

# 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-D-RG-4FT-B-8TW-TG-ITL90353.803.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL90353.803 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]04/03/18  
[ISSUE DATE]05/18/18  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-4-D-RG-4ft-B-8TW-TG  
[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's  
[INPUT\_ELECTRICAL]120.0 VOLTS, 20.3 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 21.8 WATTS  
[ABSOLUTE LUMENS]1789  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90353. For further details on Finelite family correlation files, go to  
[more][http://www.finelite.com/download\\_files/series\\_downloads/photometry\\_pdf/CHARACTERISTICS\\_in\\_WhitePaper.pdf](http://www.finelite.com/download_files/series_downloads/photometry_pdf/CHARACTERISTICS_in_WhitePaper.pdf)

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1789
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)	1.14
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5295	4837	4485
55	4936	4256	3800
65	4489	3517	2937
75	3914	2422	1844
85	2858	1572	1477

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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	763.530	763.530	763.530	763.530	763.530
2.5	762.010	761.503	762.010	762.010	762.010
5.0	758.463	757.956	757.956	758.463	758.970
7.5	752.890	752.383	752.383	752.383	751.876
10.0	745.797	743.263	744.277	742.757	740.730
12.5	735.663	732.624	732.624	729.584	726.037
15.0	724.010	718.944	718.437	714.384	709.317
17.5	709.824	703.744	701.211	695.638	690.571
20.0	693.104	686.011	681.958	674.358	669.798
22.5	674.865	667.265	660.678	651.559	646.492
25.0	655.105	646.492	637.879	626.733	621.666
27.5	633.826	624.199	613.053	600.893	595.320
30.0	610.520	600.893	587.720	574.040	567.454
32.5	586.200	576.574	560.867	545.668	537.561
35.0	561.881	550.734	533.508	516.788	508.175
37.5	536.548	523.882	504.629	485.882	478.283
40.0	510.202	497.029	475.243	456.496	447.883
42.5	483.856	469.163	446.870	426.097	417.484
45.0	457.003	441.297	417.484	395.191	387.085
47.5	430.150	412.924	388.098	364.792	356.685
50.0	402.284	384.045	357.699	333.886	325.779
52.5	373.912	355.165	327.806	303.993	295.887
55.0	345.539	326.793	297.913	274.101	265.994
57.5	317.673	297.913	268.527	244.714	236.608
60.0	289.300	269.034	239.141	215.328	207.222
62.5	260.927	240.155	209.755	186.449	178.849
65.0	231.541	211.782	181.383	158.583	151.490
67.5	203.675	183.409	153.010	131.730	124.637
70.0	175.809	155.543	126.157	105.384	99.304
72.5	148.450	128.690	100.824	81.571	75.492
75.0	123.624	102.851	76.505	60.799	58.265
77.5	98.291	78.532	54.719	48.639	48.132
80.0	73.972	55.225	39.519	37.999	37.999
82.5	52.692	33.439	28.373	27.359	27.359
85.0	30.399	18.240	16.720	16.213	15.706
87.5	9.626	6.080	5.573	5.573	5.067
90.0	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

135.0	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	273.76	N.A.	15.30
0-30	567.00	N.A.	31.70
0-40	900.65	N.A.	50.30
0-60	1493.09	N.A.	83.50
0-80	1767.25	N.A.	98.80
0-90	1789.16	N.A.	100.00
10-90	1717.24	N.A.	96.00
20-40	626.89	N.A.	35.00
20-50	950.04	N.A.	53.10
40-70	776.61	N.A.	43.40
60-80	274.16	N.A.	15.30
70-80	89.99	N.A.	5.00
80-90	21.92	N.A.	1.20
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	1789.16	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	71.92
10-20	201.84
20-30	293.24
30-40	333.65
40-50	323.15
50-60	269.29
60-70	184.17
70-80	89.99
80-90	21.92
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

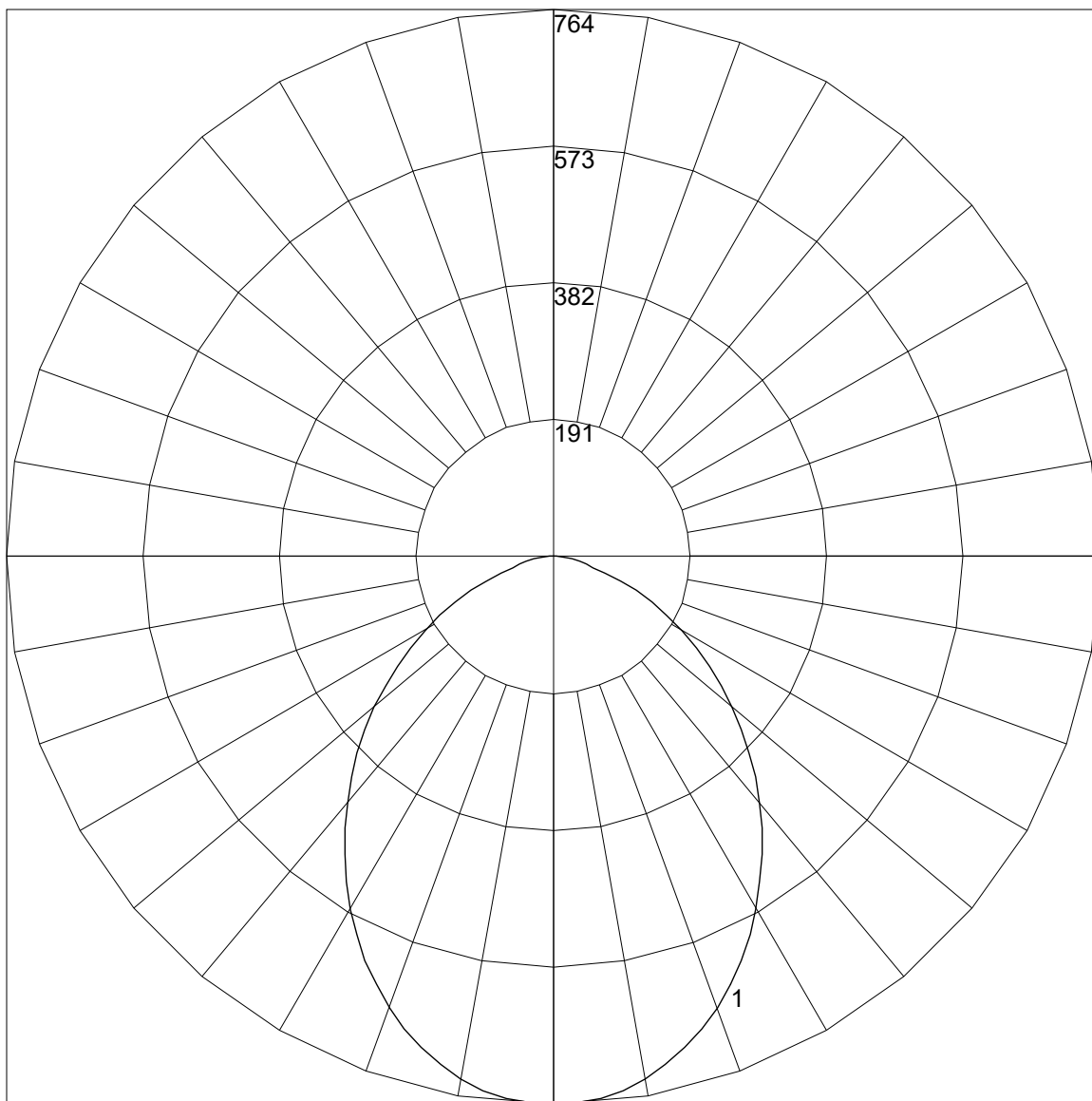
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	90	80	73	68	77	71	66	75	70	65	72	68	64	62
4	85	73	65	58	82	72	64	58	69	63	57	67	61	56	65	60	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37
8	63	50	41	36	61	49	41	36	48	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 = 763.53 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)