

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: P556632

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-82-88-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: P556632
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-LD4-1LO-50-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

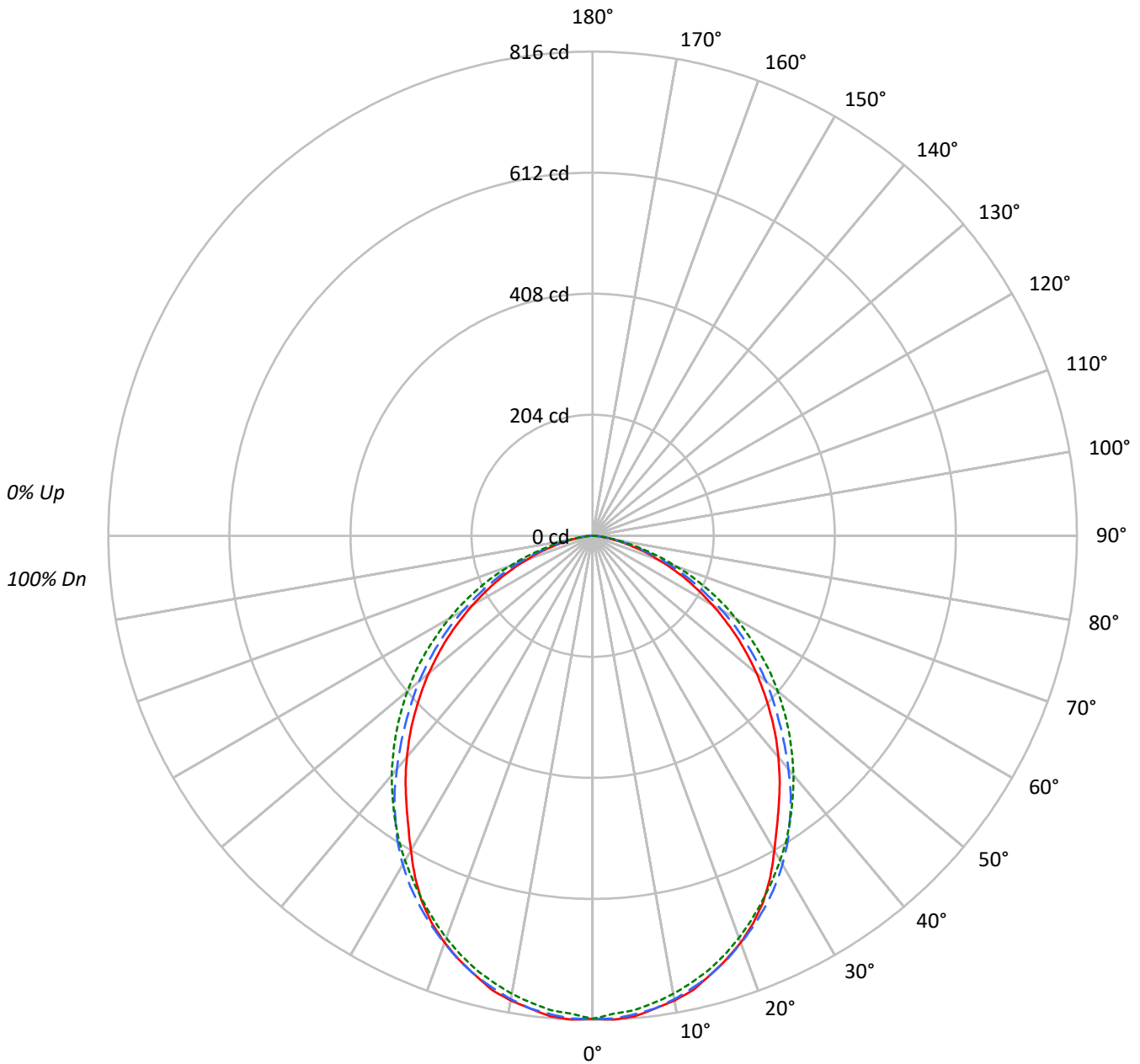
Lumens per Lamp: N/A
Luminaire Lumens: 1882.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2190	2190	2190
5°	2196	2187	2168
10°	2173	2167	2142
15°	2134	2134	2110
20°	2089	2092	2065
25°	2020	2045	2013
30°	1902	1988	1963
35°	1798	1905	1909
40°	1710	1802	1850
45°	1612	1693	1780
50°	1509	1596	1704
55°	1392	1484	1612
60°	1253	1355	1499
65°	1107	1205	1364
70°	923	1026	1159
75°	725	819	907
80°	519	576	640
85°	337	337	318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	4.1
10°-20°	215.3	11.4
20°-30°	314.6	16.7
30°-40°	357.1	19.0
40°-50°	344.7	18.3
50°-60°	284.4	15.1
60°-70°	189.4	10.1
70°-80°	84.7	4.5
80°-90°	15.2	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°	606.5	32.2
0°-40°	963.6	51.2
0°-60°	1592.7	84.6
0°-90°	1882.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1882.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	814	814	814	814	814	
5°	813	813	810	805	803	77
15°	766	768	766	763	757	216
25°	680	686	689	684	678	312
35°	547	555	580	583	581	343
45°	424	431	445	465	468	327
55°	297	302	316	334	344	265
65°	174	178	189	203	214	172
75°	70	74	79	82	87	76
85°	11	11	11	10	10	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	813.9	813.9	813.9	813.9	813.9
2.5°	816.1	816.4	814.5	809.5	806.4
5°	813.0	812.7	809.5	805.2	802.7
7.5°	803.9	804.5	803.6	797.3	793.9
10°	795.2	795.5	793.0	788.0	783.9
12.5°	783.9	783.6	780.1	777.6	771.1
15°	766.1	768.0	766.1	762.6	757.3
17.5°	748.9	748.9	750.1	744.2	740.1
20°	729.5	730.4	730.4	725.7	721.0
22.5°	707.0	709.8	710.7	705.7	700.1
25°	680.4	685.7	688.8	683.8	677.9
27.5°	648.2	656.3	665.7	662.0	655.4
30°	612.2	624.1	639.8	636.6	631.9
32.5°	578.2	590.0	611.6	610.4	607.9
35°	547.2	554.7	580.0	583.2	581.0
37.5°	517.8	524.7	548.4	555.6	553.8
40°	486.8	494.4	513.1	525.9	526.6
42.5°	456.2	463.4	478.7	497.2	497.2
45°	423.7	430.9	444.9	465.3	467.8
47.5°	391.8	399.3	413.1	433.4	437.4
50°	360.5	367.4	381.2	400.9	407.1
52.5°	328.0	335.5	349.0	367.1	376.2
55°	296.7	301.7	316.4	333.9	343.6
57.5°	264.2	268.9	285.5	300.5	310.5
60°	232.9	238.9	251.7	267.0	278.6
62.5°	202.9	209.2	220.1	233.6	246.7
65°	173.9	178.5	189.2	202.6	214.2
67.5°	145.7	149.8	160.4	169.8	182.0
70°	117.3	122.6	130.4	139.5	147.3
72.5°	94.4	96.6	103.2	109.8	117.9
75°	69.7	73.5	78.8	82.5	87.2
77.5°	50.0	52.2	55.3	58.5	62.8
80°	33.5	34.4	37.2	37.8	41.3
82.5°	20.3	20.9	21.6	21.9	23.1
85°	10.9	10.9	10.9	10.3	10.3
87.5°	6.3	6.3	5.3	4.4	3.1
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)