

# 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-ID-RG-4FT-V-B-835-TG-F-ITL90353.005.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353.005 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/03/18

[ISSUEDATE]05/18/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-ID-RG-4ft-V-B-835-TG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 54.8 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 56.7 WATTS

[\_ABSOLUTE]LUMENS]6223

[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	6223
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	54.8
Ballast Factor	1.00
CIE Type	Semi-Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
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	5379	4914	4556
55	5014	4323	3860
65	4560	3572	2983
75	3975	2460	1874
85	2903	1597	1500

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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	775.588	775.588	775.588	775.588	775.588
2.5	774.044	773.530	774.044	774.044	774.044
5.0	770.442	769.927	769.927	770.442	770.956
7.5	764.780	764.266	764.266	764.266	763.751
10.0	757.575	755.002	756.031	754.487	752.429
12.5	747.282	744.194	744.194	741.106	737.504
15.0	735.445	730.298	729.784	725.667	720.520
17.5	721.035	714.859	712.285	706.624	701.478
20.0	704.051	696.846	692.728	685.009	680.377
22.5	685.523	677.803	671.113	661.849	656.702
25.0	665.452	656.702	647.953	636.631	631.484
27.5	643.836	634.057	622.735	610.383	604.722
30.0	620.162	610.383	597.002	583.106	576.416
32.5	595.458	585.680	569.725	554.286	546.051
35.0	570.755	559.432	541.934	524.950	516.201
37.5	545.022	532.155	512.598	493.556	485.836
40.0	518.260	504.879	482.748	463.706	454.957
42.5	491.497	476.572	453.928	432.827	424.077
45.0	464.221	448.266	424.077	401.433	393.198
47.5	436.944	419.446	394.227	370.553	362.319
50.0	408.638	390.110	363.348	339.159	330.924
52.5	379.817	360.775	332.983	308.794	300.560
55.0	350.996	331.954	302.618	278.429	270.195
57.5	322.690	302.618	272.768	248.579	240.345
60.0	293.869	273.283	242.918	218.729	210.495
62.5	265.048	243.947	213.068	189.394	181.674
65.0	235.198	215.127	184.247	161.088	153.882
67.5	206.892	186.306	155.426	133.811	126.606
70.0	178.586	158.000	128.150	107.049	100.873
72.5	150.795	130.723	102.417	82.860	76.684
75.0	125.576	104.475	77.713	61.759	59.186
77.5	99.843	79.772	55.583	49.407	48.892
80.0	75.140	56.098	40.143	38.599	38.599
82.5	53.524	33.967	28.821	27.791	27.791
85.0	30.879	18.528	16.984	16.469	15.954
87.5	9.778	6.176	5.661	5.661	5.147
90.0	0.000	0.000	0.000	0.000	0.000
92.5	30.000	33.000	36.000	37.000	37.000
95.0	75.000	78.000	81.000	84.000	85.000
97.5	121.000	125.000	130.000	134.000	135.000
100.0	170.000	174.000	180.000	185.000	185.000
102.5	221.000	225.000	232.000	238.000	238.000
105.0	276.000	281.000	287.000	293.000	293.000
107.5	333.000	337.000	343.000	350.000	349.000
110.0	392.000	395.000	401.000	407.000	407.000
112.5	452.000	455.000	461.000	467.000	466.000
115.0	514.000	516.000	523.000	528.000	526.000
117.5	576.000	576.000	584.000	586.000	587.000
120.0	639.000	639.000	645.000	648.000	649.000
122.5	703.000	703.000	707.000	710.000	713.000
125.0	765.000	764.000	768.000	772.000	774.000
127.5	827.000	825.000	830.000	833.000	837.000
130.0	889.000	886.000	891.000	895.000	897.000
132.5	948.000	944.000	950.000	955.000	956.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-V-B-835-TG-F-ITL90353.005.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	1010.000	1003.000	1011.000	1016.000	1016.000
<b>137.5</b>	1070.000	1061.000	1070.000	1073.000	1074.000
<b>140.0</b>	1126.000	1117.000	1129.000	1129.000	1131.000
<b>142.5</b>	1184.000	1173.000	1185.000	1185.000	1183.000
<b>145.0</b>	1241.000	1227.000	1240.000	1239.000	1237.000
<b>147.5</b>	1294.000	1279.000	1292.000	1291.000	1287.000
<b>150.0</b>	1343.000	1328.000	1341.000	1339.000	1337.000
<b>152.5</b>	1390.000	1376.000	1389.000	1386.000	1383.000
<b>155.0</b>	1434.000	1421.000	1433.000	1431.000	1426.000
<b>157.5</b>	1474.000	1461.000	1473.000	1468.000	1465.000
<b>160.0</b>	1512.000	1501.000	1511.000	1506.000	1501.000
<b>162.5</b>	1545.000	1535.000	1543.000	1538.000	1535.000
<b>165.0</b>	1574.000	1566.000	1571.000	1568.000	1565.000
<b>167.5</b>	1599.000	1593.000	1596.000	1594.000	1592.000
<b>170.0</b>	1619.000	1616.000	1617.000	1616.000	1614.000
<b>172.5</b>	1634.000	1634.000	1634.000	1632.000	1632.000
<b>175.0</b>	1646.000	1646.000	1646.000	1645.000	1645.000
<b>177.5</b>	1654.000	1654.000	1654.000	1654.000	1654.000
<b>180.0</b>	1656.000	1656.000	1656.000	1656.000	1656.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	278.08	N.A.	4.50
0-30	575.95	N.A.	9.30
0-40	914.87	N.A.	14.70
0-60	1516.67	N.A.	24.40
0-80	1795.16	N.A.	28.80
0-90	1817.42	N.A.	29.20
10-90	1744.37	N.A.	28.00
20-40	636.79	N.A.	10.20
20-50	965.04	N.A.	15.50
40-70	788.88	N.A.	12.70
60-80	278.49	N.A.	4.50
70-80	91.41	N.A.	1.50
80-90	22.26	N.A.	0.40
90-110	394.31	N.A.	6.30
90-120	910.53	N.A.	14.60
90-130	1597.66	N.A.	25.70
90-150	3149.91	N.A.	50.60
90-180	4405.95	N.A.	70.80
110-180	4011.64	N.A.	64.50
0-180	6223.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	73.06
10-20	205.03
20-30	297.87
30-40	338.92
40-50	328.25
50-60	273.55
60-70	187.08
70-80	91.41
80-90	22.26
90-100	90.98
100-110	303.32
110-120	516.22
120-130	687.13
130-140	779.42
140-150	772.83
150-160	657.60
160-170	442.28
170-180	156.16

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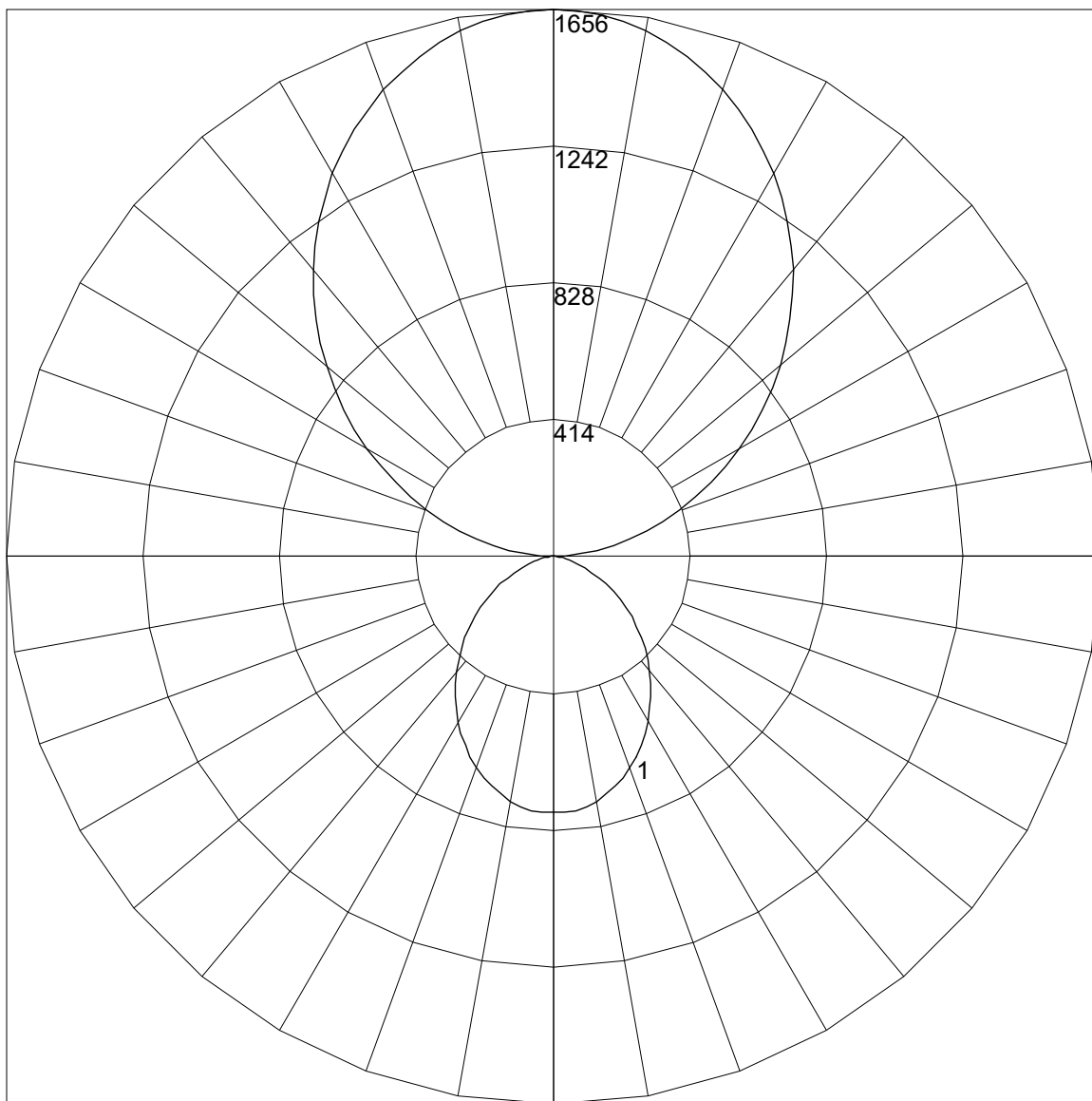
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	37	37	37	29
1	93	89	86	82	84	80	77	74	63	61	59	47	46	45	33	32	32	25
2	85	78	72	67	76	70	65	61	55	52	49	42	40	38	29	28	27	21
3	78	69	62	56	69	62	56	51	49	45	41	37	34	32	26	24	23	18
4	71	61	53	47	63	55	48	43	43	39	35	33	30	27	23	21	20	16
5	65	54	46	41	58	49	42	37	39	34	30	30	26	24	21	19	17	14
6	60	48	41	35	54	44	37	32	35	30	26	27	23	21	19	17	15	12
7	55	44	36	31	49	39	33	28	32	27	23	24	21	18	17	15	14	11
8	51	39	32	27	46	36	29	25	29	24	21	22	19	16	16	14	12	10
9	48	36	29	24	43	33	26	22	26	22	18	20	17	15	15	13	11	9
10	44	33	26	21	40	30	24	20	24	20	16	19	16	13	14	12	10	8

POLAR GRAPH



Maximum Candela = 1656 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)