

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: P555653

Luminaire Tested: **FUSL-12-2-LD4-3LO-30-UNV-81-86-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: P555653  
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-LD4-3LO-30-UNV-81-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

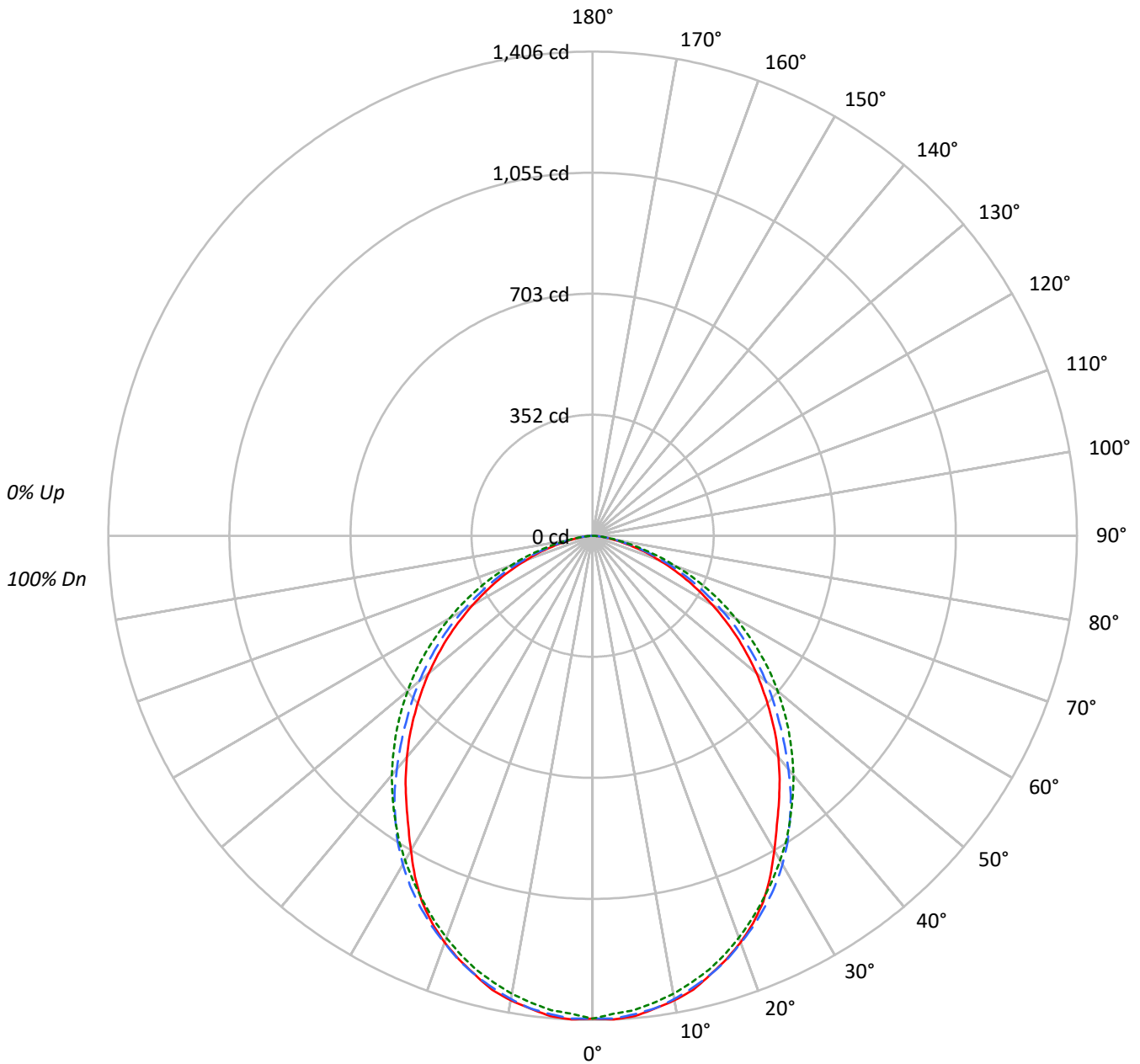
Lumens per Lamp: N/A  
Luminaire Lumens: 3242.0 lumens  
Efficiency: N/A  
Efficacy: 92.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 35.1  
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°	7546	7546	7546
5°	7566	7534	7470
10°	7486	7465	7380
15°	7353	7353	7269
20°	7197	7207	7114
25°	6960	7046	6935
30°	6554	6849	6765
35°	6193	6565	6575
40°	5892	6210	6373
45°	5555	5834	6133
50°	5200	5498	5872
55°	4797	5115	5555
60°	4320	4667	5166
65°	3814	4150	4699
70°	3179	3534	3992
75°	2497	2822	3125
80°	1785	1987	2204
85°	1167	1167	1099



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.0	4.1
10°-20°	370.9	11.4
20°-30°	541.9	16.7
30°-40°	615.2	19.0
40°-50°	593.8	18.3
50°-60°	489.9	15.1
60°-70°	326.2	10.1
70°-80°	146.0	4.5
80°-90°	26.1	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°	1044.8	32.2
0°-40°	1660.0	51.2
0°-60°	2743.7	84.6
0°-90°	3242.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3242.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1400	1400	1394	1387	1383	133
15°	1320	1323	1320	1314	1305	372
25°	1172	1181	1187	1178	1168	537
35°	943	956	999	1005	1001	591
45°	730	742	766	802	806	563
55°	511	520	545	575	592	456
65°	300	308	326	349	369	297
75°	120	127	136	142	150	131
85°	19	19	19	18	18	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1402.1	1402.1	1402.1	1402.1	1402.1
2.5°	1405.9	1406.4	1403.2	1394.5	1389.2
5°	1400.5	1399.9	1394.5	1387.0	1382.7
7.5°	1384.8	1385.9	1384.3	1373.5	1367.6
10°	1369.8	1370.3	1366.0	1357.4	1350.4
12.5°	1350.4	1349.8	1343.9	1339.6	1328.3
15°	1319.7	1322.9	1319.7	1313.7	1304.6
17.5°	1290.0	1290.0	1292.2	1282.0	1275.0
20°	1256.6	1258.3	1258.3	1250.2	1242.1
22.5°	1217.9	1222.7	1224.3	1215.7	1206.0
25°	1172.1	1181.2	1186.6	1178.0	1167.8
27.5°	1116.6	1130.6	1146.8	1140.3	1129.0
30°	1054.7	1075.1	1102.1	1096.7	1088.6
32.5°	995.9	1016.4	1053.6	1051.4	1047.1
35°	942.6	955.5	999.2	1004.6	1000.8
37.5°	892.0	903.8	944.8	957.2	953.9
40°	838.7	851.6	883.9	906.0	907.1
42.5°	785.9	798.3	824.7	856.4	856.4
45°	729.9	742.2	766.5	801.5	805.8
47.5°	674.9	687.8	711.5	746.6	753.6
50°	621.1	632.9	656.6	690.5	701.3
52.5°	565.0	578.0	601.1	632.4	648.0
55°	511.2	519.8	545.1	575.3	592.0
57.5°	455.2	463.2	491.8	517.6	534.9
60°	401.3	411.5	433.6	460.0	479.9
62.5°	349.6	360.4	379.2	402.4	425.0
65°	299.5	307.6	325.9	349.0	369.0
67.5°	251.0	258.0	276.3	292.5	313.5
70°	202.0	211.1	224.6	240.2	253.7
72.5°	162.7	166.4	177.8	189.1	203.1
75°	120.1	126.6	135.7	142.2	150.3
77.5°	86.2	90.0	95.3	100.7	108.3
80°	57.6	59.3	64.1	65.2	71.1
82.5°	35.0	36.1	37.2	37.7	39.9
85°	18.9	18.9	18.9	17.8	17.8
87.5°	10.8	10.8	9.2	7.5	5.4
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)