

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: P554790

Luminaire Tested: **FUSL-12-2-LD4-2HI-40-UNV-93-87-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: P554790  
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-40-UNV-93-87-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

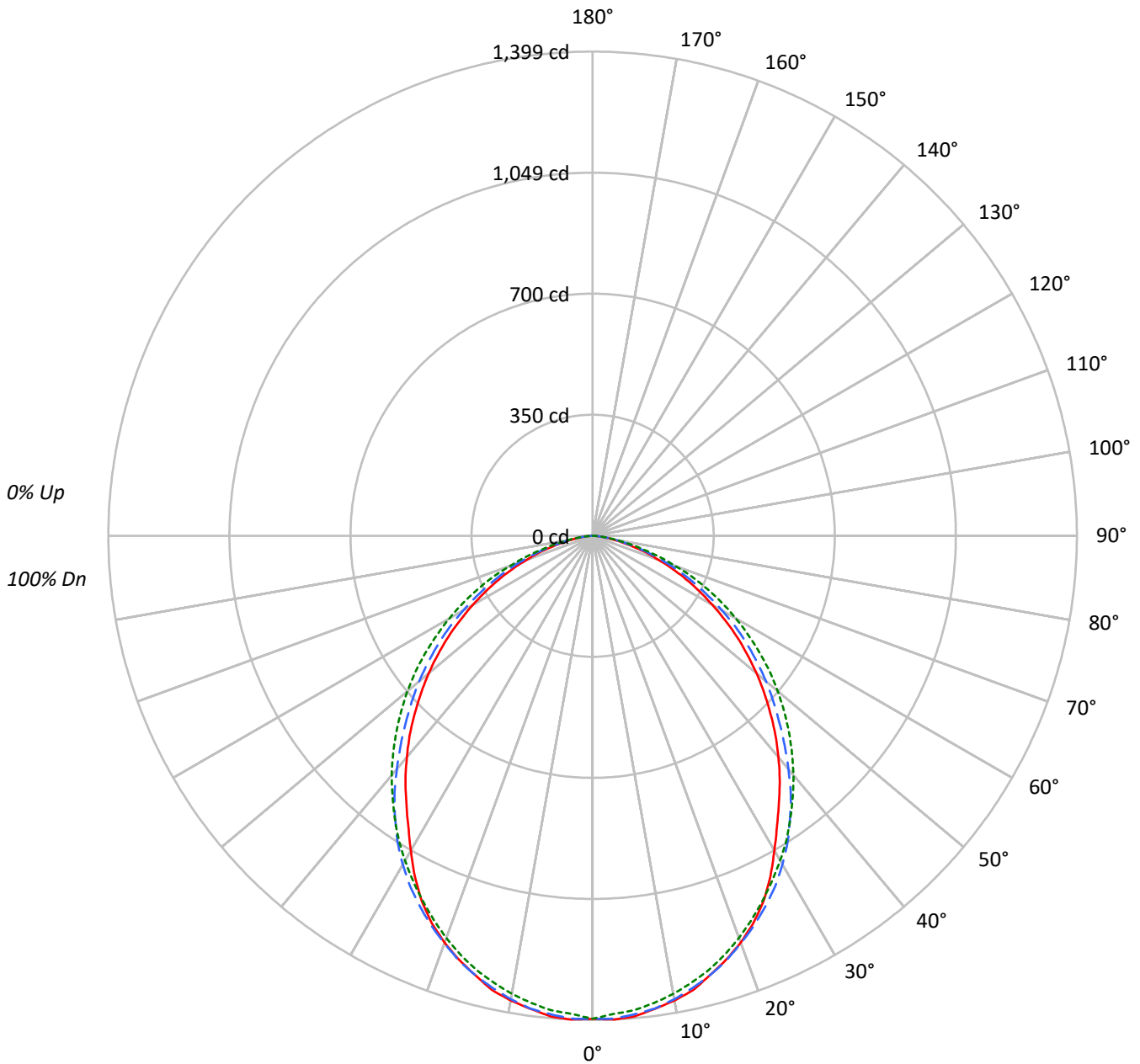
Lumens per Lamp: N/A  
Luminaire Lumens: 3227.0 lumens  
Efficiency: N/A  
Efficacy: 74.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (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°	7511	7511	7511
5°	7531	7499	7435
10°	7451	7431	7345
15°	7319	7319	7236
20°	7164	7173	7081
25°	6928	7014	6903
30°	6524	6817	6734
35°	6165	6535	6545
40°	5865	6181	6343
45°	5530	5807	6105
50°	5176	5472	5845
55°	4774	5091	5529
60°	4299	4646	5142
65°	3796	4131	4677
70°	3164	3519	3973
75°	2487	2809	3111
80°	1779	1977	2194
85°	1161	1161	1093



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.4	4.1
10°-20°	369.1	11.4
20°-30°	539.4	16.7
30°-40°	612.3	19.0
40°-50°	591.1	18.3
50°-60°	487.6	15.1
60°-70°	324.7	10.1
70°-80°	145.3	4.5
80°-90°	26.0	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°	1040.0	32.2
0°-40°	1652.3	51.2
0°-60°	2731.0	84.6
0°-90°	3227.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3227.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1396	1396	1396	1396	1396	
5°	1394	1393	1388	1381	1376	132
15°	1314	1317	1314	1308	1299	370
25°	1167	1176	1181	1173	1162	534
35°	938	951	995	1000	996	588
45°	726	739	763	798	802	561
55°	509	517	543	573	589	454
65°	298	306	324	347	367	296
75°	120	126	135	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°	1395.6	1395.6	1395.6	1395.6	1395.6
2.5°	1399.3	1399.9	1396.7	1388.1	1382.7
5°	1394.0	1393.4	1388.1	1380.6	1376.3
7.5°	1378.4	1379.5	1377.9	1367.2	1361.3
10°	1363.4	1364.0	1359.7	1351.1	1344.1
12.5°	1344.1	1343.6	1337.7	1333.4	1322.1
15°	1313.6	1316.8	1313.6	1307.7	1298.6
17.5°	1284.1	1284.1	1286.2	1276.0	1269.1
20°	1250.8	1252.4	1252.4	1244.4	1236.4
22.5°	1212.2	1217.1	1218.7	1210.1	1200.4
25°	1166.7	1175.8	1181.1	1172.6	1162.4
27.5°	1111.4	1125.4	1141.5	1135.0	1123.8
30°	1049.8	1070.2	1097.0	1091.6	1083.6
32.5°	991.3	1011.7	1048.7	1046.6	1042.3
35°	938.3	951.1	994.6	999.9	996.2
37.5°	887.9	899.7	940.4	952.7	949.5
40°	834.8	847.7	879.8	901.8	902.9
42.5°	782.2	794.6	820.8	852.5	852.5
45°	726.5	738.8	762.9	797.8	802.1
47.5°	671.8	684.7	708.3	743.1	750.1
50°	618.2	630.0	653.6	687.3	698.1
52.5°	562.4	575.3	598.3	629.4	645.0
55°	508.8	517.4	542.6	572.6	589.2
57.5°	453.0	461.1	489.5	515.2	532.4
60°	399.4	409.6	431.6	457.9	477.7
62.5°	348.0	358.7	377.4	400.5	423.0
65°	298.1	306.1	324.4	347.4	367.3
67.5°	249.8	256.8	275.0	291.1	312.0
70°	201.1	210.2	223.6	239.1	252.5
72.5°	161.9	165.7	176.9	188.2	202.1
75°	119.6	126.0	135.1	141.5	149.6
77.5°	85.8	89.5	94.9	100.3	107.8
80°	57.4	59.0	63.8	64.9	70.8
82.5°	34.8	35.9	37.0	37.5	39.7
85°	18.8	18.8	18.8	17.7	17.7
87.5°	10.7	10.7	9.1	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)