

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: P556554

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-81-94-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: P556554  
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-12-4-LD4-1LO-40-UNV-81-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

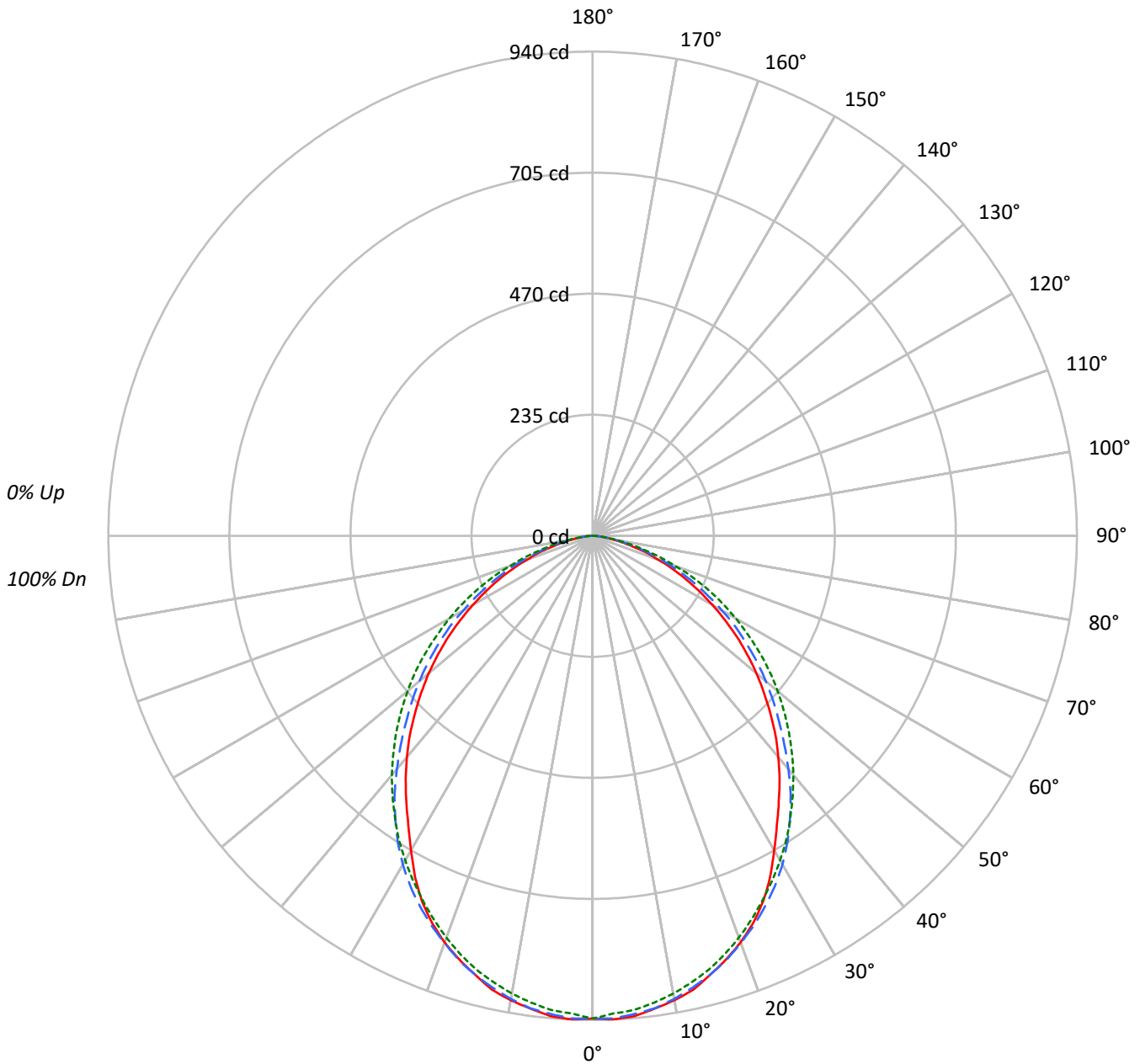
Lumens per Lamp: N/A  
Luminaire Lumens: 2167.0 lumens  
Efficiency: N/A  
Efficacy: 92.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	2522	2522	2522
5°	2529	2518	2497
10°	2502	2495	2466
15°	2457	2457	2429
20°	2405	2408	2377
25°	2326	2355	2318
30°	2190	2289	2261
35°	2070	2194	2197
40°	1969	2075	2130
45°	1856	1950	2050
50°	1738	1837	1963
55°	1603	1710	1856
60°	1443	1560	1727
65°	1275	1387	1570
70°	1062	1181	1334
75°	835	943	1044
80°	597	663	736
85°	389	389	367



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.2	4.1
10°-20°	247.9	11.4
20°-30°	362.2	16.7
30°-40°	411.2	19.0
40°-50°	396.9	18.3
50°-60°	327.4	15.1
60°-70°	218.1	10.1
70°-80°	97.6	4.5
80°-90°	17.4	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°	698.4	32.2
0°-40°	1109.5	51.2
0°-60°	1833.9	84.6
0°-90°	2167.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2167.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	937	937	937	937	937	
5°	936	936	932	927	924	89
15°	882	884	882	878	872	249
25°	783	790	793	787	781	359
35°	630	639	668	672	669	395
45°	488	496	512	536	539	376
55°	342	347	364	384	396	305
65°	200	206	218	233	247	199
75°	80	85	91	95	100	88
85°	13	13	13	12	12	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	937.2	937.2	937.2	937.2	937.2
2.5°	939.7	940.1	937.9	932.1	928.5
5°	936.1	935.7	932.1	927.1	924.2
7.5°	925.7	926.4	925.3	918.1	914.1
10°	915.6	915.9	913.0	907.3	902.6
12.5°	902.6	902.2	898.3	895.4	887.8
15°	882.1	884.2	882.1	878.1	872.0
17.5°	862.3	862.3	863.7	856.9	852.2
20°	840.0	841.0	841.0	835.6	830.2
22.5°	814.0	817.3	818.4	812.6	806.1
25°	783.4	789.6	793.2	787.4	780.6
27.5°	746.4	755.7	766.5	762.2	754.6
30°	704.9	718.6	736.6	733.0	727.6
32.5°	665.7	679.4	704.2	702.8	699.9
35°	630.1	638.7	667.9	671.5	668.9
37.5°	596.2	604.1	631.5	639.8	637.6
40°	560.6	569.2	590.8	605.6	606.3
42.5°	525.3	533.6	551.2	572.5	572.5
45°	487.8	496.1	512.3	535.7	538.6
47.5°	451.1	459.8	475.6	499.0	503.7
50°	415.1	423.0	438.9	461.6	468.8
52.5°	377.7	386.3	401.8	422.7	433.1
55°	341.7	347.4	364.4	384.5	395.7
57.5°	304.2	309.6	328.7	346.0	357.5
60°	268.2	275.1	289.8	307.5	320.8
62.5°	233.7	240.9	253.5	268.9	284.1
65°	200.2	205.6	217.8	233.3	246.6
67.5°	167.8	172.5	184.7	195.5	209.5
70°	135.0	141.1	150.1	160.6	169.6
72.5°	108.7	111.3	118.8	126.4	135.7
75°	80.3	84.6	90.7	95.0	100.4
77.5°	57.6	60.1	63.7	67.3	72.4
80°	38.5	39.6	42.8	43.6	47.5
82.5°	23.4	24.1	24.8	25.2	26.6
85°	12.6	12.6	12.6	11.9	11.9
87.5°	7.2	7.2	6.1	5.0	3.6
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)