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 : S16-LED-ID-DCO-4FT-2E-V-8-TW-TDO-ITL87823.900.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL87823.900 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]07/20/16
[ISSUEDATE]08/17/16
[MANUFAC]FINELITE, INC.
[LUMCAT]S16-LED-ID-DCO-4ft-2E-V-8-TW-TDO
[OTHER]ies file is based on 3500K; see luminaire tech sheet at www.finelite.com
for lumen adjustment factors for other CCT's & CRI's
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 40.9 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.7 WATTS
[OTHER]see www.finelite.com for source file ITL87823. 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
[_ABSOLUTELUMENS]3261

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3261
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	40.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.58 ft
Luminous Width (90-270)	0.29 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11128	11306	11410
55	10609	10774	10884
65	9806	9930	10104
75	8472	8594	8675
85	6019	6019	6019

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0.0	1159	1159	1159	1159	1159
2.5	1159	1159	1159	1159	1159
5.0	1154	1154	1154	1155	1154
7.5	1147	1147	1148	1148	1148
10.0	1138	1136	1139	1141	1140
12.5	1127	1122	1128	1131	1129
15.0	1111	1106	1114	1117	1115
17.5	1095	1087	1097	1102	1100
20.0	1074	1066	1078	1082	1082
22.5	1050	1042	1055	1060	1061
25.0	1024	1016	1031	1036	1036
27.5	997	989	1004	1010	1011
30.0	965	959	974	981	982
32.5	933	928	942	950	951
35.0	899	896	909	917	919
37.5	864	861	876	883	884
40.0	827	825	839	847	848
42.5	791	788	801	808	810
45.0	750	748	762	767	769
47.5	709	708	720	725	729
50.0	667	666	678	683	686
52.5	625	623	633	639	643
55.0	580	579	589	594	595
57.5	536	534	542	547	549
60.0	491	489	496	500	502
62.5	441	443	448	452	455
65.0	395	396	400	404	407
67.5	348	348	353	355	358
70.0	301	301	304	307	309
72.5	255	254	259	260	261
75.0	209	208	212	212	214
77.5	165	165	166	167	168
80.0	124	124	124	124	125
82.5	85	85	85	85	86
85.0	50	50	50	50	50
87.5	19	20	19	19	19
90.0	0	0	0	0	0
92.5	0	0	0	0	0
95.0	0	0	0	0	0
97.5	0	0	0	0	0
100.0	0	1	1	0	0
102.5	1	1	1	1	0
105.0	1	1	1	1	0
107.5	1	1	1	1	0
110.0	1	1	1	1	1
112.5	1	1	1	1	1
115.0	1	1	1	1	1
117.5	1	1	1	1	1
120.0	1	1	2	1	1
122.5	1	1	2	1	1
125.0	1	1	2	2	1
127.5	1	1	1	2	1
130.0	1	1	1	2	1
132.5	1	1	1	2	2

CANDELA TABULATION - (Cont.)

135.0	1	1	1	2	2
137.5	1	1	1	2	2
140.0	1	1	2	2	2
142.5	1	1	2	2	2
145.0	1	2	2	2	2
147.5	2	2	2	2	2
150.0	2	2	2	2	2
152.5	2	2	2	2	2
155.0	2	2	2	2	2
157.5	2	2	2	2	2
160.0	2	2	2	2	2
162.5	2	2	2	2	2
165.0	2	2	2	2	2
167.5	2	2	2	2	2
170.0	2	2	2	2	2
172.5	2	2	2	2	2
175.0	2	2	2	2	2
177.5	2	2	2	2	2
180.0	2	2	2	2	2

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	423.65	N.A.	13.00
0-30	897.50	N.A.	27.50
0-40	1465.35	N.A.	44.90
0-60	2575.64	N.A.	79.00
0-80	3195.32	N.A.	98.00
0-90	3254.19	N.A.	99.80
10-90	3144.5	N.A.	96.40
20-40	1041.71	N.A.	31.90
20-50	1627.22	N.A.	49.90
40-70	1506.14	N.A.	46.20
60-80	619.68	N.A.	19.00
70-80	223.82	N.A.	6.90
80-90	58.87	N.A.	1.80
90-110	0.96	N.A.	0.00
90-120	1.98	N.A.	0.10
90-130	3.16	N.A.	0.10
90-150	5.38	N.A.	0.20
90-180	7.06	N.A.	0.20
110-180	6.10	N.A.	0.20
0-180	3261.25	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	109.69
10-20	313.96
20-30	473.85
30-40	567.86
40-50	585.51
50-60	524.77
60-70	395.86
70-80	223.82
80-90	58.87
90-100	0.07
100-110	0.89
110-120	1.02
120-130	1.18
130-140	1.07
140-150	1.14
150-160	0.93
160-170	0.57
170-180	0.19

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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	65	51	43	36	63	51	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

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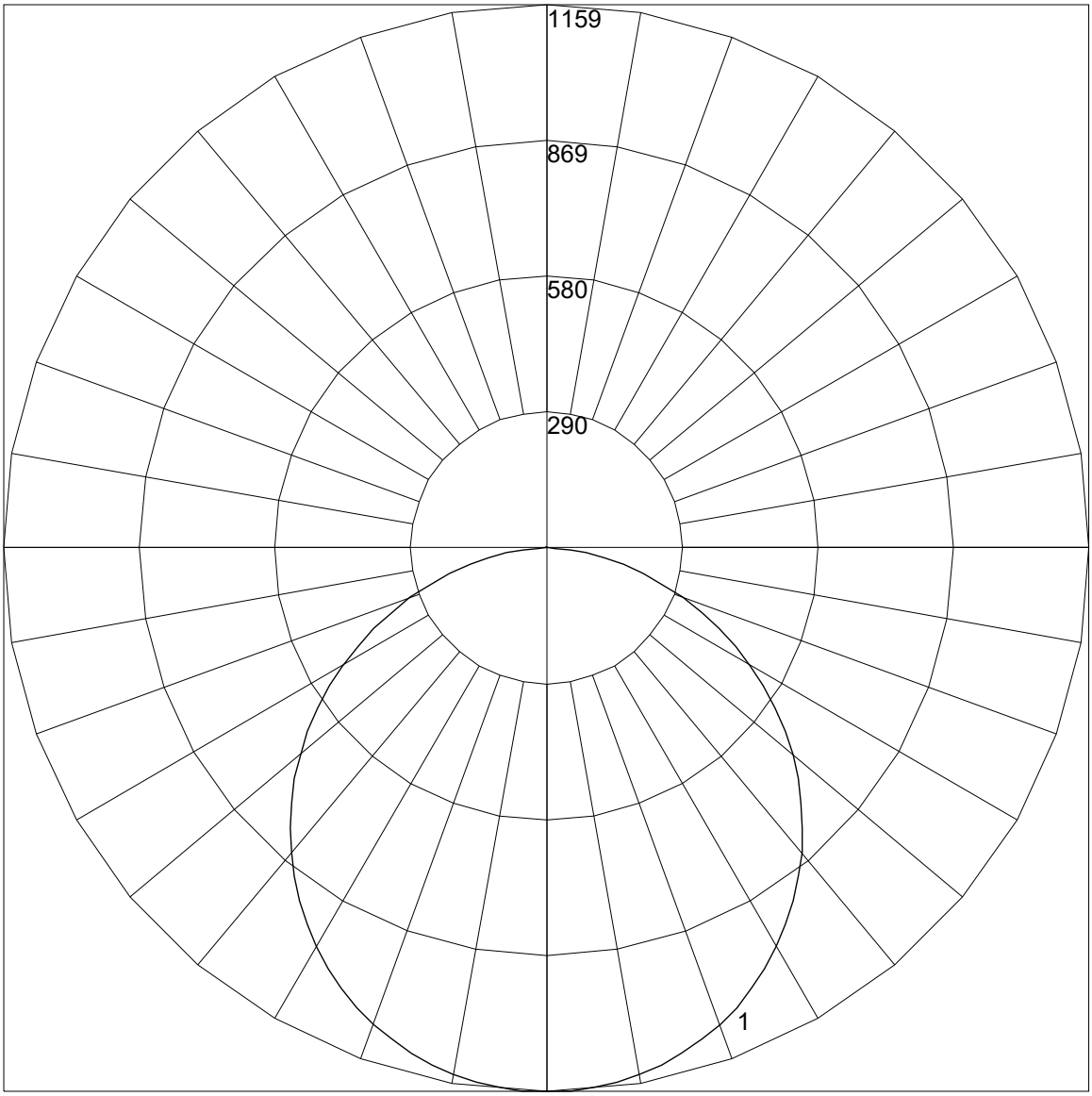
POLAR GRAPH



Maximum Candela = 1159 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)