

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: P556104

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-81-88-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: P556104  
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-81-88-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 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**

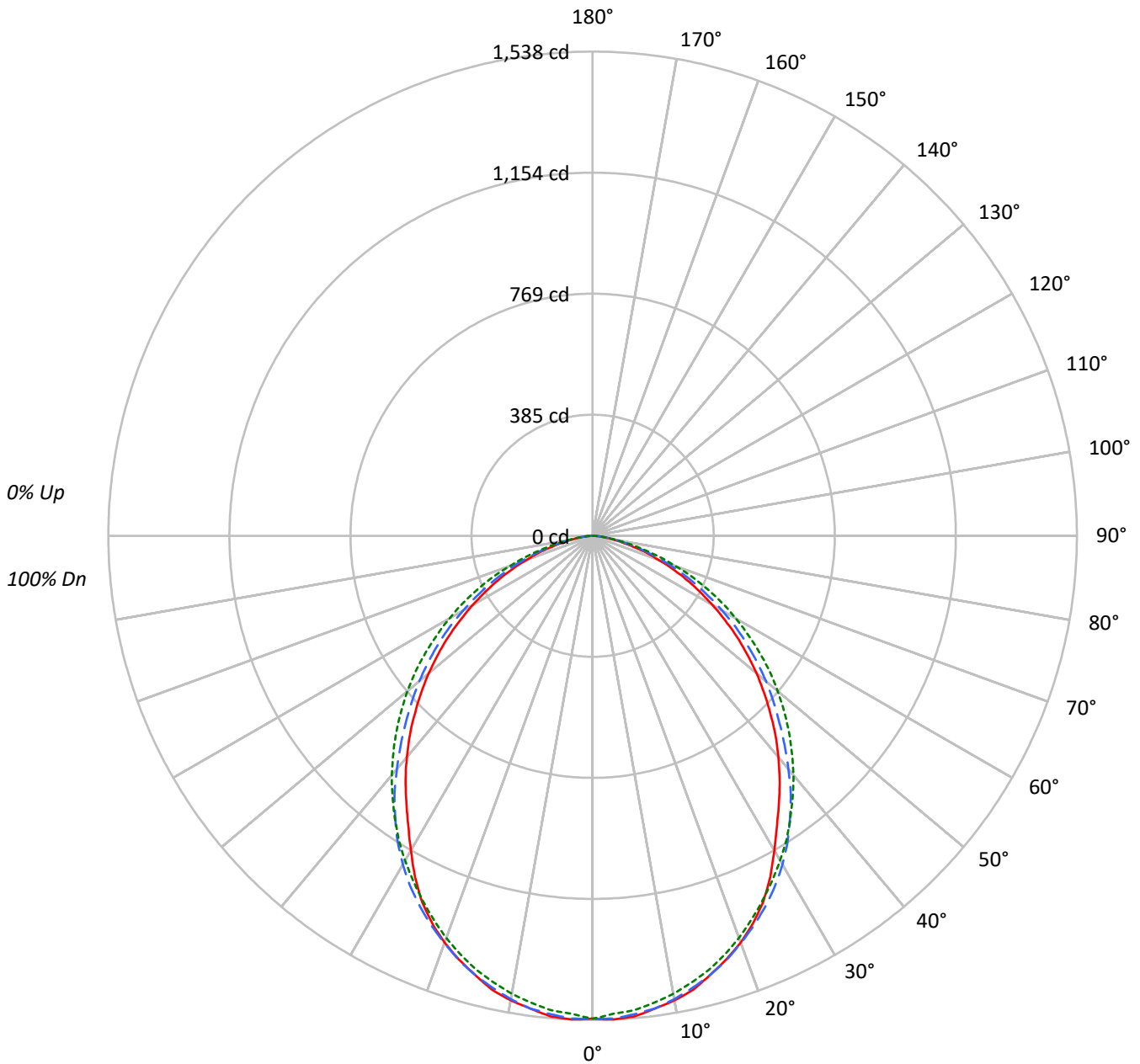
Lumens per Lamp: N/A  
Luminaire Lumens: 3547.0 lumens  
Efficiency: N/A  
Efficacy: 70.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	8256	8256	8256
5°	8278	8243	8173
10°	8190	8167	8074
15°	8045	8045	7953
20°	7875	7884	7783
25°	7615	7710	7587
30°	7171	7493	7402
35°	6776	7182	7194
40°	6447	6795	6972
45°	6078	6383	6710
50°	5689	6015	6424
55°	5248	5596	6077
60°	4725	5106	5652
65°	4173	4540	5141
70°	3478	3866	4368
75°	2732	3088	3419
80°	1956	2173	2411
85°	1272	1272	1198



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.4	4.1
10°-20°	405.7	11.4
20°-30°	592.9	16.7
30°-40°	673.0	19.0
40°-50°	649.7	18.3
50°-60°	536.0	15.1
60°-70°	356.9	10.1
70°-80°	159.7	4.5
80°-90°	28.6	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°	1143.1	32.2
0°-40°	1816.1	51.2
0°-60°	3001.8	84.6
0°-90°	3547.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3547.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1534	1534	1534	1534	1534	
5°	1532	1532	1526	1518	1513	145
15°	1444	1447	1444	1437	1427	407
25°	1282	1292	1298	1289	1278	587
35°	1031	1045	1093	1099	1095	646
45°	798	812	839	877	882	616
55°	559	569	596	629	648	499
65°	328	336	356	382	404	325
75°	131	138	148	156	164	144
85°	21	21	21	19	19	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1534.0	1534.0	1534.0	1534.0	1534.0
2.5°	1538.1	1538.7	1535.2	1525.7	1519.8
5°	1532.2	1531.6	1525.7	1517.5	1512.8
7.5°	1515.1	1516.3	1514.5	1502.8	1496.3
10°	1498.6	1499.2	1494.5	1485.1	1477.4
12.5°	1477.4	1476.8	1470.3	1465.6	1453.2
15°	1443.8	1447.4	1443.8	1437.3	1427.3
17.5°	1411.4	1411.4	1413.8	1402.6	1394.9
20°	1374.9	1376.6	1376.6	1367.8	1359.0
22.5°	1332.4	1337.7	1339.5	1330.1	1319.5
25°	1282.3	1292.4	1298.3	1288.8	1277.6
27.5°	1221.6	1237.0	1254.7	1247.6	1235.2
30°	1153.9	1176.3	1205.7	1199.8	1191.0
32.5°	1089.6	1112.0	1152.7	1150.3	1145.6
35°	1031.3	1045.4	1093.2	1099.1	1094.9
37.5°	975.9	988.9	1033.7	1047.2	1043.7
40°	917.6	931.7	967.1	991.2	992.4
42.5°	859.8	873.4	902.2	937.0	937.0
45°	798.5	812.1	838.6	876.9	881.6
47.5°	738.4	752.6	778.5	816.8	824.5
50°	679.5	692.4	718.4	755.5	767.3
52.5°	618.2	632.3	657.7	691.9	708.9
55°	559.3	568.7	596.4	629.4	647.7
57.5°	498.0	506.8	538.0	566.3	585.2
60°	439.0	450.2	474.4	503.3	525.1
62.5°	382.5	394.3	414.9	440.2	465.0
65°	327.7	336.5	356.5	381.9	403.7
67.5°	274.6	282.3	302.3	320.0	343.0
70°	221.0	231.0	245.7	262.8	277.6
72.5°	178.0	182.1	194.5	206.8	222.2
75°	131.4	138.5	148.5	155.6	164.4
77.5°	94.3	98.4	104.3	110.2	118.5
80°	63.1	64.8	70.1	71.3	77.8
82.5°	38.3	39.5	40.7	41.3	43.6
85°	20.6	20.6	20.6	19.4	19.4
87.5°	11.8	11.8	10.0	8.3	5.9
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)