

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: P557827

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-81-85-EDD**

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: P557827
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-LD4-3HI-40-UNV-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

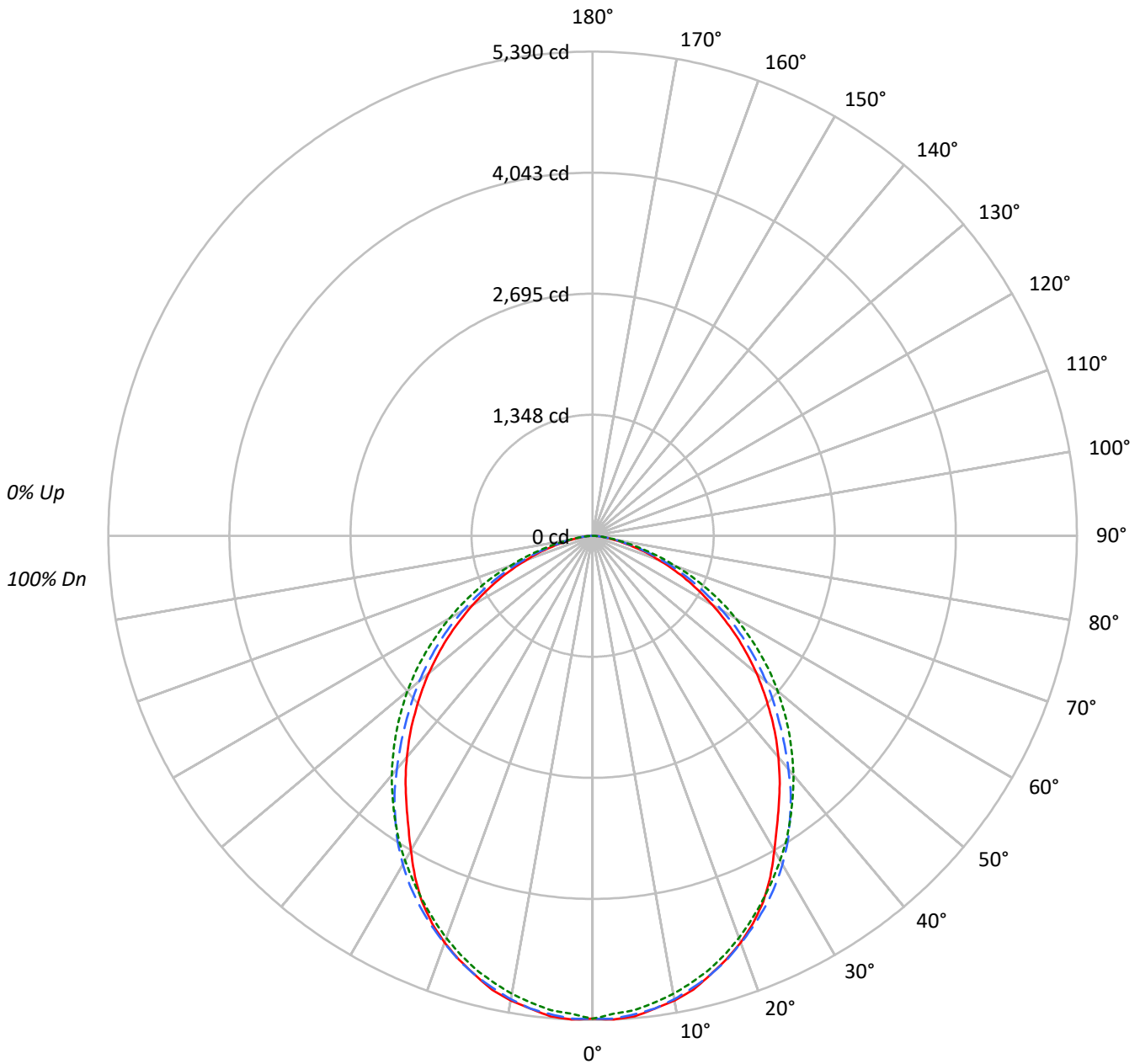
Lumens per Lamp: N/A
Luminaire Lumens: 12431.0 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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									
RC	80									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																			
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	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14467	14467	14467
5°	14505	14444	14321
10°	14352	14312	14148
15°	14097	14097	13936
20°	13798	13816	13639
25°	13344	13509	13295
30°	12566	13130	12970
35°	11873	12586	12606
40°	11296	11906	12218
45°	10650	11185	11759
50°	9969	10540	11258
55°	9195	9806	10649
60°	8281	8948	9904
65°	7312	7956	9009
70°	6094	6776	7654
75°	4789	5412	5991
80°	3425	3809	4224
85°	2232	2232	2106



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	506.2	4.1
10°-20°	1422.0	11.4
20°-30°	2078.0	16.7
30°-40°	2358.7	19.0
40°-50°	2277.0	18.3
50°-60°	1878.4	15.1
60°-70°	1250.8	10.1
70°-80°	559.7	4.5
80°-90°	100.1	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°	4006.2	32.2
0°-40°	6364.9	51.2
0°-60°	10520.3	84.6
0°-90°	12431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12431.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5376	5376	5376	5376	5376	
5°	5370	5368	5347	5318	5302	508
15°	5060	5072	5060	5037	5002	1426
25°	4494	4529	4550	4517	4478	2058
35°	3614	3664	3831	3852	3837	2265
45°	2798	2846	2939	3073	3090	2159
55°	1960	1993	2090	2206	2270	1749
65°	1148	1179	1250	1338	1415	1139
75°	461	485	520	545	576	504
85°	72	72	72	68	68	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5376.1	5376.1	5376.1	5376.1	5376.1
2.5°	5390.5	5392.6	5380.2	5347.2	5326.5
5°	5369.9	5367.8	5347.2	5318.3	5301.7
7.5°	5310.0	5314.1	5307.9	5266.6	5243.9
10°	5252.2	5254.2	5237.7	5204.7	5177.8
12.5°	5177.8	5175.7	5153.0	5136.5	5093.1
15°	5060.1	5072.5	5060.1	5037.4	5002.3
17.5°	4946.5	4946.5	4954.8	4915.5	4888.7
20°	4818.4	4824.6	4824.6	4793.7	4762.7
22.5°	4669.7	4688.3	4694.5	4661.5	4624.3
25°	4494.2	4529.3	4549.9	4516.9	4477.7
27.5°	4281.5	4335.2	4397.1	4372.3	4329.0
30°	4043.9	4122.4	4225.7	4205.0	4174.1
32.5°	3818.8	3897.3	4039.8	4031.5	4015.0
35°	3614.3	3663.9	3831.2	3851.9	3837.4
37.5°	3420.2	3465.6	3622.6	3670.1	3657.7
40°	3215.7	3265.3	3389.2	3473.9	3478.0
42.5°	3013.3	3060.8	3162.0	3283.9	3283.9
45°	2798.5	2846.0	2939.0	3073.2	3089.8
47.5°	2587.9	2637.4	2728.3	2862.6	2889.4
50°	2381.3	2426.8	2517.7	2647.8	2689.1
52.5°	2166.5	2216.1	2304.9	2424.7	2484.6
55°	1960.0	1993.1	2090.1	2205.8	2269.8
57.5°	1745.2	1776.2	1885.7	1984.8	2050.9
60°	1538.7	1577.9	1662.6	1763.8	1840.2
62.5°	1340.4	1381.7	1454.0	1542.8	1629.6
65°	1148.3	1179.3	1249.5	1338.3	1414.8
67.5°	962.4	989.3	1059.5	1121.5	1202.0
70°	774.5	809.6	861.2	921.1	972.8
72.5°	623.7	638.2	681.6	724.9	778.6
75°	460.6	485.4	520.5	545.3	576.2
77.5°	330.5	344.9	365.6	386.2	415.1
80°	221.0	227.2	245.8	249.9	272.6
82.5°	134.2	138.4	142.5	144.6	152.8
85°	72.3	72.3	72.3	68.2	68.2
87.5°	41.3	41.3	35.1	28.9	20.7
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)