

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: P558137

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-80-88-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: P558137
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-80-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

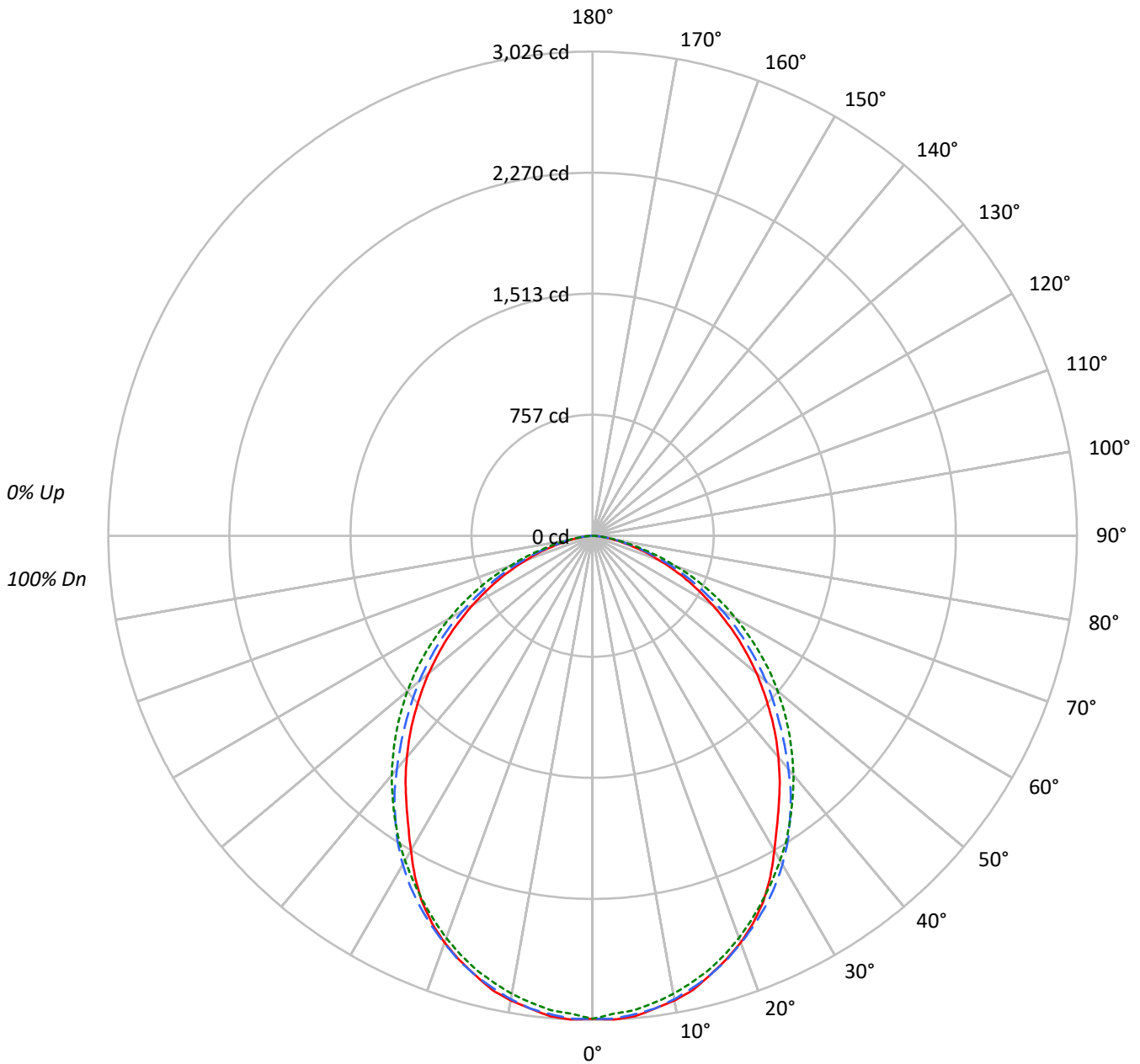
Lumens per Lamp: N/A
Luminaire Lumens: 6979.0 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (A_{in}): 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°	8122	8122	8122
5°	8144	8109	8040
10°	8057	8035	7943
15°	7914	7914	7824
20°	7747	7757	7657
25°	7492	7584	7464
30°	7054	7372	7282
35°	6666	7066	7077
40°	6342	6684	6859
45°	5979	6279	6601
50°	5597	5918	6320
55°	5163	5505	5978
60°	4649	5024	5560
65°	4105	4467	5058
70°	3421	3804	4297
75°	2689	3038	3363
80°	1923	2139	2373
85°	1254	1254	1183



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.2	4.1
10°-20°	798.3	11.4
20°-30°	1166.6	16.7
30°-40°	1324.2	19.0
40°-50°	1278.3	18.3
50°-60°	1054.5	15.1
60°-70°	702.2	10.1
70°-80°	314.2	4.5
80°-90°	56.2	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°	2249.1	32.2
0°-40°	3573.4	51.2
0°-60°	5906.3	84.6
0°-90°	6979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3018	3018	3018	3018	3018	
5°	3015	3014	3002	2986	2976	285
15°	2841	2848	2841	2828	2808	801
25°	2523	2543	2554	2536	2514	1155
35°	2029	2057	2151	2162	2154	1271
45°	1571	1598	1650	1725	1735	1212
55°	1100	1119	1173	1238	1274	982
65°	645	662	702	751	794	639
75°	259	272	292	306	324	283
85°	41	41	41	38	38	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3018.2	<i>3018.2</i>	3018.2	3018.2	3018.2
2.5°	<i>3026.4</i>	<i>3027.5</i>	<i>3020.6</i>	<i>3002.0</i>	<i>2990.4</i>
5°	3014.8	<i>3013.6</i>	3002.0	2985.8	2976.5
7.5°	2981.1	<i>2983.5</i>	2980.0	2956.8	2944.0
10°	2948.7	<i>2949.8</i>	2940.5	2922.0	2906.9
12.5°	2906.9	<i>2905.8</i>	2893.0	2883.7	2859.4
15°	2840.8	<i>2847.8</i>	2840.8	2828.1	2808.4
17.5°	2777.1	<i>2777.1</i>	2781.7	2759.7	2744.6
20°	2705.2	<i>2708.6</i>	2708.6	2691.3	2673.9
22.5°	2621.7	<i>2632.1</i>	2635.6	2617.0	2596.2
25°	2523.1	<i>2542.8</i>	2554.4	2535.9	2513.8
27.5°	2403.7	<i>2433.8</i>	2468.6	2454.7	2430.4
30°	2270.3	<i>2314.4</i>	2372.4	2360.8	2343.4
32.5°	2144.0	<i>2188.0</i>	2268.0	2263.4	2254.1
35°	2029.2	<i>2057.0</i>	2150.9	2162.5	2154.4
37.5°	1920.2	<i>1945.7</i>	2033.8	2060.5	2053.5
40°	1805.4	<i>1833.2</i>	1902.8	1950.3	1952.6
42.5°	1691.7	<i>1718.4</i>	1775.2	1843.6	1843.6
45°	1571.2	<i>1597.8</i>	1650.0	1725.4	1734.6
47.5°	1452.9	<i>1480.7</i>	1531.7	1607.1	1622.2
50°	1336.9	<i>1362.4</i>	1413.5	1486.5	1509.7
52.5°	1216.3	<i>1244.2</i>	1294.0	1361.3	1394.9
55°	1100.4	<i>1118.9</i>	1173.4	1238.4	1274.3
57.5°	979.8	<i>997.2</i>	1058.6	1114.3	1151.4
60°	863.8	<i>885.9</i>	933.4	990.2	1033.1
62.5°	752.5	<i>775.7</i>	816.3	866.2	914.9
65°	644.7	<i>662.1</i>	701.5	751.4	794.3
67.5°	540.3	<i>555.4</i>	594.8	629.6	674.8
70°	434.8	<i>454.5</i>	483.5	517.1	546.1
72.5°	350.2	<i>358.3</i>	382.6	407.0	437.1
75°	258.6	<i>272.5</i>	292.2	306.1	323.5
77.5°	185.5	<i>193.6</i>	205.2	216.8	233.1
80°	124.1	<i>127.5</i>	138.0	140.3	153.1
82.5°	75.4	<i>77.7</i>	80.0	81.2	85.8
85°	40.6	<i>40.6</i>	40.6	38.3	38.3
87.5°	23.2	<i>23.2</i>	19.7	16.2	11.6
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)