

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: P556048

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-82-84-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: P556048  
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-LD4-3STD-40-UNV-82-84-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

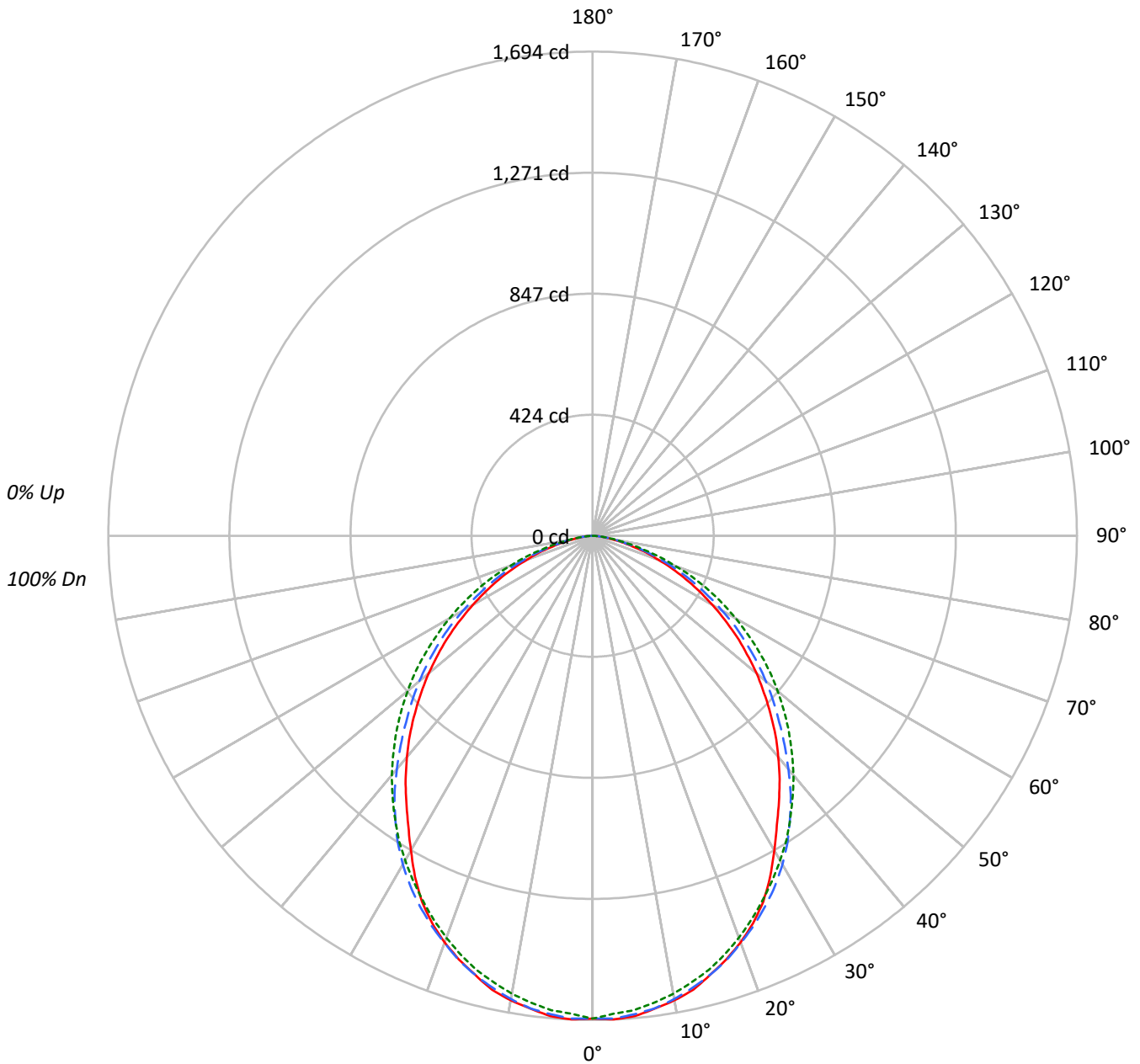
Lumens per Lamp: N/A  
Luminaire Lumens: 3906.0 lumens  
Efficiency: N/A  
Efficacy: 78.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
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°	9091	9091	9091
5°	9116	9077	9000
10°	9019	8994	8891
15°	8859	8859	8758
20°	8671	8683	8571
25°	8386	8490	8355
30°	7897	8252	8150
35°	7462	7909	7922
40°	7099	7482	7678
45°	6693	7029	7389
50°	6265	6624	7074
55°	5779	6162	6692
60°	5204	5623	6224
65°	4595	5000	5661
70°	3830	4258	4810
75°	3009	3400	3766
80°	2151	2393	2656
85°	1402	1402	1321



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.0	4.1
10°-20°	446.8	11.4
20°-30°	652.9	16.7
30°-40°	741.2	19.0
40°-50°	715.5	18.3
50°-60°	590.2	15.1
60°-70°	393.0	10.1
70°-80°	175.9	4.5
80°-90°	31.5	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°	1258.8	32.2
0°-40°	2000.0	51.2
0°-60°	3305.6	84.6
0°-90°	3906.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3906.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1689	1689	1689	1689	1689	
5°	1687	1687	1680	1671	1666	160
15°	1590	1594	1590	1583	1572	448
25°	1412	1423	1430	1419	1407	647
35°	1136	1151	1204	1210	1206	712
45°	879	894	924	966	971	678
55°	616	626	657	693	713	550
65°	361	371	393	420	444	358
75°	145	152	164	171	181	158
85°	23	23	23	21	21	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1689.2	1689.2	1689.2	1689.2	1689.2
2.5°	1693.8	1694.4	1690.5	1680.2	1673.7
5°	1687.3	1686.6	1680.2	1671.1	1665.9
7.5°	1668.5	1669.8	1667.8	1654.8	1647.7
10°	1650.3	1651.0	1645.8	1635.4	1626.9
12.5°	1626.9	1626.3	1619.2	1614.0	1600.3
15°	1590.0	1593.8	1590.0	1582.8	1571.8
17.5°	1554.3	1554.3	1556.9	1544.5	1536.1
20°	1514.0	1516.0	1516.0	1506.2	1496.5
22.5°	1467.3	1473.1	1475.1	1464.7	1453.0
25°	1412.1	1423.2	1429.7	1419.3	1406.9
27.5°	1345.3	1362.2	1381.6	1373.8	1360.2
30°	1270.7	1295.3	1327.8	1321.3	1311.5
32.5°	1199.9	1224.6	1269.4	1266.8	1261.6
35°	1135.7	1151.3	1203.8	1210.3	1205.8
37.5°	1074.7	1089.0	1138.3	1153.2	1149.3
40°	1010.4	1026.0	1064.9	1091.6	1092.8
42.5°	946.8	961.8	993.6	1031.8	1031.8
45°	879.3	894.3	923.5	965.7	970.8
47.5°	813.1	828.7	857.3	899.5	907.9
50°	748.3	762.5	791.1	832.0	844.9
52.5°	680.8	696.3	724.2	761.9	780.7
55°	615.9	626.2	656.7	693.1	713.2
57.5°	548.4	558.1	592.5	623.7	644.4
60°	483.5	495.8	522.4	554.2	578.2
62.5°	421.2	434.2	456.9	484.8	512.0
65°	360.8	370.6	392.6	420.5	444.5
67.5°	302.4	310.9	332.9	352.4	377.7
70°	243.4	254.4	270.6	289.4	305.7
72.5°	196.0	200.5	214.2	227.8	244.7
75°	144.7	152.5	163.5	171.3	181.1
77.5°	103.8	108.4	114.9	121.4	130.4
80°	69.4	71.4	77.2	78.5	85.7
82.5°	42.2	43.5	44.8	45.4	48.0
85°	22.7	22.7	22.7	21.4	21.4
87.5°	13.0	13.0	11.0	9.1	6.5
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)