

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: P555396

Luminaire Tested: **FUSL-12-2-LD4-3HI-30-UNV-81-86-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: P555396  
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-81-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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**

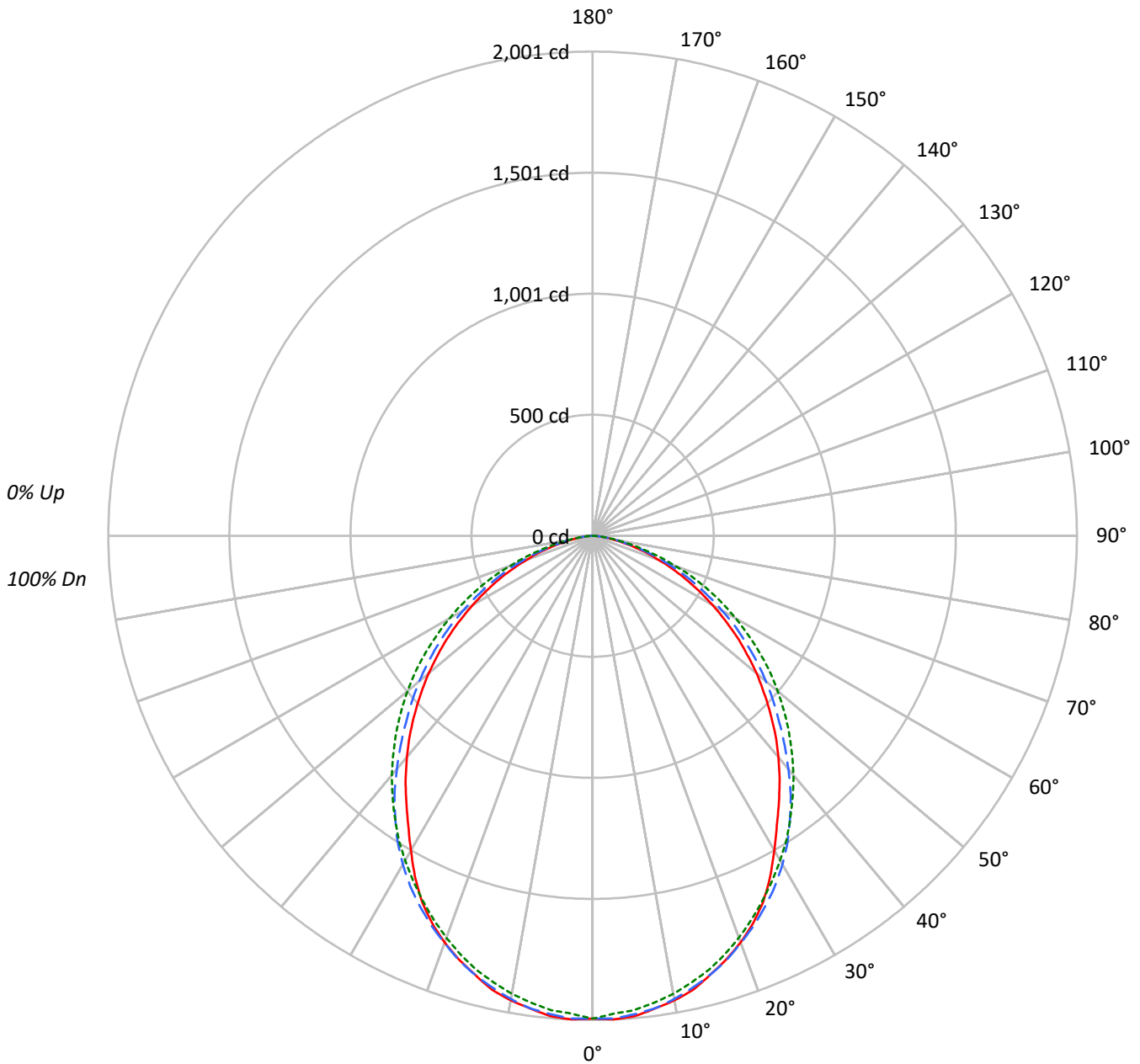
Lumens per Lamp: N/A  
Luminaire Lumens: 4614.0 lumens  
Efficiency: N/A  
Efficacy: 71.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 64.8  
Input Voltage (V): NR  
Input Current (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°	10739	10739	10739
5°	10768	10722	10631
10°	10653	10624	10503
15°	10464	10464	10345
20°	10243	10257	10125
25°	9906	10029	9870
30°	9328	9747	9628
35°	8814	9343	9358
40°	8386	8838	9069
45°	7906	8303	8729
50°	7401	7824	8357
55°	6826	7279	7905
60°	6147	6642	7352
65°	5428	5906	6687
70°	4524	5031	5682
75°	3554	4017	4448
80°	2541	2827	3137
85°	1655	1655	1562



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	187.9	4.1
10°-20°	527.8	11.4
20°-30°	771.3	16.7
30°-40°	875.5	19.0
40°-50°	845.2	18.3
50°-60°	697.2	15.1
60°-70°	464.3	10.1
70°-80°	207.8	4.5
80°-90°	37.2	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°	1487.0	32.2
0°-40°	2362.5	51.2
0°-60°	3904.8	84.6
0°-90°	4614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4614.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1995	1995	1995	1995	1995	
5°	1993	1992	1985	1974	1968	189
15°	1878	1883	1878	1870	1857	529
25°	1668	1681	1689	1676	1662	764
35°	1342	1360	1422	1430	1424	841
45°	1039	1056	1091	1141	1147	801
55°	728	740	776	819	842	649
65°	426	438	464	497	525	423
75°	171	180	193	202	214	187
85°	27	27	27	25	25	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1995.4	1995.4	1995.4	1995.4	1995.4
2.5°	2000.8	2001.6	1997.0	1984.7	1977.0
5°	1993.1	1992.4	1984.7	1974.0	1967.8
7.5°	1970.9	1972.4	1970.1	1954.8	1946.4
10°	1949.4	1950.2	1944.1	1931.8	1921.8
12.5°	1921.8	1921.1	1912.6	1906.5	1890.4
15°	1878.1	1882.7	1878.1	1869.7	1856.7
17.5°	1836.0	1836.0	1839.1	1824.5	1814.5
20°	1788.5	1790.8	1790.8	1779.3	1767.8
22.5°	1733.3	1740.2	1742.5	1730.2	1716.4
25°	1668.1	1681.1	1688.8	1676.5	1662.0
27.5°	1589.1	1609.1	1632.1	1622.9	1606.8
30°	1501.0	1530.1	1568.4	1560.8	1549.3
32.5°	1417.4	1446.6	1499.5	1496.4	1490.3
35°	1341.5	1359.9	1422.0	1429.7	1424.3
37.5°	1269.5	1286.3	1344.6	1362.2	1357.6
40°	1193.6	1212.0	1258.0	1289.4	1290.9
42.5°	1118.5	1136.1	1173.7	1218.9	1218.9
45°	1038.7	1056.4	1090.9	1140.7	1146.8
47.5°	960.5	978.9	1012.7	1062.5	1072.5
50°	883.9	900.7	934.5	982.8	998.1
52.5°	804.2	822.6	855.5	900.0	922.2
55°	727.5	739.8	775.8	818.7	842.5
57.5°	647.8	659.3	699.9	736.7	761.2
60°	571.1	585.7	617.1	654.7	683.0
62.5°	497.5	512.8	539.7	572.6	604.8
65°	426.2	437.7	463.8	496.8	525.1
67.5°	357.2	367.2	393.3	416.3	446.2
70°	287.5	300.5	319.7	341.9	361.1
72.5°	231.5	236.9	253.0	269.1	289.0
75°	170.9	180.1	193.2	202.4	213.9
77.5°	122.7	128.0	135.7	143.4	154.1
80°	82.0	84.3	91.2	92.8	101.2
82.5°	49.8	51.4	52.9	53.7	56.7
85°	26.8	26.8	26.8	25.3	25.3
87.5°	15.3	15.3	13.0	10.7	7.7
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)