

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: P558083

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-81-85-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: P558083
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-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

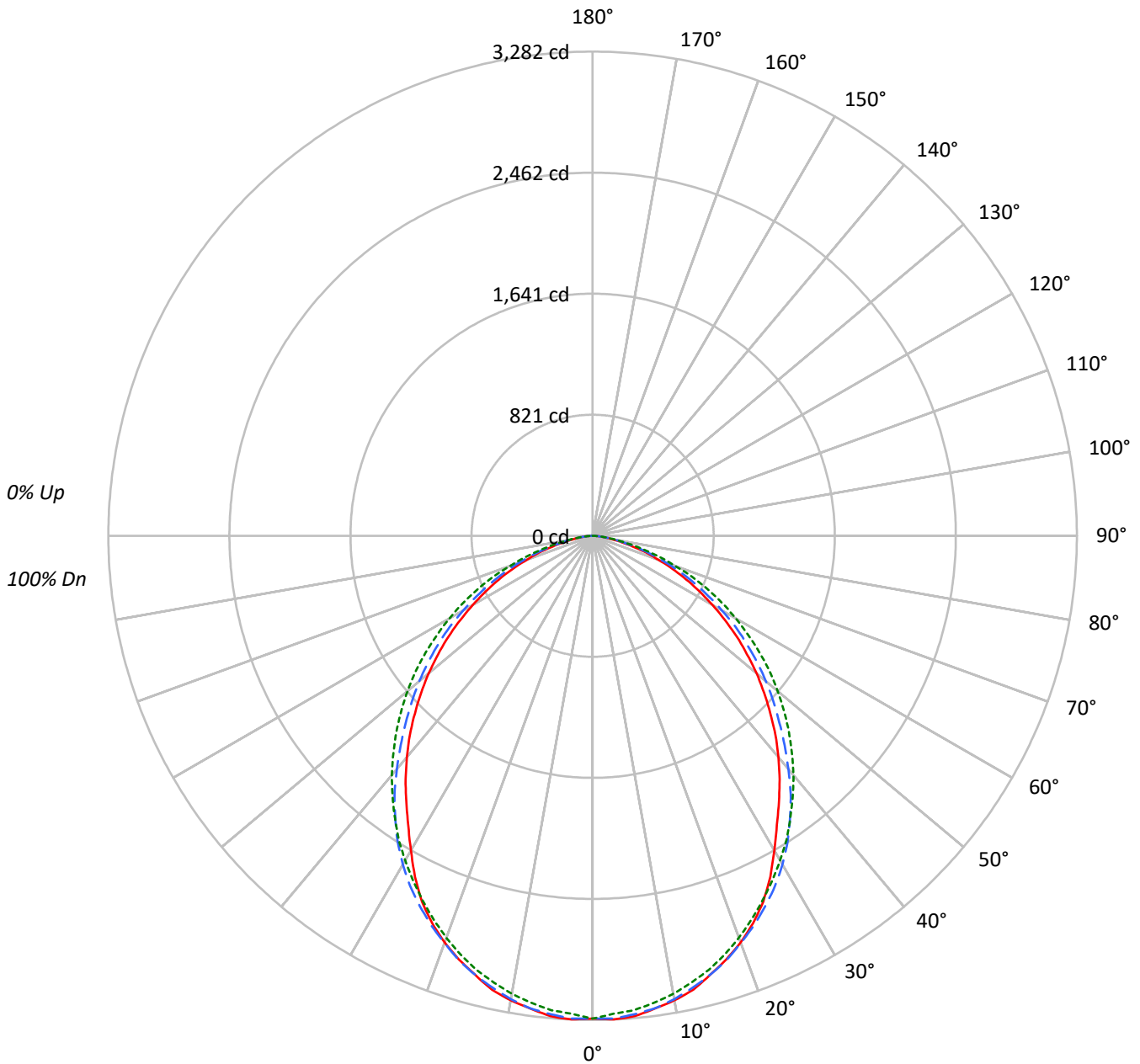
Lumens per Lamp: N/A
Luminaire Lumens: 7568.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8808	8808	8808
5°	8831	8794	8719
10°	8737	8713	8614
15°	8582	8582	8484
20°	8401	8411	8303
25°	8124	8225	8094
30°	7650	7994	7896
35°	7228	7662	7675
40°	6877	7248	7438
45°	6484	6809	7158
50°	6069	6417	6854
55°	5598	5970	6483
60°	5041	5448	6029
65°	4451	4844	5484
70°	3710	4125	4659
75°	2915	3295	3647
80°	2084	2318	2572
85°	1359	1359	1281



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.2	4.1
10°-20°	865.7	11.4
20°-30°	1265.1	16.7
30°-40°	1436.0	19.0
40°-50°	1386.2	18.3
50°-60°	1143.6	15.1
60°-70°	761.5	10.1
70°-80°	340.8	4.5
80°-90°	61.0	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°	2438.9	32.2
0°-40°	3875.0	51.2
0°-60°	6404.8	84.6
0°-90°	7568.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7568.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3273	3273	3273	3273	3273	
5°	3269	3268	3255	3238	3228	309
15°	3081	3088	3081	3067	3045	868
25°	2736	2757	2770	2750	2726	1253
35°	2200	2231	2332	2345	2336	1379
45°	1704	1733	1789	1871	1881	1315
55°	1193	1213	1272	1343	1382	1065
65°	699	718	761	815	861	693
75°	280	296	317	332	351	307
85°	44	44	44	42	42	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3273.0	3273.0	3273.0	3273.0	3273.0
2.5°	3281.8	3283.0	3275.5	3255.4	3242.8
5°	3269.2	3267.9	3255.4	3237.8	3227.7
7.5°	3232.7	3235.2	3231.5	3206.3	3192.5
10°	3197.5	3198.8	3188.7	3168.6	3152.3
12.5°	3152.3	3151.0	3137.2	3127.1	3100.7
15°	3080.6	3088.1	3080.6	3066.8	3045.4
17.5°	3011.4	3011.4	3016.5	2992.6	2976.2
20°	2933.5	2937.2	2937.2	2918.4	2899.5
22.5°	2842.9	2854.3	2858.0	2837.9	2815.3
25°	2736.1	2757.4	2770.0	2749.9	2726.0
27.5°	2606.6	2639.2	2677.0	2661.9	2635.5
30°	2462.0	2509.7	2572.6	2560.0	2541.2
32.5°	2324.9	2372.7	2459.4	2454.4	2444.4
35°	2200.4	2230.6	2332.4	2345.0	2336.2
37.5°	2082.2	2109.9	2205.4	2234.4	2226.8
40°	1957.7	1987.9	2063.4	2114.9	2117.4
42.5°	1834.5	1863.4	1925.1	1999.2	1999.2
45°	1703.8	1732.7	1789.3	1871.0	1881.0
47.5°	1575.5	1605.7	1661.0	1742.7	1759.1
50°	1449.8	1477.4	1532.7	1612.0	1637.1
52.5°	1319.0	1349.2	1403.2	1476.2	1512.6
55°	1193.3	1213.4	1272.5	1342.9	1381.9
57.5°	1062.5	1081.3	1148.0	1208.3	1248.6
60°	936.7	960.6	1012.2	1073.8	1120.3
62.5°	816.0	841.2	885.2	939.3	992.1
65°	699.1	718.0	760.7	814.8	861.3
67.5°	585.9	602.3	645.0	682.8	731.8
70°	471.5	492.9	524.3	560.8	592.2
72.5°	379.7	388.5	414.9	441.3	474.0
75°	280.4	295.5	316.9	331.9	350.8
77.5°	201.2	210.0	222.6	235.1	252.7
80°	134.5	138.3	149.6	152.1	166.0
82.5°	81.7	84.2	86.8	88.0	93.0
85°	44.0	44.0	44.0	41.5	41.5
87.5°	25.1	25.1	21.4	17.6	12.6
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)