

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: P555428

Luminaire Tested: **FUSL-12-2-LD4-3HI-30-UNV-93-86-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: P555428  
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-12-2-LD4-3HI-30-UNV-93-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

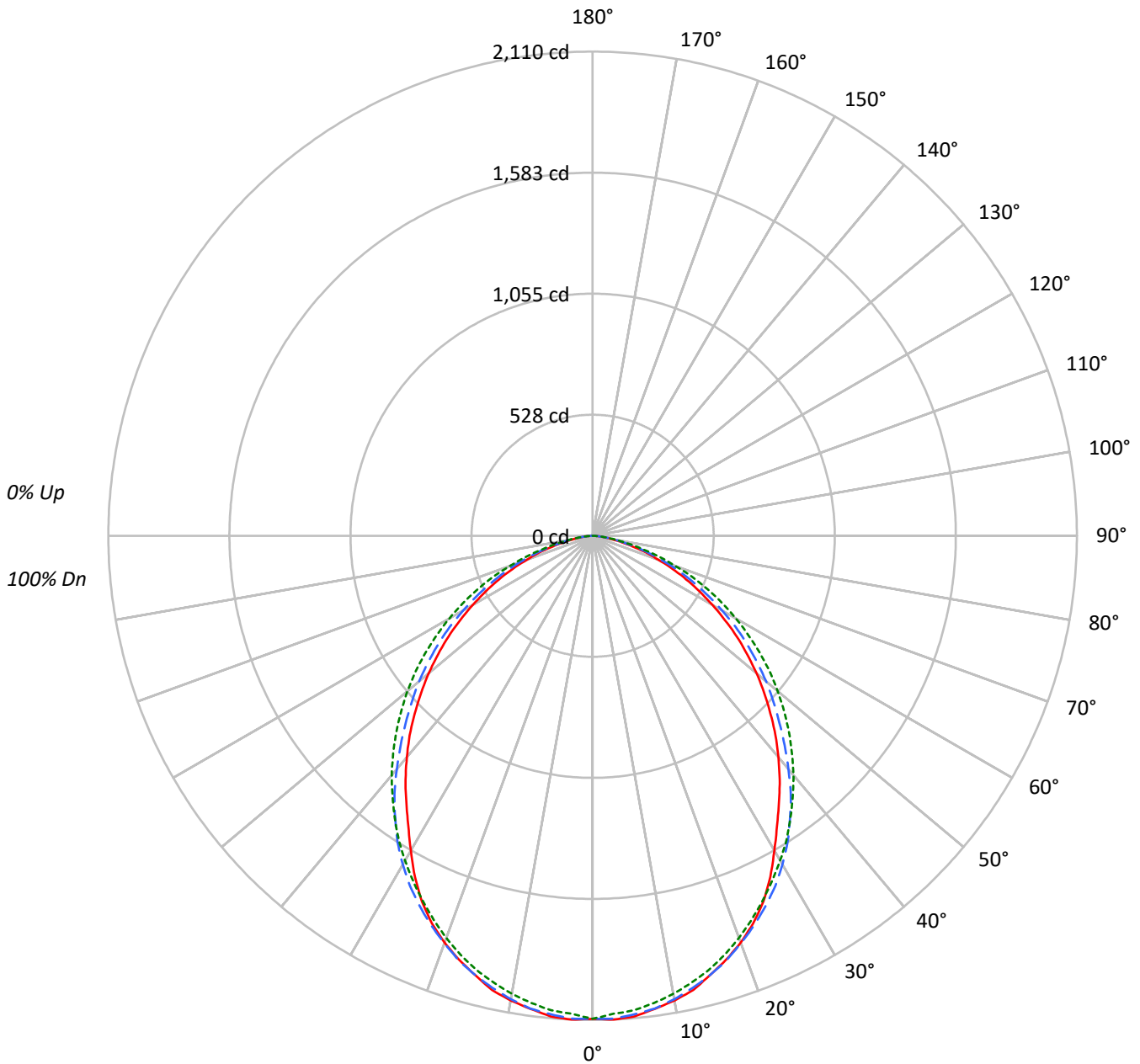
Lumens per Lamp: N/A  
Luminaire Lumens: 4867.0 lumens  
Efficiency: N/A  
Efficacy: 75.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 64.8  
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°	11328	11328	11328
5°	11358	11310	11214
10°	11238	11207	11079
15°	11038	11038	10912
20°	10805	10818	10680
25°	10449	10579	10410
30°	9839	10281	10156
35°	9297	9855	9871
40°	8845	9323	9567
45°	8340	8758	9207
50°	7806	8253	8815
55°	7201	7678	8339
60°	6484	7006	7755
65°	5726	6230	7054
70°	4771	5306	5994
75°	3749	4238	4691
80°	2681	2982	3307
85°	1748	1748	1649



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.2	4.1
10°-20°	556.7	11.4
20°-30°	813.6	16.7
30°-40°	923.5	19.0
40°-50°	891.5	18.3
50°-60°	735.4	15.1
60°-70°	489.7	10.1
70°-80°	219.1	4.5
80°-90°	39.2	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°	1568.5	32.2
0°-40°	2492.0	51.2
0°-60°	4118.9	84.6
0°-90°	4867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4867.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2105	2105	2105	2105	2105	
5°	2102	2102	2094	2082	2076	199
15°	1981	1986	1981	1972	1958	558
25°	1760	1773	1781	1768	1753	806
35°	1415	1434	1500	1508	1502	887
45°	1096	1114	1151	1203	1210	845
55°	767	780	818	864	889	685
65°	450	462	489	524	554	446
75°	180	190	204	214	226	197
85°	28	28	28	27	27	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2104.9	2104.9	2104.9	2104.9	2104.9
2.5°	2110.5	2111.3	2106.5	2093.5	2085.4
5°	2102.4	2101.6	2093.5	2082.2	2075.7
7.5°	2079.0	2080.6	2078.2	2062.0	2053.1
10°	2056.3	2057.1	2050.7	2037.7	2027.2
12.5°	2027.2	2026.4	2017.5	2011.1	1994.1
15°	1981.1	1986.0	1981.1	1972.2	1958.5
17.5°	1936.7	1936.7	1939.9	1924.5	1914.0
20°	1886.5	1888.9	1888.9	1876.8	1864.7
22.5°	1828.3	1835.6	1838.0	1825.1	1810.5
25°	1759.6	1773.3	1781.4	1768.5	1753.1
27.5°	1676.3	1697.3	1721.6	1711.9	1694.9
30°	1583.3	1614.0	1654.4	1646.4	1634.2
32.5°	1495.1	1525.9	1581.7	1578.4	1572.0
35°	1415.1	1434.5	1500.0	1508.1	1502.4
37.5°	1339.1	1356.9	1418.3	1436.9	1432.1
40°	1259.0	1278.4	1327.0	1360.1	1361.7
42.5°	1179.8	1198.4	1238.0	1285.7	1285.7
45°	1095.7	1114.3	1150.7	1203.2	1209.7
47.5°	1013.2	1032.6	1068.2	1120.8	1131.3
50°	932.3	950.1	985.7	1036.7	1052.8
52.5°	848.2	867.7	902.4	949.3	972.8
55°	767.4	780.3	818.3	863.6	888.7
57.5°	683.3	695.4	738.3	777.1	803.0
60°	602.4	617.8	650.9	690.6	720.5
62.5°	524.8	541.0	569.3	604.0	638.0
65°	449.6	461.7	489.2	524.0	553.9
67.5°	376.8	387.3	414.8	439.1	470.6
70°	303.2	317.0	337.2	360.6	380.9
72.5°	244.2	249.9	266.8	283.8	304.9
75°	180.3	190.0	203.8	213.5	225.6
77.5°	129.4	135.0	143.1	151.2	162.5
80°	86.5	88.9	96.2	97.8	106.7
82.5°	52.6	54.2	55.8	56.6	59.8
85°	28.3	28.3	28.3	26.7	26.7
87.5°	16.2	16.2	13.7	11.3	8.1
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)