

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: P557773

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-81-96-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: P557773  
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-35-UNV-81-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

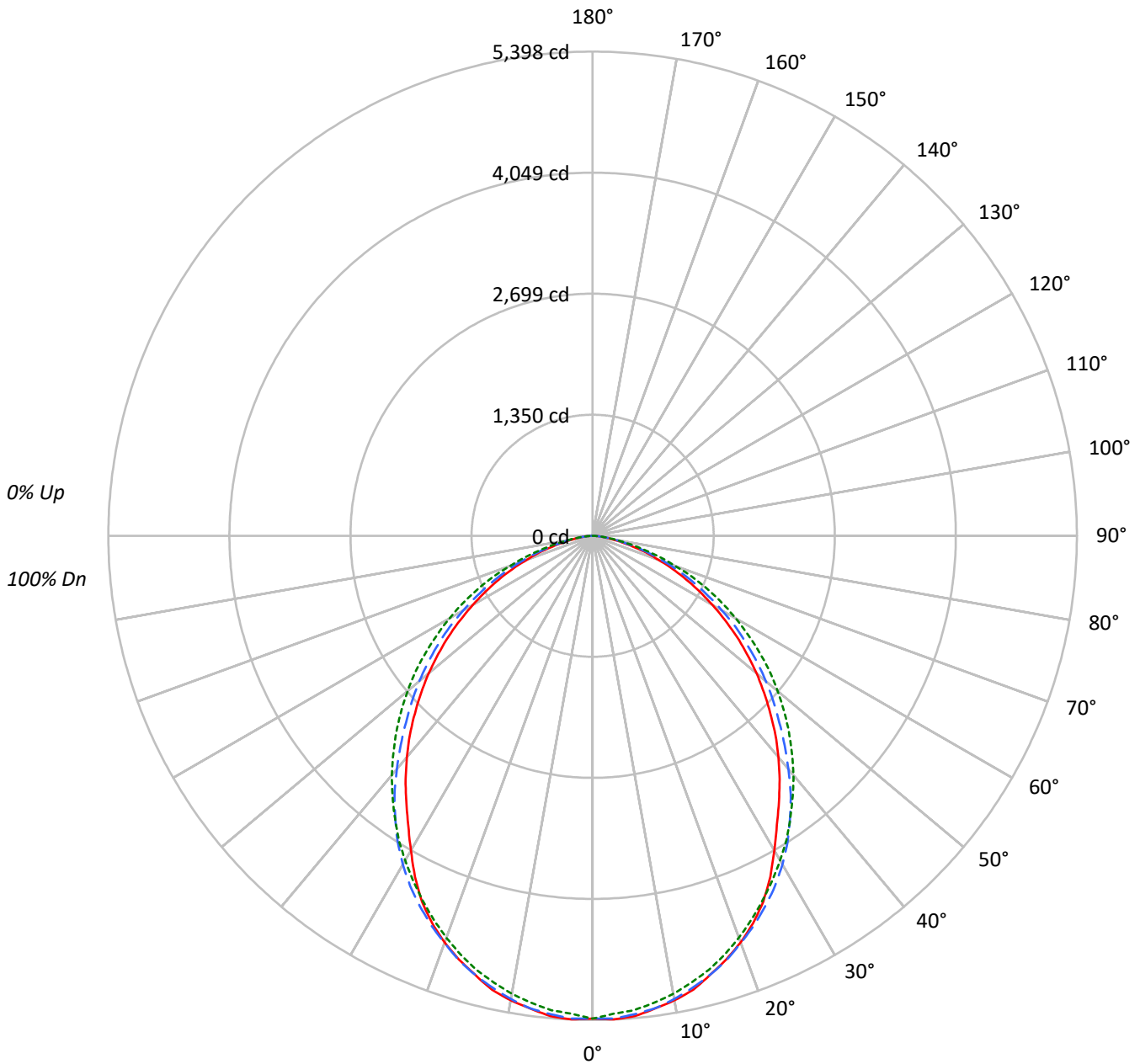
Lumens per Lamp: N/A  
Luminaire Lumens: 12447.0 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	14486	14486	14486
5°	14524	14463	14340
10°	14370	14331	14167
15°	14115	14115	13954
20°	13816	13834	13656
25°	13361	13527	13312
30°	12582	13147	12987
35°	11889	12602	12622
40°	11311	11921	12233
45°	10664	11199	11773
50°	9982	10554	11272
55°	9207	9819	10663
60°	8292	8959	9917
65°	7321	7966	9020
70°	6102	6785	7663
75°	4795	5418	5999
80°	3429	3814	4231
85°	2235	2235	2106



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	506.8	4.1
10°-20°	1423.8	11.4
20°-30°	2080.7	16.7
30°-40°	2361.8	19.0
40°-50°	2279.9	18.3
50°-60°	1880.8	15.1
60°-70°	1252.5	10.1
70°-80°	560.5	4.5
80°-90°	100.3	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°	4011.3	32.2
0°-40°	6373.1	51.2
0°-60°	10533.8	84.6
0°-90°	12447.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12447.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5383	5383	5383	5383	5383	
5°	5377	5375	5354	5325	5309	509
15°	5067	5079	5067	5044	5009	1428
25°	4500	4535	4556	4523	4483	2061
35°	3619	3669	3836	3857	3842	2268
45°	2802	2850	2943	3077	3094	2162
55°	1962	1996	2093	2209	2273	1752
65°	1150	1181	1251	1340	1417	1140
75°	461	486	521	546	577	504
85°	72	72	72	68	68	98
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5383.0	5383.0	5383.0	5383.0	5383.0
2.5°	5397.5	5399.6	5387.1	5354.1	5333.4
5°	5376.8	5374.7	5354.1	5325.1	5308.6
7.5°	5316.8	5321.0	5314.8	5273.4	5250.7
10°	5258.9	5261.0	5244.5	5211.4	5184.5
12.5°	5184.5	5182.4	5159.7	5143.1	5099.7
15°	5066.6	5079.0	5066.6	5043.9	5008.7
17.5°	4952.9	4952.9	4961.1	4921.8	4895.0
20°	4824.6	4830.8	4830.8	4799.8	4768.8
22.5°	4675.7	4694.4	4700.6	4667.5	4630.3
25°	4500.0	4535.1	4555.8	4522.7	4483.4
27.5°	4287.0	4340.7	4402.8	4378.0	4334.5
30°	4049.1	4127.7	4231.1	4210.4	4179.4
32.5°	3823.7	3902.3	4045.0	4036.7	4020.2
35°	3619.0	3668.6	3836.1	3856.8	3842.3
37.5°	3424.6	3470.1	3627.3	3674.8	3662.4
40°	3219.9	3269.5	3393.6	3478.4	3482.5
42.5°	3017.2	3064.8	3166.1	3288.1	3288.1
45°	2802.1	2849.7	2942.8	3077.2	3093.7
47.5°	2591.2	2640.8	2731.8	2866.2	2893.1
50°	2384.4	2429.9	2520.9	2651.2	2692.5
52.5°	2169.3	2219.0	2307.9	2427.8	2487.8
55°	1962.5	1995.6	2092.8	2208.6	2272.7
57.5°	1747.5	1778.5	1888.1	1987.3	2053.5
60°	1540.7	1580.0	1664.7	1766.1	1842.6
62.5°	1342.1	1383.5	1455.9	1544.8	1631.7
65°	1149.8	1180.8	1251.1	1340.1	1416.6
67.5°	963.7	990.6	1060.9	1122.9	1203.6
70°	775.5	810.7	862.4	922.3	974.0
72.5°	624.5	639.0	682.4	725.9	779.6
75°	461.2	486.0	521.1	546.0	577.0
77.5°	330.9	345.4	366.0	386.7	415.7
80°	221.3	227.5	246.1	250.2	273.0
82.5°	134.4	138.6	142.7	144.8	153.0
85°	72.4	72.4	72.4	68.2	68.2
87.5°	41.4	41.4	35.2	29.0	20.7
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)