

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: P554823

Luminaire Tested: **FUSL-12-2-LD4-2HI-50-UNV-81-87-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: P554823  
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-50-UNV-81-87-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

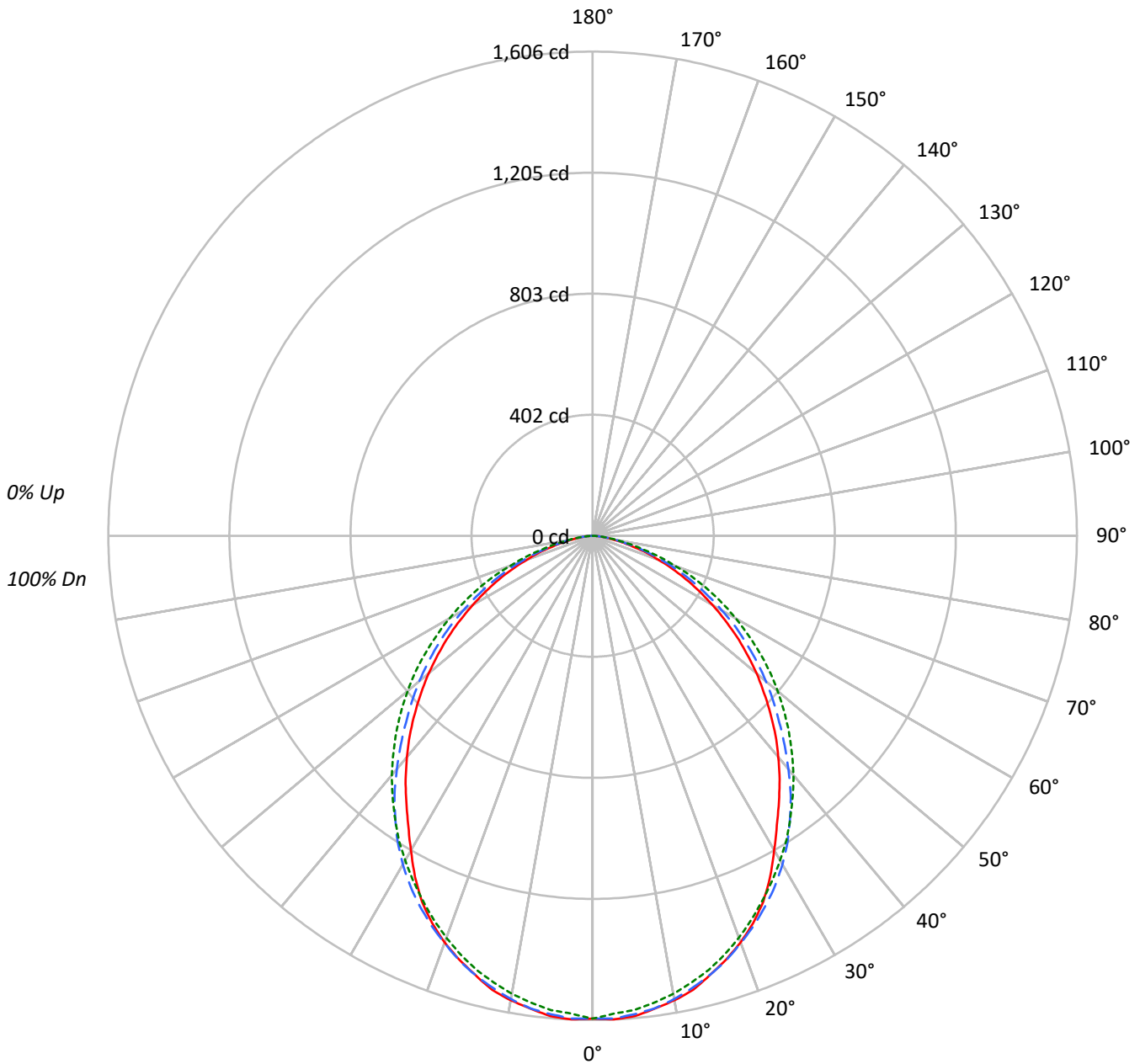
Lumens per Lamp: N/A  
Luminaire Lumens: 3703.0 lumens  
Efficiency: N/A  
Efficacy: 85.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	8619	8619	8619
5°	8642	8605	8532
10°	8550	8526	8429
15°	8398	8398	8303
20°	8220	8231	8125
25°	7950	8049	7921
30°	7486	7823	7727
35°	7074	7499	7510
40°	6730	7093	7279
45°	6345	6664	7005
50°	5940	6280	6707
55°	5479	5842	6344
60°	4933	5331	5901
65°	4357	4740	5366
70°	3630	4038	4560
75°	2853	3223	3570
80°	2039	2269	2517
85°	1328	1328	1254



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.8	4.1
10°-20°	423.6	11.4
20°-30°	619.0	16.7
30°-40°	702.6	19.0
40°-50°	678.3	18.3
50°-60°	559.5	15.1
60°-70°	372.6	10.1
70°-80°	166.7	4.5
80°-90°	29.8	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°	1193.4	32.2
0°-40°	1896.0	51.2
0°-60°	3133.8	84.6
0°-90°	3703.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3703.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1600	1599	1593	1584	1579	151
15°	1507	1511	1507	1501	1490	425
25°	1339	1349	1355	1346	1334	613
35°	1077	1091	1141	1147	1143	675
45°	834	848	876	916	920	643
55°	584	594	623	657	676	521
65°	342	351	372	399	421	339
75°	137	145	155	162	172	150
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°	1601.5	1601.5	1601.5	1601.5	1601.5
2.5°	1605.8	1606.4	1602.7	1592.8	1586.7
5°	1599.6	1599.0	1592.8	1584.2	1579.3
7.5°	1581.8	1583.0	1581.1	1568.8	1562.1
10°	1564.5	1565.2	1560.2	1550.4	1542.4
12.5°	1542.4	1541.8	1535.0	1530.1	1517.2
15°	1507.3	1511.0	1507.3	1500.6	1490.1
17.5°	1473.5	1473.5	1475.9	1464.3	1456.3
20°	1435.3	1437.2	1437.2	1428.0	1418.7
22.5°	1391.0	1396.6	1398.4	1388.6	1377.5
25°	1338.7	1349.2	1355.4	1345.5	1333.8
27.5°	1275.4	1291.4	1309.8	1302.4	1289.5
30°	1204.6	1228.0	1258.8	1252.6	1243.4
32.5°	1137.6	1160.9	1203.4	1200.9	1196.0
35°	1076.7	1091.4	1141.3	1147.4	1143.1
37.5°	1018.8	1032.4	1079.1	1093.3	1089.6
40°	957.9	972.7	1009.6	1034.8	1036.1
42.5°	897.6	911.8	941.9	978.2	978.2
45°	833.6	847.8	875.5	915.5	920.4
47.5°	770.9	785.7	812.7	852.7	860.7
50°	709.4	722.9	750.0	788.7	801.0
52.5°	645.4	660.1	686.6	722.3	740.1
55°	583.9	593.7	622.6	657.1	676.1
57.5°	519.9	529.1	561.7	591.2	610.9
60°	458.3	470.0	495.3	525.4	548.2
62.5°	399.3	411.6	433.1	459.6	485.4
65°	342.1	351.3	372.2	398.7	421.4
67.5°	286.7	294.7	315.6	334.1	358.1
70°	230.7	241.2	256.6	274.4	289.8
72.5°	185.8	190.1	203.0	215.9	231.9
75°	137.2	144.6	155.0	162.4	171.7
77.5°	98.4	102.7	108.9	115.0	123.7
80°	65.8	67.7	73.2	74.4	81.2
82.5°	40.0	41.2	42.5	43.1	45.5
85°	21.5	21.5	21.5	20.3	20.3
87.5°	12.3	12.3	10.5	8.6	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)