

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: P556341

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-80-86-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: P556341  
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-50-UNV-80-86-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

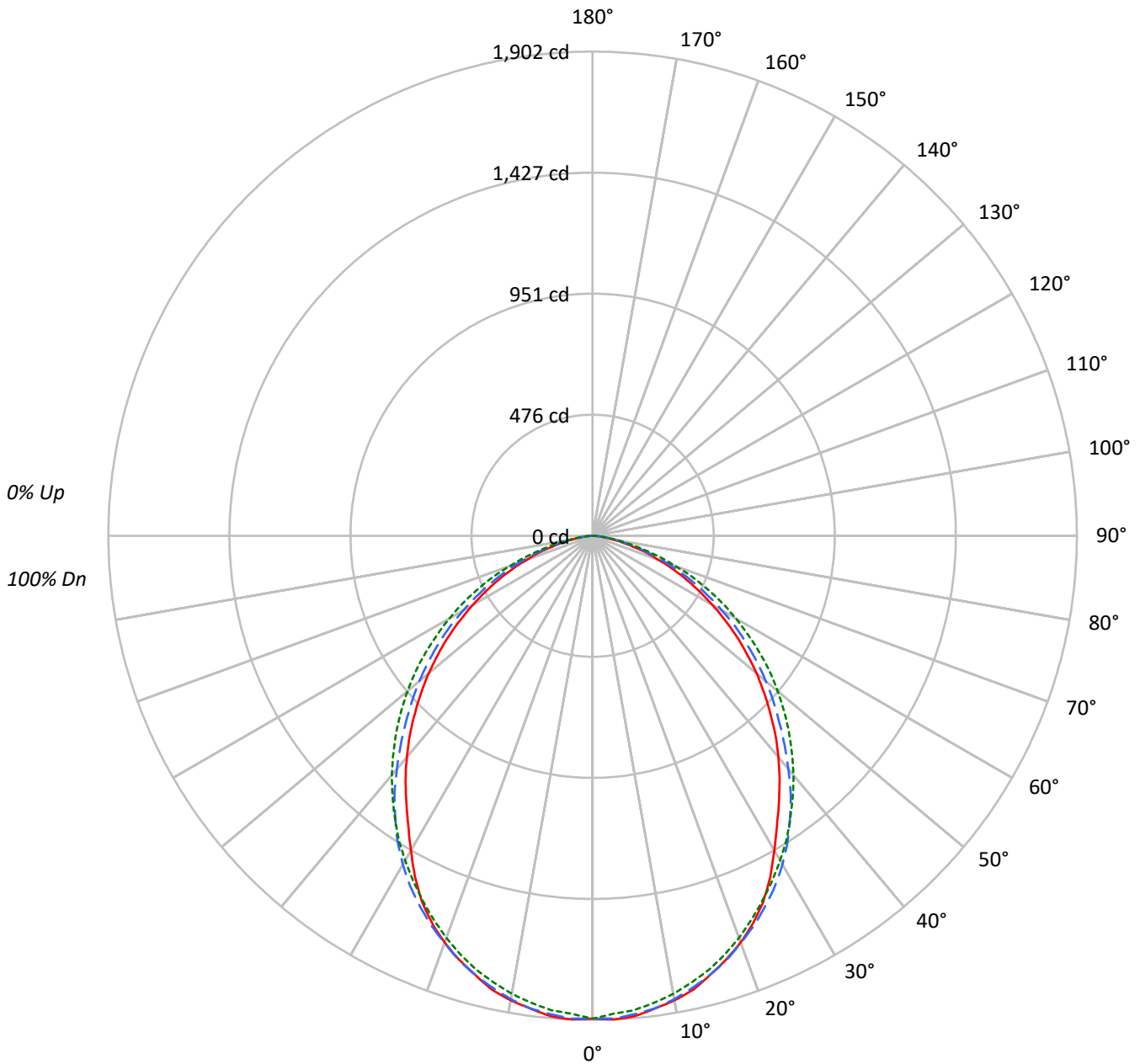
Lumens per Lamp: N/A  
Luminaire Lumens: 4386.0 lumens  
Efficiency: N/A  
Efficacy: 101.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (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°	5104	5104	5104
5°	5118	5096	5053
10°	5064	5050	4992
15°	4974	4974	4917
20°	4869	4875	4812
25°	4708	4766	4691
30°	4433	4633	4576
35°	4189	4441	4448
40°	3986	4201	4311
45°	3758	3946	4149
50°	3517	3719	3972
55°	3244	3460	3757
60°	2922	3157	3495
65°	2580	2807	3179
70°	2150	2391	2700
75°	1690	1909	2114
80°	1209	1344	1491
85°	787	787	741



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.6	4.1
10°-20°	501.7	11.4
20°-30°	733.2	16.7
30°-40°	832.2	19.0
40°-50°	803.4	18.3
50°-60°	662.7	15.1
60°-70°	441.3	10.1
70°-80°	197.5	4.5
80°-90°	35.3	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°	1413.5	32.2
0°-40°	2245.7	51.2
0°-60°	3711.8	84.6
0°-90°	4386.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4386.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1897	1897	1897	1897	1897	
5°	1895	1894	1887	1876	1871	179
15°	1785	1790	1785	1777	1765	503
25°	1586	1598	1605	1594	1580	726
35°	1275	1293	1352	1359	1354	799
45°	987	1004	1037	1084	1090	762
55°	692	703	738	778	801	617
65°	405	416	441	472	499	402
75°	162	171	184	192	203	178
85°	26	26	26	24	24	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1896.8	1896.8	1896.8	1896.8	1896.8
2.5°	1901.9	1902.7	1898.3	1886.6	1879.3
5°	1894.6	1893.9	1886.6	1876.4	1870.6
7.5°	1873.5	1875.0	1872.8	1858.2	1850.2
10°	1853.1	1853.8	1848.0	1836.3	1826.9
12.5°	1826.9	1826.1	1818.1	1812.3	1797.0
15°	1785.3	1789.7	1785.3	1777.3	1764.9
17.5°	1745.3	1745.3	1748.2	1734.3	1724.9
20°	1700.1	1702.3	1702.3	1691.3	1680.4
22.5°	1647.6	1654.2	1656.4	1644.7	1631.6
25°	1585.7	1598.1	1605.3	1593.7	1579.8
27.5°	1510.6	1529.6	1551.4	1542.7	1527.4
30°	1426.8	1454.5	1490.9	1483.7	1472.7
32.5°	1347.4	1375.1	1425.4	1422.4	1416.6
35°	1275.2	1292.7	1351.8	1359.0	1353.9
37.5°	1206.7	1222.8	1278.2	1294.9	1290.5
40°	1134.6	1152.1	1195.8	1225.7	1227.1
42.5°	1063.2	1079.9	1115.7	1158.6	1158.6
45°	987.4	1004.2	1037.0	1084.3	1090.1
47.5°	913.1	930.6	962.6	1010.0	1019.5
50°	840.2	856.2	888.3	934.2	948.8
52.5°	764.4	781.9	813.2	855.5	876.6
55°	691.5	703.2	737.5	778.3	800.9
57.5°	615.8	626.7	665.3	700.3	723.6
60°	542.9	556.7	586.6	622.3	649.3
62.5°	472.9	487.5	513.0	544.3	575.0
65°	405.2	416.1	440.9	472.2	499.2
67.5°	339.6	349.1	373.8	395.7	424.1
70°	273.3	285.7	303.9	325.0	343.2
72.5°	220.1	225.2	240.5	255.8	274.7
75°	162.5	171.2	183.6	192.4	203.3
77.5°	116.6	121.7	129.0	136.3	146.5
80°	78.0	80.2	86.7	88.2	96.2
82.5°	47.4	48.8	50.3	51.0	53.9
85°	25.5	25.5	25.5	24.0	24.0
87.5°	14.6	14.6	12.4	10.2	7.3
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)