

# 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-4FT-V-V-837-XXIC-WSO-DSO-ITL89033-ITL92993.200.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89033 and ITL92993.200 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]03/08/17  
[ISSUEDATE]04/27/2021  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-4-ID-4ft-V-V-837-XXIC-WSO-DSO  
[INPUT\_ELECTRICAL]120.0 VOLTS, 70.5 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 70.5 WATTS  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89033 and ITL92293. 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)  
[ABSOLUTE LUMENS]7501

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7501
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	70.5
Ballast Factor	1.00
CIE Type	General Diffuse
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)	0.32 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7742	10183	11103
55	7128	9679	10367
65	6522	8831	9289
75	5863	7688	7868
85	5153	6041	5863

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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	1162.50	1162.50	1162.50	1162.50	1162.50
2.5	1159.71	1160.64	1162.50	1163.43	1164.36
5.0	1154.13	1155.99	1161.57	1167.15	1169.01
7.5	1143.90	1149.48	1160.64	1171.80	1175.52
10.0	1131.81	1137.39	1157.85	1179.24	1185.75
12.5	1119.72	1124.37	1155.99	1189.47	1197.84
15.0	1103.91	1119.72	1155.06	1196.91	1207.14
17.5	1069.50	1086.24	1154.13	1199.70	1214.58
20.0	1040.67	1061.13	1152.27	1199.70	1216.44
22.5	1011.84	1036.02	1129.95	1195.98	1215.51
25.0	979.29	1014.63	1113.21	1187.61	1209.00
27.5	940.23	983.94	1095.54	1175.52	1195.98
30.0	903.03	949.53	1074.15	1157.85	1176.45
32.5	863.97	917.91	1053.69	1137.39	1152.27
35.0	824.91	883.50	1019.28	1109.49	1120.65
37.5	783.06	845.37	985.80	1068.57	1083.45
40.0	744.00	806.31	948.60	1025.79	1042.53
42.5	699.36	768.18	908.61	983.01	995.10
45.0	657.51	725.40	864.90	931.86	943.02
47.5	616.59	682.62	820.26	881.64	891.87
50.0	573.81	638.91	771.90	829.56	833.28
52.5	531.03	595.20	718.89	772.83	774.69
55.0	491.04	549.63	666.81	711.45	714.24
57.5	451.05	504.99	612.87	652.86	653.79
60.0	410.13	459.42	558.00	593.34	594.27
62.5	369.21	416.64	502.20	534.75	531.96
65.0	331.08	371.07	448.26	472.44	471.51
67.5	293.88	326.43	394.32	414.78	412.92
70.0	253.89	283.65	341.31	356.19	351.54
72.5	218.55	241.80	289.23	300.39	296.67
75.0	182.28	201.81	239.01	246.45	244.59
77.5	148.80	161.82	190.65	196.23	194.37
80.0	115.32	125.55	145.08	148.80	144.15
82.5	84.63	90.21	102.30	104.16	100.44
85.0	53.94	56.73	63.24	61.38	61.38
87.5	25.11	25.11	26.04	24.18	23.25
90.0	0.00	0.00	0.00	0.00	0.00
92.5	14.88	26.04	27.90	27.90	27.90
95.0	41.85	74.40	76.26	59.52	59.52
97.5	73.47	126.48	195.30	121.83	106.02
100.0	110.67	172.98	309.69	228.78	179.49
102.5	155.31	211.11	457.56	354.33	288.30
105.0	196.23	252.03	571.02	547.77	438.96
107.5	238.08	292.95	623.10	801.66	674.25
110.0	278.07	331.08	648.21	1012.77	965.34
112.5	318.99	368.28	677.97	1100.19	1157.85
115.0	358.05	403.62	728.19	1127.16	1230.39
117.5	389.67	436.17	768.18	1140.18	1257.36
120.0	418.50	467.79	794.22	1191.33	1276.89
122.5	443.61	498.48	810.96	1254.57	1337.34
125.0	467.79	525.45	823.05	1288.98	1408.02
127.5	490.11	549.63	832.35	1289.91	1445.22
130.0	508.71	571.02	839.79	1267.59	1438.71
132.5	528.24	591.48	846.30	1236.90	1404.30

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-V-V-837-XXIC-WSO-DSO-ITL89033-ITL92993.200.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	546.84	610.08	850.95	1203.42	1359.66
<b>137.5</b>	564.51	626.82	852.81	1167.15	1308.51
<b>140.0</b>	583.11	642.63	853.74	1130.88	1254.57
<b>142.5</b>	601.71	657.51	852.81	1092.75	1200.63
<b>145.0</b>	621.24	672.39	848.16	1057.41	1147.62
<b>147.5</b>	637.05	684.48	841.65	1022.07	1096.47
<b>150.0</b>	653.79	696.57	835.14	987.66	1049.97
<b>152.5</b>	670.53	706.80	827.70	954.18	1007.19
<b>155.0</b>	685.41	717.03	820.26	922.56	964.41
<b>157.5</b>	699.36	725.40	810.96	893.73	926.28
<b>160.0</b>	712.38	733.77	803.52	867.69	891.87
<b>162.5</b>	723.54	740.28	794.22	843.51	862.11
<b>165.0</b>	734.70	745.86	785.85	822.12	836.07
<b>167.5</b>	743.07	750.51	778.41	803.52	813.75
<b>170.0</b>	749.58	755.16	772.83	788.64	794.22
<b>172.5</b>	754.23	757.95	768.18	776.55	780.27
<b>175.0</b>	758.88	759.81	763.53	767.25	770.04
<b>177.5</b>	760.74	760.74	761.67	762.60	762.60
<b>180.0</b>	761.67	761.67	761.67	761.67	761.67

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-V-V-837-XXIC-WSO-DSO-ITL89033-ITL92993.200.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	436.88	N.A.	5.80
0-30	944.68	N.A.	12.60
0-40	1566.57	N.A.	20.90
0-60	2773.07	N.A.	37.00
0-80	3431.74	N.A.	45.80
0-90	3499.9	N.A.	46.70
10-90	3389.12	N.A.	45.20
20-40	1129.69	N.A.	15.10
20-50	1770.41	N.A.	23.60
40-70	1626.09	N.A.	21.70
60-80	658.67	N.A.	8.80
70-80	239.07	N.A.	3.20
80-90	68.16	N.A.	0.90
90-110	540.78	N.A.	7.20
90-120	1288.18	N.A.	17.20
90-130	2080.61	N.A.	27.70
90-150	3323.83	N.A.	44.30
90-180	4000.94	N.A.	53.30
110-180	3460.16	N.A.	46.10
0-180	7500.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	110.78
10-20	326.10
20-30	507.79
30-40	621.90
40-50	640.72
50-60	565.78
60-70	419.60
70-80	239.07
80-90	68.16
90-100	90.11
100-110	450.66
110-120	747.40
120-130	792.44
130-140	699.28
140-150	543.94
150-160	380.82
160-170	223.11
170-180	73.18

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

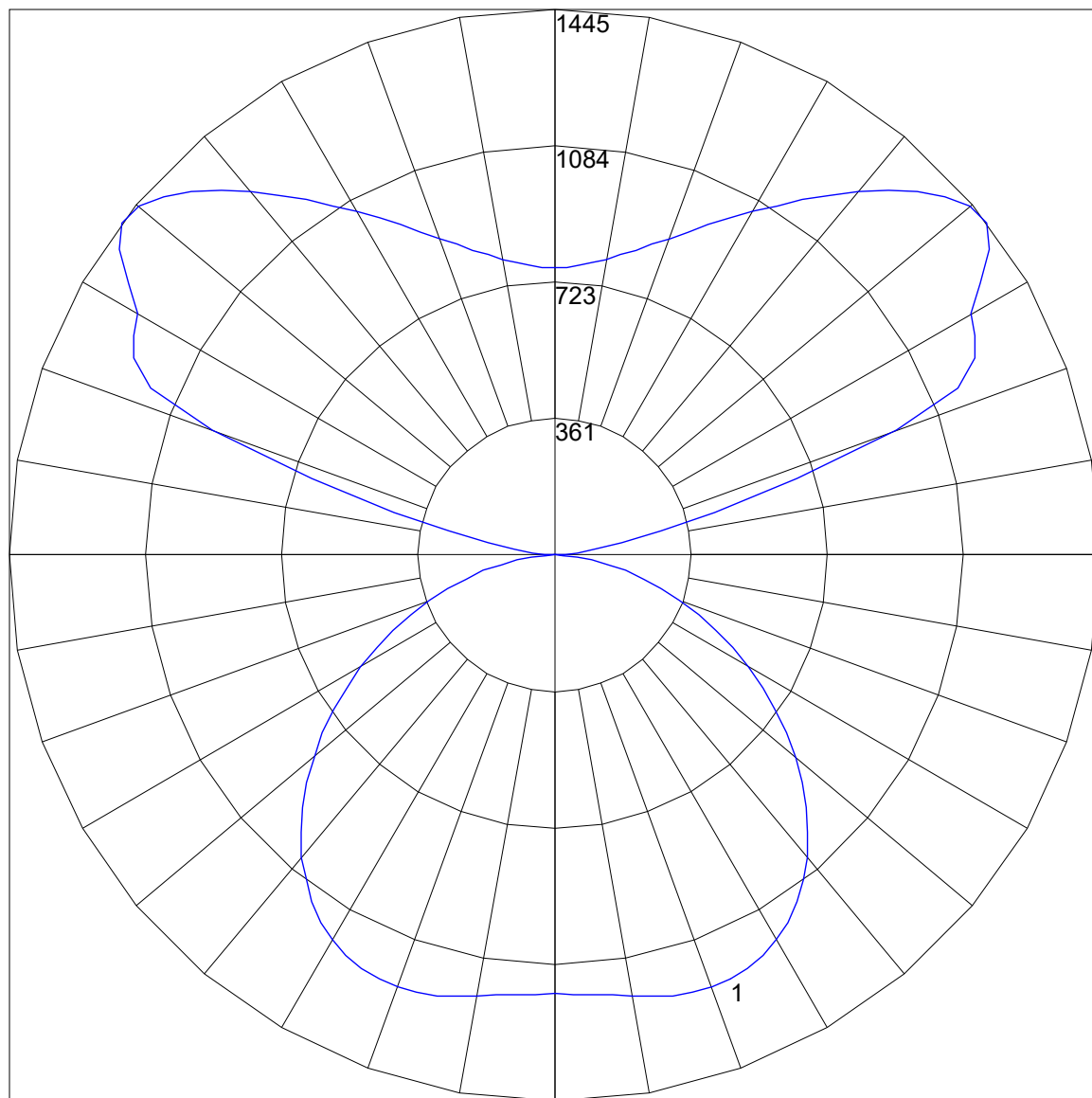
Effective Floor Cavity Reflectance 0.20

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	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53	47
1	97	93	89	85	89	85	82	79	71	69	67	58	57	55	47	46	45	39
2	88	81	74	69	81	74	69	64	62	58	55	51	48	46	41	39	37	32
3	80	71	63	57	73	65	59	54	55	50	46	45	42	39	36	34	32	27
4	73	62	55	48	67	58	51	45	49	43	39	40	36	33	32	29	27	23
5	67	56	47	41	61	51	44	39	43	38	34	36	32	28	29	26	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	26	23	21	18
7	57	45	37	31	52	41	34	29	35	30	26	29	25	22	24	21	18	15
8	53	41	33	27	48	38	31	26	32	27	23	27	22	19	22	19	16	14
9	49	37	29	24	45	34	28	23	29	24	20	25	20	17	20	17	15	12
10	46	34	27	22	42	31	25	21	27	22	18	23	19	16	19	15	13	11

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## POLAR GRAPH



Maximum Candela = 1445.22 Located At Horizontal Angle = 90, Vertical Angle = 127.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)