

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: P556891

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-82-94-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: P556891
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-LD4-1STD-50-UNV-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

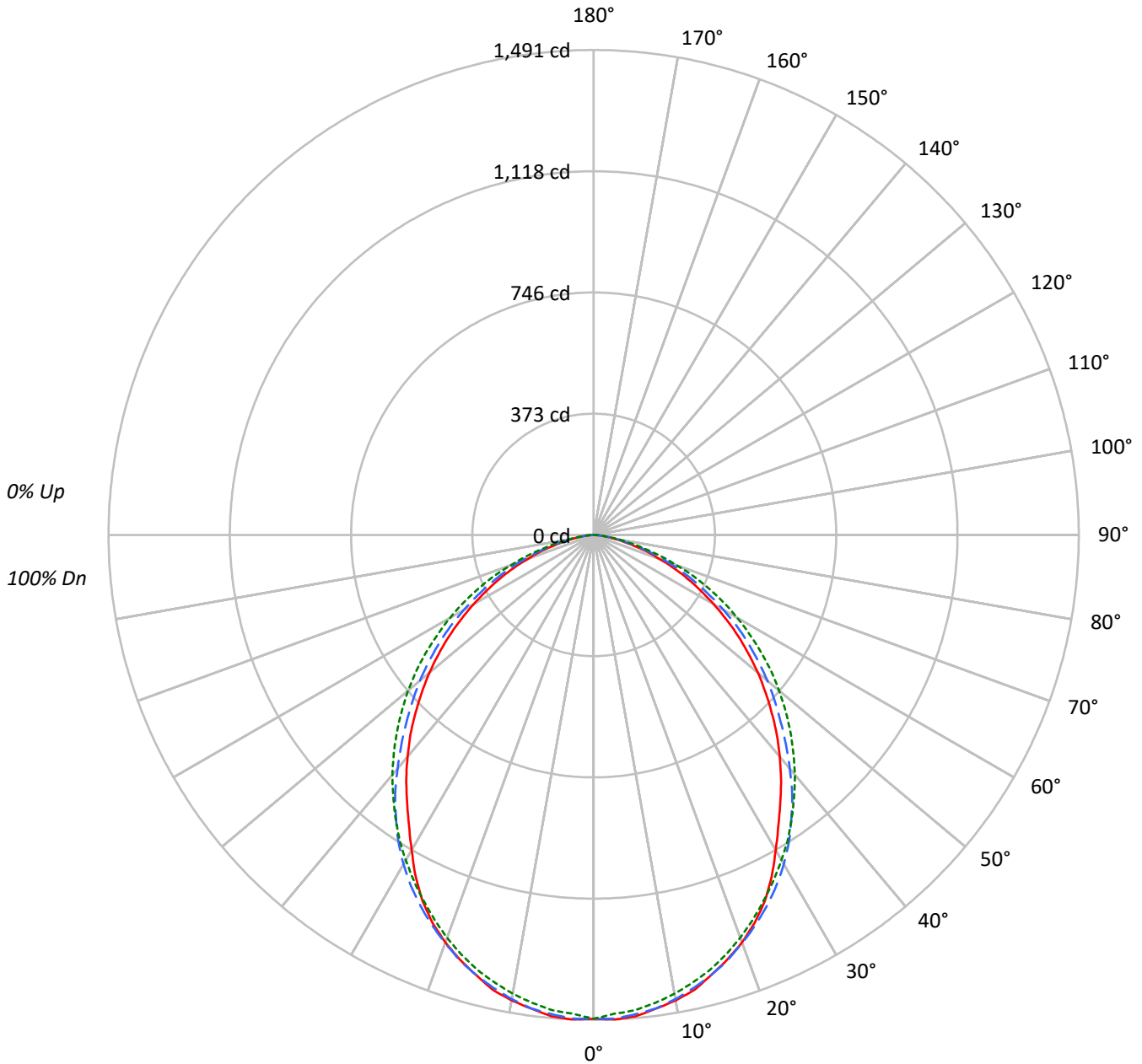
Lumens per Lamp: N/A
Luminaire Lumens: 3439.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	4002	4002	4002
5°	4013	3996	3962
10°	3970	3959	3914
15°	3900	3900	3855
20°	3817	3822	3773
25°	3692	3737	3678
30°	3476	3632	3588
35°	3285	3482	3487
40°	3125	3294	3380
45°	2946	3094	3253
50°	2758	2916	3114
55°	2544	2713	2946
60°	2291	2476	2740
65°	2023	2201	2492
70°	1686	1875	2117
75°	1325	1497	1657
80°	947	1054	1168
85°	618	618	584



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.0	4.1
10°-20°	393.4	11.4
20°-30°	574.9	16.7
30°-40°	652.5	19.0
40°-50°	629.9	18.3
50°-60°	519.7	15.1
60°-70°	346.0	10.1
70°-80°	154.9	4.5
80°-90°	27.7	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°	1108.3	32.2
0°-40°	1760.8	51.2
0°-60°	2910.4	84.6
0°-90°	3439.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3439.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1487	1487	1487	1487	1487	
5°	1486	1485	1479	1471	1467	141
15°	1400	1403	1400	1394	1384	395
25°	1243	1253	1259	1250	1239	569
35°	1000	1014	1060	1066	1062	626
45°	774	787	813	850	855	597
55°	542	551	578	610	628	484
65°	318	326	346	370	391	315
75°	127	134	144	151	159	139
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1487.3	1487.3	1487.3	1487.3	1487.3
2.5°	1491.3	1491.8	1488.4	1479.3	1473.6
5°	1485.6	1485.0	1479.3	1471.3	1466.7
7.5°	1469.0	1470.1	1468.4	1457.0	1450.7
10°	1453.0	1453.6	1449.0	1439.9	1432.4
12.5°	1432.4	1431.9	1425.6	1421.0	1409.0
15°	1399.9	1403.3	1399.9	1393.6	1383.9
17.5°	1368.4	1368.4	1370.7	1359.9	1352.4
20°	1333.0	1334.7	1334.7	1326.2	1317.6
22.5°	1291.9	1297.0	1298.7	1289.6	1279.3
25°	1243.3	1253.0	1258.7	1249.6	1238.7
27.5°	1184.5	1199.3	1216.4	1209.6	1197.6
30°	1118.7	1140.5	1169.0	1163.3	1154.7
32.5°	1056.5	1078.2	1117.6	1115.3	1110.7
35°	999.9	1013.6	1059.9	1065.6	1061.6
37.5°	946.2	958.8	1002.2	1015.3	1011.9
40°	889.6	903.3	937.6	961.0	962.2
42.5°	833.6	846.8	874.8	908.5	908.5
45°	774.2	787.3	813.1	850.2	854.8
47.5°	715.9	729.6	754.8	791.9	799.3
50°	658.8	671.4	696.5	732.5	743.9
52.5°	599.4	613.1	637.7	670.8	687.4
55°	542.2	551.4	578.2	610.2	627.9
57.5°	482.8	491.4	521.7	549.1	567.4
60°	425.7	436.5	460.0	488.0	509.1
62.5°	370.8	382.2	402.2	426.8	450.8
65°	317.7	326.3	345.7	370.2	391.4
67.5°	266.3	273.7	293.1	310.3	332.5
70°	214.3	224.0	238.3	254.8	269.1
72.5°	172.6	176.6	188.6	200.6	215.4
75°	127.4	134.3	144.0	150.8	159.4
77.5°	91.4	95.4	101.1	106.8	114.8
80°	61.1	62.9	68.0	69.1	75.4
82.5°	37.1	38.3	39.4	40.0	42.3
85°	20.0	20.0	20.0	18.9	18.9
87.5°	11.4	11.4	9.7	8.0	5.7
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)