

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: P557051

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-80-94-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: P557051
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-40-UNV-80-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

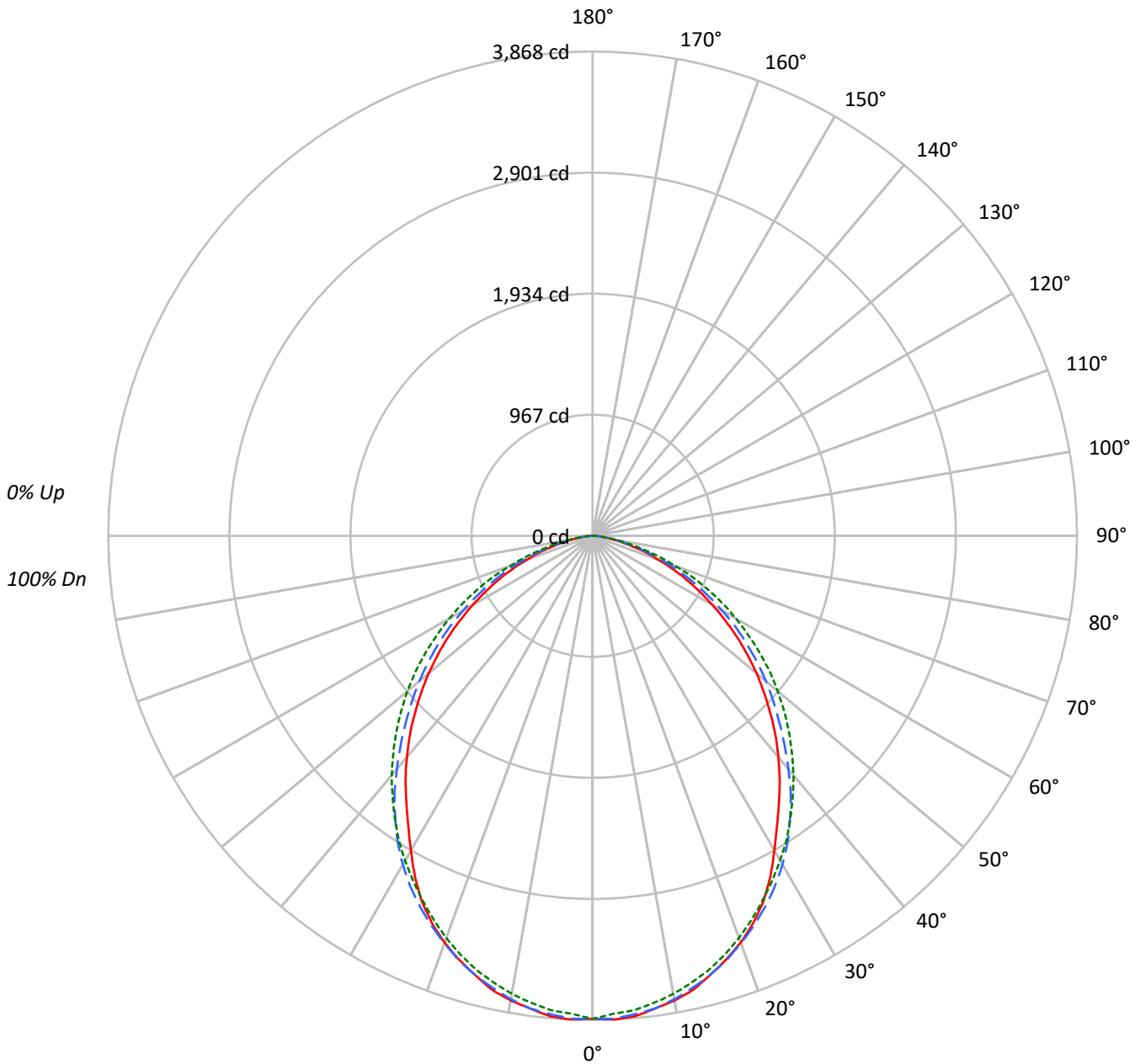
Lumens per Lamp: N/A
Luminaire Lumens: 8921.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	10382	10382	10382
5°	10410	10366	10277
10°	10299	10271	10153
15°	10116	10116	10001
20°	9902	9915	9788
25°	9576	9695	9541
30°	9018	9423	9308
35°	8521	9032	9047
40°	8107	8544	8768
45°	7643	8026	8438
50°	7154	7564	8079
55°	6599	7037	7642
60°	5943	6422	7107
65°	5247	5710	6465
70°	4373	4863	5493
75°	3436	3883	4299
80°	2458	2734	3031
85°	1602	1602	1510



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.3	4.1
10°-20°	1020.5	11.4
20°-30°	1491.3	16.7
30°-40°	1692.7	19.0
40°-50°	1634.1	18.3
50°-60°	1348.0	15.1
60°-70°	897.7	10.1
70°-80°	401.7	4.5
80°-90°	71.9	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°	2875.0	32.2
0°-40°	4567.7	51.2
0°-60°	7549.8	84.6
0°-90°	8921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8921.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3858	3858	3858	3858	3858	
5°	3854	3852	3837	3817	3805	365
15°	3631	3640	3631	3615	3590	1024
25°	3225	3250	3265	3242	3213	1477
35°	2594	2629	2749	2764	2754	1625
45°	2008	2042	2109	2206	2217	1550
55°	1407	1430	1500	1583	1629	1255
65°	824	846	897	960	1015	817
75°	330	348	374	391	414	361
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3858.1	<i>3858.1</i>	3858.1	3858.1	3858.1
2.5°	<i>3868.5</i>	<i>3870.0</i>	<i>3861.1</i>	<i>3837.4</i>	<i>3822.5</i>
5°	3853.7	<i>3852.2</i>	3837.4	3816.6	3804.7
7.5°	3810.7	<i>3813.6</i>	3809.2	3779.5	3763.2
10°	3769.2	<i>3770.7</i>	3758.8	3735.1	3715.8
12.5°	3715.8	<i>3714.3</i>	3698.0	3686.2	3655.0
15°	3631.3	<i>3640.2</i>	3631.3	3615.0	3589.8
17.5°	3549.8	<i>3549.8</i>	3555.7	3527.6	3508.3
20°	3457.9	<i>3462.4</i>	3462.4	3440.1	3417.9
22.5°	3351.2	<i>3364.5</i>	3369.0	3345.3	3318.6
25°	3225.2	<i>3250.4</i>	3265.2	3241.5	3213.4
27.5°	3072.5	<i>3111.1</i>	3155.6	3137.8	3106.6
30°	2902.1	<i>2958.4</i>	3032.5	3017.7	2995.5
32.5°	2740.5	<i>2796.9</i>	2899.1	2893.2	2881.3
35°	2593.8	<i>2629.4</i>	2749.4	2764.3	2753.9
37.5°	2454.5	<i>2487.1</i>	2599.7	2633.8	2624.9
40°	2307.7	<i>2343.3</i>	2432.2	2493.0	2496.0
42.5°	2162.5	<i>2196.6</i>	2269.2	2356.7	2356.7
45°	2008.3	<i>2042.4</i>	2109.1	2205.5	2217.3
47.5°	1857.2	<i>1892.7</i>	1958.0	2054.3	2073.6
50°	1708.9	<i>1741.6</i>	1806.8	1900.1	1929.8
52.5°	1554.8	<i>1590.4</i>	1654.1	1740.1	1783.1
55°	1406.6	<i>1430.3</i>	1500.0	1583.0	1628.9
57.5°	1252.4	<i>1274.7</i>	1353.2	1424.4	1471.8
60°	1104.2	<i>1132.4</i>	1193.2	1265.8	1320.6
62.5°	961.9	<i>991.6</i>	1043.5	1107.2	1169.4
65°	824.1	<i>846.3</i>	896.7	960.4	1015.3
67.5°	690.7	<i>710.0</i>	760.4	804.8	862.6
70°	555.8	<i>581.0</i>	618.1	661.1	698.1
72.5°	447.6	<i>458.0</i>	489.1	520.2	558.8
75°	330.5	<i>348.3</i>	373.5	391.3	413.5
77.5°	237.1	<i>247.5</i>	262.3	277.2	297.9
80°	158.6	<i>163.0</i>	176.4	179.3	195.6
82.5°	96.3	<i>99.3</i>	102.3	103.8	109.7
85°	51.9	<i>51.9</i>	51.9	48.9	48.9
87.5°	29.6	<i>29.6</i>	25.2	20.8	14.8
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)