

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: P556136

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-93-88-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: P556136  
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-50-UNV-93-88-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

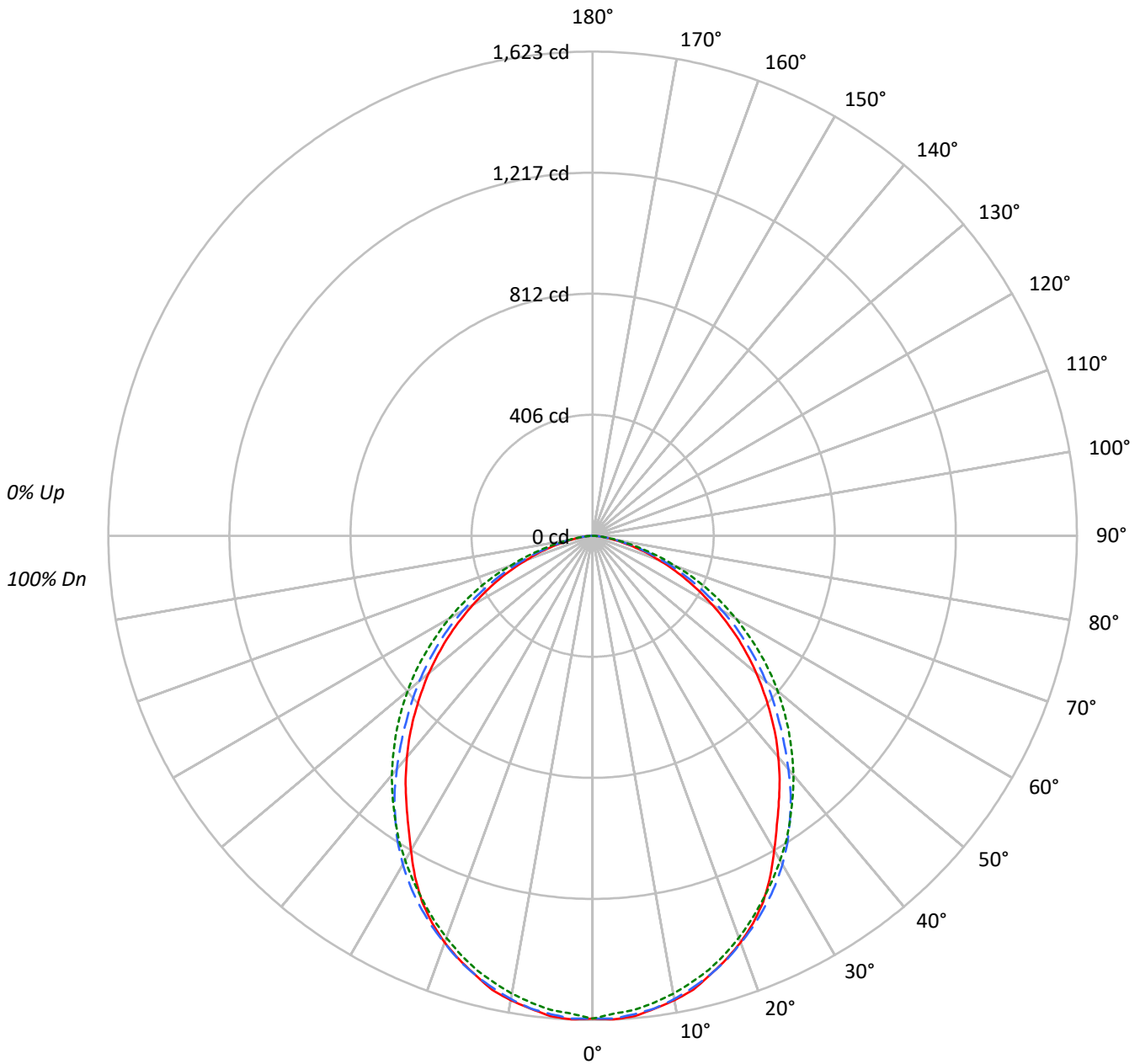
Lumens per Lamp: N/A  
Luminaire Lumens: 3742.0 lumens  
Efficiency: N/A  
Efficacy: 74.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
Input Voltage (V): NR  
Input Current (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°	8710	8710	8710
5°	8733	8696	8622
10°	8640	8617	8518
15°	8487	8487	8390
20°	8308	8318	8211
25°	8033	8133	8004
30°	7565	7905	7809
35°	7148	7577	7589
40°	6801	7168	7356
45°	6412	6734	7079
50°	6002	6346	6778
55°	5536	5904	6412
60°	4986	5387	5962
65°	4402	4790	5424
70°	3668	4080	4607
75°	2882	3258	3608
80°	2061	2294	2545
85°	1346	1346	1266



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.4	4.1
10°-20°	428.0	11.4
20°-30°	625.5	16.7
30°-40°	710.0	19.0
40°-50°	685.4	18.3
50°-60°	565.4	15.1
60°-70°	376.5	10.1
70°-80°	168.5	4.5
80°-90°	30.1	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°	1205.9	32.2
0°-40°	1916.0	51.2
0°-60°	3166.8	84.6
0°-90°	3742.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3742.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1618	1618	1618	1618	1618	
5°	1616	1616	1610	1601	1596	153
15°	1523	1527	1523	1516	1506	429
25°	1353	1363	1370	1360	1348	620
35°	1088	1103	1153	1160	1155	682
45°	842	857	885	925	930	650
55°	590	600	629	664	683	527
65°	346	355	376	403	426	343
75°	139	146	157	164	174	152
85°	22	22	22	20	20	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1618.3	1618.3	1618.3	1618.3	1618.3
2.5°	1622.7	1623.3	1619.6	1609.6	1603.4
5°	1616.5	1615.8	1609.6	1600.9	1595.9
7.5°	1598.4	1599.7	1597.8	1585.4	1578.5
10°	1581.0	1581.6	1576.7	1566.7	1558.6
12.5°	1558.6	1558.0	1551.2	1546.2	1533.1
15°	1523.2	1526.9	1523.2	1516.4	1505.8
17.5°	1489.0	1489.0	1491.5	1479.7	1471.6
20°	1450.5	1452.3	1452.3	1443.0	1433.7
22.5°	1405.7	1411.3	1413.2	1403.2	1392.0
25°	1352.8	1363.4	1369.6	1359.7	1347.9
27.5°	1288.8	1305.0	1323.6	1316.2	1303.1
30°	1217.3	1240.9	1272.0	1265.8	1256.5
32.5°	1149.5	1173.2	1216.1	1213.6	1208.6
35°	1088.0	1102.9	1153.3	1159.5	1155.1
37.5°	1029.6	1043.2	1090.5	1104.8	1101.1
40°	968.0	982.9	1020.2	1045.7	1047.0
42.5°	907.1	921.4	951.8	988.5	988.5
45°	842.4	856.7	884.7	925.1	930.1
47.5°	779.0	793.9	821.3	861.7	869.8
50°	716.8	730.5	757.9	797.0	809.5
52.5°	652.2	667.1	693.8	729.9	747.9
55°	590.0	600.0	629.2	664.0	683.3
57.5°	525.3	534.7	567.6	597.5	617.4
60°	463.2	475.0	500.5	530.9	553.9
62.5°	403.5	415.9	437.7	464.4	490.5
65°	345.7	355.0	376.1	402.9	425.9
67.5°	289.7	297.8	318.9	337.6	361.8
70°	233.1	243.7	259.3	277.3	292.8
72.5°	187.8	192.1	205.2	218.2	234.4
75°	138.6	146.1	156.7	164.1	173.5
77.5°	99.5	103.8	110.0	116.3	125.0
80°	66.5	68.4	74.0	75.2	82.1
82.5°	40.4	41.7	42.9	43.5	46.0
85°	21.8	21.8	21.8	20.5	20.5
87.5°	12.4	12.4	10.6	8.7	6.2
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)