

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: P556376

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-82-88-EDD-90**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P556376
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-1HI-50-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

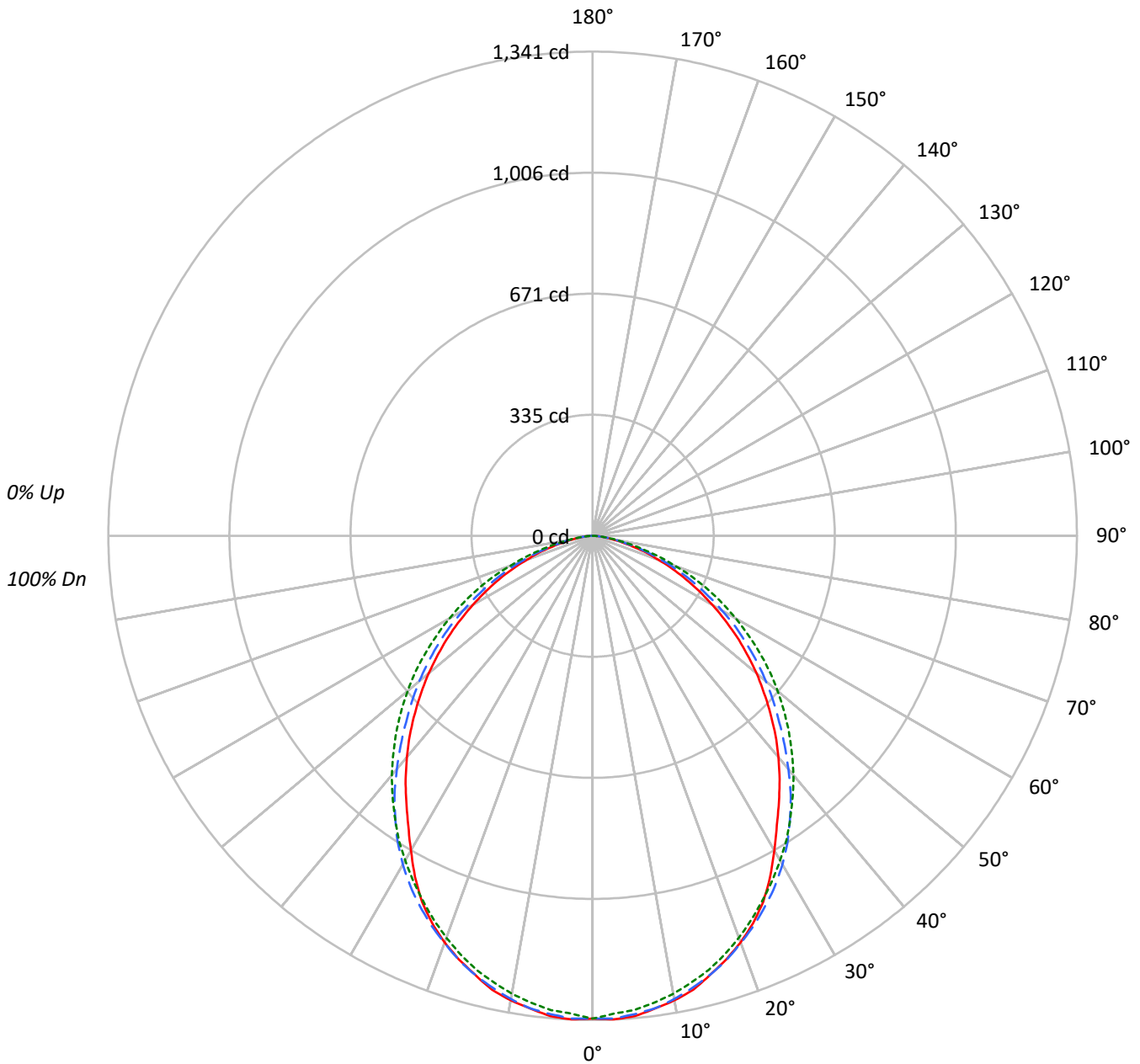
Lumens per Lamp: N/A
Luminaire Lumens: 3092.0 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
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				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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3598	3598	3598
5°	3608	3593	3562
10°	3570	3560	3519
15°	3506	3506	3466
20°	3432	3436	3392
25°	3319	3360	3307
30°	3126	3266	3226
35°	2953	3130	3136
40°	2810	2961	3039
45°	2649	2782	2925
50°	2480	2622	2800
55°	2287	2439	2649
60°	2060	2225	2463
65°	1819	1979	2241
70°	1515	1685	1904
75°	1192	1346	1490
80°	852	947	1051
85°	556	556	525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.9	4.1
10°-20°	353.7	11.4
20°-30°	516.9	16.7
30°-40°	586.7	19.0
40°-50°	566.4	18.3
50°-60°	467.2	15.1
60°-70°	311.1	10.1
70°-80°	139.2	4.5
80°-90°	24.9	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°	996.5	32.2
0°-40°	1583.2	51.2
0°-60°	2616.7	84.6
0°-90°	3092.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3092.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1337	1337	1337	1337	1337	
5°	1336	1335	1330	1323	1319	126
15°	1259	1262	1259	1253	1244	355
25°	1118	1127	1132	1124	1114	512
35°	899	911	953	958	954	563
45°	696	708	731	764	768	537
55°	488	496	520	549	565	435
65°	286	293	311	333	352	283
75°	115	121	130	136	143	125
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1337.2	1337.2	1337.2	1337.2	1337.2
2.5°	1340.8	1341.3	1338.2	1330.0	1324.9
5°	1335.7	1335.2	1330.0	1322.8	1318.7
7.5°	1320.8	1321.8	1320.3	1310.0	1304.3
10°	1306.4	1306.9	1302.8	1294.6	1287.9
12.5°	1287.9	1287.4	1281.7	1277.6	1266.8
15°	1258.6	1261.7	1258.6	1253.0	1244.2
17.5°	1230.4	1230.4	1232.4	1222.7	1216.0
20°	1198.5	1200.0	1200.0	1192.3	1184.6
22.5°	1161.5	1166.1	1167.7	1159.5	1150.2
25°	1117.9	1126.6	1131.7	1123.5	1113.7
27.5°	1064.9	1078.3	1093.7	1087.5	1076.8
30°	1005.9	1025.4	1051.1	1045.9	1038.2
32.5°	949.9	969.4	1004.8	1002.8	998.7
35°	899.0	911.3	952.9	958.1	954.5
37.5°	850.7	862.0	901.1	912.9	909.8
40°	799.9	812.2	843.0	864.1	865.1
42.5°	749.5	761.3	786.5	816.8	816.8
45°	696.1	707.9	731.0	764.4	768.5
47.5°	643.7	656.0	678.6	712.0	718.7
50°	592.3	603.6	626.2	658.6	668.9
52.5°	538.9	551.2	573.3	603.1	618.0
55°	487.5	495.7	519.9	548.7	564.6
57.5°	434.1	441.8	469.0	493.7	510.1
60°	382.7	392.5	413.5	438.7	457.7
62.5°	333.4	343.7	361.7	383.7	405.3
65°	285.6	293.3	310.8	332.9	351.9
67.5°	239.4	246.1	263.5	278.9	299.0
70°	192.6	201.4	214.2	229.1	242.0
72.5°	155.1	158.7	169.5	180.3	193.7
75°	114.6	120.7	129.5	135.6	143.3
77.5°	82.2	85.8	90.9	96.1	103.3
80°	55.0	56.5	61.1	62.2	67.8
82.5°	33.4	34.4	35.4	36.0	38.0
85°	18.0	18.0	18.0	17.0	17.0
87.5°	10.3	10.3	8.7	7.2	5.1
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)