

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-20U80D-ITL87820.900.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87820.900 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/18/16

[ISSUEDATE]08/17/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S16-LED-ID-DCO-4ft-2E-V-8-TW-20U80D

[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 ITL87820. 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]3291

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3291
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	40.9
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.28
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	9348	9511	9674
55	8945	9091	9256
65	8317	8441	8565
75	7175	7256	7378
85	5056	5056	5297

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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	963	963	963	963	963
2.5	962	962	962	963	962
5.0	959	959	959	960	960
7.5	953	953	954	955	955
10.0	946	944	948	949	948
12.5	936	934	939	942	940
15.0	925	921	928	932	930
17.5	911	906	915	920	918
20.0	895	889	900	906	904
22.5	875	869	882	888	888
25.0	855	848	863	869	869
27.5	831	826	840	847	849
30.0	806	802	817	825	826
32.5	783	777	792	801	802
35.0	755	750	764	774	776
37.5	725	722	736	746	747
40.0	694	691	705	715	717
42.5	662	660	674	683	685
45.0	630	627	641	650	652
47.5	596	594	607	615	618
50.0	561	559	572	579	582
52.5	526	526	535	544	545
55.0	489	489	497	506	506
57.5	451	451	459	467	467
60.0	413	413	420	427	427
62.5	374	375	380	386	386
65.0	335	335	340	345	345
67.5	295	295	299	304	305
70.0	255	256	259	262	263
72.5	215	216	218	221	222
75.0	177	177	179	181	182
77.5	140	140	141	143	145
80.0	105	105	105	106	108
82.5	72	72	72	73	74
85.0	42	43	42	43	44
87.5	16	17	16	16	16
90.0	0	0	0	0	0
92.5	3	3	2	1	1
95.0	8	9	9	9	10
97.5	13	14	16	17	18
100.0	18	20	23	26	28
102.5	23	26	31	36	38
105.0	29	33	40	46	48
107.5	35	41	50	57	60
110.0	41	48	60	69	72
112.5	48	56	70	81	84
115.0	55	64	80	93	97
117.5	61	71	90	105	110
120.0	67	79	100	117	122
122.5	73	86	110	128	134
125.0	79	93	119	138	145
127.5	85	100	127	148	155
130.0	90	105	135	156	164
132.5	95	110	141	163	171

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-V-8-TW-20U80D-ITL87820.900.IES****CANDELA TABULATION - (Cont.)**

135.0	99	115	145	168	176
137.5	103	118	149	172	180
140.0	107	121	151	174	182
142.5	110	123	152	175	183
145.0	113	125	152	174	182
147.5	115	125	151	172	179
150.0	117	126	149	169	176
152.5	118	126	147	164	171
155.0	119	125	144	160	165
157.5	120	125	141	154	160
160.0	120	124	137	148	153
162.5	121	124	134	143	146
165.0	121	123	131	137	141
167.5	121	123	128	133	135
170.0	121	122	126	129	130
172.5	122	122	124	126	127
175.0	122	122	123	123	124
177.5	122	122	122	122	122
180.0	122	122	122	122	122

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-V-8-TW-20U80D-ITL87820.900.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	352.83	N.A.	10.70
0-30	749.26	N.A.	22.80
0-40	1226.68	N.A.	37.30
0-60	2164.31	N.A.	65.80
0-80	2690.81	N.A.	81.80
0-90	2740.94	N.A.	83.30
10-90	2649.77	N.A.	80.50
20-40	873.85	N.A.	26.60
20-50	1367.19	N.A.	41.50
40-70	1273.92	N.A.	38.70
60-80	526.50	N.A.	16.00
70-80	190.21	N.A.	5.80
80-90	50.13	N.A.	1.50
90-110	52.50	N.A.	1.60
90-120	129.76	N.A.	3.90
90-130	232.72	N.A.	7.10
90-150	434.91	N.A.	13.20
90-180	550.08	N.A.	16.70
110-180	497.58	N.A.	15.10
0-180	3291.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	91.17
10-20	261.65
20-30	396.43
30-40	477.42
40-50	493.34
50-60	444.30
60-70	336.29
70-80	190.21
80-90	50.13
90-100	10.37
100-110	42.13
110-120	77.27
120-130	102.96
130-140	108.72
140-150	93.47
150-160	66.12
160-170	37.23
170-180	11.82

IES INDOOR REPORT

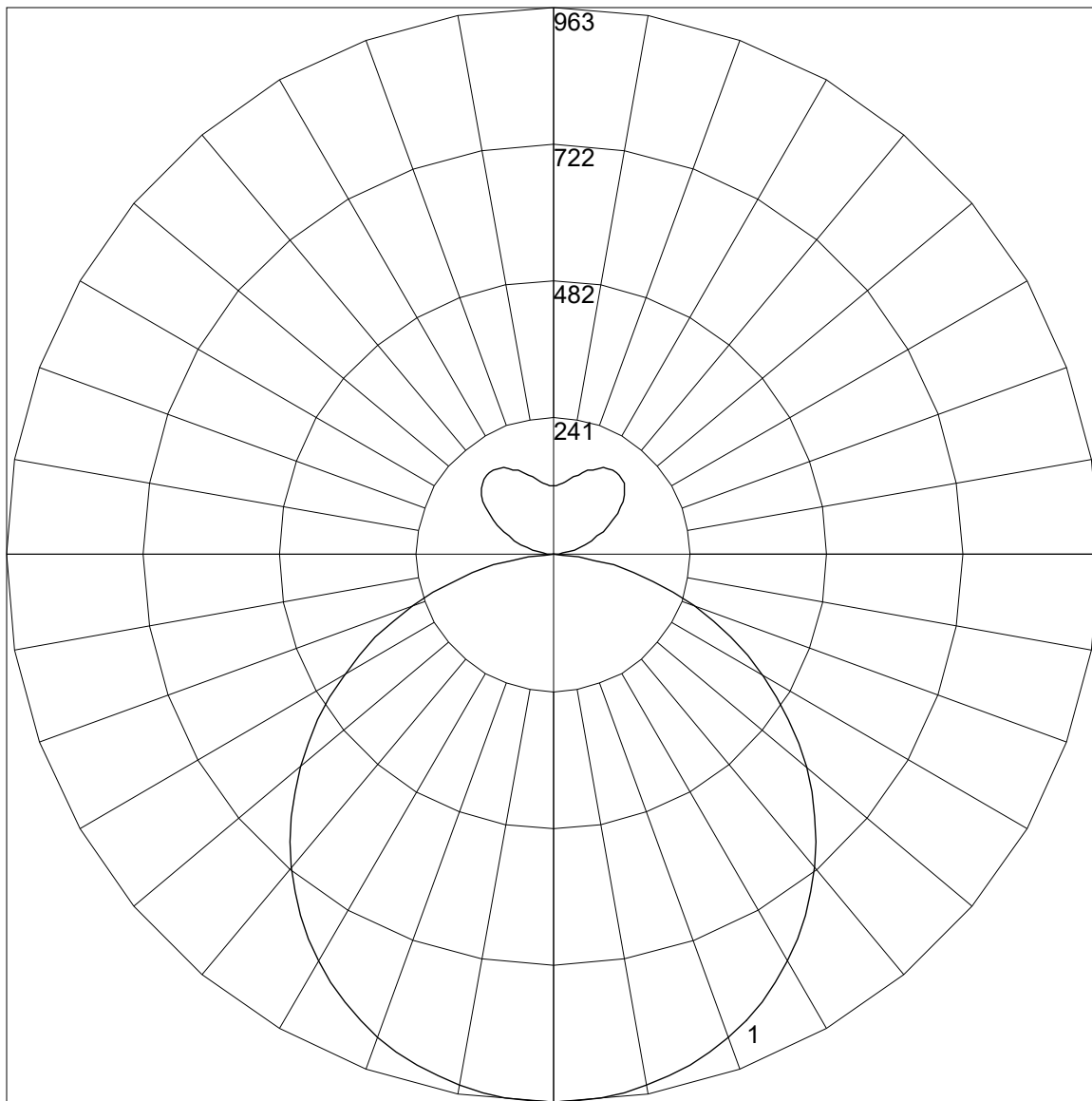
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83
1	105	100	96	92	101	96	93	89	89	86	84	83	80	78	76	75	73	70
2	95	87	81	75	91	84	78	73	78	73	69	72	68	65	67	64	61	58
3	87	77	69	62	83	74	67	61	69	63	58	64	59	55	59	55	52	49
4	80	68	59	53	76	65	58	52	61	54	49	57	51	47	53	48	44	42
5	73	61	52	45	70	58	50	44	54	48	42	51	45	40	47	42	38	36
6	67	54	46	39	64	53	44	39	49	42	37	46	40	35	43	38	34	31
7	62	49	41	35	60	48	40	34	45	38	33	42	36	31	39	34	30	28
8	58	45	37	31	56	43	36	30	41	34	29	38	32	28	36	31	27	25
9	54	41	33	28	52	40	32	27	37	31	26	35	29	25	33	28	24	22
10	51	38	30	25	49	37	29	25	35	28	24	33	27	23	31	26	22	20

POLAR GRAPH



Maximum Candela = 963 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)