

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-30U70D-ITL87821.900.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87821.900 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/19/16

[ISSUEDATE]08/17/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S16-LED-ID-DCO-4ft-2E-V-8-TW-30U70D

[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 ITL87821. 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]3505

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3505
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	40.9
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.40
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	8294	8502	8665
55	7957	8158	8341
65	7398	7572	7746
75	6405	6526	6648
85	4695	4574	4574

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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	849	849	849	849	849
2.5	849	848	848	848	848
5.0	845	845	845	846	846
7.5	841	841	842	843	843
10.0	835	833	837	838	838
12.5	827	824	830	832	831
15.0	817	812	820	824	823
17.5	805	800	809	814	813
20.0	791	785	796	802	802
22.5	774	768	781	787	788
25.0	756	750	764	772	773
27.5	737	732	746	754	755
30.0	716	711	726	735	737
32.5	692	689	705	714	716
35.0	669	666	682	691	693
37.5	643	641	656	665	668
40.0	616	614	630	639	642
42.5	588	588	603	611	616
45.0	559	559	573	582	584
47.5	529	530	542	552	555
50.0	498	499	511	520	522
52.5	466	468	480	487	489
55.0	435	435	446	453	456
57.5	402	402	411	419	421
60.0	368	368	376	383	385
62.5	333	334	341	346	349
65.0	298	299	305	309	312
67.5	263	263	268	272	275
70.0	227	228	232	235	237
72.5	192	193	196	198	200
75.0	158	158	161	162	164
77.5	124	126	127	127	129
80.0	95	94	95	95	96
82.5	65	65	65	65	65
85.0	39	38	38	38	38
87.5	15	15	14	14	14
90.0	0	0	0	0	0
92.5	5	5	3	2	2
95.0	14	15	16	17	17
97.5	23	26	29	33	34
100.0	32	37	44	50	52
102.5	43	49	60	69	72
105.0	54	63	78	89	94
107.5	66	77	96	111	117
110.0	78	92	116	134	142
112.5	91	107	136	158	166
115.0	103	122	157	181	190
117.5	115	137	177	205	215
120.0	127	152	197	228	240
122.5	139	167	217	251	263
125.0	150	180	234	271	286
127.5	161	192	250	290	305
130.0	171	203	264	306	321
132.5	180	213	275	319	335

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-V-8-TW-30U70D-ITL87821.900.IES****CANDELA TABULATION - (Cont.)**

135.0	188	221	284	329	345
137.5	196	228	291	336	351
140.0	202	233	295	339	355
142.5	207	236	296	340	355
145.0	212	239	296	338	352
147.5	216	240	293	333	346
150.0	219	240	289	327	339
152.5	221	240	284	318	330
155.0	223	239	277	308	319
157.5	224	237	271	297	307
160.0	225	236	264	286	294
162.5	226	234	256	274	282
165.0	226	232	249	263	269
167.5	227	231	243	253	258
170.0	227	230	238	244	247
172.5	227	229	233	237	239
175.0	227	228	230	232	232
177.5	227	227	228	228	228
180.0	227	227	227	227	227

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-V-8-TW-30U70D-ITL87821.900.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	311.65	N.A.	8.90
0-30	663.19	N.A.	18.90
0-40	1088.19	N.A.	31.00
0-60	1926.3	N.A.	55.00
0-80	2397.72	N.A.	68.40
0-90	2442.58	N.A.	69.70
10-90	2362.15	N.A.	67.40
20-40	776.54	N.A.	22.20
20-50	1217.28	N.A.	34.70
40-70	1139.16	N.A.	32.50
60-80	471.42	N.A.	13.40
70-80	170.37	N.A.	4.90
80-90	44.86	N.A.	1.30
90-110	99.92	N.A.	2.90
90-120	249.96	N.A.	7.10
90-130	450.91	N.A.	12.90
90-150	842.83	N.A.	24.00
90-180	1062.62	N.A.	30.30
110-180	962.70	N.A.	27.50
0-180	3505.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	80.43
10-20	231.23
20-30	351.54
30-40	425.00
40-50	440.74
50-60	397.37
60-70	301.04
70-80	170.37
80-90	44.86
90-100	19.03
100-110	80.89
110-120	150.03
120-130	200.96
130-140	211.46
140-150	180.46
150-160	126.82
160-170	70.79
170-180	22.17

IES INDOOR REPORT

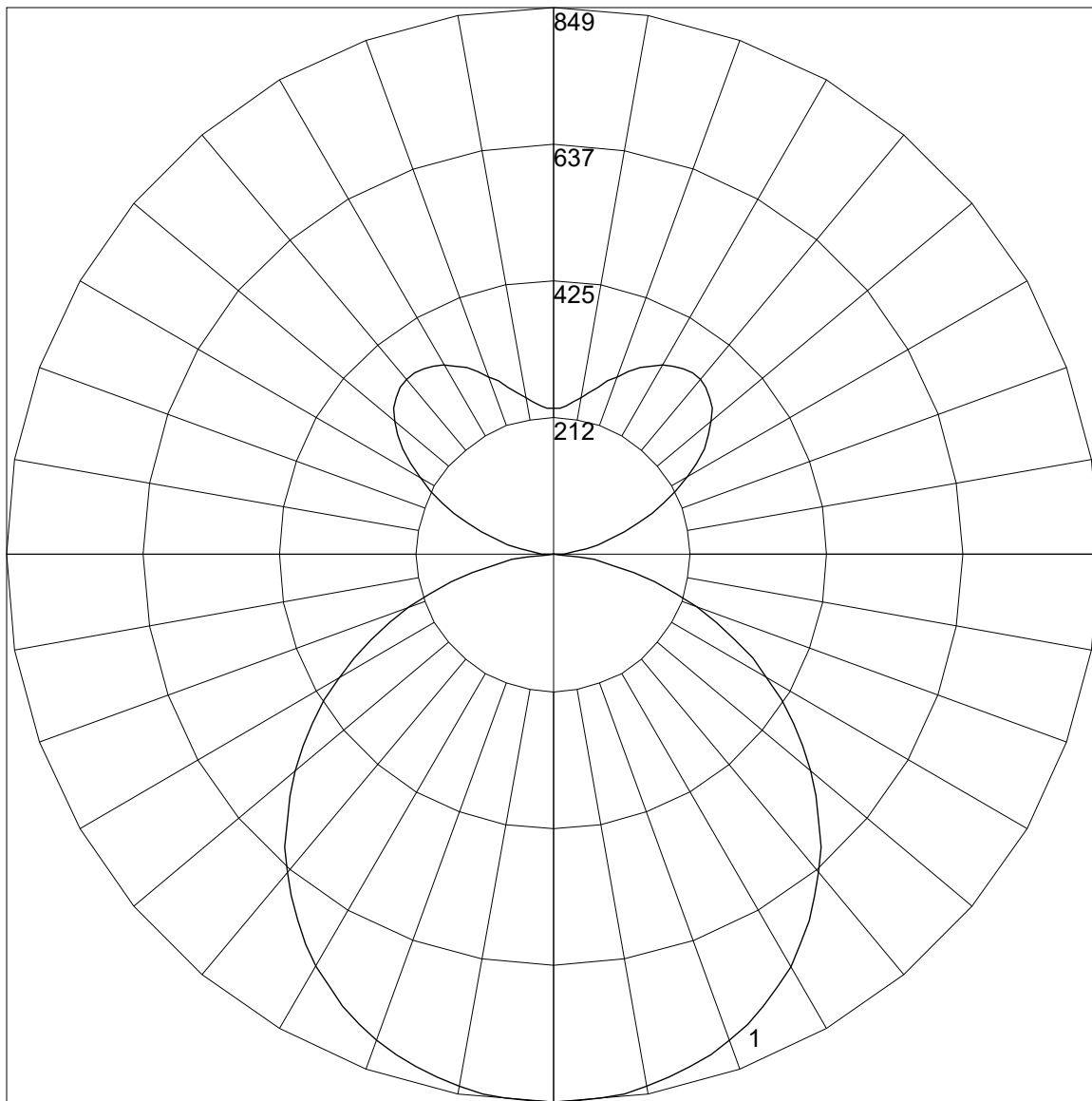
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	102	97	93	90	96	92	89	85	83	80	77	74	71	70	65	64	62	58
2	93	85	78	73	87	80	75	70	72	68	64	64	61	58	57	55	52	48
3	84	74	67	61	79	71	64	58	63	58	53	57	52	49	50	47	44	41
4	77	66	57	51	73	62	55	49	56	50	45	50	45	41	45	41	38	35
5	71	59	50	44	67	56	48	42	50	44	39	45	40	36	40	36	33	30
6	65	53	44	38	61	50	42	37	45	39	34	41	35	31	37	32	29	26
7	60	48	39	33	57	45	38	32	41	35	30	37	32	28	33	29	26	23
8	56	43	35	30	53	41	34	29	37	31	27	34	29	25	31	26	23	21
9	52	39	32	26	49	38	30	26	34	28	24	31	26	22	28	24	21	19
10	49	36	29	24	46	35	28	23	32	26	22	29	24	20	26	22	19	17

POLAR GRAPH



Maximum Candela = 849 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)