

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: P556534

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-80-87-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: P556534
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-40-UNV-80-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

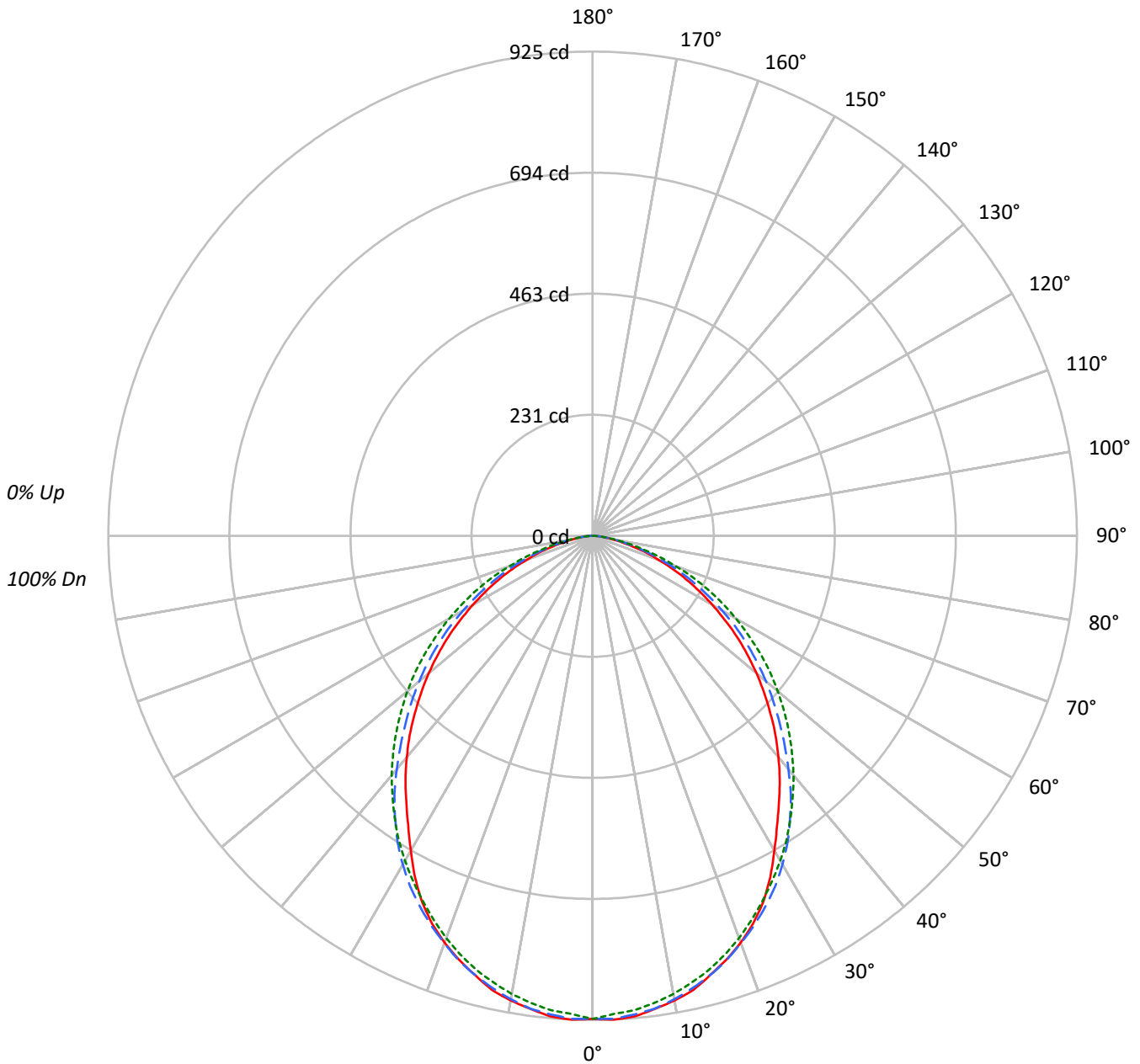
Lumens per Lamp: N/A
Luminaire Lumens: 2134.0 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2484	2484	2484
5°	2490	2479	2458
10°	2464	2457	2429
15°	2420	2420	2392
20°	2369	2372	2341
25°	2291	2319	2282
30°	2157	2254	2227
35°	2038	2161	2164
40°	1939	2044	2098
45°	1828	1920	2019
50°	1711	1809	1932
55°	1579	1683	1828
60°	1421	1536	1700
65°	1255	1366	1547
70°	1046	1163	1314
75°	822	928	1028
80°	587	654	725
85°	383	383	361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.9	4.1
10°-20°	244.1	11.4
20°-30°	356.7	16.7
30°-40°	404.9	19.0
40°-50°	390.9	18.3
50°-60°	322.4	15.1
60°-70°	214.7	10.1
70°-80°	96.1	4.5
80°-90°	17.2	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°	687.7	32.2
0°-40°	1092.6	51.2
0°-60°	1806.0	84.6
0°-90°	2134.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2134.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	923	923	923	923	923	
5°	922	922	918	913	910	87
15°	869	871	869	865	859	245
25°	772	778	781	775	769	353
35°	620	629	658	661	659	389
45°	480	489	504	528	530	371
55°	336	342	359	379	390	300
65°	197	202	214	230	243	195
75°	79	83	89	94	99	86
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°	922.9	922.9	922.9	922.9	922.9
2.5°	925.4	925.7	923.6	917.9	914.4
5°	921.8	921.5	917.9	913.0	910.1
7.5°	911.6	912.3	911.2	904.1	900.2
10°	901.6	902.0	899.1	893.5	888.9
12.5°	888.9	888.5	884.6	881.8	874.3
15°	868.7	870.8	868.7	864.8	858.7
17.5°	849.2	849.2	850.6	843.8	839.2
20°	827.2	828.2	828.2	822.9	817.6
22.5°	801.6	804.8	805.9	800.2	793.8
25°	771.5	777.5	781.1	775.4	768.7
27.5°	735.0	744.2	754.8	750.6	743.1
30°	694.2	707.7	725.4	721.9	716.6
32.5°	655.6	669.0	693.5	692.1	689.2
35°	620.5	629.0	657.7	661.2	658.8
37.5°	587.1	594.9	621.9	630.0	627.9
40°	552.0	560.5	581.8	596.4	597.1
42.5°	517.3	525.4	542.8	563.7	563.7
45°	480.4	488.6	504.5	527.6	530.4
47.5°	444.3	452.8	468.4	491.4	496.0
50°	408.8	416.6	432.2	454.5	461.6
52.5°	371.9	380.4	395.7	416.2	426.5
55°	336.5	342.1	358.8	378.7	389.7
57.5°	299.6	304.9	323.7	340.7	352.1
60°	264.1	270.9	285.4	302.8	315.9
62.5°	230.1	237.2	249.6	264.9	279.7
65°	197.1	202.4	214.5	229.7	242.9
67.5°	165.2	169.8	181.9	192.5	206.3
70°	133.0	139.0	147.8	158.1	167.0
72.5°	107.1	109.6	117.0	124.4	133.7
75°	79.1	83.3	89.3	93.6	98.9
77.5°	56.7	59.2	62.8	66.3	71.3
80°	37.9	39.0	42.2	42.9	46.8
82.5°	23.0	23.8	24.5	24.8	26.2
85°	12.4	12.4	12.4	11.7	11.7
87.5°	7.1	7.1	6.0	5.0	3.5
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)