

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: P556404

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-80-86-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: P556404
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-30-UNV-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

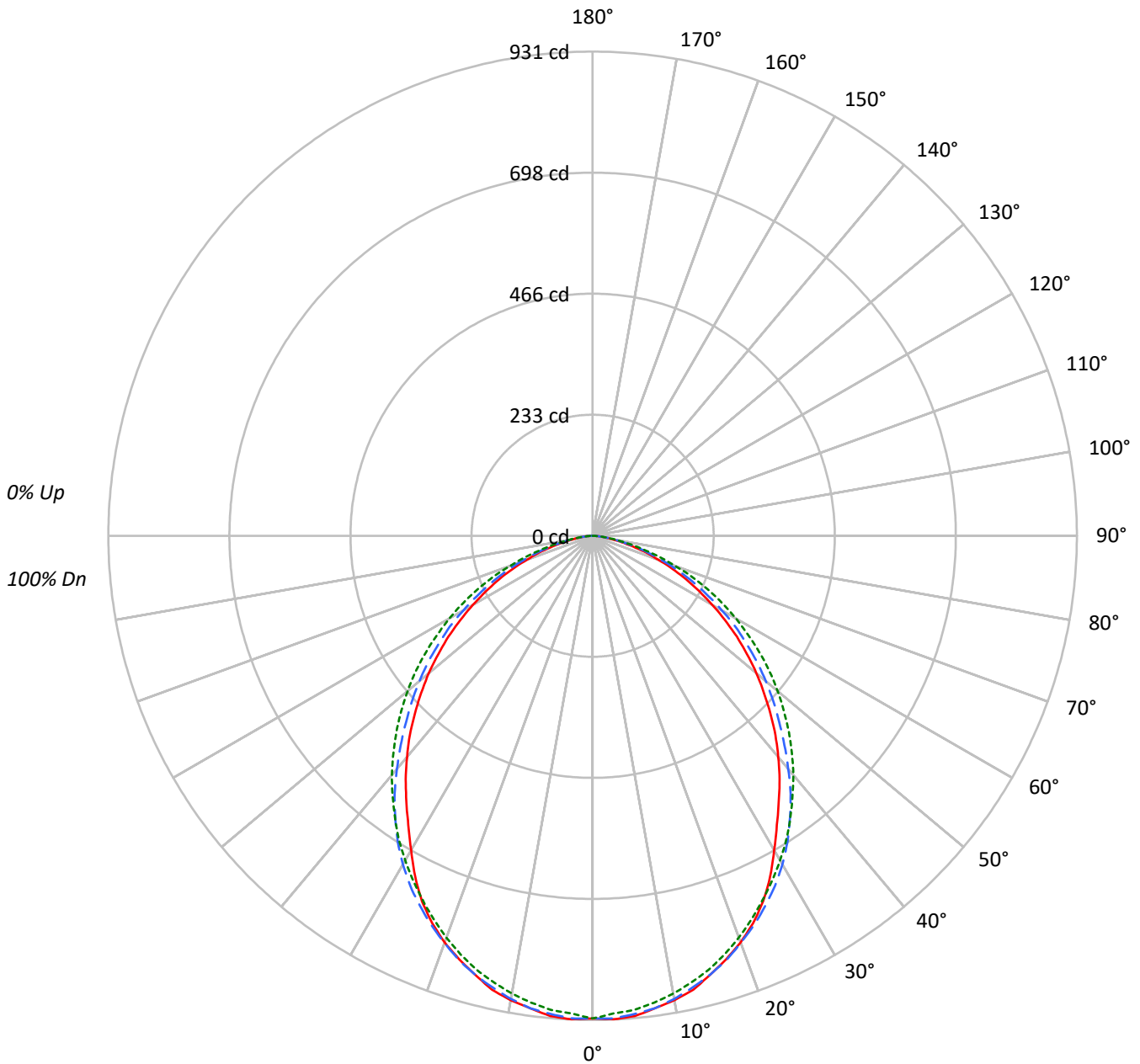
Lumens per Lamp: N/A
Luminaire Lumens: 2146.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2497	2497	2497
5°	2504	2494	2472
10°	2478	2471	2443
15°	2433	2433	2406
20°	2382	2385	2355
25°	2303	2332	2295
30°	2169	2267	2239
35°	2050	2173	2176
40°	1950	2055	2109
45°	1838	1931	2030
50°	1721	1819	1943
55°	1588	1693	1838
60°	1429	1545	1710
65°	1262	1373	1555
70°	1052	1170	1321
75°	827	934	1035
80°	592	657	730
85°	386	386	364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.4	4.1
10°-20°	245.5	11.4
20°-30°	358.7	16.7
30°-40°	407.2	19.0
40°-50°	393.1	18.3
50°-60°	324.3	15.1
60°-70°	215.9	10.1
70°-80°	96.6	4.5
80°-90°	17.3	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°	691.6	32.2
0°-40°	1098.8	51.2
0°-60°	1816.1	84.6
0°-90°	2146.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2146.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	928	928	928	928	928	
5°	927	927	923	918	915	88
15°	874	876	874	870	864	246
25°	776	782	786	780	773	355
35°	624	632	661	665	662	391
45°	483	491	507	530	533	373
55°	338	344	361	381	392	302
65°	198	204	216	231	244	197
75°	80	84	90	94	100	87
85°	12	12	12	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	928.1	928.1	928.1	928.1	928.1
2.5°	930.6	930.9	928.8	923.1	919.5
5°	927.0	926.7	923.1	918.1	915.3
7.5°	916.7	917.4	916.3	909.2	905.3
10°	906.7	907.1	904.2	898.5	893.9
12.5°	893.9	893.5	889.6	886.7	879.2
15°	873.5	875.7	873.5	869.6	863.6
17.5°	853.9	853.9	855.4	848.6	843.9
20°	831.8	832.9	832.9	827.5	822.2
22.5°	806.2	809.4	810.4	804.7	798.3
25°	775.8	781.9	785.5	779.8	773.0
27.5°	739.1	748.4	759.1	754.8	747.3
30°	698.1	711.7	729.5	725.9	720.6
32.5°	659.3	672.8	697.4	696.0	693.1
35°	624.0	632.5	661.4	665.0	662.5
37.5°	590.4	598.3	625.4	633.6	631.4
40°	555.1	563.7	585.1	599.7	600.4
42.5°	520.2	528.4	545.9	566.9	566.9
45°	483.1	491.3	507.4	530.5	533.4
47.5°	446.8	455.3	471.0	494.2	498.8
50°	411.1	418.9	434.6	457.1	464.2
52.5°	374.0	382.6	397.9	418.6	428.9
55°	338.4	344.1	360.8	380.8	391.8
57.5°	301.3	306.6	325.5	342.6	354.1
60°	265.6	272.4	287.0	304.5	317.7
62.5°	231.4	238.5	251.0	266.3	281.3
65°	198.2	203.6	215.7	231.0	244.2
67.5°	166.2	170.8	182.9	193.6	207.5
70°	133.7	139.8	148.7	159.0	167.9
72.5°	107.7	110.2	117.7	125.1	134.4
75°	79.5	83.8	89.8	94.1	99.5
77.5°	57.0	59.5	63.1	66.7	71.7
80°	38.2	39.2	42.4	43.1	47.1
82.5°	23.2	23.9	24.6	25.0	26.4
85°	12.5	12.5	12.5	11.8	11.8
87.5°	7.1	7.1	6.1	5.0	3.6
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)