

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: P555413

Luminaire Tested: **FUSL-12-2-LD4-3HI-30-UNV-82-86-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: P555413  
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-82-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

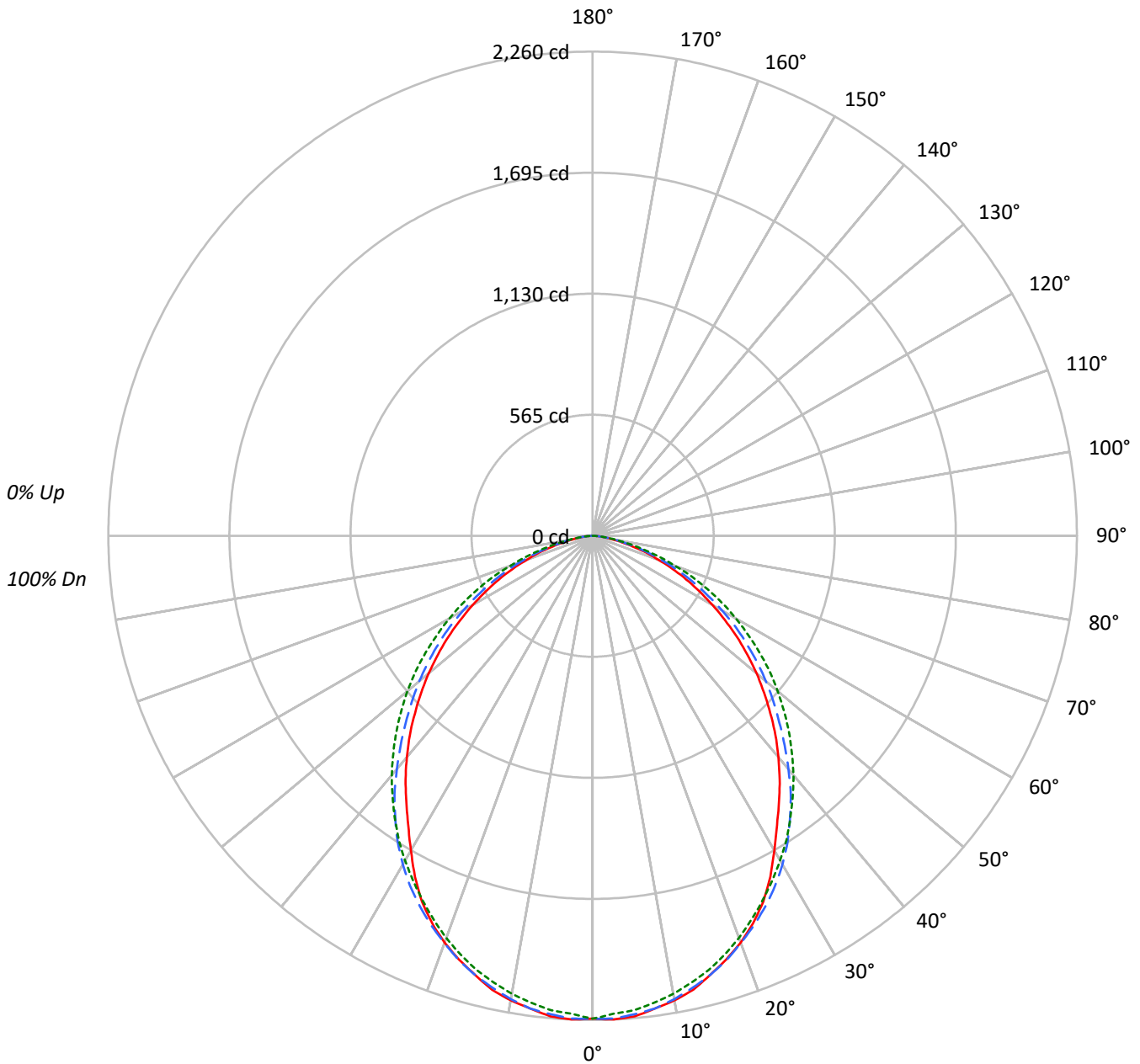
Lumens per Lamp: N/A  
Luminaire Lumens: 5212.0 lumens  
Efficiency: N/A  
Efficacy: 80.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	12131	12131	12131
5°	12164	12112	12009
10°	12034	12001	11864
15°	11821	11821	11686
20°	11571	11585	11437
25°	11190	11329	11149
30°	10537	11010	10876
35°	9956	10554	10571
40°	9473	9983	10246
45°	8931	9379	9860
50°	8359	8838	9440
55°	7711	8222	8930
60°	6944	7504	8305
65°	6132	6672	7554
70°	5109	5682	6419
75°	4015	4537	5024
80°	2873	3192	3543
85°	1871	1871	1766



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	212.2	4.1
10°-20°	596.2	11.4
20°-30°	871.2	16.7
30°-40°	989.0	19.0
40°-50°	954.7	18.3
50°-60°	787.6	15.1
60°-70°	524.4	10.1
70°-80°	234.7	4.5
80°-90°	42.0	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°	1679.7	32.2
0°-40°	2668.6	51.2
0°-60°	4410.9	84.6
0°-90°	5212.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5212.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2254	2254	2254	2254	2254	
5°	2252	2251	2242	2230	2223	213
15°	2122	2127	2122	2112	2097	598
25°	1884	1899	1908	1894	1877	863
35°	1515	1536	1606	1615	1609	949
45°	1173	1193	1232	1288	1296	905
55°	822	836	876	925	952	733
65°	482	494	524	561	593	477
75°	193	204	218	229	242	211
85°	30	30	30	29	29	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2254.1	2254.1	2254.1	2254.1	2254.1
2.5°	2260.1	2261.0	2255.8	2241.9	2233.3
5°	2251.5	2250.6	2241.9	2229.8	2222.9
7.5°	2226.3	2228.1	2225.5	2208.2	2198.6
10°	2202.1	2203.0	2196.0	2182.2	2170.9
12.5°	2170.9	2170.1	2160.5	2153.6	2135.4
15°	2121.6	2126.8	2121.6	2112.0	2097.3
17.5°	2073.9	2073.9	2077.4	2060.9	2049.7
20°	2020.3	2022.8	2022.8	2009.9	1996.9
22.5°	1957.9	1965.7	1968.3	1954.4	1938.9
25°	1884.3	1899.0	1907.7	1893.8	1877.4
27.5°	1795.1	1817.6	1843.6	1833.2	1815.0
30°	1695.5	1728.4	1771.7	1763.1	1750.1
32.5°	1601.1	1634.0	1693.8	1690.3	1683.4
35°	1515.4	1536.2	1606.3	1615.0	1608.9
37.5°	1434.0	1453.1	1518.9	1538.8	1533.6
40°	1348.3	1369.1	1421.0	1456.5	1458.3
42.5°	1263.4	1283.3	1325.8	1376.9	1376.9
45°	1173.4	1193.3	1232.2	1288.5	1295.5
47.5°	1085.0	1105.8	1143.9	1200.2	1211.5
50°	998.4	1017.5	1055.6	1110.1	1127.5
52.5°	908.4	929.2	966.4	1016.6	1041.7
55°	821.8	835.6	876.3	924.8	951.7
57.5°	731.7	744.7	790.6	832.2	859.9
60°	645.1	661.6	697.1	739.5	771.6
62.5°	562.0	579.3	609.6	646.9	683.2
65°	481.5	494.5	523.9	561.1	593.2
67.5°	403.5	414.8	444.2	470.2	504.0
70°	324.7	339.5	361.1	386.2	407.9
72.5°	261.5	267.6	285.8	303.9	326.5
75°	193.1	203.5	218.2	228.6	241.6
77.5°	138.6	144.6	153.3	161.9	174.1
80°	92.7	95.3	103.0	104.8	114.3
82.5°	56.3	58.0	59.8	60.6	64.1
85°	30.3	30.3	30.3	28.6	28.6
87.5°	17.3	17.3	14.7	12.1	8.7
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)