

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: P557182

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-80-97-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: P557182  
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-80-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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**

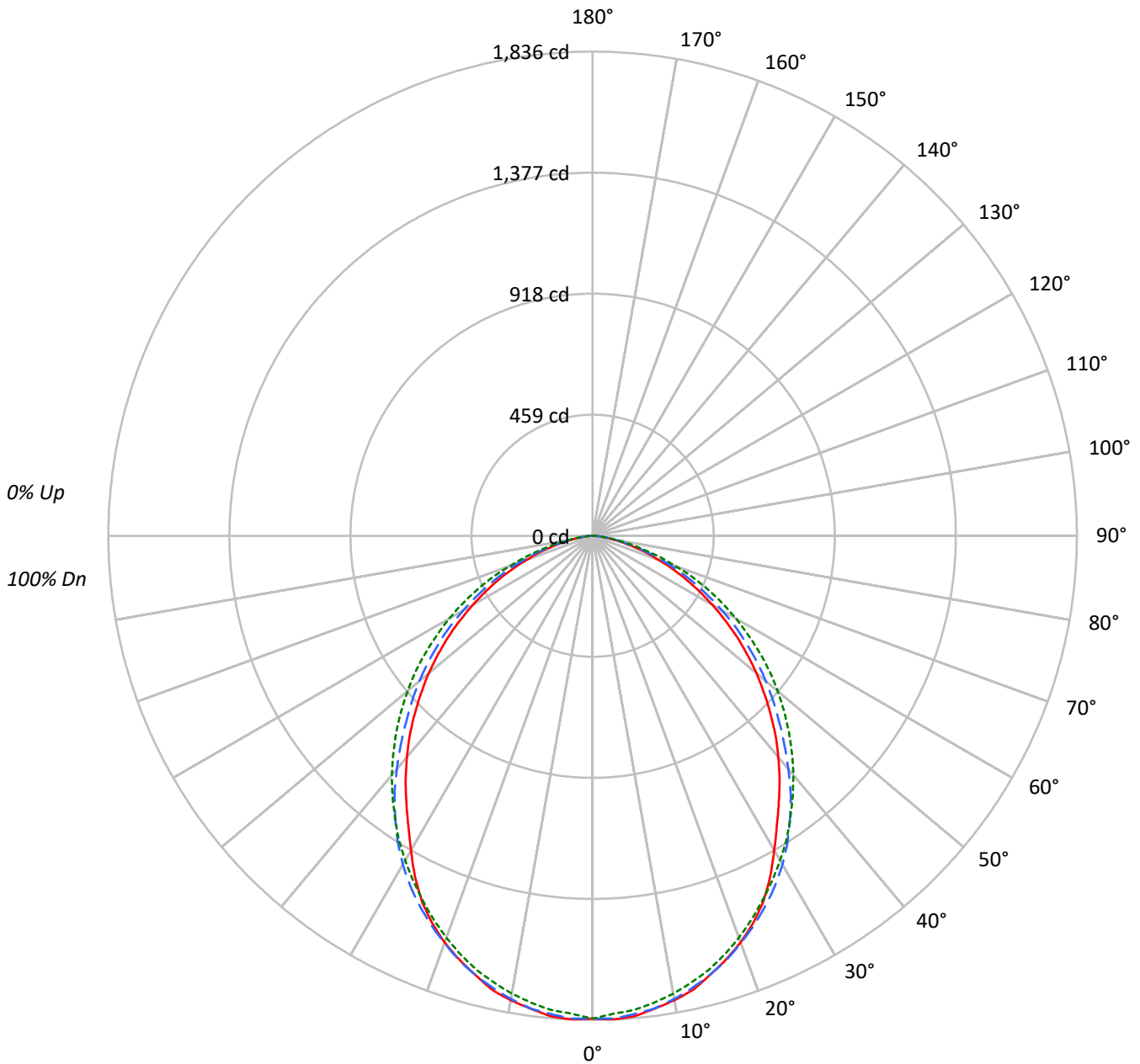
Lumens per Lamp: N/A  
Luminaire Lumens: 4233.0 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	4926	4926	4926
5°	4940	4918	4877
10°	4887	4873	4818
15°	4800	4800	4746
20°	4699	4705	4644
25°	4544	4600	4527
30°	4279	4471	4416
35°	4043	4286	4293
40°	3847	4054	4160
45°	3627	3809	4004
50°	3395	3589	3834
55°	3131	3339	3626
60°	2820	3047	3372
65°	2490	2709	3068
70°	2075	2308	2606
75°	1630	1842	2040
80°	1167	1297	1438
85°	760	760	716



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.4	4.1
10°-20°	484.2	11.4
20°-30°	707.6	16.7
30°-40°	803.2	19.0
40°-50°	775.4	18.3
50°-60°	639.6	15.1
60°-70°	425.9	10.1
70°-80°	190.6	4.5
80°-90°	34.1	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°	1364.2	32.2
0°-40°	2167.4	51.2
0°-60°	3582.4	84.6
0°-90°	4233.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4233.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1831	1831	1831	1831	1831	
5°	1829	1828	1821	1811	1805	173
15°	1723	1727	1723	1715	1703	486
25°	1530	1542	1549	1538	1525	701
35°	1231	1248	1305	1312	1307	771
45°	953	969	1001	1046	1052	735
55°	667	679	712	751	773	596
65°	391	402	426	456	482	388
75°	157	165	177	186	196	171
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°	1830.7	1830.7	1830.7	1830.7	1830.7
2.5°	1835.6	1836.3	1832.1	1820.8	1813.8
5°	1828.6	1827.9	1820.8	1811.0	1805.3
7.5°	1808.2	1809.6	1807.5	1793.4	1785.7
10°	1788.5	1789.2	1783.5	1772.3	1763.1
12.5°	1763.1	1762.4	1754.7	1749.1	1734.3
15°	1723.1	1727.3	1723.1	1715.3	1703.4
17.5°	1684.4	1684.4	1687.2	1673.8	1664.7
20°	1640.8	1642.9	1642.9	1632.3	1621.8
22.5°	1590.1	1596.5	1598.6	1587.3	1574.7
25°	1530.4	1542.3	1549.3	1538.1	1524.7
27.5°	1457.9	1476.2	1497.3	1488.9	1474.1
30°	1377.0	1403.8	1438.9	1431.9	1421.3
32.5°	1300.4	1327.1	1375.6	1372.8	1367.2
35°	1230.8	1247.6	1304.6	1311.6	1306.7
37.5°	1164.6	1180.1	1233.6	1249.7	1245.5
40°	1095.0	1111.9	1154.1	1182.9	1184.3
42.5°	1026.1	1042.3	1076.7	1118.2	1118.2
45°	953.0	969.1	1000.8	1046.5	1052.1
47.5°	881.2	898.1	929.0	974.8	983.9
50°	810.9	826.4	857.3	901.6	915.7
52.5°	737.8	754.6	784.9	825.7	846.1
55°	667.4	678.7	711.7	751.1	772.9
57.5°	594.3	604.8	642.1	675.9	698.4
60°	524.0	537.3	566.1	600.6	626.6
62.5°	456.4	470.5	495.1	525.4	554.9
65°	391.0	401.6	425.5	455.7	481.8
67.5°	327.7	336.9	360.8	381.9	409.3
70°	263.7	275.7	293.3	313.7	331.2
72.5°	212.4	217.3	232.1	246.9	265.1
75°	156.8	165.3	177.2	185.7	196.2
77.5°	112.5	117.4	124.5	131.5	141.4
80°	75.3	77.4	83.7	85.1	92.8
82.5°	45.7	47.1	48.5	49.2	52.0
85°	24.6	24.6	24.6	23.2	23.2
87.5°	14.1	14.1	12.0	9.8	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)