

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: P556997

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-81-86-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: P556997
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-LD4-2HI-35-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

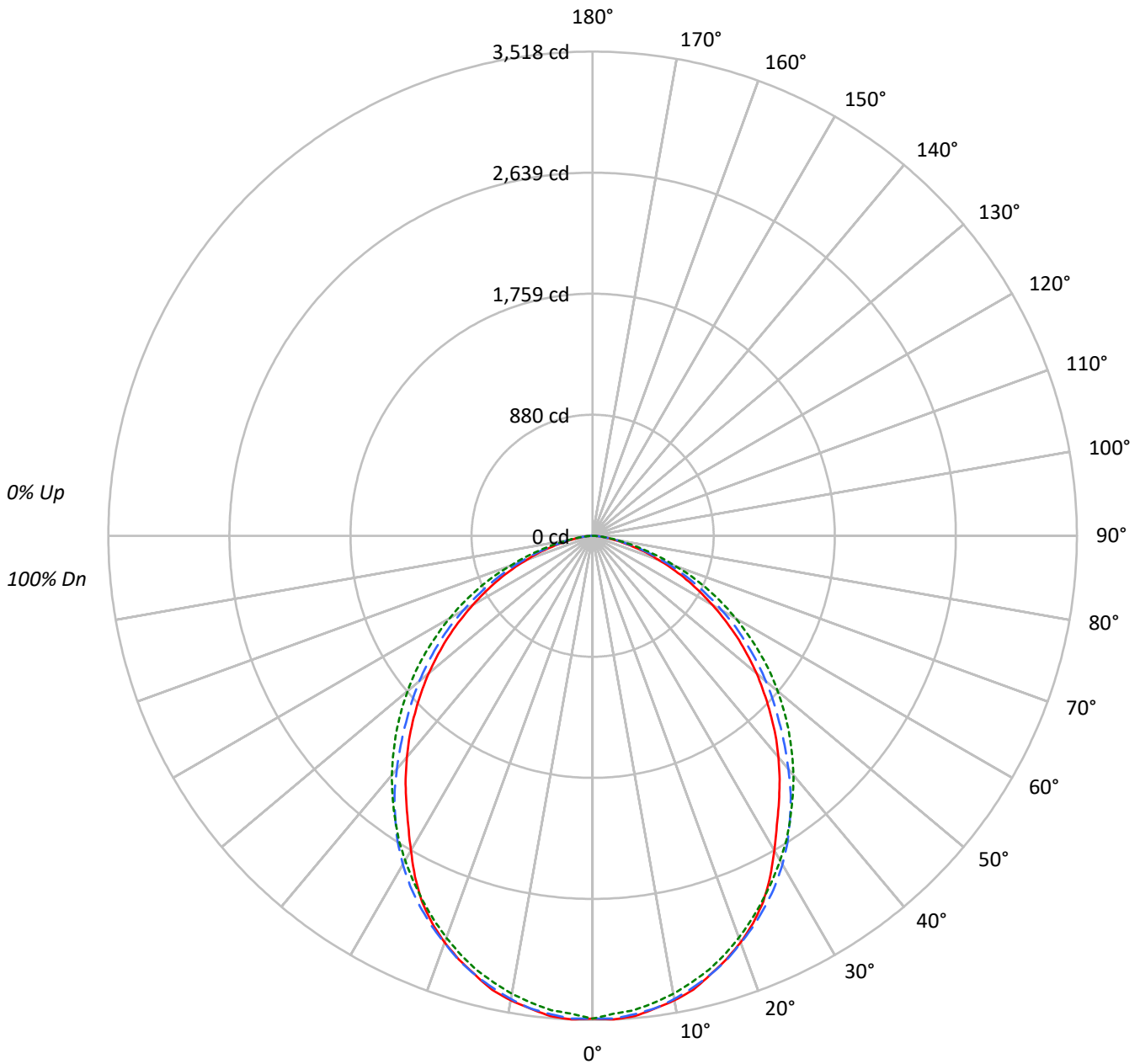
Lumens per Lamp: N/A
Luminaire Lumens: 8112.0 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	9440	9440	9440
5°	9466	9426	9346
10°	9365	9339	9233
15°	9199	9199	9094
20°	9004	9016	8900
25°	8708	8816	8676
30°	8200	8568	8464
35°	7748	8213	8226
40°	7372	7769	7973
45°	6950	7299	7673
50°	6506	6878	7346
55°	6001	6399	6949
60°	5404	5839	6463
65°	4772	5192	5878
70°	3976	4422	4995
75°	3125	3531	3909
80°	2235	2486	2757
85°	1457	1457	1374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	330.3	4.1
10°-20°	927.9	11.4
20°-30°	1356.0	16.7
30°-40°	1539.2	19.0
40°-50°	1485.9	18.3
50°-60°	1225.8	15.1
60°-70°	816.3	10.1
70°-80°	365.3	4.5
80°-90°	65.4	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°	2614.3	32.2
0°-40°	4153.5	51.2
0°-60°	6865.1	84.6
0°-90°	8112.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8112.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3508	3508	3508	3508	3508	
5°	3504	3503	3489	3470	3460	332
15°	3302	3310	3302	3287	3264	931
25°	2933	2956	2969	2948	2922	1343
35°	2359	2391	2500	2514	2504	1478
45°	1826	1857	1918	2006	2016	1409
55°	1279	1301	1364	1439	1481	1142
65°	749	770	815	873	923	743
75°	301	317	340	356	376	329
85°	47	47	47	44	44	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3508.2	3508.2	3508.2	3508.2	3508.2
2.5°	3517.7	3519.0	3510.9	3489.4	3475.9
5°	3504.2	3502.8	3489.4	3470.5	3459.7
7.5°	3465.1	3467.8	3463.8	3436.8	3422.0
10°	3427.4	3428.7	3417.9	3396.4	3378.8
12.5°	3378.8	3377.5	3362.7	3351.9	3323.6
15°	3302.0	3310.1	3302.0	3287.2	3264.3
17.5°	3227.9	3227.9	3233.3	3207.7	3190.2
20°	3144.3	3148.4	3148.4	3128.2	3107.9
22.5°	3047.3	3059.4	3063.5	3041.9	3017.6
25°	2932.7	2955.6	2969.1	2947.6	2922.0
27.5°	2793.9	2829.0	2869.4	2853.2	2824.9
30°	2638.9	2690.1	2757.5	2744.0	2723.8
32.5°	2492.0	2543.2	2636.2	2630.8	2620.1
35°	2358.6	2390.9	2500.1	2513.6	2504.1
37.5°	2231.9	2261.5	2364.0	2395.0	2386.9
40°	2098.5	2130.8	2211.7	2266.9	2269.6
42.5°	1966.4	1997.4	2063.4	2142.9	2142.9
45°	1826.2	1857.2	1917.9	2005.5	2016.3
47.5°	1688.7	1721.1	1780.4	1868.0	1885.5
50°	1554.0	1583.6	1642.9	1727.8	1754.8
52.5°	1413.8	1446.2	1504.1	1582.3	1621.4
55°	1279.0	1300.6	1363.9	1439.4	1481.2
57.5°	1138.9	1159.1	1230.5	1295.2	1338.3
60°	1004.1	1029.7	1085.0	1151.0	1200.9
62.5°	874.7	901.7	948.8	1006.8	1063.4
65°	749.4	769.6	815.4	873.4	923.2
67.5°	628.1	645.6	691.4	731.8	784.4
70°	505.4	528.3	562.0	601.1	634.8
72.5°	407.0	416.5	444.8	473.1	508.1
75°	300.6	316.7	339.6	355.8	376.0
77.5°	215.6	225.1	238.6	252.0	270.9
80°	144.2	148.3	160.4	163.1	177.9
82.5°	87.6	90.3	93.0	94.3	99.7
85°	47.2	47.2	47.2	44.5	44.5
87.5°	27.0	27.0	22.9	18.9	13.5
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)