

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: P554658

Luminaire Tested: **FUSL-12-2-LD4-2HI-30-UNV-93-85-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: P554658  
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-93-85-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE  
AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

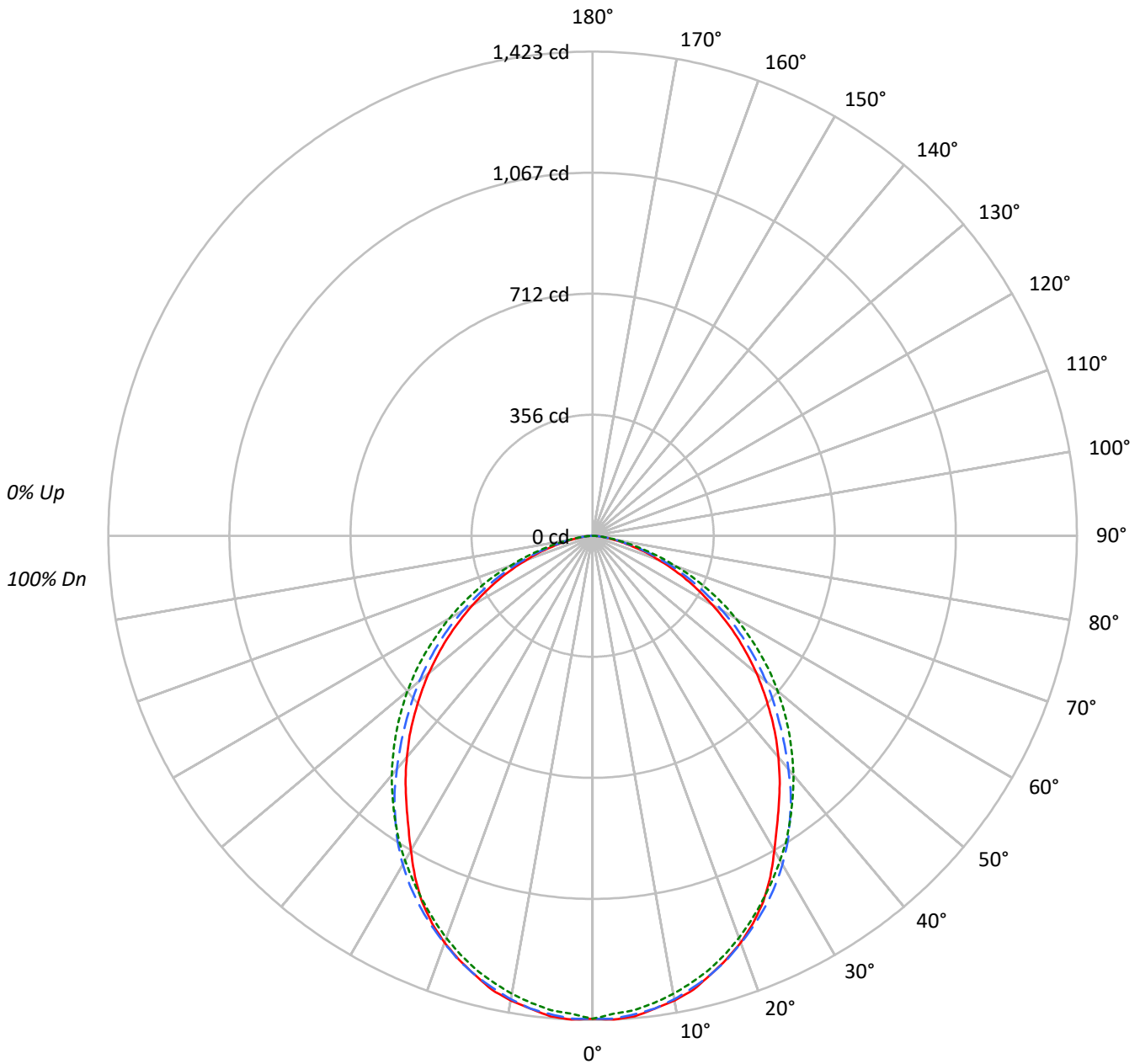
Lumens per Lamp: N/A  
Luminaire Lumens: 3282.0 lumens  
Efficiency: N/A  
Efficacy: 76.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	7639	7639	7639
5°	7659	7627	7562
10°	7578	7557	7471
15°	7444	7444	7359
20°	7286	7296	7202
25°	7046	7134	7020
30°	6635	6934	6848
35°	6270	6646	6656
40°	5965	6287	6452
45°	5624	5906	6208
50°	5264	5565	5945
55°	4856	5178	5623
60°	4372	4725	5230
65°	3861	4201	4756
70°	3218	3578	4041
75°	2529	2857	3163
80°	1807	2011	2232
85°	1179	1179	1112



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.6	4.1
10°-20°	375.4	11.4
20°-30°	548.6	16.7
30°-40°	622.8	19.0
40°-50°	601.2	18.3
50°-60°	495.9	15.1
60°-70°	330.2	10.1
70°-80°	147.8	4.5
80°-90°	26.4	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°	1057.7	32.2
0°-40°	1680.5	51.2
0°-60°	2777.5	84.6
0°-90°	3282.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3282.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1419	1419	1419	1419	1419	
5°	1418	1417	1412	1404	1400	134
15°	1336	1339	1336	1330	1321	377
25°	1186	1196	1201	1192	1182	543
35°	954	967	1012	1017	1013	598
45°	739	751	776	811	816	570
55°	518	526	552	582	599	462
65°	303	311	330	353	374	301
75°	122	128	137	144	152	133
85°	19	19	19	18	18	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1419.4	1419.4	1419.4	1419.4	1419.4
2.5°	1423.2	1423.7	1420.5	1411.7	1406.3
5°	1417.7	1417.2	1411.7	1404.1	1399.7
7.5°	1401.9	1403.0	1401.4	1390.5	1384.5
10°	1386.7	1387.2	1382.8	1374.1	1367.0
12.5°	1367.0	1366.5	1360.5	1356.1	1344.7
15°	1336.0	1339.2	1336.0	1330.0	1320.7
17.5°	1306.0	1306.0	1308.1	1297.8	1290.7
20°	1272.2	1273.8	1273.8	1265.6	1257.4
22.5°	1232.9	1237.8	1239.4	1230.7	1220.9
25°	1186.5	1195.8	1201.3	1192.5	1182.2
27.5°	1130.4	1144.6	1160.9	1154.4	1142.9
30°	1067.7	1088.4	1115.7	1110.2	1102.0
32.5°	1008.2	1029.0	1066.6	1064.4	1060.0
35°	954.3	967.3	1011.5	1017.0	1013.1
37.5°	903.0	915.0	956.4	969.0	965.7
40°	849.0	862.1	894.8	917.2	918.3
42.5°	795.6	808.1	834.8	867.0	867.0
45°	738.9	751.4	775.9	811.4	815.7
47.5°	683.2	696.3	720.3	755.8	762.9
50°	628.7	640.7	664.7	699.1	710.0
52.5°	572.0	585.1	608.5	640.2	656.0
55°	517.5	526.2	551.8	582.4	599.3
57.5°	460.8	468.9	497.8	524.0	541.5
60°	406.2	416.6	439.0	465.7	485.9
62.5°	353.9	364.8	383.9	407.3	430.2
65°	303.2	311.4	329.9	353.3	373.5
67.5°	254.1	261.2	279.7	296.1	317.4
70°	204.5	213.8	227.4	243.2	256.8
72.5°	164.7	168.5	179.9	191.4	205.6
75°	121.6	128.1	137.4	144.0	152.1
77.5°	87.2	91.1	96.5	102.0	109.6
80°	58.3	60.0	64.9	66.0	72.0
82.5°	35.4	36.5	37.6	38.2	40.4
85°	19.1	19.1	19.1	18.0	18.0
87.5°	10.9	10.9	9.3	7.6	5.5
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)