

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: P557935

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-93-97-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: P557935  
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-LD4-3HI-50-UNV-93-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

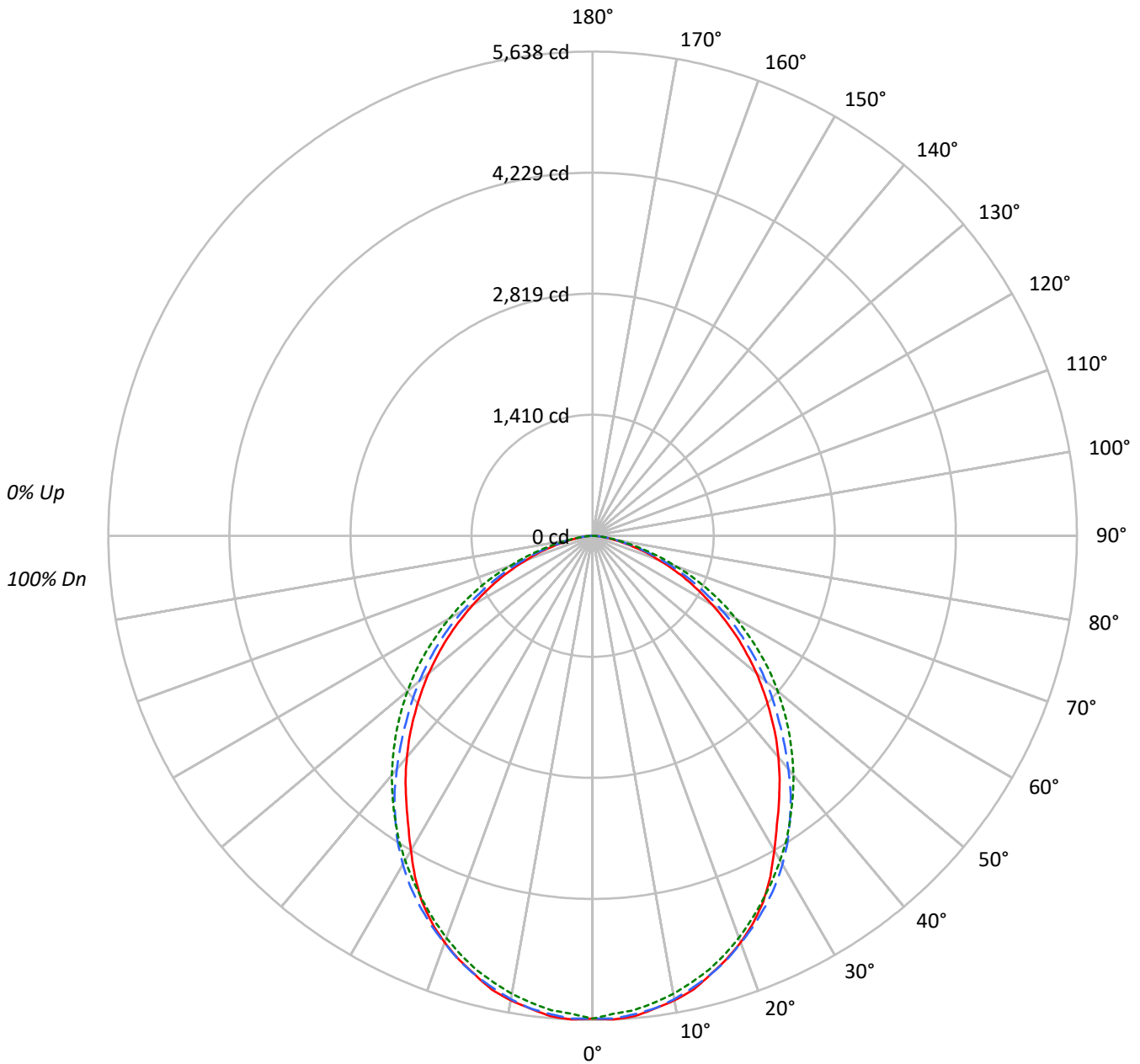
Lumens per Lamp: N/A  
Luminaire Lumens: 13001.0 lumens  
Efficiency: N/A  
Efficacy: 100.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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°	15130	15130	15130
5°	15171	15107	14978
10°	15010	14968	14797
15°	14743	14743	14575
20°	14431	14450	14264
25°	13956	14129	13905
30°	13142	13733	13565
35°	12418	13163	13184
40°	11814	12452	12778
45°	11139	11697	12297
50°	10426	11023	11774
55°	9617	10256	11137
60°	8661	9358	10358
65°	7647	8321	9421
70°	6373	7087	8005
75°	5008	5659	6266
80°	3581	3983	4418
85°	2334	2334	2201



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	529.4	4.1
10°-20°	1487.2	11.4
20°-30°	2173.3	16.7
30°-40°	2466.9	19.0
40°-50°	2381.4	18.3
50°-60°	1964.5	15.1
60°-70°	1308.2	10.1
70°-80°	585.4	4.5
80°-90°	104.7	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°	4189.9	32.2
0°-40°	6656.8	51.2
0°-60°	11002.7	84.6
0°-90°	13001.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13001.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5623	5623	5623	5623	5623	
5°	5616	5614	5592	5562	5545	532
15°	5292	5305	5292	5268	5232	1492
25°	4700	4737	4759	4724	4683	2153
35°	3780	3832	4007	4028	4013	2368
45°	2927	2976	3074	3214	3231	2258
55°	2050	2084	2186	2307	2374	1830
65°	1201	1233	1307	1400	1480	1191
75°	482	508	544	570	603	527
85°	76	76	76	71	71	102
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5622.6	5622.6	5622.6	5622.6	5622.6
2.5°	5637.7	5639.9	5626.9	5592.4	5570.8
5°	5616.1	5614.0	5592.4	5562.1	5544.8
7.5°	5553.5	5557.8	5551.3	5508.1	5484.4
10°	5493.0	5495.2	5477.9	5443.3	5415.2
12.5°	5415.2	5413.1	5389.3	5372.0	5326.7
15°	5292.1	5305.1	5292.1	5268.3	5231.6
17.5°	5173.3	5173.3	5181.9	5140.9	5112.8
20°	5039.4	5045.9	5045.9	5013.5	4981.1
22.5°	4883.9	4903.3	4909.8	4875.2	4836.3
25°	4700.3	4737.0	4758.6	4724.0	4683.0
27.5°	4477.8	4533.9	4598.7	4572.8	4527.5
30°	4229.4	4311.4	4419.5	4397.9	4365.5
32.5°	3993.9	4076.0	4225.0	4216.4	4199.1
35°	3780.1	3831.9	4006.9	4028.5	4013.4
37.5°	3577.0	3624.6	3788.7	3838.4	3825.4
40°	3363.2	3415.0	3544.6	3633.2	3637.5
42.5°	3151.5	3201.2	3307.0	3434.5	3434.5
45°	2926.9	2976.5	3073.7	3214.1	3231.4
47.5°	2706.5	2758.4	2853.4	2993.8	3021.9
50°	2490.5	2538.1	2633.1	2769.2	2812.4
52.5°	2265.9	2317.7	2410.6	2535.9	2598.5
55°	2049.9	2084.4	2186.0	2306.9	2373.9
57.5°	1825.2	1857.6	1972.1	2075.8	2144.9
60°	1609.2	1650.3	1738.8	1844.7	1924.6
62.5°	1401.9	1445.1	1520.7	1613.6	1704.3
65°	1201.0	1233.4	1306.8	1399.7	1479.6
67.5°	1006.6	1034.7	1108.1	1172.9	1257.1
70°	810.0	846.7	900.7	963.4	1017.4
72.5°	652.3	667.5	712.8	758.2	814.3
75°	481.7	507.6	544.3	570.3	602.7
77.5°	345.6	360.7	382.3	403.9	434.2
80°	231.1	237.6	257.0	261.4	285.1
82.5°	140.4	144.7	149.0	151.2	159.8
85°	75.6	75.6	75.6	71.3	71.3
87.5°	43.2	43.2	36.7	30.2	21.6
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)