

# 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-2-D-RG-4FT-B-8TW-F-ITL90350.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90350.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/03/18

[ISSUEDATE]05/29/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-D-RG-4ft-B-8TW-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 20.1 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 21.5 WATTS

[\_ABSOLUTE]LUMENS]1486

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90350. 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	1486
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	74
Total Luminaire Watts	20.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	0.94
Spacing Criterion (Diagonal)	1.12
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9449	6719	5327
55	8501	5341	4155
65	7526	4049	3162
75	6401	3110	2838
85	5111	2510	2331

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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>	787.009	787.009	787.009	787.009	787.009
<b>2.5</b>	785.979	785.465	784.950	784.435	783.920
<b>5.0</b>	782.376	781.347	778.773	775.685	774.141
<b>7.5</b>	776.200	773.626	766.420	760.243	757.155
<b>10.0</b>	767.449	761.273	750.464	739.140	734.507
<b>12.5</b>	756.640	745.316	729.360	712.889	706.198
<b>15.0</b>	742.743	726.786	705.168	683.035	673.770
<b>17.5</b>	727.301	706.198	677.373	650.093	638.254
<b>20.0</b>	709.286	683.035	647.519	615.092	601.194
<b>22.5</b>	687.668	657.299	615.607	577.517	562.076
<b>25.0</b>	665.535	630.019	582.150	539.943	523.471
<b>27.5</b>	641.343	601.194	547.663	501.853	484.353
<b>30.0</b>	615.607	571.855	513.177	463.249	446.263
<b>32.5</b>	587.297	542.001	478.176	425.160	409.203
<b>35.0</b>	558.987	511.118	443.690	389.644	371.629
<b>37.5</b>	530.163	479.720	409.718	355.158	337.657
<b>40.0</b>	500.309	447.807	376.261	322.730	305.744
<b>42.5</b>	470.455	416.924	343.834	291.847	275.891
<b>45.0</b>	440.087	385.526	312.950	263.023	248.096
<b>47.5</b>	409.203	355.672	283.097	235.742	222.874
<b>50.0</b>	378.835	325.304	254.272	210.006	198.682
<b>52.5</b>	350.525	295.450	227.507	187.359	177.064
<b>55.0</b>	321.186	265.596	201.771	165.740	156.990
<b>57.5</b>	292.362	237.801	177.064	145.666	137.945
<b>60.0</b>	264.052	211.036	153.902	126.621	119.930
<b>62.5</b>	236.257	184.785	132.798	109.121	102.944
<b>65.0</b>	209.492	160.078	112.724	91.620	88.017
<b>67.5</b>	182.211	136.401	94.194	79.267	78.238
<b>70.0</b>	156.990	113.753	77.208	68.973	67.943
<b>72.5</b>	132.798	92.650	63.825	59.193	57.649
<b>75.0</b>	109.121	72.576	53.016	48.899	48.384
<b>77.5</b>	88.017	54.046	42.207	39.634	39.119
<b>80.0</b>	67.428	38.089	32.427	30.369	30.369
<b>82.5</b>	47.354	26.766	23.162	21.618	21.618
<b>85.0</b>	29.339	16.471	14.412	13.383	13.383
<b>87.5</b>	12.353	7.206	6.177	5.662	5.662
<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	271.45	N.A.	18.30
0-30	540.90	N.A.	36.40
0-40	823.79	N.A.	55.40
0-60	1271.56	N.A.	85.60
0-80	1467.49	N.A.	98.70
0-90	1486.16	N.A.	100.00
10-90	1412.75	N.A.	95.10
20-40	552.35	N.A.	37.20
20-50	804.54	N.A.	54.10
40-70	576.16	N.A.	38.80
60-80	195.93	N.A.	13.20
70-80	67.54	N.A.	4.50
80-90	18.68	N.A.	1.30
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	1486.16	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	73.41
10-20	198.04
20-30	269.46
30-40	282.89
40-50	252.19
50-60	195.57
60-70	128.39
70-80	67.54
80-90	18.68
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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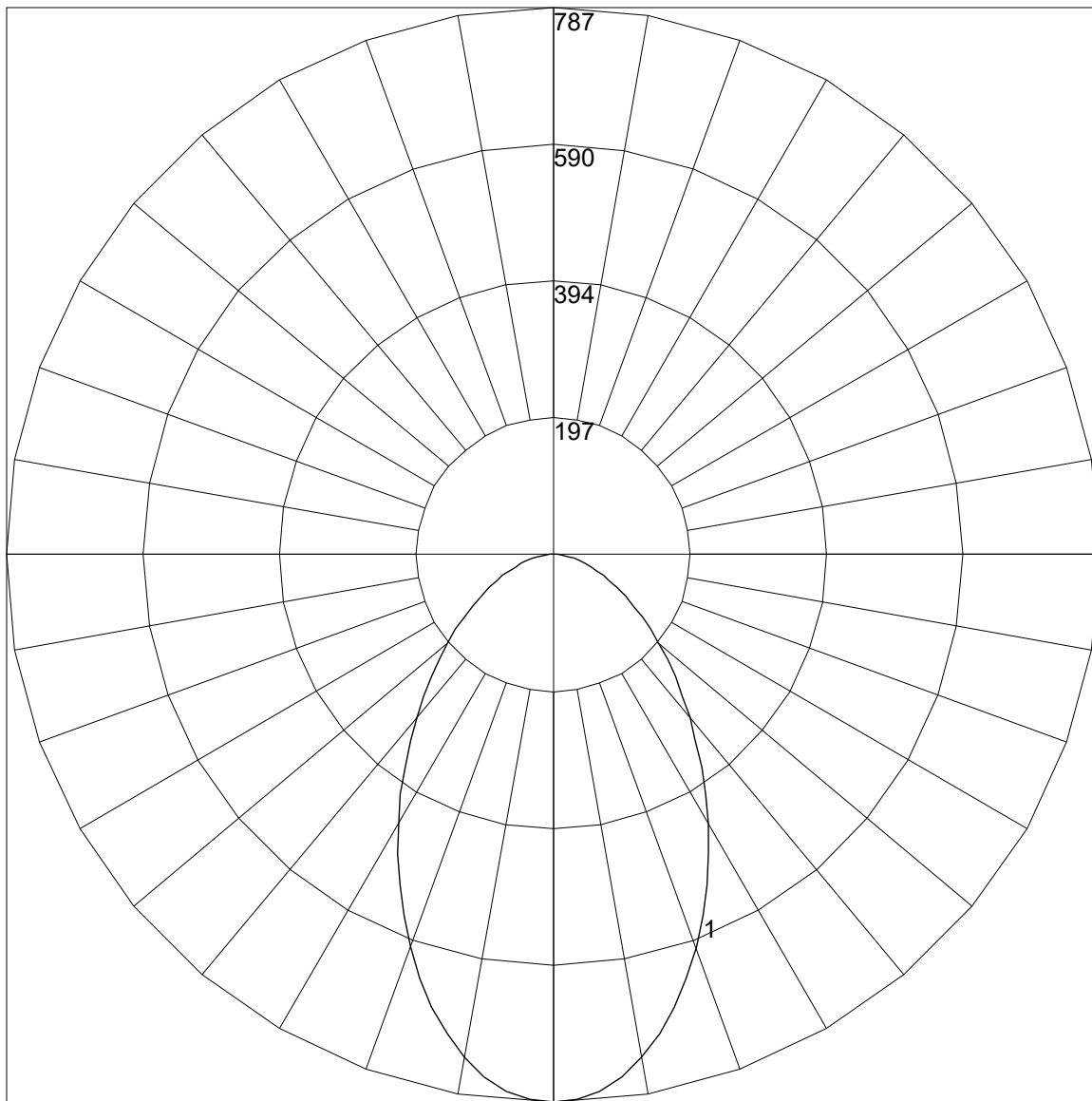
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

POLAR GRAPH



Maximum Candela = 787.009 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)