

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: P557279

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-82-97-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: P557279  
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-35-UNV-82-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

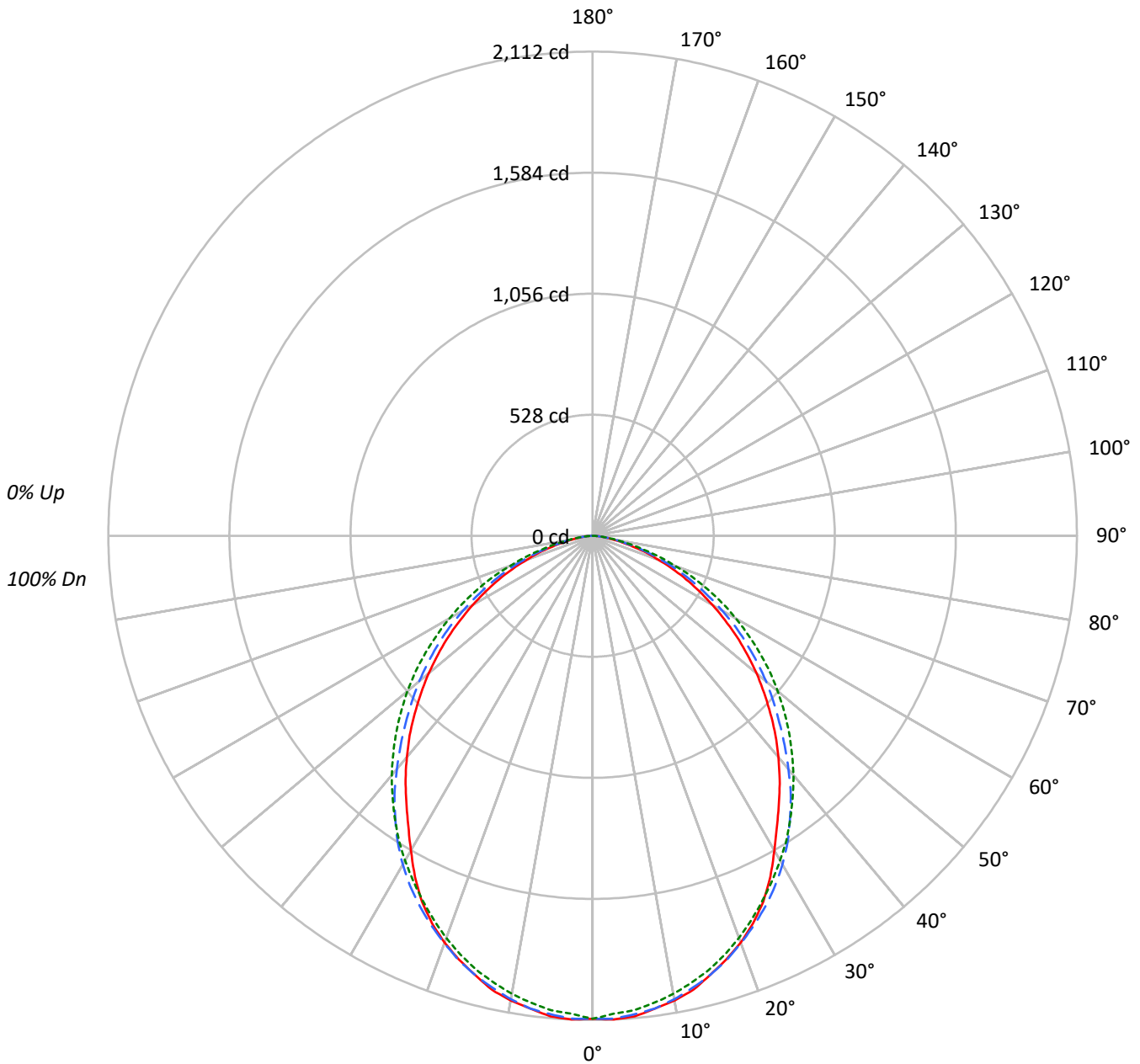
Lumens per Lamp: N/A  
Luminaire Lumens: 4871.0 lumens  
Efficiency: N/A  
Efficacy: 104.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	5669	5669	5669
5°	5684	5660	5612
10°	5623	5608	5544
15°	5524	5524	5461
20°	5407	5414	5344
25°	5229	5294	5209
30°	4924	5145	5082
35°	4653	4932	4940
40°	4427	4665	4787
45°	4173	4383	4607
50°	3906	4130	4411
55°	3603	3842	4173
60°	3245	3506	3881
65°	2865	3117	3530
70°	2388	2655	2999
75°	1877	2120	2348
80°	1342	1492	1655
85°	874	874	824



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.3	4.1
10°-20°	557.2	11.4
20°-30°	814.3	16.7
30°-40°	924.3	19.0
40°-50°	892.2	18.3
50°-60°	736.0	15.1
60°-70°	490.1	10.1
70°-80°	219.3	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°	1569.8	32.2
0°-40°	2494.0	51.2
0°-60°	4122.3	84.6
0°-90°	4871.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4871.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2107	2107	2107	2107	2107	
5°	2104	2103	2095	2084	2077	199
15°	1983	1988	1983	1974	1960	559
25°	1761	1775	1783	1770	1754	806
35°	1416	1436	1501	1509	1504	887
45°	1097	1115	1152	1204	1211	846
55°	768	781	819	864	889	685
65°	450	462	490	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°	2106.6	2106.6	2106.6	2106.6	2106.6
2.5°	2112.2	2113.1	2108.2	2095.3	2087.2
5°	2104.2	2103.3	2095.3	2083.9	2077.4
7.5°	2080.7	2082.3	2079.9	2063.7	2054.8
10°	2058.0	2058.8	2052.4	2039.4	2028.9
12.5°	2028.9	2028.1	2019.2	2012.7	1995.7
15°	1982.8	1987.6	1982.8	1973.9	1960.1
17.5°	1938.2	1938.2	1941.5	1926.1	1915.6
20°	1888.1	1890.5	1890.5	1878.4	1866.2
22.5°	1829.8	1837.1	1839.5	1826.6	1812.0
25°	1761.0	1774.8	1782.9	1769.9	1754.5
27.5°	1677.7	1698.7	1723.0	1713.3	1696.3
30°	1584.6	1615.3	1655.8	1647.7	1635.6
32.5°	1496.4	1527.1	1583.0	1579.7	1573.3
35°	1416.3	1435.7	1501.2	1509.3	1503.7
37.5°	1340.2	1358.0	1419.5	1438.1	1433.3
40°	1260.1	1279.5	1328.0	1361.2	1362.8
42.5°	1180.8	1199.4	1239.0	1286.8	1286.8
45°	1096.6	1115.2	1151.6	1204.2	1210.7
47.5°	1014.0	1033.5	1069.1	1121.7	1132.2
50°	933.1	950.9	986.5	1037.5	1053.7
52.5°	848.9	868.4	903.2	950.1	973.6
55°	768.0	781.0	819.0	864.3	889.4
57.5°	683.8	696.0	738.9	777.7	803.6
60°	602.9	618.3	651.5	691.1	721.1
62.5°	525.2	541.4	569.7	604.5	638.5
65°	450.0	462.1	489.6	524.4	554.4
67.5°	377.1	387.6	415.2	439.4	471.0
70°	303.5	317.2	337.5	360.9	381.2
72.5°	244.4	250.1	267.1	284.1	305.1
75°	180.5	190.2	203.9	213.7	225.8
77.5°	129.5	135.2	143.2	151.3	162.7
80°	86.6	89.0	96.3	97.9	106.8
82.5°	52.6	54.2	55.8	56.7	59.9
85°	28.3	28.3	28.3	26.7	26.7
87.5°	16.2	16.2	13.8	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)