

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: P554816

Luminaire Tested: **FUSL-12-2-LD4-2HI-50-UNV-81-84-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: P554816  
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-81-84-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

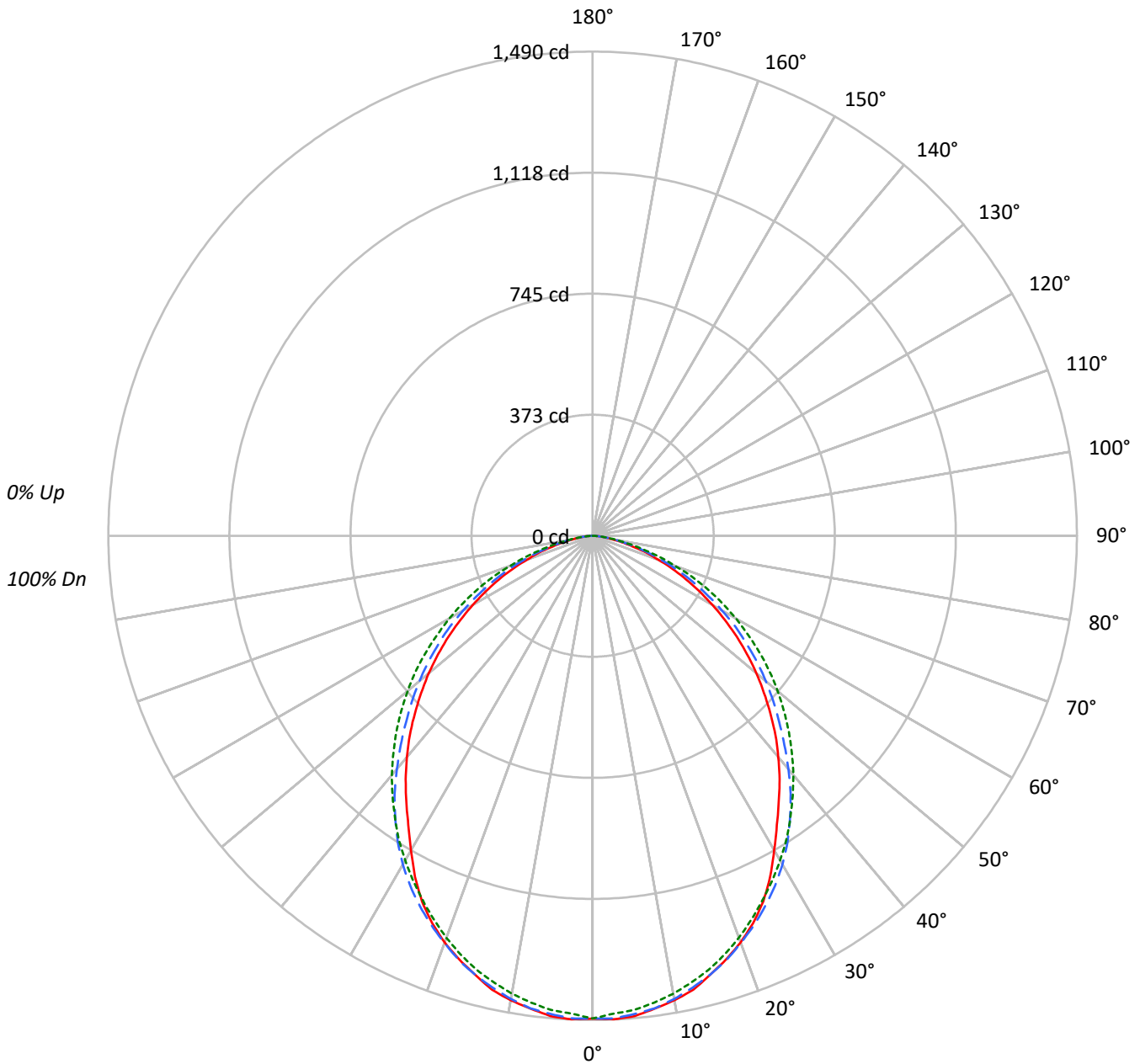
Lumens per Lamp: N/A  
Luminaire Lumens: 3435.0 lumens  
Efficiency: N/A  
Efficacy: 79.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	7995	7995	7995
5°	8016	7983	7915
10°	7931	7909	7819
15°	7791	7791	7702
20°	7626	7636	7537
25°	7375	7466	7347
30°	6944	7257	7168
35°	6562	6956	6967
40°	6243	6580	6752
45°	5886	6181	6498
50°	5509	5825	6222
55°	5082	5420	5885
60°	4577	4945	5473
65°	4041	4397	4978
70°	3367	3745	4230
75°	2647	2990	3310
80°	1894	2104	2334
85°	1235	1235	1161



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.9	4.1
10°-20°	392.9	11.4
20°-30°	574.2	16.7
30°-40°	651.8	19.0
40°-50°	629.2	18.3
50°-60°	519.0	15.1
60°-70°	345.6	10.1
70°-80°	154.7	4.5
80°-90°	27.7	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°	1107.0	32.2
0°-40°	1758.8	51.2
0°-60°	2907.0	84.6
0°-90°	3435.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3435.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1484	1483	1478	1470	1465	140
15°	1398	1402	1398	1392	1382	394
25°	1242	1252	1257	1248	1237	569
35°	999	1012	1059	1064	1060	626
45°	773	786	812	849	854	597
55°	542	551	578	610	627	483
65°	317	326	345	370	391	315
75°	127	134	144	151	159	139
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1485.5	1485.5	1485.5	1485.5	1485.5
2.5°	1489.5	1490.1	1486.7	1477.6	1471.9
5°	1483.8	1483.3	1477.6	1469.6	1465.0
7.5°	1467.3	1468.4	1466.7	1455.3	1449.0
10°	1451.3	1451.9	1447.3	1438.2	1430.8
12.5°	1430.8	1430.2	1423.9	1419.3	1407.4
15°	1398.2	1401.7	1398.2	1392.0	1382.3
17.5°	1366.8	1366.8	1369.1	1358.3	1350.9
20°	1331.5	1333.2	1333.2	1324.6	1316.0
22.5°	1290.4	1295.5	1297.2	1288.1	1277.8
25°	1241.9	1251.6	1257.3	1248.1	1237.3
27.5°	1183.1	1197.9	1215.0	1208.2	1196.2
30°	1117.4	1139.1	1167.7	1162.0	1153.4
32.5°	1055.2	1076.9	1116.3	1114.0	1109.5
35°	998.7	1012.4	1058.7	1064.4	1060.4
37.5°	945.1	957.6	1001.0	1014.1	1010.7
40°	888.6	902.3	936.5	959.9	961.1
42.5°	832.7	845.8	873.8	907.4	907.4
45°	773.3	786.4	812.1	849.2	853.8
47.5°	715.1	728.8	753.9	791.0	798.4
50°	658.0	670.6	695.7	731.6	743.1
52.5°	598.7	612.4	636.9	670.0	686.6
55°	541.6	550.7	577.6	609.5	627.2
57.5°	482.2	490.8	521.1	548.4	566.7
60°	425.2	436.0	459.4	487.4	508.5
62.5°	370.4	381.8	401.8	426.3	450.3
65°	317.3	325.9	345.3	369.8	390.9
67.5°	265.9	273.4	292.8	309.9	332.2
70°	214.0	223.7	238.0	254.5	268.8
72.5°	172.4	176.3	188.3	200.3	215.2
75°	127.3	134.1	143.8	150.7	159.2
77.5°	91.3	95.3	101.0	106.7	114.7
80°	61.1	62.8	67.9	69.1	75.3
82.5°	37.1	38.2	39.4	39.9	42.2
85°	20.0	20.0	20.0	18.8	18.8
87.5°	11.4	11.4	9.7	8.0	5.7
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)