

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: P557025

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-93-84-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: P557025
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-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

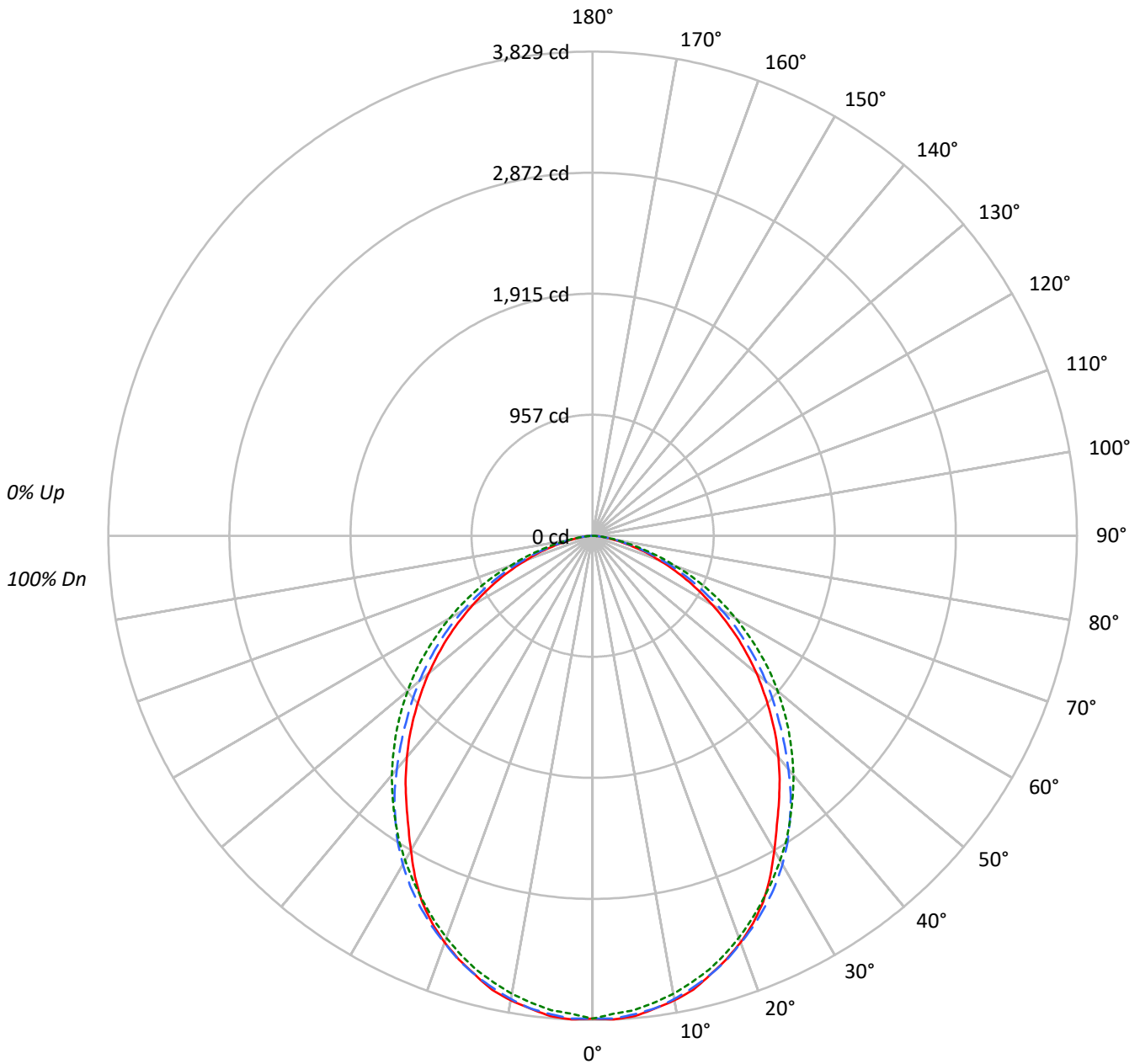
Lumens per Lamp: N/A
Luminaire Lumens: 8829.0 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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					20					
RC	80					70					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°	10275	10275	10275
5°	10302	10259	10172
10°	10193	10165	10049
15°	10012	10012	9898
20°	9800	9813	9687
25°	9478	9595	9443
30°	8925	9326	9212
35°	8433	8939	8953
40°	8023	8456	8677
45°	7564	7944	8351
50°	7080	7486	7996
55°	6531	6965	7563
60°	5881	6355	7034
65°	5193	5651	6398
70°	4328	4813	5436
75°	3401	3844	4256
80°	2433	2706	3000
85°	1584	1584	1494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	359.5	4.1
10°-20°	1010.0	11.4
20°-30°	1475.9	16.7
30°-40°	1675.3	19.0
40°-50°	1617.2	18.3
50°-60°	1334.1	15.1
60°-70°	888.4	10.1
70°-80°	397.6	4.5
80°-90°	71.1	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°	2845.3	32.2
0°-40°	4520.6	51.2
0°-60°	7471.9	84.6
0°-90°	8829.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8829.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3818	3818	3818	3818	3818	
5°	3814	3812	3798	3777	3766	361
15°	3594	3603	3594	3578	3553	1013
25°	3192	3217	3232	3208	3180	1462
35°	2567	2602	2721	2736	2726	1608
45°	1988	2021	2087	2183	2194	1534
55°	1392	1416	1484	1567	1612	1242
65°	816	838	888	950	1005	809
75°	327	345	370	387	409	358
85°	51	51	51	48	48	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3818.3	<i>3818.3</i>	3818.3	3818.3	3818.3
2.5°	<i>3828.6</i>	<i>3830.0</i>	<i>3821.2</i>	<i>3797.8</i>	<i>3783.1</i>
5°	3813.9	<i>3812.4</i>	3797.8	3777.2	3765.5
7.5°	3771.4	<i>3774.3</i>	3769.9	3740.6	3724.4
10°	3730.3	<i>3731.8</i>	3720.0	3696.6	3677.5
12.5°	3677.5	<i>3676.0</i>	3659.9	3648.2	3617.4
15°	3593.9	<i>3602.7</i>	3593.9	3577.7	3552.8
17.5°	3513.2	<i>3513.2</i>	3519.1	3491.2	3472.1
20°	3422.3	<i>3426.7</i>	3426.7	3404.7	3382.6
22.5°	3316.6	<i>3329.8</i>	3334.2	3310.8	3284.4
25°	3192.0	<i>3216.9</i>	3231.6	3208.1	3180.2
27.5°	3040.9	<i>3079.0</i>	3123.0	3105.4	3074.6
30°	2872.2	<i>2927.9</i>	3001.3	2986.6	2964.6
32.5°	2712.3	<i>2768.0</i>	2869.2	2863.4	2851.6
35°	2567.1	<i>2602.3</i>	2721.1	2735.7	2725.5
37.5°	2429.2	<i>2461.4</i>	2572.9	2606.7	2597.9
40°	2283.9	<i>2319.2</i>	2407.2	2467.3	2470.2
42.5°	2140.2	<i>2173.9</i>	2245.8	2332.4	2332.4
45°	1987.6	<i>2021.4</i>	2087.4	2182.7	2194.5
47.5°	1838.0	<i>1873.2</i>	1937.8	2033.1	2052.2
50°	1691.3	<i>1723.6</i>	1788.1	1880.6	1909.9
52.5°	1538.8	<i>1574.0</i>	1637.0	1722.1	1764.7
55°	1392.1	<i>1415.5</i>	1484.5	1566.6	1612.1
57.5°	1239.5	<i>1261.5</i>	1339.3	1409.7	1456.6
60°	1092.8	<i>1120.7</i>	1180.8	1252.7	1307.0
62.5°	952.0	<i>981.3</i>	1032.7	1095.8	1157.4
65°	815.6	<i>837.6</i>	887.5	950.5	1004.8
67.5°	683.6	<i>702.6</i>	752.5	796.5	853.7
70°	550.1	<i>575.0</i>	611.7	654.2	690.9
72.5°	443.0	<i>453.3</i>	484.1	514.9	553.0
75°	327.1	<i>344.7</i>	369.7	387.3	409.3
77.5°	234.7	<i>245.0</i>	259.6	274.3	294.8
80°	157.0	<i>161.4</i>	174.6	177.5	193.6
82.5°	95.3	<i>98.3</i>	101.2	102.7	108.5
85°	51.3	<i>51.3</i>	51.3	48.4	48.4
87.5°	29.3	<i>29.3</i>	24.9	20.5	14.7
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)