

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: P557240

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-80-88-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: P557240  
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-LD4-2LO-35-UNV-80-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

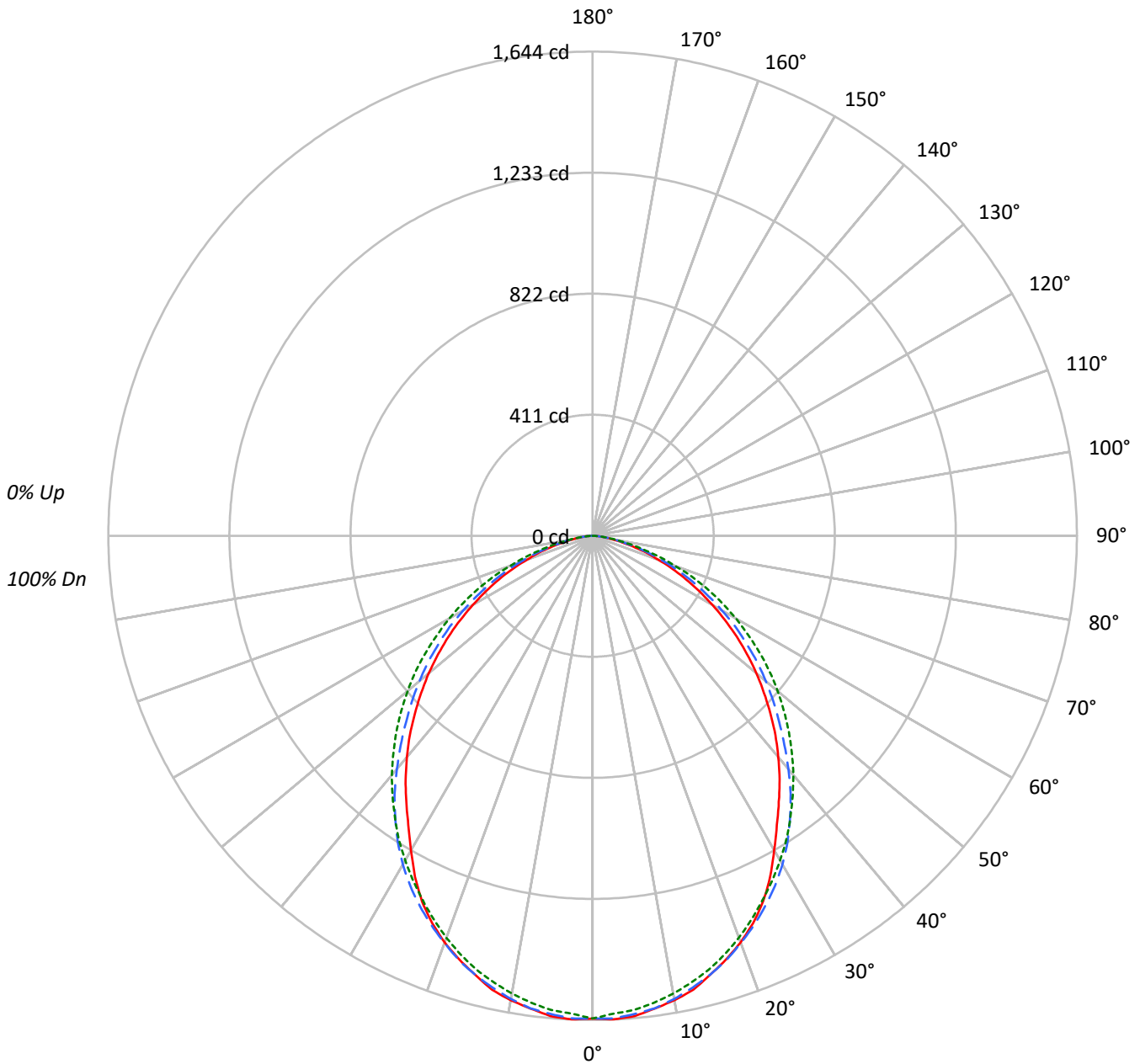
Lumens per Lamp: N/A  
Luminaire Lumens: 3790.0 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
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°	4411	4411	4411
5°	4422	4404	4366
10°	4376	4364	4314
15°	4298	4298	4249
20°	4207	4212	4158
25°	4068	4119	4054
30°	3831	4003	3954
35°	3620	3837	3844
40°	3444	3630	3725
45°	3247	3410	3585
50°	3039	3213	3432
55°	2804	2989	3247
60°	2525	2728	3020
65°	2229	2426	2746
70°	1858	2066	2334
75°	1460	1650	1827
80°	1044	1161	1288
85°	679	679	642



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.3	4.1
10°-20°	433.5	11.4
20°-30°	633.5	16.7
30°-40°	719.2	19.0
40°-50°	694.2	18.3
50°-60°	572.7	15.1
60°-70°	381.4	10.1
70°-80°	170.7	4.5
80°-90°	30.5	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°	1221.4	32.2
0°-40°	1940.6	51.2
0°-60°	3207.5	84.6
0°-90°	3790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3790.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1639	1639	1639	1639	1639	
5°	1637	1637	1630	1621	1616	155
15°	1543	1546	1543	1536	1525	435
25°	1370	1381	1387	1377	1365	627
35°	1102	1117	1168	1174	1170	690
45°	853	868	896	937	942	658
55°	598	608	637	672	692	533
65°	350	360	381	408	431	347
75°	140	148	159	166	176	154
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1639.1	1639.1	1639.1	1639.1	1639.1
2.5°	1643.5	1644.1	1640.3	1630.3	1624.0
5°	1637.2	1636.6	1630.3	1621.4	1616.4
7.5°	1618.9	1620.2	1618.3	1605.7	1598.8
10°	1601.3	1601.9	1596.9	1586.8	1578.6
12.5°	1578.6	1578.0	1571.1	1566.0	1552.8
15°	1542.7	1546.5	1542.7	1535.8	1525.1
17.5°	1508.1	1508.1	1510.6	1498.7	1490.5
20°	1469.1	1471.0	1471.0	1461.5	1452.1
22.5°	1423.7	1429.4	1431.3	1421.2	1409.9
25°	1370.2	1380.9	1387.2	1377.1	1365.2
27.5°	1305.3	1321.7	1340.6	1333.0	1319.8
30°	1232.9	1256.9	1288.3	1282.0	1272.6
32.5°	1164.3	1188.2	1231.7	1229.2	1224.1
35°	1102.0	1117.1	1168.1	1174.4	1170.0
37.5°	1042.8	1056.6	1104.5	1119.0	1115.2
40°	980.4	995.5	1033.3	1059.1	1060.4
42.5°	918.7	933.2	964.1	1001.2	1001.2
45°	853.2	867.7	896.0	937.0	942.0
47.5°	789.0	804.1	831.8	872.7	880.9
50°	726.0	739.9	767.6	807.3	819.9
52.5°	660.5	675.7	702.7	739.3	757.5
55°	597.6	607.6	637.2	672.5	692.0
57.5°	532.1	541.5	574.9	605.1	625.3
60°	469.1	481.1	506.9	537.8	561.1
62.5°	408.7	421.3	443.3	470.4	496.8
65°	350.1	359.6	381.0	408.0	431.3
67.5°	293.4	301.6	323.0	341.9	366.5
70°	236.1	246.8	262.6	280.8	296.6
72.5°	190.2	194.6	207.8	221.0	237.4
75°	140.4	148.0	158.7	166.2	175.7
77.5°	100.8	105.2	111.5	117.8	126.6
80°	67.4	69.3	74.9	76.2	83.1
82.5°	40.9	42.2	43.4	44.1	46.6
85°	22.0	22.0	22.0	20.8	20.8
87.5°	12.6	12.6	10.7	8.8	6.3
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)