

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: G3-1708-221-3

Luminaire Tested: **FUSL-N12-4-LD4-3LO-40-UNV-80/86-EDC1**

Test Date: 11/16/17



Test Information

Test Method: LM-79-08
Report Number: G3-1708-221-3
Test Lab: INNOVATION CENTER(G3)
Test Date: 11/16/17
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-N12-4-LD4-3LO-40-UNV-80/86-EDC1
Description: FUSL CONFINEMENT/CORRECTIONAL LED LUMINAIRE
Light Source: (336) NICHIA 4000K LEDS
757-GV1
Ballast/Driver: (3) OSRAM ELECTRONIC DRIVER @ 500 mA
OTi50/120-277/1A4 DIM L

Summary

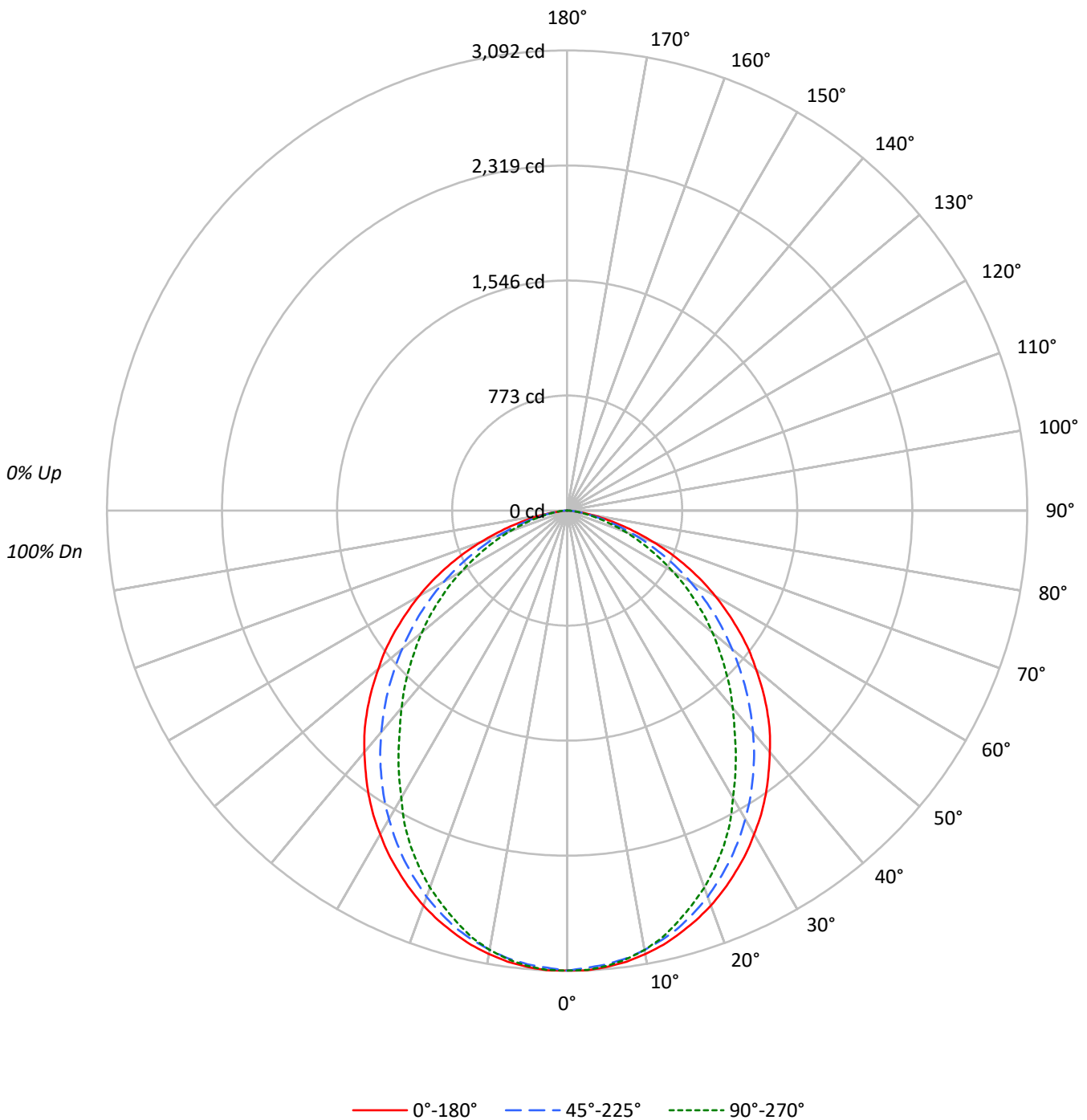
Lumens per Lamp: N/A
Luminaire Lumens: 7159.1 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.26
Luminous Opening: Rectangular (W 0.46' x L: 3.58' x H: 0')
CIE Type: Direct

Input Watts (W): 68.7
Input Voltage (V): 120.0
Input Current (Ain): 0.575
Voltage Rise (V): NR
Power Factor: 0.9978
Total Harmonic Distortion (THDi): 7.22%
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 7 HR
Ambient Temperature (°C): 25.9
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	49	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	33
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	42	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20258	20258	20258
5°	20250	20132	20204
10°	20138	19952	19945
15°	19941	19684	19433
20°	19696	19264	18803
25°	19373	18737	17992
30°	19010	18125	16869
35°	18618	17426	15802
40°	18129	16615	14810
45°	17610	15747	13912
50°	16875	14744	13000
55°	16111	13757	11941
60°	15061	12518	10762
65°	13725	11104	9367
70°	11785	9332	7952
75°	9395	7217	6229
80°	6114	4982	4529
85°	2782	3234	3685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.2	4.1
10°-20°	817.9	11.4
20°-30°	1191.8	16.6
30°-40°	1355.1	18.9
40°-50°	1312.5	18.3
50°-60°	1089.1	15.2
60°-70°	724.0	10.1
70°-80°	319.5	4.5
80°-90°	57.9	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2300.9	32.1
0°-40°	3656.0	51.1
0°-60°	6057.6	84.6
0°-90°	7159.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7159.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3091	3091	3091	3091	3091	
5°	3078	3077	3060	3073	3071	292
15°	2939	2933	2901	2886	2864	829
25°	2679	2665	2591	2528	2488	1234
35°	2327	2303	2178	2038	1975	1454
45°	1900	1861	1699	1551	1501	1463
55°	1410	1355	1204	1091	1045	1259
65°	885	824	716	637	604	874
75°	371	333	285	258	246	396
85°	37	41	43	47	49	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3091	3091	3091	3091	3091
2.5°	3092	3090	3075	3090	3089
5°	3078	3077	3060	3073	3071
7.5°	3057	3053	3035	3044	3041
10°	3026	3021	2998	3003	2997
12.5°	2988	2981	2953	2951	2941
15°	2939	2933	2901	2886	2864
17.5°	2885	2877	2833	2807	2782
20°	2824	2811	2762	2721	2696
22.5°	2755	2743	2678	2626	2595
25°	2679	2665	2591	2528	2488
27.5°	2601	2585	2495	2415	2369
30°	2512	2495	2395	2294	2229
32.5°	2425	2404	2290	2170	2103
35°	2327	2303	2178	2038	1975
37.5°	2223	2197	2064	1913	1846
40°	2119	2088	1942	1791	1731
42.5°	2016	1978	1821	1665	1619
45°	1900	1861	1699	1551	1501
47.5°	1781	1739	1572	1437	1386
50°	1655	1613	1446	1319	1275
52.5°	1540	1487	1324	1211	1164
55°	1410	1355	1204	1091	1045
57.5°	1279	1221	1078	976	936
60°	1149	1088	955	859	821
62.5°	1020	954	834	748	711
65°	885	824	716	637	604
67.5°	750	693	598	534	507
70°	615	563	487	433	415
72.5°	487	443	381	338	322
75°	371	333	285	258	246
77.5°	259	232	201	182	176
80°	162	148	132	121	120
82.5°	91	84	78	75	77
85°	37	41	43	47	49
87.5°	9	18	24	26	27
90°	0	0	0	0	0

(END OF REPORT)