

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: P556647

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-93-87-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: P556647
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-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

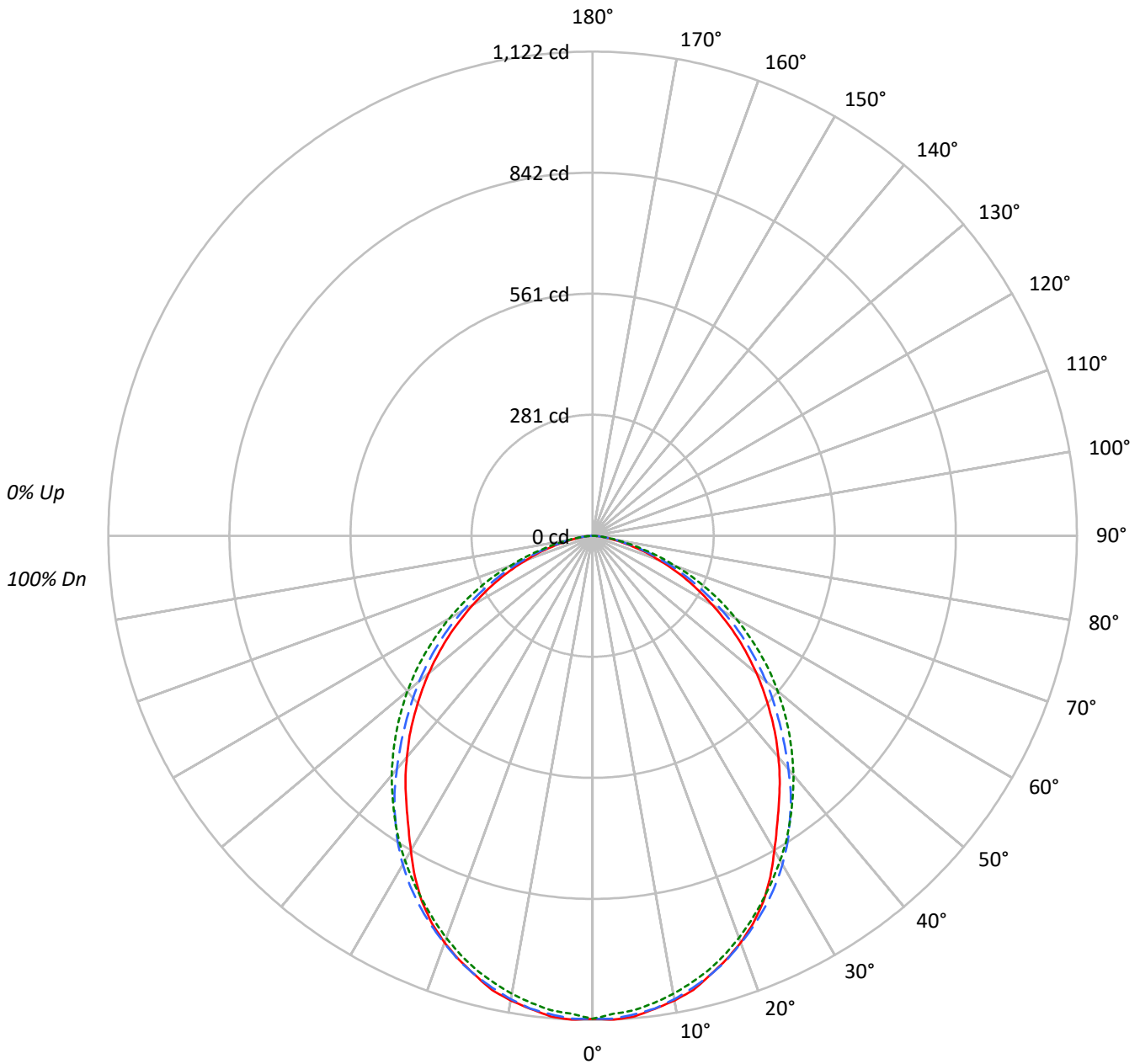
Lumens per Lamp: N/A
Luminaire Lumens: 2588.0 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (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°	3012	3012	3012
5°	3020	3007	2982
10°	2988	2980	2946
15°	2935	2935	2901
20°	2873	2876	2839
25°	2778	2813	2768
30°	2616	2733	2700
35°	2472	2620	2624
40°	2352	2479	2544
45°	2217	2329	2448
50°	2076	2194	2344
55°	1915	2041	2217
60°	1724	1863	2062
65°	1522	1656	1875
70°	1268	1411	1593
75°	997	1127	1248
80°	713	793	880
85°	463	463	438



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.4	4.1
10°-20°	296.0	11.4
20°-30°	432.6	16.7
30°-40°	491.1	19.0
40°-50°	474.0	18.3
50°-60°	391.1	15.1
60°-70°	260.4	10.1
70°-80°	116.5	4.5
80°-90°	20.8	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°	834.0	32.2
0°-40°	1325.1	51.2
0°-60°	2190.2	84.6
0°-90°	2588.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2588.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1119	1119	1119	1119	1119	
5°	1118	1118	1113	1107	1104	106
15°	1054	1056	1054	1049	1041	297
25°	936	943	947	940	932	428
35°	752	763	798	802	799	471
45°	583	592	612	640	643	450
55°	408	415	435	459	473	364
65°	239	246	260	279	294	237
75°	96	101	108	114	120	105
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1119.2	1119.2	1119.2	1119.2	1119.2
2.5°	1122.3	1122.7	1120.1	1113.2	1108.9
5°	1118.0	1117.5	1113.2	1107.2	1103.8
7.5°	1105.5	1106.3	1105.1	1096.5	1091.7
10°	1093.4	1093.9	1090.4	1083.6	1078.0
12.5°	1078.0	1077.5	1072.8	1069.4	1060.3
15°	1053.5	1056.0	1053.5	1048.7	1041.4
17.5°	1029.8	1029.8	1031.5	1023.4	1017.8
20°	1003.1	1004.4	1004.4	998.0	991.5
22.5°	972.2	976.1	977.3	970.5	962.7
25°	935.6	943.0	947.3	940.4	932.2
27.5°	891.4	902.5	915.4	910.3	901.2
30°	841.9	858.2	879.7	875.4	869.0
32.5°	795.0	811.4	841.0	839.3	835.9
35°	752.5	762.8	797.6	801.9	798.9
37.5°	712.1	721.5	754.2	764.1	761.5
40°	669.5	679.8	705.6	723.2	724.1
42.5°	627.3	637.2	658.3	683.7	683.7
45°	582.6	592.5	611.9	639.8	643.3
47.5°	538.8	549.1	568.0	596.0	601.5
50°	495.8	505.2	524.1	551.2	559.8
52.5°	451.1	461.4	479.9	504.8	517.3
55°	408.1	414.9	435.1	459.2	472.6
57.5°	363.3	369.8	392.6	413.2	427.0
60°	320.3	328.5	346.1	367.2	383.1
62.5°	279.1	287.7	302.7	321.2	339.3
65°	239.1	245.5	260.1	278.6	294.5
67.5°	200.4	206.0	220.6	233.5	250.2
70°	161.2	168.6	179.3	191.8	202.5
72.5°	129.9	132.9	141.9	150.9	162.1
75°	95.9	101.0	108.4	113.5	120.0
77.5°	68.8	71.8	76.1	80.4	86.4
80°	46.0	47.3	51.2	52.0	56.8
82.5°	27.9	28.8	29.7	30.1	31.8
85°	15.0	15.0	15.0	14.2	14.2
87.5°	8.6	8.6	7.3	6.0	4.3
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)