

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: P556102

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-81-87-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: P556102  
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-LD4-3STD-50-UNV-81-87-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

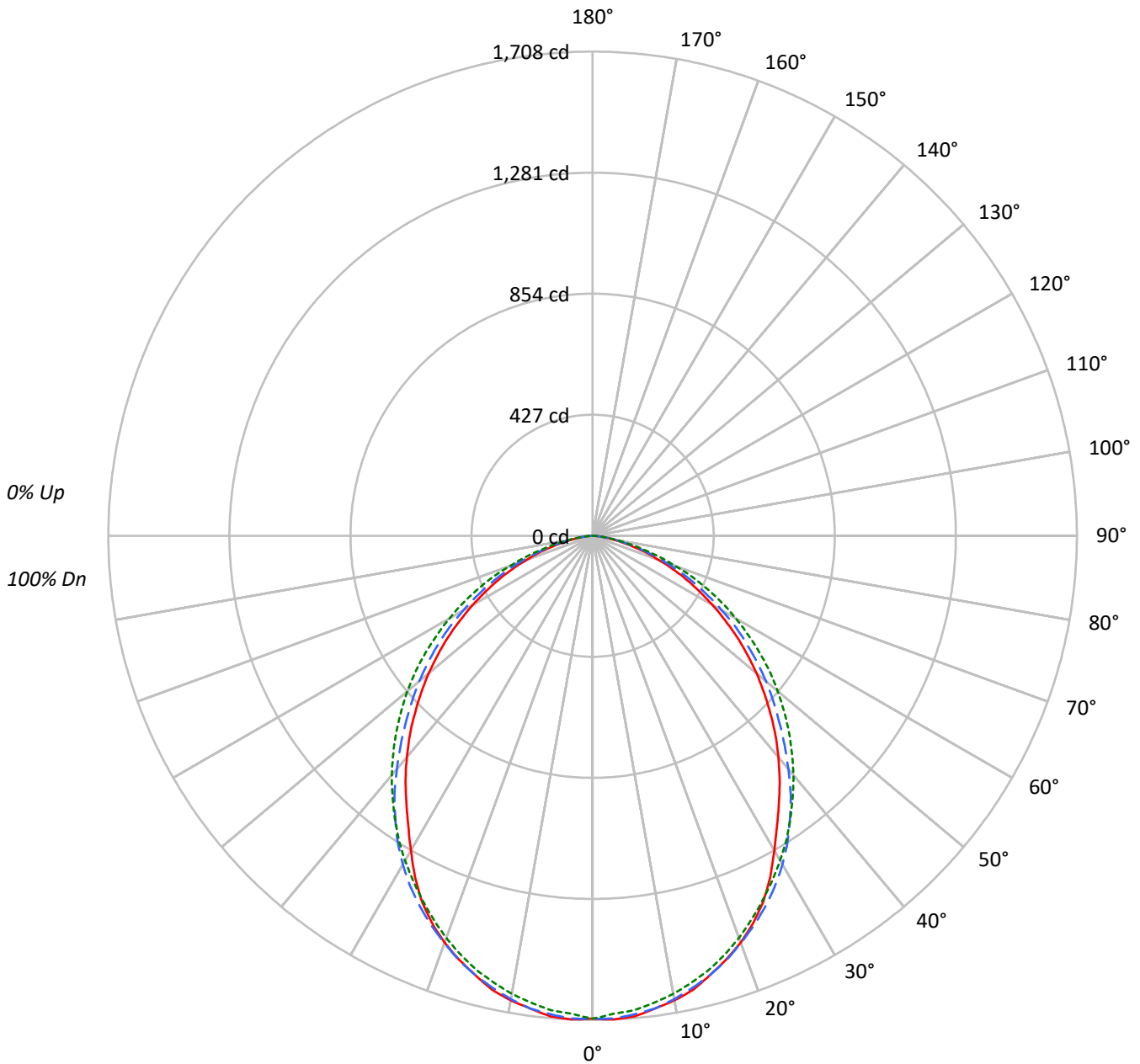
Lumens per Lamp: N/A  
Luminaire Lumens: 3939.0 lumens  
Efficiency: N/A  
Efficacy: 78.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
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°	9168	9168	9168
5°	9193	9154	9076
10°	9095	9070	8966
15°	8934	8934	8832
20°	8745	8756	8643
25°	8457	8561	8425
30°	7963	8321	8219
35°	7525	7976	7989
40°	7159	7545	7743
45°	6750	7088	7451
50°	6318	6680	7134
55°	5828	6214	6748
60°	5248	5670	6276
65°	4634	5042	5709
70°	3862	4294	4850
75°	3034	3429	3797
80°	2170	2414	2678
85°	1414	1414	1334



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.4	4.1
10°-20°	450.6	11.4
20°-30°	658.5	16.7
30°-40°	747.4	19.0
40°-50°	721.5	18.3
50°-60°	595.2	15.1
60°-70°	396.4	10.1
70°-80°	177.4	4.5
80°-90°	31.7	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°	1269.4	32.2
0°-40°	2016.8	51.2
0°-60°	3333.6	84.6
0°-90°	3939.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3939.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1704	1704	1704	1704	1704	
5°	1702	1701	1694	1685	1680	161
15°	1603	1607	1603	1596	1585	452
25°	1424	1435	1442	1431	1419	652
35°	1145	1161	1214	1220	1216	718
45°	887	902	931	974	979	684
55°	621	632	662	699	719	554
65°	364	374	396	424	448	361
75°	146	154	165	173	183	160
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1703.5	1703.5	1703.5	1703.5	1703.5
2.5°	1708.1	1708.8	1704.8	1694.4	1687.8
5°	1701.6	1700.9	1694.4	1685.2	1680.0
7.5°	1682.6	1683.9	1681.9	1668.8	1661.6
10°	1664.2	1664.9	1659.7	1649.2	1640.7
12.5°	1640.7	1640.0	1632.8	1627.6	1613.9
15°	1603.4	1607.3	1603.4	1596.2	1585.1
17.5°	1567.4	1567.4	1570.0	1557.6	1549.1
20°	1526.8	1528.8	1528.8	1519.0	1509.1
22.5°	1479.7	1485.6	1487.5	1477.1	1465.3
25°	1424.1	1435.2	1441.7	1431.3	1418.8
27.5°	1356.7	1373.7	1393.3	1385.5	1371.7
30°	1281.4	1306.3	1339.0	1332.4	1322.6
32.5°	1210.1	1234.9	1280.1	1277.5	1272.2
35°	1145.3	1161.0	1214.0	1220.5	1216.0
37.5°	1083.8	1098.2	1147.9	1162.9	1159.0
40°	1019.0	1034.7	1073.9	1100.8	1102.1
42.5°	954.8	969.9	1002.0	1040.6	1040.6
45°	886.8	901.8	931.3	973.8	979.0
47.5°	820.0	835.7	864.5	907.1	915.6
50°	754.6	769.0	797.8	839.0	852.1
52.5°	686.5	702.2	730.4	768.3	787.3
55°	621.1	631.5	662.3	698.9	719.2
57.5°	553.0	562.8	597.5	628.9	649.9
60°	487.6	500.0	526.8	558.9	583.1
62.5°	424.7	437.8	460.7	488.9	516.4
65°	363.9	373.7	395.9	424.1	448.3
67.5°	305.0	313.5	335.7	355.4	380.9
70°	245.4	256.5	272.9	291.9	308.2
72.5°	197.6	202.2	216.0	229.7	246.7
75°	145.9	153.8	164.9	172.8	182.6
77.5°	104.7	109.3	115.8	122.4	131.5
80°	70.0	72.0	77.9	79.2	86.4
82.5°	42.5	43.8	45.2	45.8	48.4
85°	22.9	22.9	22.9	21.6	21.6
87.5°	13.1	13.1	11.1	9.2	6.5
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)