

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: P554655

Luminaire Tested: **FUSL-12-2-LD4-2HI-30-UNV-82-97-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: P554655  
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-30-UNV-82-97-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

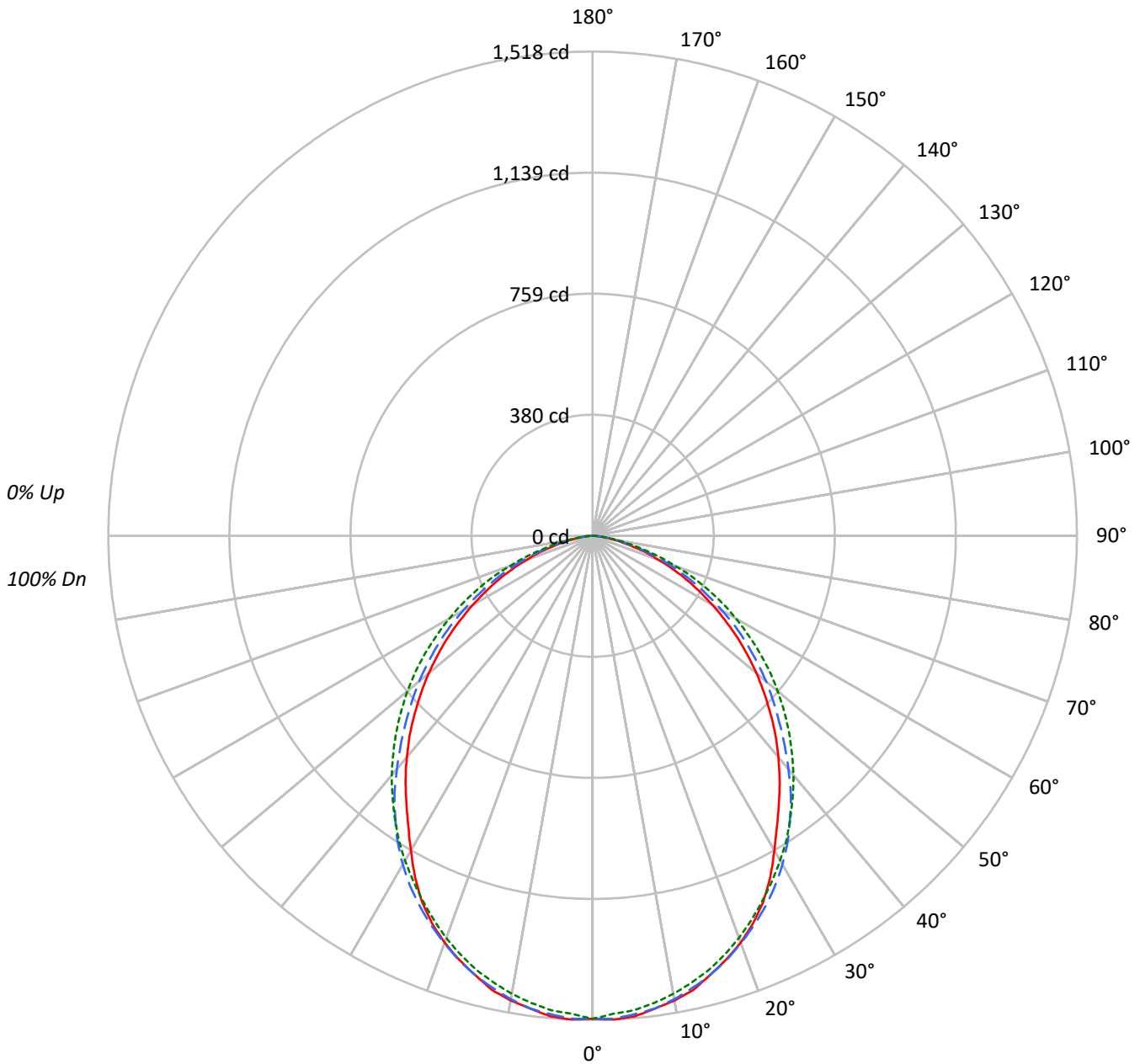
Lumens per Lamp: N/A  
Luminaire Lumens: 3501.0 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (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°	8149	8149	8149
5°	8170	8136	8067
10°	8084	8061	7970
15°	7940	7940	7850
20°	7772	7782	7682
25°	7516	7609	7489
30°	7078	7396	7306
35°	6688	7089	7100
40°	6363	6706	6882
45°	5999	6300	6623
50°	5616	5937	6341
55°	5180	5524	5999
60°	4664	5040	5579
65°	4118	4481	5074
70°	3432	3818	4312
75°	2697	3048	3375
80°	1928	2145	2380
85°	1260	1260	1186



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.6	4.1
10°-20°	400.5	11.4
20°-30°	585.2	16.7
30°-40°	664.3	19.0
40°-50°	641.3	18.3
50°-60°	529.0	15.1
60°-70°	352.3	10.1
70°-80°	157.7	4.5
80°-90°	28.2	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°	1128.3	32.2
0°-40°	1792.6	51.2
0°-60°	2962.9	84.6
0°-90°	3501.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3501.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1514	1514	1514	1514	1514	
5°	1512	1512	1506	1498	1493	143
15°	1425	1429	1425	1419	1409	402
25°	1266	1276	1281	1272	1261	580
35°	1018	1032	1079	1085	1081	638
45°	788	802	828	866	870	608
55°	552	561	589	621	639	493
65°	323	332	352	377	398	321
75°	130	137	147	154	162	142
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°	1514.1	1514.1	1514.1	1514.1	1514.1
2.5°	1518.2	1518.7	1515.3	1505.9	1500.1
5°	1512.3	1511.8	1505.9	1497.8	1493.2
7.5°	1495.5	1496.6	1494.9	1483.3	1476.9
10°	1479.2	1479.8	1475.1	1465.8	1458.3
12.5°	1458.3	1457.7	1451.3	1446.6	1434.4
15°	1425.1	1428.6	1425.1	1418.7	1408.8
17.5°	1393.1	1393.1	1395.4	1384.4	1376.8
20°	1357.0	1358.8	1358.8	1350.1	1341.3
22.5°	1315.2	1320.4	1322.1	1312.8	1302.4
25°	1265.7	1275.6	1281.4	1272.1	1261.1
27.5°	1205.8	1220.9	1238.4	1231.4	1219.2
30°	1138.9	1161.0	1190.1	1184.3	1175.6
32.5°	1075.5	1097.6	1137.8	1135.4	1130.8
35°	1017.9	1031.9	1079.0	1084.8	1080.7
37.5°	963.2	976.0	1020.3	1033.6	1030.1
40°	905.7	919.6	954.5	978.4	979.5
42.5°	848.7	862.0	890.5	924.9	924.9
45°	788.2	801.5	827.7	865.5	870.2
47.5°	728.8	742.8	768.4	806.2	813.8
50°	670.7	683.5	709.1	745.7	757.3
52.5°	610.2	624.1	649.1	682.9	699.8
55°	552.0	561.3	588.7	621.2	639.3
57.5°	491.5	500.2	531.1	559.0	577.6
60°	433.3	444.4	468.2	496.7	518.3
62.5°	377.5	389.1	409.5	434.5	458.9
65°	323.4	332.1	351.9	376.9	398.4
67.5°	271.1	278.6	298.4	315.8	338.5
70°	218.1	228.0	242.6	259.4	274.0
72.5°	175.7	179.7	192.0	204.2	219.3
75°	129.7	136.7	146.6	153.6	162.3
77.5°	93.1	97.1	103.0	108.8	116.9
80°	62.2	64.0	69.2	70.4	76.8
82.5°	37.8	39.0	40.1	40.7	43.0
85°	20.4	20.4	20.4	19.2	19.2
87.5°	11.6	11.6	9.9	8.1	5.8
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)