

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: P558087

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-81-87-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: P558087
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-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

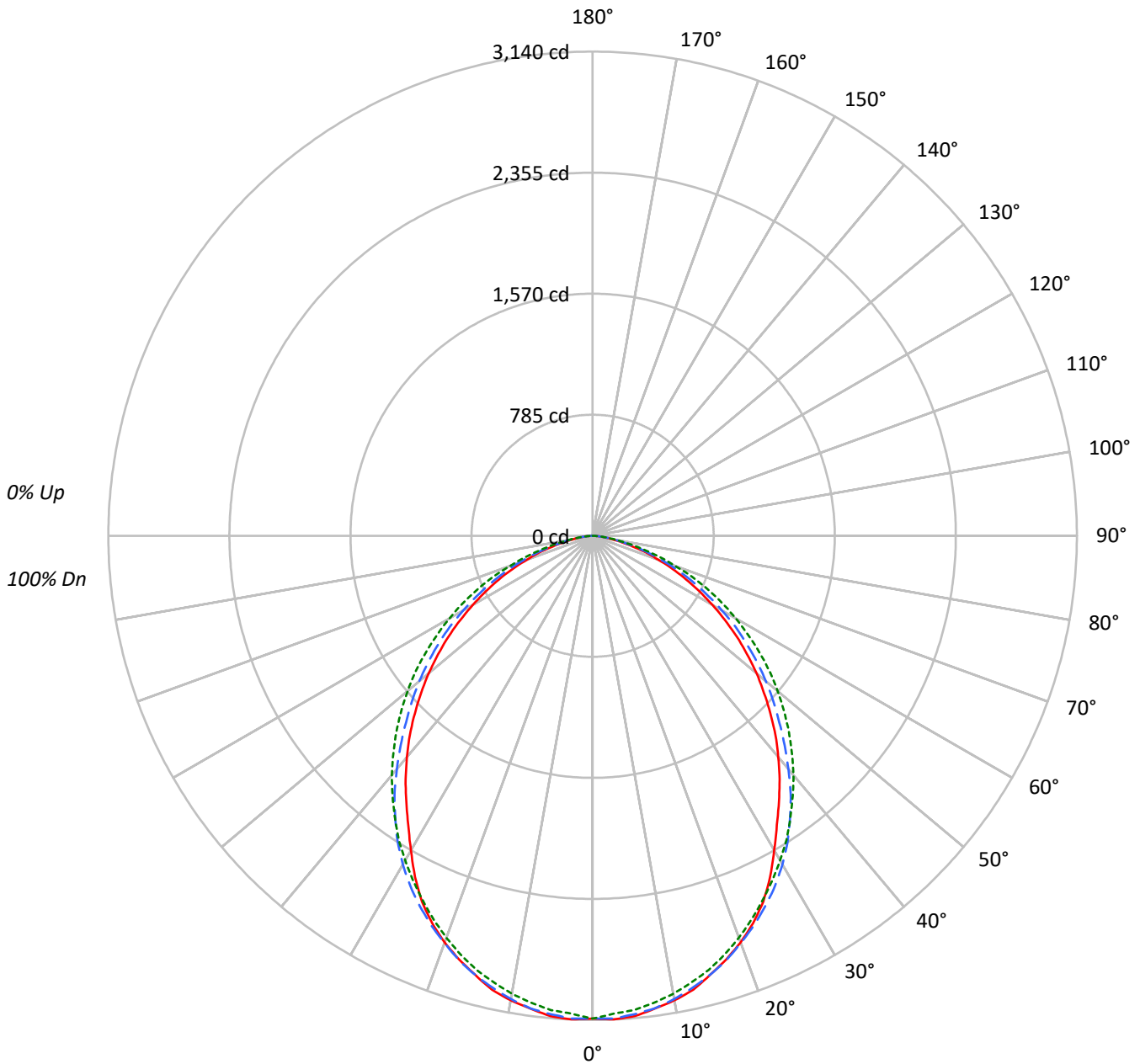
Lumens per Lamp: N/A
Luminaire Lumens: 7240.0 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8426	8426	8426
5°	8448	8413	8341
10°	8358	8335	8240
15°	8210	8210	8116
20°	8036	8047	7944
25°	7772	7868	7743
30°	7319	7647	7554
35°	6915	7330	7342
40°	6579	6934	7116
45°	6203	6514	6848
50°	5806	6139	6557
55°	5355	5711	6202
60°	4823	5211	5768
65°	4259	4634	5247
70°	3549	3947	4458
75°	2789	3151	3489
80°	1994	2218	2461
85°	1300	1300	1226



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.8	4.1
10°-20°	828.2	11.4
20°-30°	1210.3	16.7
30°-40°	1373.8	19.0
40°-50°	1326.2	18.3
50°-60°	1094.0	15.1
60°-70°	728.5	10.1
70°-80°	326.0	4.5
80°-90°	58.3	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°	2333.2	32.2
0°-40°	3707.0	51.2
0°-60°	6127.2	84.6
0°-90°	7240.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7240.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3131	3131	3131	3131	3131	
5°	3128	3126	3114	3097	3088	296
15°	2947	2954	2947	2934	2913	831
25°	2618	2638	2650	2631	2608	1199
35°	2105	2134	2231	2243	2235	1319
45°	1630	1658	1712	1790	1800	1258
55°	1142	1161	1217	1285	1322	1019
65°	669	687	728	780	824	663
75°	268	283	303	318	336	293
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3131.1	<i>3131.1</i>	3131.1	3131.1	3131.1
2.5°	<i>3139.5</i>	<i>3140.7</i>	<i>3133.5</i>	<i>3114.3</i>	<i>3102.2</i>
5°	3127.5	<i>3126.3</i>	3114.3	3097.4	3087.8
7.5°	3092.6	<i>3095.0</i>	3091.4	3067.4	3054.1
10°	3058.9	<i>3060.1</i>	3050.5	3031.3	3015.6
12.5°	3015.6	<i>3014.4</i>	3001.2	2991.6	2966.3
15°	2947.1	<i>2954.3</i>	2947.1	2933.8	2913.4
17.5°	2880.9	<i>2880.9</i>	2885.7	2862.9	2847.2
20°	2806.3	<i>2809.9</i>	2809.9	2791.9	2773.9
22.5°	2719.7	<i>2730.6</i>	2734.2	2714.9	2693.3
25°	2617.5	<i>2637.9</i>	2650.0	2630.7	2607.9
27.5°	2493.6	<i>2524.9</i>	2560.9	2546.5	2521.2
30°	2355.3	<i>2401.0</i>	2461.1	2449.1	2431.0
32.5°	2224.1	<i>2269.8</i>	2352.8	2348.0	2338.4
35°	2105.1	<i>2133.9</i>	2231.4	2243.4	2235.0
37.5°	1992.0	<i>2018.4</i>	2109.9	2137.5	2130.3
40°	1872.9	<i>1901.8</i>	1973.9	2023.3	2025.7
42.5°	1755.0	<i>1782.7</i>	1841.6	1912.6	1912.6
45°	1629.9	<i>1657.6</i>	1711.7	1789.9	1799.5
47.5°	1507.2	<i>1536.1</i>	1589.0	1667.2	1682.8
50°	1386.9	<i>1413.4</i>	1466.3	1542.1	1566.2
52.5°	1261.8	<i>1290.7</i>	1342.4	1412.2	1447.1
55°	1141.5	<i>1160.8</i>	1217.3	1284.7	1322.0
57.5°	1016.4	<i>1034.5</i>	1098.2	1156.0	1194.5
60°	896.2	<i>919.0</i>	968.3	1027.3	1071.8
62.5°	780.7	<i>804.7</i>	846.8	898.6	949.1
65°	668.8	<i>686.8</i>	727.7	779.5	824.0
67.5°	560.5	<i>576.2</i>	617.1	653.2	700.1
70°	451.1	<i>471.5</i>	501.6	536.5	566.6
72.5°	363.3	<i>371.7</i>	397.0	422.2	453.5
75°	268.2	<i>282.7</i>	303.1	317.6	335.6
77.5°	192.5	<i>200.9</i>	212.9	224.9	241.8
80°	128.7	<i>132.3</i>	143.1	145.5	158.8
82.5°	78.2	<i>80.6</i>	83.0	84.2	89.0
85°	42.1	<i>42.1</i>	42.1	39.7	39.7
87.5°	24.1	<i>24.1</i>	20.4	16.8	12.0
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)