

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: P557230

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-93-97-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: P557230  
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-30-UNV-93-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

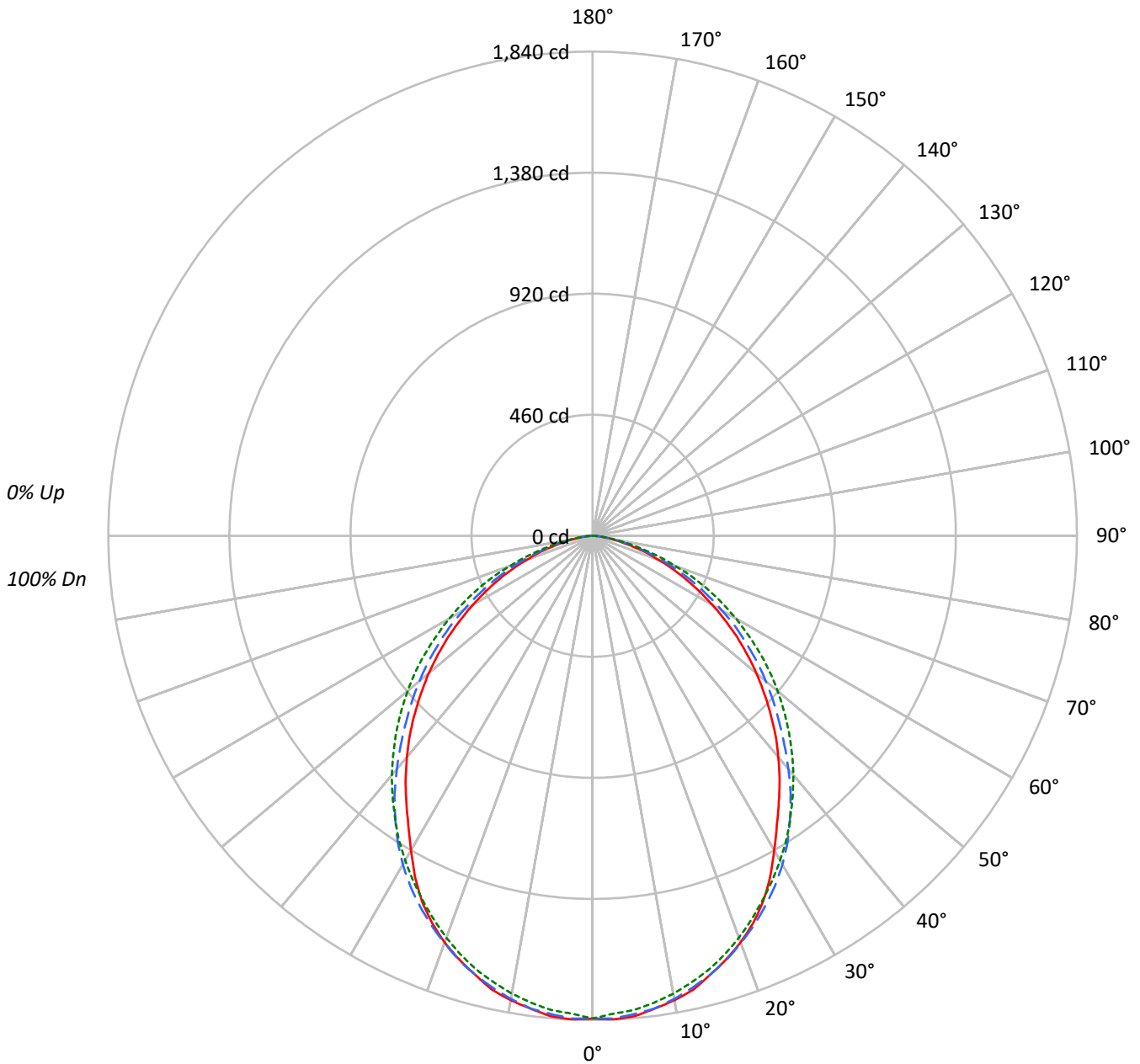
Lumens per Lamp: N/A  
Luminaire Lumens: 4242.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	4937	4937	4937
5°	4950	4929	4887
10°	4897	4884	4828
15°	4810	4810	4756
20°	4709	4715	4654
25°	4554	4610	4537
30°	4288	4481	4426
35°	4052	4295	4302
40°	3855	4063	4169
45°	3634	3817	4013
50°	3402	3597	3841
55°	3138	3346	3634
60°	2826	3054	3380
65°	2495	2715	3074
70°	2079	2312	2612
75°	1634	1847	2044
80°	1168	1300	1441
85°	763	763	719



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.7	4.1
10°-20°	485.2	11.4
20°-30°	709.1	16.7
30°-40°	804.9	19.0
40°-50°	777.0	18.3
50°-60°	641.0	15.1
60°-70°	426.9	10.1
70°-80°	191.0	4.5
80°-90°	34.2	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°	1367.1	32.2
0°-40°	2172.0	51.2
0°-60°	3590.0	84.6
0°-90°	4242.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4242.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1835	1835	1835	1835	1835	
5°	1832	1832	1825	1815	1809	173
15°	1727	1731	1727	1719	1707	487
25°	1534	1546	1553	1541	1528	702
35°	1233	1250	1307	1314	1310	773
45°	955	971	1003	1049	1054	737
55°	669	680	713	753	775	597
65°	392	402	426	457	483	389
75°	157	166	178	186	197	172
85°	25	25	25	23	23	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1834.6	1834.6	1834.6	1834.6	1834.6
2.5°	1839.5	1840.2	1836.0	1824.7	1817.6
5°	1832.4	1831.7	1824.7	1814.8	1809.2
7.5°	1812.0	1813.4	1811.3	1797.2	1789.4
10°	1792.3	1793.0	1787.3	1776.1	1766.9
12.5°	1766.9	1766.2	1758.4	1752.8	1738.0
15°	1726.7	1731.0	1726.7	1719.0	1707.0
17.5°	1688.0	1688.0	1690.8	1677.4	1668.2
20°	1644.3	1646.4	1646.4	1635.8	1625.2
22.5°	1593.5	1599.9	1602.0	1590.7	1578.0
25°	1533.6	1545.6	1552.6	1541.4	1528.0
27.5°	1461.0	1479.3	1500.5	1492.0	1477.2
30°	1380.0	1406.8	1442.0	1434.9	1424.4
32.5°	1303.1	1329.9	1378.6	1375.7	1370.1
35°	1233.4	1250.3	1307.4	1314.4	1309.5
37.5°	1167.1	1182.6	1236.2	1252.4	1248.2
40°	1097.4	1114.3	1156.6	1185.4	1186.9
42.5°	1028.3	1044.5	1079.0	1120.6	1120.6
45°	955.0	971.2	1002.9	1048.7	1054.4
47.5°	883.1	900.0	931.0	976.8	986.0
50°	812.6	828.1	859.1	903.5	917.6
52.5°	739.3	756.2	786.5	827.4	847.9
55°	668.8	680.1	713.2	752.7	774.6
57.5°	595.5	606.1	643.5	677.3	699.9
60°	525.1	538.5	567.4	601.9	628.0
62.5°	457.4	471.5	496.2	526.5	556.1
65°	391.9	402.4	426.4	456.7	482.8
67.5°	328.4	337.6	361.6	382.7	410.2
70°	264.3	276.3	293.9	314.3	332.0
72.5°	212.8	217.8	232.6	247.4	265.7
75°	157.2	165.6	177.6	186.1	196.6
77.5°	112.8	117.7	124.7	131.8	141.7
80°	75.4	77.5	83.9	85.3	93.0
82.5°	45.8	47.2	48.6	49.3	52.2
85°	24.7	24.7	24.7	23.3	23.3
87.5°	14.1	14.1	12.0	9.9	7.0
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)