

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: P556279

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-80-87-EDD**

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: P556279  
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-LD4-1HI-40-UNV-80-87-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

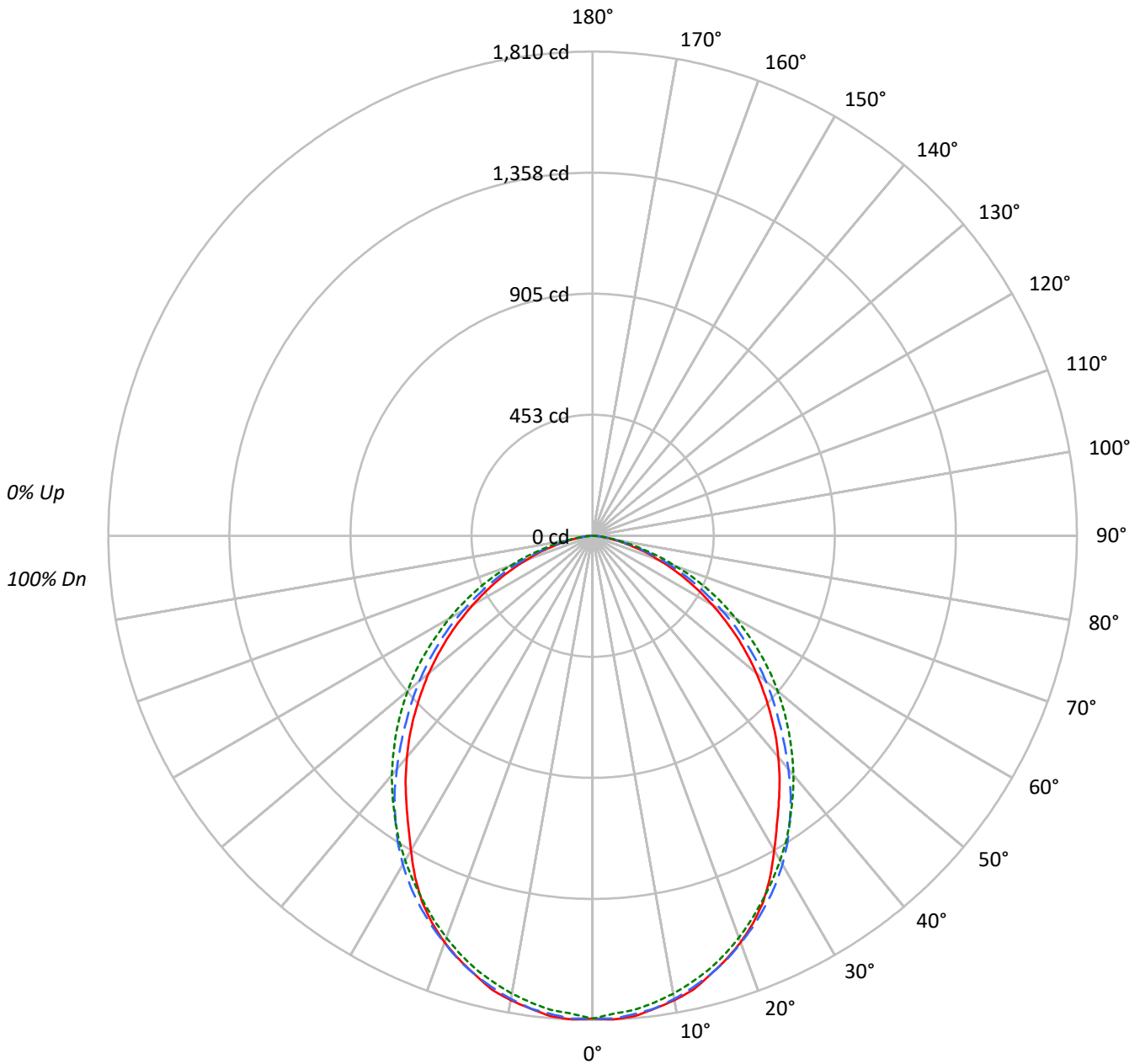
Lumens per Lamp: N/A  
Luminaire Lumens: 4173.0 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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°	4856	4856	4856
5°	4869	4849	4808
10°	4818	4805	4750
15°	4732	4732	4678
20°	4632	4638	4578
25°	4480	4535	4463
30°	4218	4408	4354
35°	3986	4225	4232
40°	3792	3997	4102
45°	3575	3755	3947
50°	3347	3538	3779
55°	3087	3292	3575
60°	2780	3004	3324
65°	2455	2671	3024
70°	2046	2275	2570
75°	1607	1816	2011
80°	1150	1278	1418
85°	750	750	707



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	169.9	4.1
10°-20°	477.4	11.4
20°-30°	697.6	16.7
30°-40°	791.8	19.0
40°-50°	764.4	18.3
50°-60°	630.6	15.1
60°-70°	419.9	10.1
70°-80°	187.9	4.5
80°-90°	33.6	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°	1344.8	32.2
0°-40°	2136.7	51.2
0°-60°	3531.6	84.6
0°-90°	4173.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4173.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1805	1805	1805	1805	1805	
5°	1803	1802	1795	1785	1780	171
15°	1699	1703	1699	1691	1679	479
25°	1509	1520	1527	1516	1503	691
35°	1213	1230	1286	1293	1288	760
45°	940	955	987	1032	1037	725
55°	658	669	702	740	762	587
65°	386	396	420	449	475	382
75°	155	163	175	183	193	169
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1804.7	1804.7	1804.7	1804.7	1804.7
2.5°	1809.6	1810.3	1806.1	1795.0	1788.1
5°	1802.6	1801.9	1795.0	1785.3	1779.8
7.5°	1782.5	1783.9	1781.8	1768.0	1760.3
10°	1763.1	1763.8	1758.3	1747.2	1738.2
12.5°	1738.2	1737.5	1729.8	1724.3	1709.7
15°	1698.6	1702.8	1698.6	1691.0	1679.2
17.5°	1660.5	1660.5	1663.3	1650.1	1641.1
20°	1617.5	1619.6	1619.6	1609.2	1598.8
22.5°	1567.6	1573.8	1575.9	1564.8	1552.3
25°	1508.7	1520.5	1527.4	1516.3	1503.1
27.5°	1437.3	1455.3	1476.1	1467.8	1453.2
30°	1357.5	1383.9	1418.5	1411.6	1401.2
32.5°	1282.0	1308.3	1356.1	1353.4	1347.8
35°	1213.3	1230.0	1286.1	1293.0	1288.2
37.5°	1148.1	1163.4	1216.1	1232.0	1227.9
40°	1079.5	1096.1	1137.7	1166.2	1167.6
42.5°	1011.6	1027.5	1061.5	1102.4	1102.4
45°	939.5	955.4	986.6	1031.7	1037.2
47.5°	868.7	885.4	915.9	960.9	970.0
50°	799.4	814.7	845.2	888.8	902.7
52.5°	727.3	743.9	773.7	814.0	834.1
55°	658.0	669.1	701.6	740.5	762.0
57.5°	585.9	596.3	633.0	666.3	688.5
60°	516.5	529.7	558.1	592.1	617.7
62.5°	450.0	463.8	488.1	517.9	547.0
65°	385.5	395.9	419.5	449.3	474.9
67.5°	323.1	332.1	355.7	376.5	403.5
70°	260.0	271.8	289.1	309.2	326.6
72.5°	209.4	214.2	228.8	243.4	261.4
75°	154.6	162.9	174.7	183.0	193.4
77.5°	110.9	115.8	122.7	129.7	139.4
80°	74.2	76.3	82.5	83.9	91.5
82.5°	45.1	46.5	47.8	48.5	51.3
85°	24.3	24.3	24.3	22.9	22.9
87.5°	13.9	13.9	11.8	9.7	6.9
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)