

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: P558125

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-93-96-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: P558125  
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-LD4-3LO-40-UNV-93-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

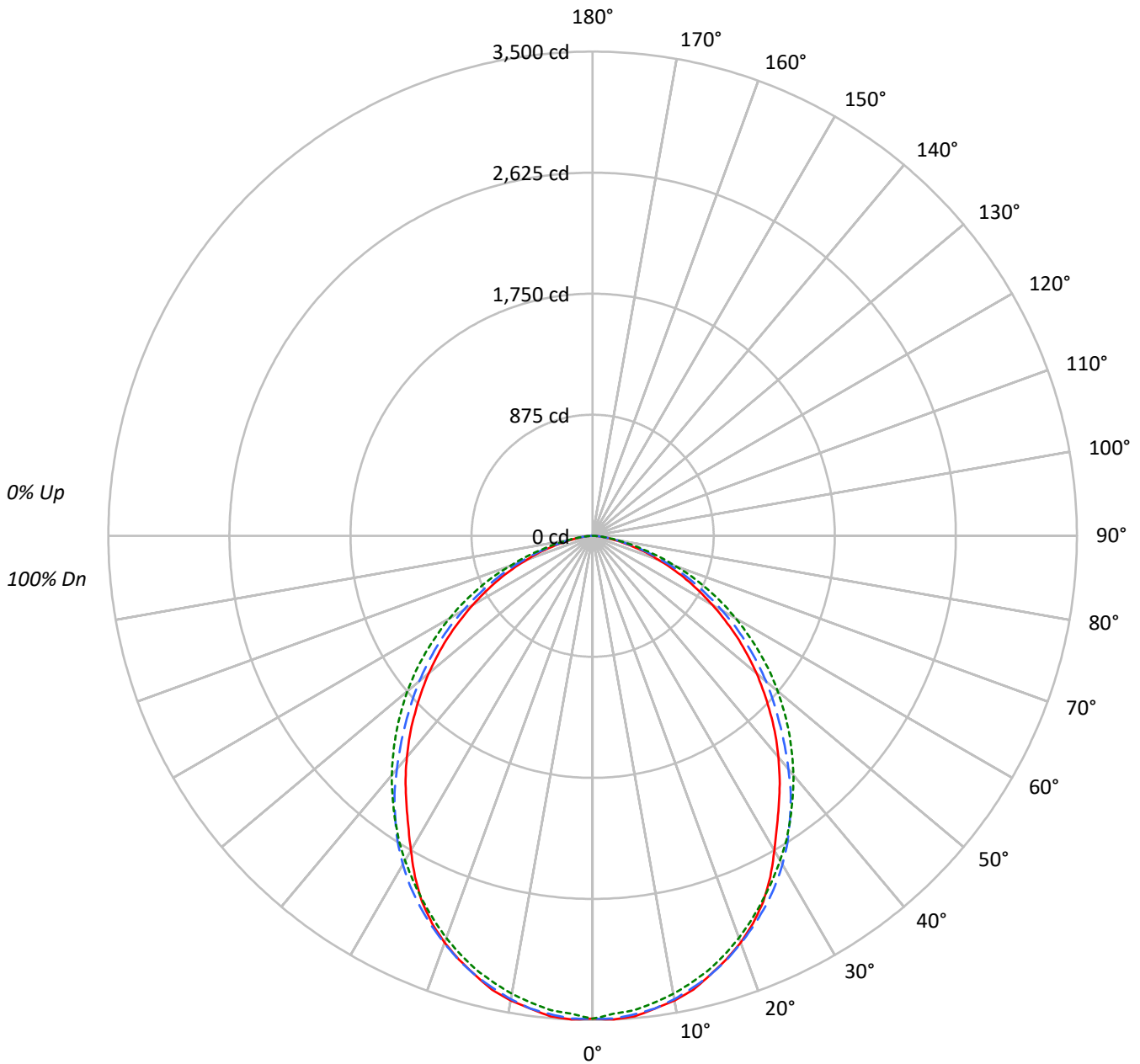
Lumens per Lamp: N/A  
Luminaire Lumens: 8072.0 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
Input Voltage (V): NR  
Input Current (Ain): 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°	9394	9394	9394
5°	9419	9379	9300
10°	9319	9293	9187
15°	9154	9154	9049
20°	8960	8972	8856
25°	8665	8772	8633
30°	8159	8526	8422
35°	7710	8173	8186
40°	7335	7731	7933
45°	6916	7263	7635
50°	6473	6844	7310
55°	5971	6367	6915
60°	5377	5810	6431
65°	4748	5167	5850
70°	3957	4400	4970
75°	3110	3514	3891
80°	2224	2473	2743
85°	1448	1448	1368



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	328.7	4.1
10°-20°	923.4	11.4
20°-30°	1349.3	16.7
30°-40°	1531.6	19.0
40°-50°	1478.6	18.3
50°-60°	1219.7	15.1
60°-70°	812.2	10.1
70°-80°	363.5	4.5
80°-90°	65.0	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°	2601.4	32.2
0°-40°	4133.0	51.2
0°-60°	6831.3	84.6
0°-90°	8072.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8072.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3491	3491	3491	3491	3491	
5°	3487	3486	3472	3453	3443	330
15°	3286	3294	3286	3271	3248	926
25°	2918	2941	2954	2933	2908	1336
35°	2347	2379	2488	2501	2492	1471
45°	1817	1848	1908	1996	2006	1402
55°	1273	1294	1357	1432	1474	1136
65°	746	766	811	869	919	739
75°	299	315	338	354	374	327
85°	47	47	47	44	44	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3490.9	3490.9	3490.9	3490.9	3490.9
2.5°	3500.3	3501.7	3493.6	3472.2	3458.7
5°	3486.9	3485.6	3472.2	3453.4	3442.7
7.5°	3448.0	3450.7	3446.7	3419.9	3405.1
10°	3410.5	3411.8	3401.1	3379.6	3362.2
12.5°	3362.2	3360.8	3346.1	3335.4	3307.2
15°	3285.7	3293.8	3285.7	3271.0	3248.2
17.5°	3212.0	3212.0	3217.3	3191.9	3174.4
20°	3128.8	3132.9	3132.9	3112.7	3092.6
22.5°	3032.3	3044.3	3048.4	3026.9	3002.8
25°	2918.3	2941.1	2954.5	2933.0	2907.5
27.5°	2780.1	2815.0	2855.2	2839.1	2811.0
30°	2625.9	2676.9	2743.9	2730.5	2710.4
32.5°	2479.7	2530.7	2623.2	2617.9	2607.1
35°	2347.0	2379.1	2487.8	2501.2	2491.8
37.5°	2220.9	2250.4	2352.3	2383.2	2375.1
40°	2088.1	2120.3	2200.8	2255.8	2258.4
42.5°	1956.7	1987.5	2053.3	2132.4	2132.4
45°	1817.2	1848.1	1908.4	1995.6	2006.3
47.5°	1680.4	1712.6	1771.6	1858.8	1876.2
50°	1546.3	1575.8	1634.8	1719.3	1746.1
52.5°	1406.8	1439.0	1496.7	1574.5	1613.4
55°	1272.7	1294.2	1357.2	1432.3	1473.9
57.5°	1133.2	1153.4	1224.4	1288.8	1331.7
60°	999.1	1024.6	1079.6	1145.3	1194.9
62.5°	870.4	897.2	944.1	1001.8	1058.1
65°	745.7	765.8	811.4	869.0	918.7
67.5°	625.0	642.4	688.0	728.2	780.5
70°	502.9	525.7	559.2	598.1	631.7
72.5°	405.0	414.4	442.6	470.7	505.6
75°	299.1	315.2	338.0	354.1	374.2
77.5°	214.6	224.0	237.4	250.8	269.6
80°	143.5	147.5	159.6	162.3	177.0
82.5°	87.2	89.9	92.5	93.9	99.2
85°	46.9	46.9	46.9	44.3	44.3
87.5°	26.8	26.8	22.8	18.8	13.4
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)