

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: P555781

Luminaire Tested: **FUSL-12-2-LD4-3LO-40-UNV-81-86-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: P555781  
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-12-2-LD4-3LO-40-UNV-81-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

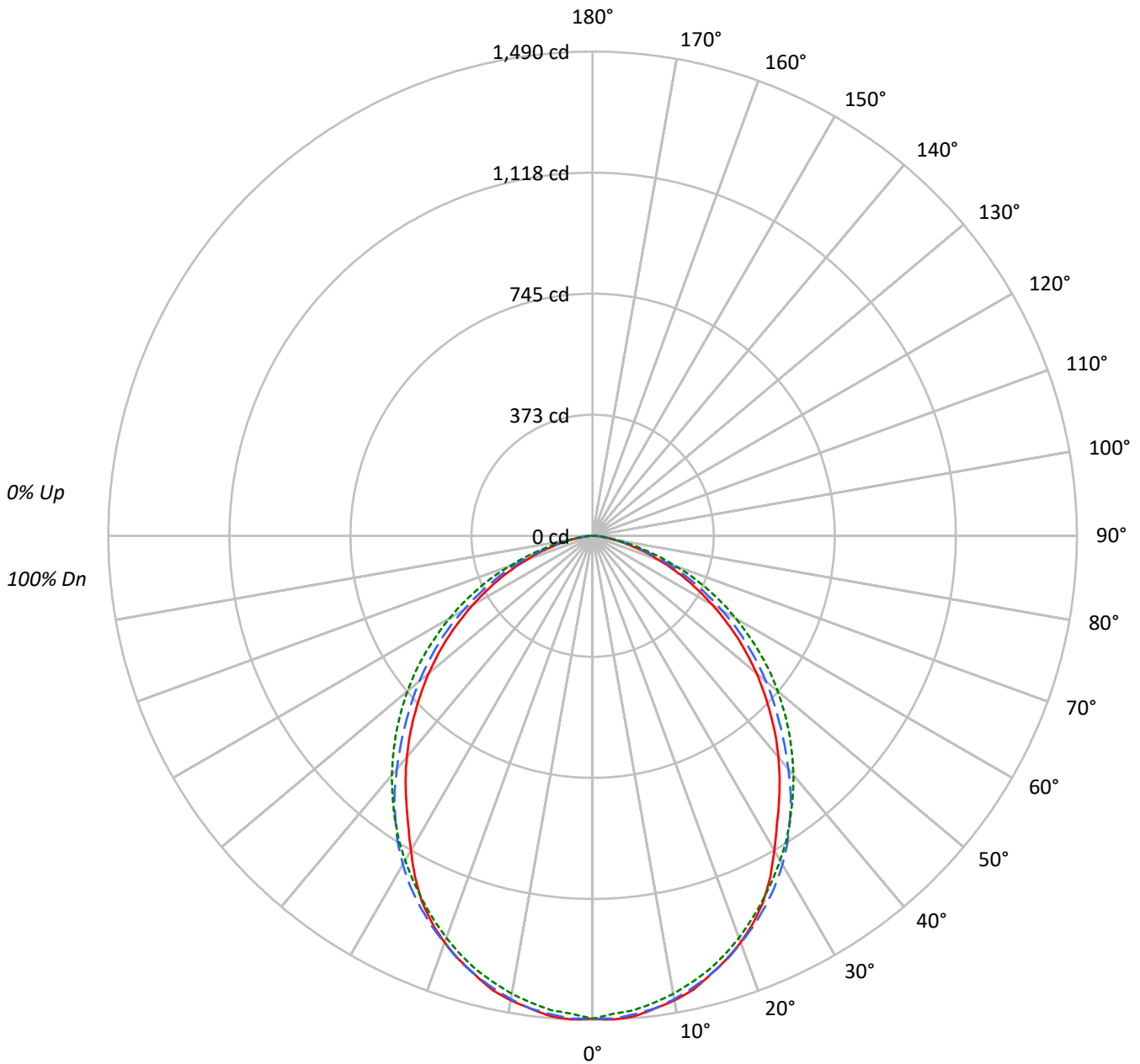
Lumens per Lamp: N/A  
Luminaire Lumens: 3436.0 lumens  
Efficiency: N/A  
Efficacy: 97.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 35.1  
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°	7998	7998	7998
5°	8019	7985	7917
10°	7934	7912	7821
15°	7793	7793	7704
20°	7628	7638	7539
25°	7377	7468	7350
30°	6947	7259	7170
35°	6564	6958	6969
40°	6244	6582	6754
45°	5887	6183	6500
50°	5511	5827	6224
55°	5084	5421	5887
60°	4578	4947	5475
65°	4042	4399	4979
70°	3369	3747	4231
75°	2647	2992	3313
80°	1894	2104	2337
85°	1235	1235	1161



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.9	4.1
10°-20°	393.0	11.4
20°-30°	574.4	16.7
30°-40°	652.0	19.0
40°-50°	629.4	18.3
50°-60°	519.2	15.1
60°-70°	345.7	10.1
70°-80°	154.7	4.5
80°-90°	27.7	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°	1107.3	32.2
0°-40°	1759.3	51.2
0°-60°	2907.9	84.6
0°-90°	3436.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3436.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1484	1484	1478	1470	1465	140
15°	1399	1402	1399	1392	1383	394
25°	1242	1252	1258	1248	1238	569
35°	999	1013	1059	1065	1061	626
45°	774	787	812	850	854	597
55°	542	551	578	610	627	484
65°	317	326	345	370	391	315
75°	127	134	144	151	159	139
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1486.0	1486.0	1486.0	1486.0	1486.0
2.5°	1490.0	1490.5	1487.1	1478.0	1472.3
5°	1484.3	1483.7	1478.0	1470.0	1465.4
7.5°	1467.7	1468.9	1467.1	1455.7	1449.4
10°	1451.7	1452.3	1447.7	1438.6	1431.2
12.5°	1431.2	1430.6	1424.3	1419.8	1407.8
15°	1398.6	1402.1	1398.6	1392.4	1382.7
17.5°	1367.2	1367.2	1369.5	1358.7	1351.3
20°	1331.8	1333.6	1333.6	1325.0	1316.4
22.5°	1290.7	1295.9	1297.6	1288.5	1278.2
25°	1242.2	1251.9	1257.6	1248.5	1237.7
27.5°	1183.4	1198.3	1215.4	1208.5	1196.5
30°	1117.8	1139.5	1168.0	1162.3	1153.7
32.5°	1055.5	1077.2	1116.6	1114.3	1109.8
35°	999.0	1012.7	1059.0	1064.7	1060.7
37.5°	945.4	957.9	1001.3	1014.4	1011.0
40°	888.8	902.5	936.8	960.2	961.3
42.5°	832.9	846.0	874.0	907.7	907.7
45°	773.5	786.7	812.4	849.5	854.0
47.5°	715.3	729.0	754.1	791.2	798.7
50°	658.2	670.8	695.9	731.9	743.3
52.5°	598.8	612.5	637.1	670.2	686.8
55°	541.8	550.9	577.7	609.7	627.4
57.5°	482.4	491.0	521.2	548.6	566.9
60°	425.3	436.1	459.6	487.5	508.6
62.5°	370.5	381.9	401.9	426.4	450.4
65°	317.4	326.0	345.4	369.9	391.0
67.5°	266.0	273.4	292.9	310.0	332.2
70°	214.1	223.8	238.1	254.6	268.9
72.5°	172.4	176.4	188.4	200.4	215.2
75°	127.3	134.2	143.9	150.7	159.3
77.5°	91.3	95.3	101.0	106.8	114.7
80°	61.1	62.8	67.9	69.1	75.4
82.5°	37.1	38.2	39.4	40.0	42.2
85°	20.0	20.0	20.0	18.8	18.8
87.5°	11.4	11.4	9.7	8.0	5.7
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)