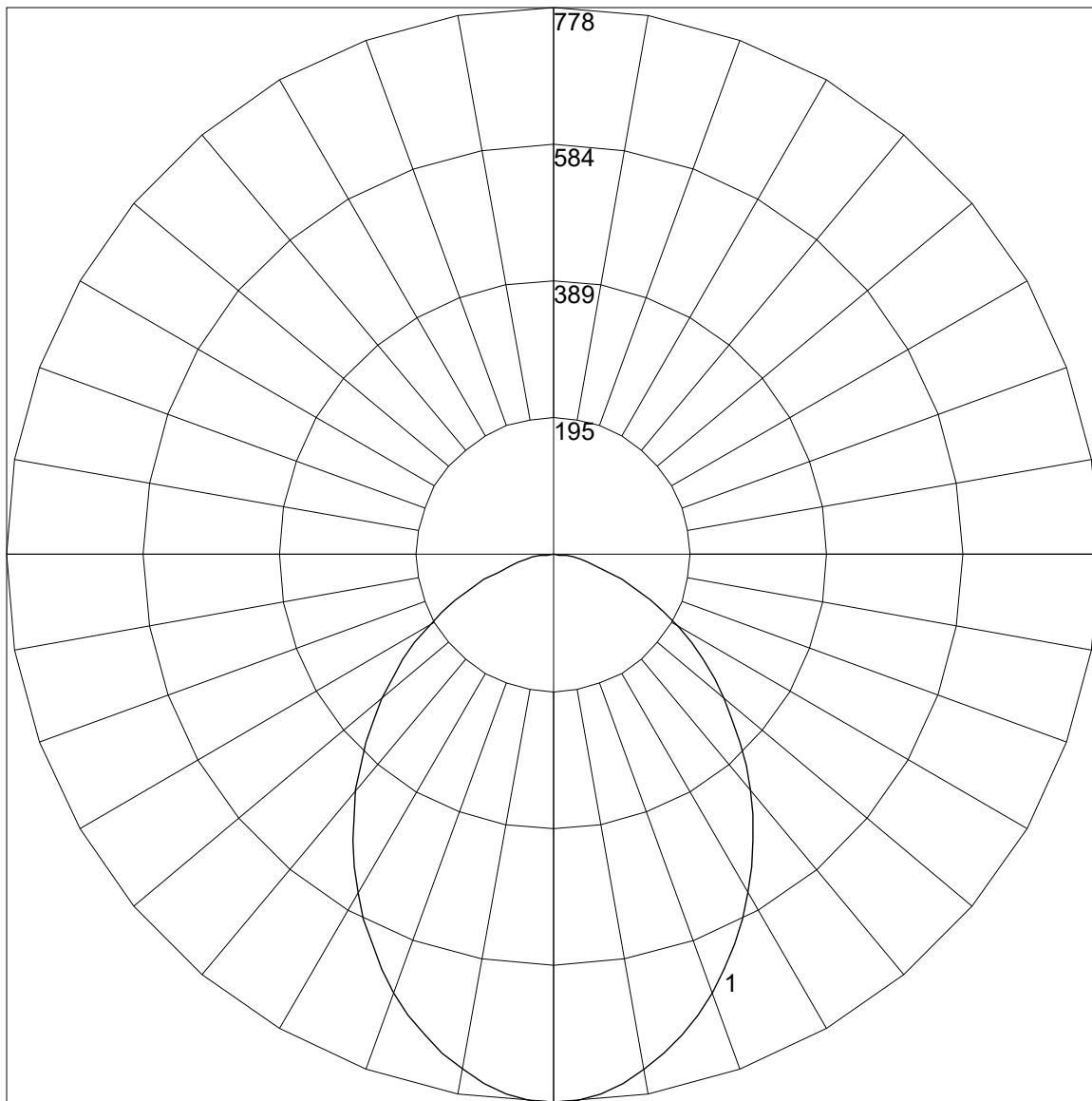
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	55	53
5	78	66	57	51	76	64	56	50	62	55	50	60	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	48	44	53	48	43	41
7	67	54	46	40	65	53	45	39	52	44	39	50	44	39	49	43	39	37
8	63	49	41	36	61	49	41	35	47	40	35	46	40	35	45	39	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	55	42	34	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27

POLAR GRAPH



Maximum Candela = 778.105 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)