

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: P558130

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-80-85-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: P558130
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-50-UNV-80-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

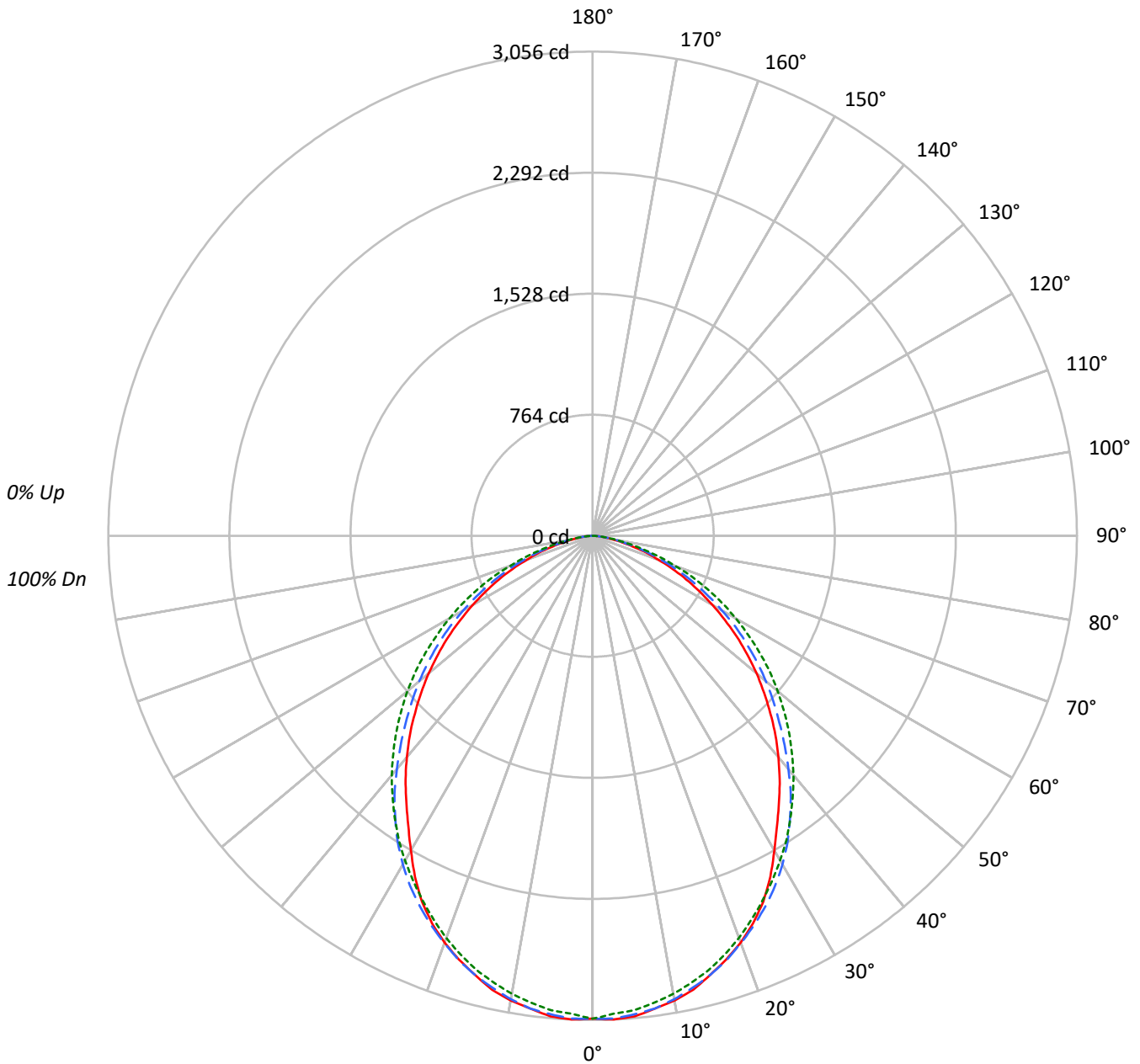
Lumens per Lamp: N/A
Luminaire Lumens: 7048.0 lumens
Efficiency: N/A
Efficacy: 100.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8202	8202	8202
5°	8224	8189	8120
10°	8137	8114	8022
15°	7992	7992	7901
20°	7823	7833	7733
25°	7566	7660	7538
30°	7124	7444	7354
35°	6732	7136	7147
40°	6405	6750	6927
45°	6038	6341	6667
50°	5652	5976	6383
55°	5214	5560	6038
60°	4695	5073	5615
65°	4146	4511	5107
70°	3455	3842	4339
75°	2715	3068	3397
80°	1942	2159	2396
85°	1266	1266	1192



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.0	4.1
10°-20°	806.2	11.4
20°-30°	1178.2	16.7
30°-40°	1337.3	19.0
40°-50°	1291.0	18.3
50°-60°	1065.0	15.1
60°-70°	709.2	10.1
70°-80°	317.4	4.5
80°-90°	56.8	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°	2271.4	32.2
0°-40°	3608.7	51.2
0°-60°	5964.7	84.6
0°-90°	7048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7048.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3048	3048	3048	3048	3048	
5°	3045	3043	3032	3015	3006	288
15°	2869	2876	2869	2856	2836	809
25°	2548	2568	2580	2561	2539	1167
35°	2049	2077	2172	2184	2176	1284
45°	1587	1614	1666	1742	1752	1224
55°	1111	1130	1185	1251	1287	992
65°	651	669	708	759	802	646
75°	261	275	295	309	327	286
85°	41	41	41	39	39	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3048.1	<i>3048.1</i>	3048.1	3048.1	3048.1
2.5°	<i>3056.3</i>	<i>3057.4</i>	<i>3050.4</i>	<i>3031.7</i>	<i>3020.0</i>
5°	3044.6	<i>3043.4</i>	3031.7	3015.3	3005.9
7.5°	3010.6	<i>3012.9</i>	3009.4	2986.0	2973.1
10°	2977.8	<i>2979.0</i>	2969.6	2950.9	2935.7
12.5°	2935.7	<i>2934.5</i>	2921.6	2912.2	2887.7
15°	2868.9	<i>2875.9</i>	2868.9	2856.0	2836.1
17.5°	2804.5	<i>2804.5</i>	2809.2	2786.9	2771.7
20°	2731.9	<i>2735.4</i>	2735.4	2717.9	2700.3
22.5°	2647.6	<i>2658.1</i>	2661.7	2642.9	2621.8
25°	2548.1	<i>2568.0</i>	2579.7	2560.9	2538.7
27.5°	2427.5	<i>2457.9</i>	2493.0	2479.0	2454.4
30°	2292.8	<i>2337.3</i>	2395.8	2384.1	2366.6
32.5°	2165.2	<i>2209.7</i>	2290.4	2285.8	2276.4
35°	2049.2	<i>2077.3</i>	2172.2	2183.9	2175.7
37.5°	1939.2	<i>1964.9</i>	2053.9	2080.8	2073.8
40°	1823.2	<i>1851.3</i>	1921.6	1969.6	1971.9
42.5°	1708.5	<i>1735.4</i>	1792.8	1861.9	1861.9
45°	1586.7	<i>1613.6</i>	1666.3	1742.4	1751.8
47.5°	1467.2	<i>1495.3</i>	1546.9	1623.0	1638.2
50°	1350.1	<i>1375.9</i>	1427.4	1501.2	1524.6
52.5°	1228.4	<i>1256.5</i>	1306.8	1374.7	1408.7
55°	1111.3	<i>1130.0</i>	1185.0	1250.6	1286.9
57.5°	989.5	<i>1007.0</i>	1069.1	1125.3	1162.8
60°	872.4	<i>894.6</i>	942.6	1000.0	1043.3
62.5°	760.0	<i>783.4</i>	824.4	874.7	923.9
65°	651.1	<i>668.6</i>	708.4	758.8	802.1
67.5°	545.7	<i>560.9</i>	600.7	635.8	681.5
70°	439.1	<i>459.0</i>	488.3	522.3	551.5
72.5°	353.6	<i>361.8</i>	386.4	411.0	441.5
75°	261.1	<i>275.2</i>	295.1	309.1	326.7
77.5°	187.4	<i>195.6</i>	207.3	219.0	235.4
80°	125.3	<i>128.8</i>	139.3	141.7	154.6
82.5°	76.1	<i>78.5</i>	80.8	82.0	86.7
85°	41.0	<i>41.0</i>	41.0	38.6	38.6
87.5°	23.4	<i>23.4</i>	19.9	16.4	11.7
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)