

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: P558420

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-82-86-EDD-90**

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: P558420
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-LD4-3STD-50-UNV-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

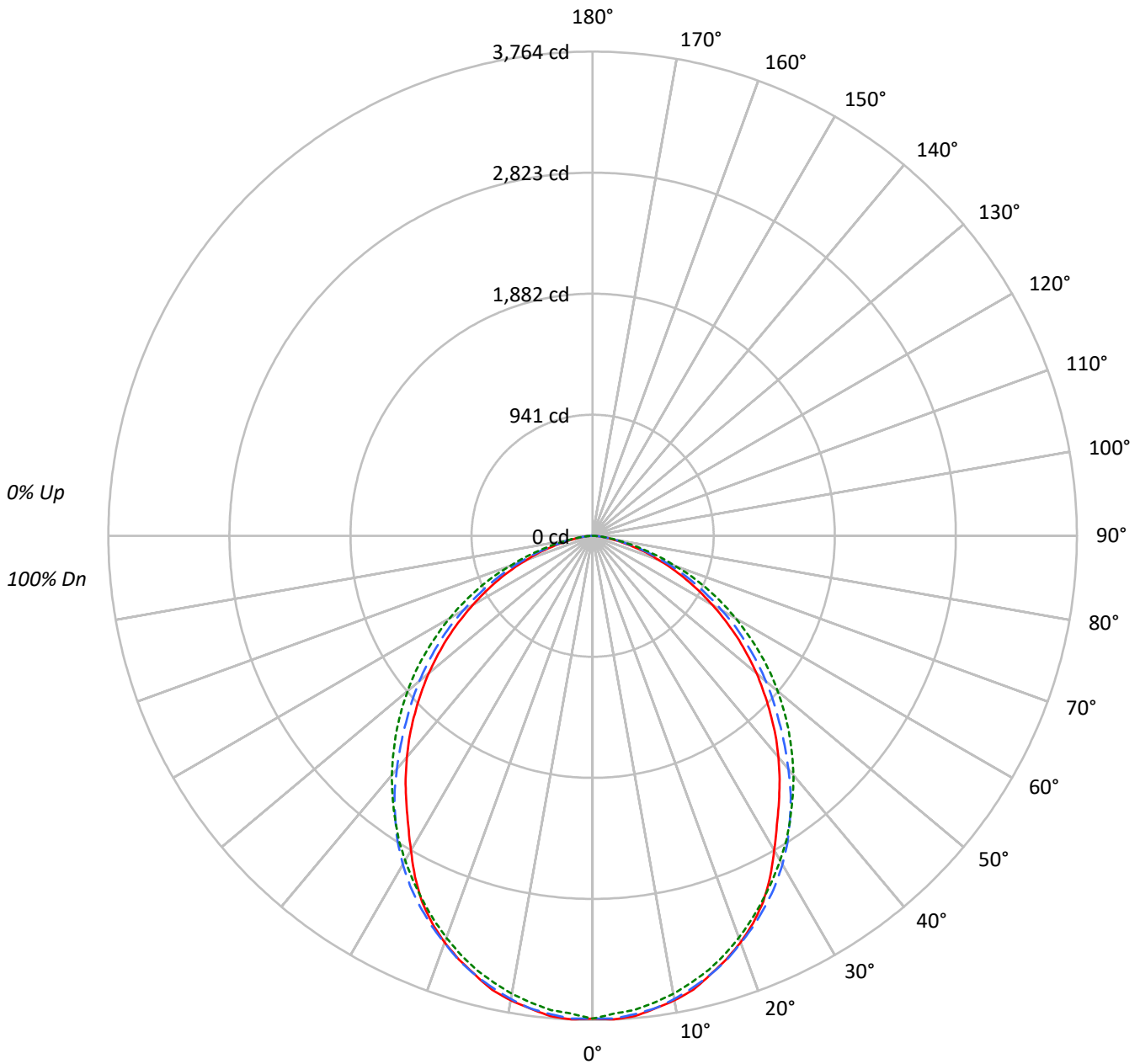
Lumens per Lamp: N/A
Luminaire Lumens: 8679.0 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	10100	10100	10100
5°	10127	10085	9999
10°	10020	9992	9878
15°	9842	9842	9729
20°	9634	9646	9522
25°	9316	9432	9282
30°	8773	9167	9055
35°	8290	8787	8801
40°	7887	8312	8530
45°	7436	7809	8209
50°	6960	7359	7860
55°	6420	6846	7435
60°	5782	6247	6915
65°	5105	5555	6289
70°	4254	4731	5344
75°	3344	3778	4183
80°	2391	2659	2949
85°	1559	1559	1470



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.4	4.1
10°-20°	992.8	11.4
20°-30°	1450.8	16.7
30°-40°	1646.8	19.0
40°-50°	1589.7	18.3
50°-60°	1311.4	15.1
60°-70°	873.3	10.1
70°-80°	390.8	4.5
80°-90°	69.9	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°	2797.0	32.2
0°-40°	4443.8	51.2
0°-60°	7345.0	84.6
0°-90°	8679.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8679.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3753	3753	3753	3753	3753	
5°	3749	3748	3733	3713	3702	355
15°	3533	3542	3533	3517	3492	996
25°	3138	3162	3177	3154	3126	1437
35°	2523	2558	2675	2689	2679	1581
45°	1954	1987	2052	2146	2157	1508
55°	1368	1392	1459	1540	1585	1221
65°	802	823	872	934	988	795
75°	322	339	363	381	402	352
85°	50	50	50	48	48	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3753.4	3753.4	3753.4	3753.4	3753.4
2.5°	3763.5	3765.0	3756.3	3733.3	3718.8
5°	3749.1	3747.7	3733.3	3713.1	3701.5
7.5°	3707.3	3710.2	3705.9	3677.0	3661.2
10°	3666.9	3668.4	3656.8	3633.8	3615.0
12.5°	3615.0	3613.6	3597.7	3586.2	3555.9
15°	3532.8	3541.5	3532.8	3517.0	3492.4
17.5°	3453.5	3453.5	3459.3	3431.9	3413.1
20°	3364.1	3368.4	3368.4	3346.8	3325.2
22.5°	3260.3	3273.3	3277.6	3254.5	3228.6
25°	3137.7	3162.2	3176.7	3153.6	3126.2
27.5°	2989.2	3026.7	3070.0	3052.6	3022.4
30°	2823.4	2878.2	2950.3	2935.8	2914.2
32.5°	2666.2	2721.0	2820.5	2814.7	2803.2
35°	2523.4	2558.1	2674.9	2689.3	2679.2
37.5°	2387.9	2419.6	2529.2	2562.4	2553.7
40°	2245.1	2279.8	2366.3	2425.4	2428.3
42.5°	2103.8	2137.0	2207.7	2292.7	2292.7
45°	1953.9	1987.0	2051.9	2145.6	2157.2
47.5°	1806.8	1841.4	1904.8	1998.6	2017.3
50°	1662.6	1694.3	1757.8	1848.6	1877.4
52.5°	1512.6	1547.2	1609.2	1692.9	1734.7
55°	1368.4	1391.5	1459.3	1540.0	1584.7
57.5°	1218.5	1240.1	1316.5	1385.7	1431.9
60°	1074.3	1101.7	1160.8	1231.4	1284.8
62.5°	935.8	964.7	1015.1	1077.2	1137.7
65°	801.7	823.4	872.4	934.4	987.7
67.5°	672.0	690.7	739.7	783.0	839.2
70°	540.7	565.3	601.3	643.1	679.2
72.5°	435.5	445.6	475.8	506.1	543.6
75°	321.6	338.9	363.4	380.7	402.3
77.5°	230.7	240.8	255.2	269.6	289.8
80°	154.3	158.6	171.6	174.5	190.3
82.5°	93.7	96.6	99.5	100.9	106.7
85°	50.5	50.5	50.5	47.6	47.6
87.5°	28.8	28.8	24.5	20.2	14.4
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)