

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: P557272

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-82-88-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: P557272  
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-82-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC 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**

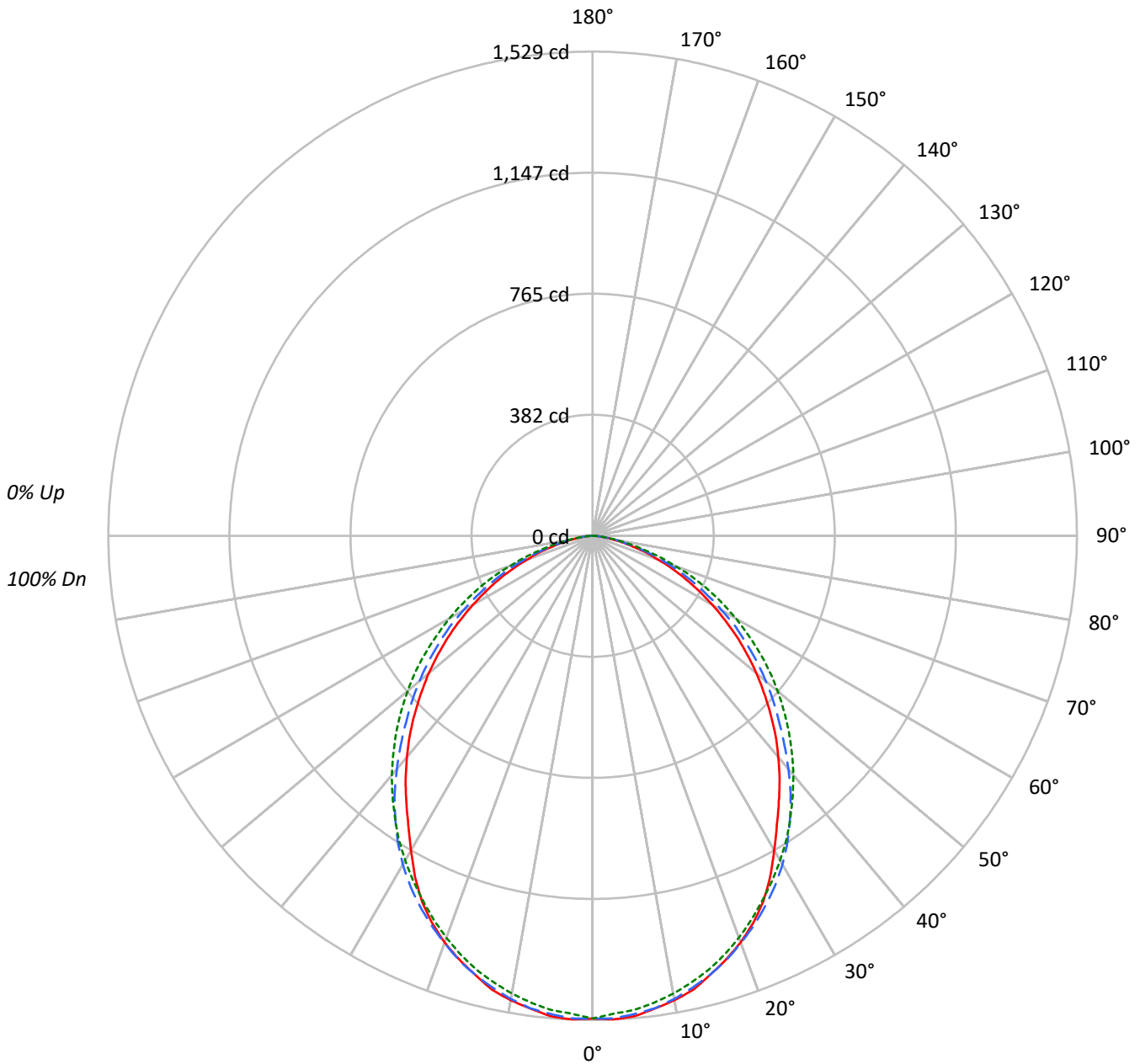
Lumens per Lamp: N/A  
Luminaire Lumens: 3525.0 lumens  
Efficiency: N/A  
Efficacy: 75.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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									
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°	4102	4102	4102
5°	4113	4096	4061
10°	4069	4058	4012
15°	3997	3997	3952
20°	3913	3918	3867
25°	3784	3831	3770
30°	3563	3723	3678
35°	3367	3569	3575
40°	3203	3376	3465
45°	3020	3172	3334
50°	2827	2989	3192
55°	2608	2781	3019
60°	2348	2538	2808
65°	2073	2256	2555
70°	1728	1921	2170
75°	1358	1535	1699
80°	972	1080	1198
85°	633	633	596



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.5	4.1
10°-20°	403.2	11.4
20°-30°	589.2	16.7
30°-40°	668.9	19.0
40°-50°	645.7	18.3
50°-60°	532.6	15.1
60°-70°	354.7	10.1
70°-80°	158.7	4.5
80°-90°	28.4	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°	1136.0	32.2
0°-40°	1804.9	51.2
0°-60°	2983.2	84.6
0°-90°	3525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3525.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1524	1524	1524	1524	1524	
5°	1523	1522	1516	1508	1503	144
15°	1435	1438	1435	1428	1418	405
25°	1274	1284	1290	1281	1270	584
35°	1025	1039	1086	1092	1088	642
45°	794	807	833	872	876	612
55°	556	565	593	626	644	496
65°	326	334	354	380	401	323
75°	131	138	148	155	163	143
85°	20	20	20	19	19	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1524.5	1524.5	1524.5	1524.5	1524.5
2.5°	1528.6	1529.2	1525.6	1516.3	1510.4
5°	1522.7	1522.1	1516.3	1508.1	1503.4
7.5°	1505.7	1506.9	1505.1	1493.4	1487.0
10°	1489.3	1489.9	1485.2	1475.9	1468.2
12.5°	1468.2	1467.7	1461.2	1456.5	1444.2
15°	1434.9	1438.4	1434.9	1428.4	1418.5
17.5°	1402.7	1402.7	1405.0	1393.9	1386.3
20°	1366.3	1368.1	1368.1	1359.3	1350.5
22.5°	1324.2	1329.4	1331.2	1321.8	1311.3
25°	1274.4	1284.4	1290.2	1280.8	1269.7
27.5°	1214.1	1229.3	1246.9	1239.8	1227.5
30°	1146.7	1169.0	1198.3	1192.4	1183.6
32.5°	1082.9	1105.1	1145.5	1143.2	1138.5
35°	1024.9	1039.0	1086.4	1092.3	1088.2
37.5°	969.9	982.7	1027.2	1040.7	1037.2
40°	911.9	925.9	961.1	985.1	986.3
42.5°	854.5	867.9	896.6	931.2	931.2
45°	793.6	807.0	833.4	871.5	876.1
47.5°	733.8	747.9	773.7	811.7	819.3
50°	675.3	688.1	713.9	750.8	762.5
52.5°	614.4	628.4	653.6	687.6	704.5
55°	555.8	565.2	592.7	625.5	643.6
57.5°	494.9	503.7	534.7	562.8	581.6
60°	436.3	447.4	471.5	500.2	521.8
62.5°	380.1	391.8	412.3	437.5	462.1
65°	325.6	334.4	354.3	379.5	401.2
67.5°	272.9	280.5	300.4	318.0	340.9
70°	219.6	229.6	244.2	261.2	275.8
72.5°	176.9	181.0	193.3	205.6	220.8
75°	130.6	137.6	147.6	154.6	163.4
77.5°	93.7	97.8	103.7	109.5	117.7
80°	62.7	64.4	69.7	70.9	77.3
82.5°	38.1	39.2	40.4	41.0	43.3
85°	20.5	20.5	20.5	19.3	19.3
87.5°	11.7	11.7	10.0	8.2	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)