

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: P554691

Luminaire Tested: **FUSL-12-2-LD4-2HI-35-UNV-81-85-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: P554691  
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-LD4-2HI-35-UNV-81-85-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

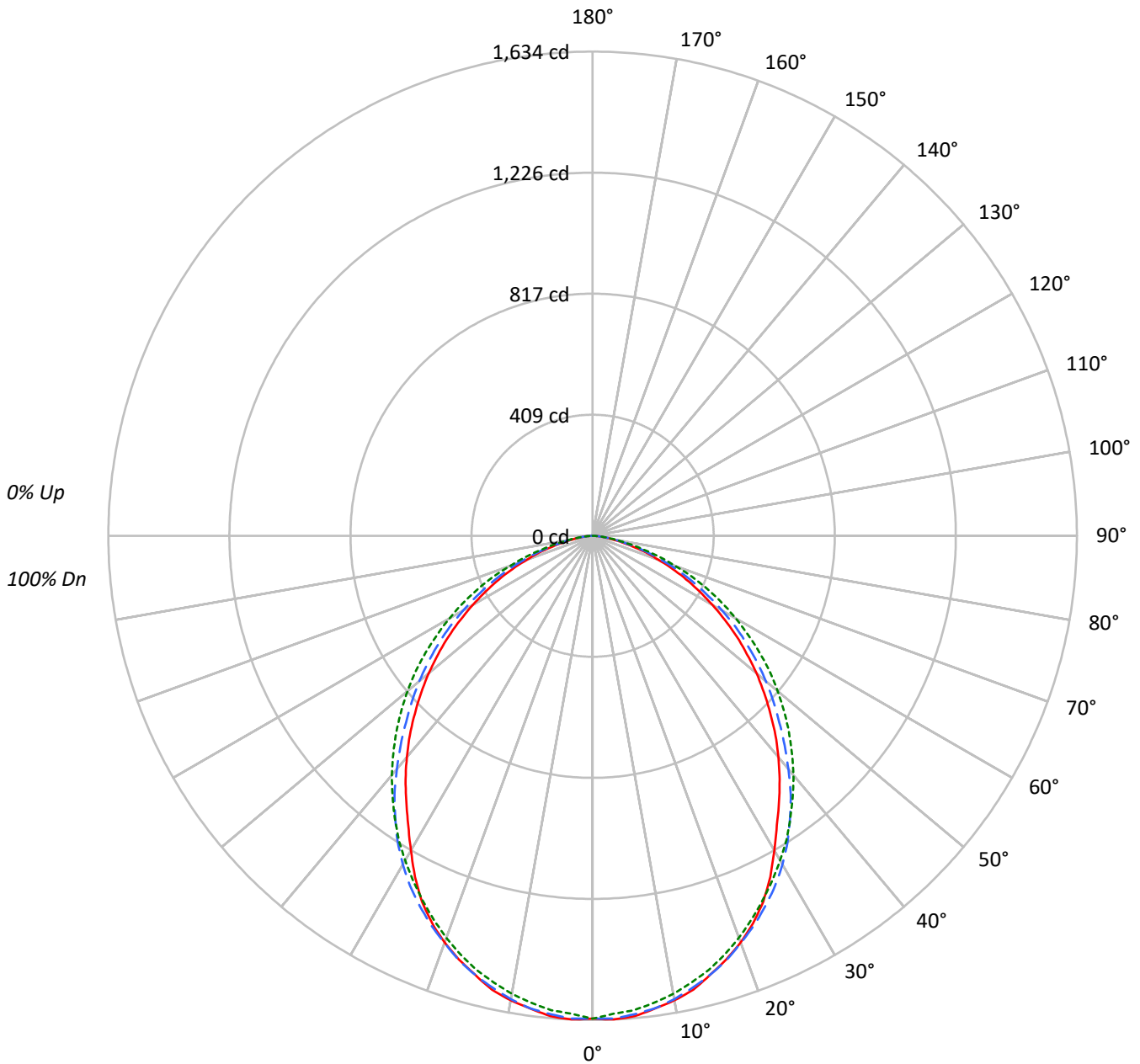
Lumens per Lamp: N/A  
Luminaire Lumens: 3768.0 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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°	8770	8770	8770
5°	8794	8756	8682
10°	8700	8676	8577
15°	8546	8546	8449
20°	8365	8376	8268
25°	8089	8190	8060
30°	7618	7960	7863
35°	7198	7630	7642
40°	6848	7217	7406
45°	6457	6780	7128
50°	6044	6389	6825
55°	5575	5944	6456
60°	5020	5425	6004
65°	4433	4823	5461
70°	3695	4109	4640
75°	2903	3281	3633
80°	2077	2309	2560
85°	1352	1352	1278



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.4	4.1
10°-20°	431.0	11.4
20°-30°	629.9	16.7
30°-40°	715.0	19.0
40°-50°	690.2	18.3
50°-60°	569.4	15.1
60°-70°	379.1	10.1
70°-80°	169.7	4.5
80°-90°	30.3	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°	1214.3	32.2
0°-40°	1929.3	51.2
0°-60°	3188.8	84.6
0°-90°	3768.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3768.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1630	1630	1630	1630	1630	
5°	1628	1627	1621	1612	1607	154
15°	1534	1538	1534	1527	1516	432
25°	1362	1373	1379	1369	1357	624
35°	1096	1111	1161	1168	1163	686
45°	848	863	891	932	936	654
55°	594	604	634	669	688	530
65°	348	358	379	406	429	345
75°	140	147	158	165	175	153
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1629.6	1629.6	1629.6	1629.6	1629.6
2.5°	1633.9	1634.6	1630.8	1620.8	1614.5
5°	1627.7	1627.1	1620.8	1612.0	1607.0
7.5°	1609.5	1610.8	1608.9	1596.4	1589.5
10°	1592.0	1592.6	1587.6	1577.6	1569.5
12.5°	1569.5	1568.8	1562.0	1556.9	1543.8
15°	1533.8	1537.5	1533.8	1526.9	1516.3
17.5°	1499.3	1499.3	1501.9	1490.0	1481.8
20°	1460.5	1462.4	1462.4	1453.0	1443.6
22.5°	1415.5	1421.1	1423.0	1413.0	1401.7
25°	1362.2	1372.9	1379.1	1369.1	1357.2
27.5°	1297.8	1314.0	1332.8	1325.3	1312.2
30°	1225.8	1249.6	1280.9	1274.6	1265.2
32.5°	1157.5	1181.3	1224.5	1222.0	1217.0
35°	1095.6	1110.6	1161.3	1167.6	1163.2
37.5°	1036.7	1050.5	1098.1	1112.5	1108.7
40°	974.7	989.8	1027.3	1053.0	1054.2
42.5°	913.4	927.8	958.5	995.4	995.4
45°	848.3	862.7	890.8	931.5	936.5
47.5°	784.4	799.4	827.0	867.7	875.8
50°	721.8	735.6	763.1	802.6	815.1
52.5°	656.7	671.7	698.7	735.0	753.1
55°	594.1	604.1	633.5	668.6	688.0
57.5°	529.0	538.4	571.6	601.6	621.7
60°	466.4	478.3	504.0	534.6	557.8
62.5°	406.3	418.8	440.7	467.6	493.9
65°	348.1	357.5	378.7	405.7	428.8
67.5°	291.7	299.9	321.2	339.9	364.4
70°	234.8	245.4	261.1	279.2	294.9
72.5°	189.1	193.4	206.6	219.7	236.0
75°	139.6	147.1	157.8	165.3	174.7
77.5°	100.2	104.5	110.8	117.1	125.8
80°	67.0	68.9	74.5	75.7	82.6
82.5°	40.7	41.9	43.2	43.8	46.3
85°	21.9	21.9	21.9	20.7	20.7
87.5°	12.5	12.5	10.6	8.8	6.3
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)