

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: P554695

Luminaire Tested: **FUSL-12-2-LD4-2HI-35-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: P554695  
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-81-87-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

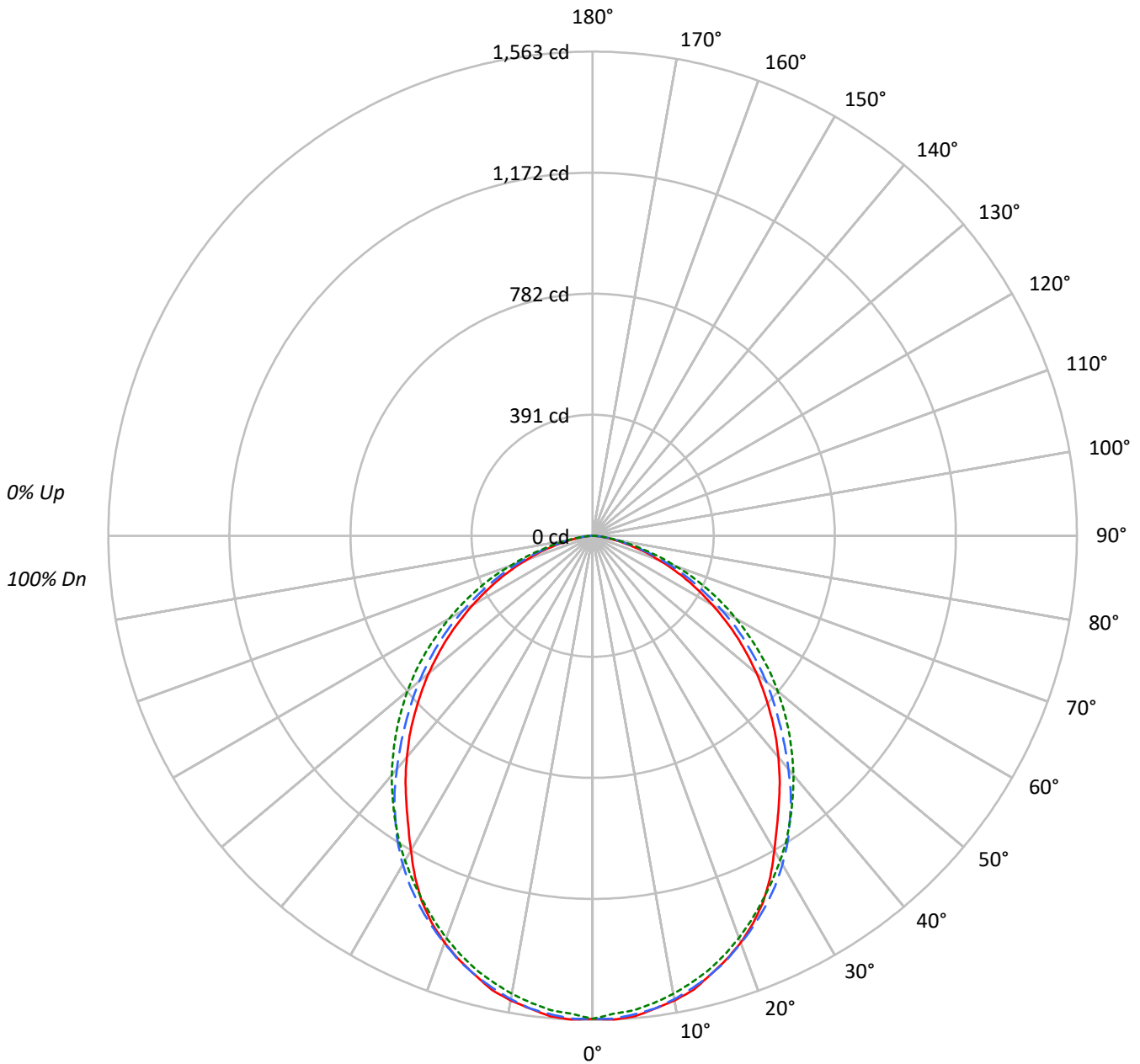
Lumens per Lamp: N/A  
Luminaire Lumens: 3605.0 lumens  
Efficiency: N/A  
Efficacy: 83.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	8391	8391	8391
5°	8413	8378	8306
10°	8324	8301	8206
15°	8176	8176	8083
20°	8003	8013	7911
25°	7739	7836	7711
30°	7288	7616	7523
35°	6887	7300	7312
40°	6552	6906	7086
45°	6177	6487	6820
50°	5782	6113	6529
55°	5333	5687	6176
60°	4803	5190	5745
65°	4241	4615	5225
70°	3534	3931	4439
75°	2778	3138	3475
80°	1987	2210	2452
85°	1297	1297	1223



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.8	4.1
10°-20°	412.4	11.4
20°-30°	602.6	16.7
30°-40°	684.0	19.0
40°-50°	660.3	18.3
50°-60°	544.7	15.1
60°-70°	362.8	10.1
70°-80°	162.3	4.5
80°-90°	29.1	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°	1161.8	32.2
0°-40°	1845.8	51.2
0°-60°	3050.9	84.6
0°-90°	3605.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3605.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1557	1557	1551	1542	1538	147
15°	1467	1471	1467	1461	1451	414
25°	1303	1314	1320	1310	1298	597
35°	1048	1062	1111	1117	1113	657
45°	812	825	852	891	896	626
55°	568	578	606	640	658	507
65°	333	342	362	388	410	330
75°	134	141	151	158	167	146
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1559.1	1559.1	1559.1	1559.1	1559.1
2.5°	1563.3	1563.9	1560.3	1550.7	1544.7
5°	1557.3	1556.7	1550.7	1542.3	1537.5
7.5°	1539.9	1541.1	1539.3	1527.3	1520.7
10°	1523.1	1523.7	1518.9	1509.4	1501.6
12.5°	1501.6	1501.0	1494.4	1489.6	1477.0
15°	1467.4	1471.0	1467.4	1460.8	1450.7
17.5°	1434.5	1434.5	1436.9	1425.5	1417.7
20°	1397.4	1399.1	1399.1	1390.2	1381.2
22.5°	1354.2	1359.6	1361.4	1351.8	1341.1
25°	1303.3	1313.5	1319.5	1309.9	1298.5
27.5°	1241.6	1257.2	1275.2	1268.0	1255.4
30°	1172.7	1195.5	1225.5	1219.5	1210.5
32.5°	1107.5	1130.2	1171.5	1169.2	1164.4
35°	1048.2	1062.5	1111.1	1117.0	1112.9
37.5°	991.9	1005.0	1050.6	1064.3	1060.7
40°	932.6	946.9	982.9	1007.4	1008.6
42.5°	873.9	887.6	917.0	952.3	952.3
45°	811.6	825.4	852.3	891.2	896.0
47.5°	750.5	764.9	791.2	830.1	837.9
50°	690.6	703.8	730.1	767.9	779.8
52.5°	628.3	642.7	668.4	703.2	720.5
55°	568.4	578.0	606.1	639.7	658.2
57.5°	506.1	515.1	546.8	575.6	594.8
60°	446.2	457.6	482.2	511.5	533.7
62.5°	388.7	400.7	421.7	447.4	472.6
65°	333.0	342.0	362.4	388.1	410.3
67.5°	279.1	286.9	307.3	325.2	348.6
70°	224.6	234.8	249.8	267.1	282.1
72.5°	180.9	185.1	197.7	210.2	225.8
75°	133.6	140.8	150.9	158.1	167.1
77.5°	95.8	100.0	106.0	112.0	120.4
80°	64.1	65.9	71.3	72.5	79.1
82.5°	38.9	40.1	41.3	41.9	44.3
85°	21.0	21.0	21.0	19.8	19.8
87.5°	12.0	12.0	10.2	8.4	6.0
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)