

# 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-S-835-ITL90353.604.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL90353.604 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]04/03/18  
[ISSUEDATE]05/18/18  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-4-D-RG-4ft-S-835-TG  
[INPUT\_ELECTRICAL]120.0 VOLTS, 14.5 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 16.0 WATTS  
[ABSOLUTE LUMENS]1423  
[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/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	1423
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	14.5
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	4212	3848	3568
55	3926	3385	3022
65	3571	2797	2336
75	3113	1926	1467
85	2273	1250	1174

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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	607.324	607.324	607.324	607.324	607.324
2.5	606.115	605.712	606.115	606.115	606.115
5.0	603.294	602.891	602.891	603.294	603.697
7.5	598.861	598.458	598.458	598.458	598.055
10.0	593.219	591.204	592.010	590.801	589.189
12.5	585.159	582.741	582.741	580.323	577.502
15.0	575.890	571.860	571.457	568.233	564.203
17.5	564.606	559.770	557.755	553.322	549.292
20.0	551.307	545.665	542.441	536.396	532.769
22.5	536.799	530.754	525.515	518.261	514.231
25.0	521.082	514.231	507.380	498.513	494.483
27.5	504.155	496.498	487.632	477.960	473.527
30.0	485.617	477.960	467.482	456.601	451.362
32.5	466.273	458.616	446.123	434.033	427.585
35.0	446.929	438.063	424.361	411.062	404.211
37.5	426.779	416.704	401.390	386.479	380.434
40.0	405.823	395.345	378.016	363.105	356.254
42.5	384.867	373.180	355.448	338.925	332.074
45.0	363.508	351.015	332.074	314.342	307.894
47.5	342.149	328.447	308.700	290.161	283.713
50.0	319.984	305.476	284.519	265.578	259.130
52.5	297.415	282.504	260.742	241.801	235.353
55.0	274.847	259.936	236.965	218.024	211.576
57.5	252.682	236.965	213.591	194.650	188.202
60.0	230.114	213.994	190.217	171.276	164.828
62.5	207.546	191.023	166.843	148.305	142.260
65.0	184.172	168.455	144.275	126.140	120.498
67.5	162.007	145.887	121.707	104.781	99.138
70.0	139.842	123.722	100.347	83.824	78.988
72.5	118.080	102.363	80.197	64.883	60.047
75.0	98.332	81.809	60.853	48.360	46.345
77.5	78.182	62.465	43.524	38.688	38.285
80.0	58.838	43.927	31.434	30.225	30.225
82.5	41.912	26.598	22.568	21.762	21.762
85.0	24.180	14.508	13.299	12.896	12.493
87.5	7.657	4.836	4.433	4.433	4.030
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.)**

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

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	217.75	N.A.	15.30
0-30	451.00	N.A.	31.70
0-40	716.39	N.A.	50.30
0-60	1187.63	N.A.	83.50
0-80	1405.7	N.A.	98.80
0-90	1423.13	N.A.	100.00
10-90	1365.93	N.A.	96.00
20-40	498.64	N.A.	35.00
20-50	755.67	N.A.	53.10
40-70	617.73	N.A.	43.40
60-80	218.07	N.A.	15.30
70-80	71.58	N.A.	5.00
80-90	17.43	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	1423.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	57.21
10-20	160.55
20-30	233.25
30-40	265.39
40-50	257.04
50-60	214.20
60-70	146.49
70-80	71.58
80-90	17.43
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

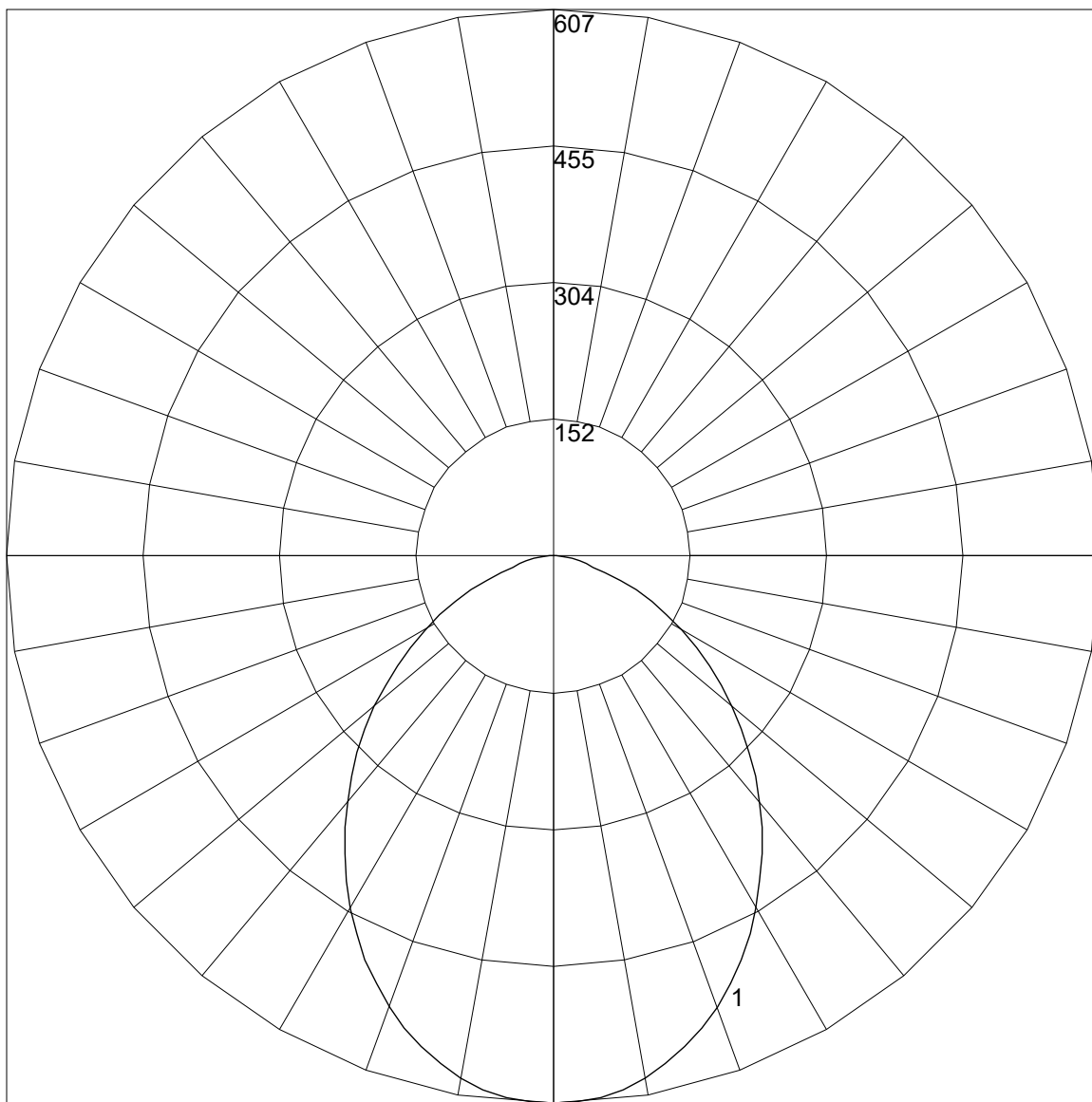
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 = 607.324 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)