

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: P556382

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-82-97-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: P556382
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-LD4-1HI-50-UNV-82-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

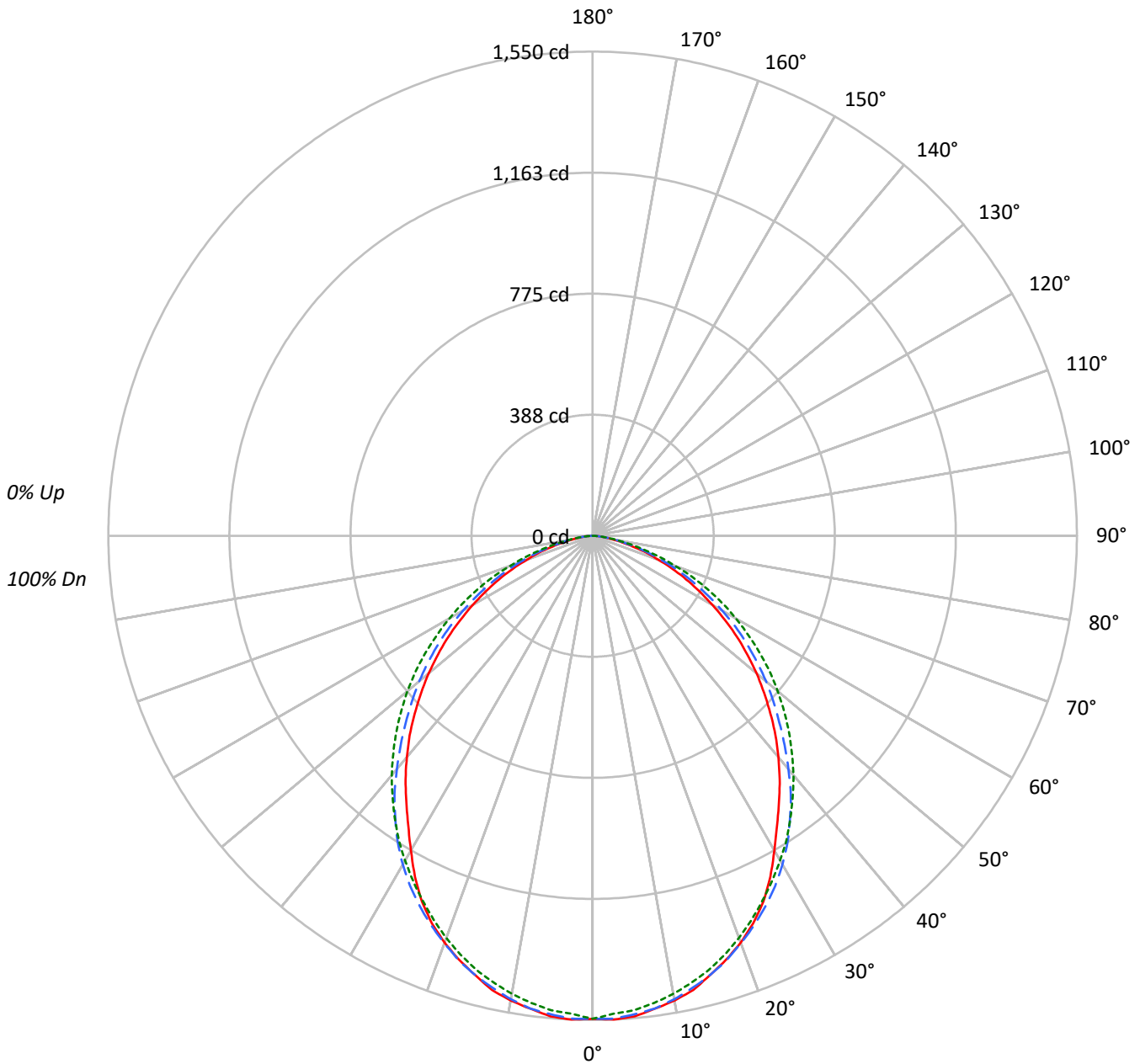
Lumens per Lamp: N/A
Luminaire Lumens: 3575.0 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4161	4161	4161
5°	4172	4154	4119
10°	4127	4116	4069
15°	4054	4054	4008
20°	3968	3973	3922
25°	3838	3885	3823
30°	3614	3776	3730
35°	3415	3619	3625
40°	3249	3424	3514
45°	3063	3217	3382
50°	2867	3031	3237
55°	2645	2820	3063
60°	2382	2573	2848
65°	2103	2288	2591
70°	1752	1949	2201
75°	1378	1556	1723
80°	986	1096	1215
85°	642	642	605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.6	4.1
10°-20°	408.9	11.4
20°-30°	597.6	16.7
30°-40°	678.3	19.0
40°-50°	654.8	18.3
50°-60°	540.2	15.1
60°-70°	359.7	10.1
70°-80°	161.0	4.5
80°-90°	28.8	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°	1152.1	32.2
0°-40°	1830.5	51.2
0°-60°	3025.5	84.6
0°-90°	3575.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3575.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1546	1546	1546	1546	1546	
5°	1544	1544	1538	1530	1525	146
15°	1455	1459	1455	1449	1439	410
25°	1292	1303	1308	1299	1288	592
35°	1039	1054	1102	1108	1104	651
45°	805	818	845	884	889	621
55°	564	573	601	634	653	503
65°	330	339	359	385	407	327
75°	132	140	150	157	166	145
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1546.1	1546.1	1546.1	1546.1	1546.1
2.5°	1550.3	1550.8	1547.3	1537.8	1531.8
5°	1544.3	1543.7	1537.8	1529.5	1524.7
7.5°	1527.1	1528.3	1526.5	1514.6	1508.1
10°	1510.5	1511.1	1506.3	1496.8	1489.1
12.5°	1489.1	1488.5	1481.9	1477.2	1464.7
15°	1455.2	1458.8	1455.2	1448.7	1438.6
17.5°	1422.6	1422.6	1424.9	1413.6	1405.9
20°	1385.7	1387.5	1387.5	1378.6	1369.7
22.5°	1343.0	1348.3	1350.1	1340.6	1329.9
25°	1292.5	1302.6	1308.5	1299.0	1287.7
27.5°	1231.3	1246.7	1264.6	1257.4	1245.0
30°	1163.0	1185.6	1215.3	1209.3	1200.4
32.5°	1098.2	1120.8	1161.8	1159.4	1154.7
35°	1039.4	1053.7	1101.8	1107.7	1103.6
37.5°	983.6	996.7	1041.8	1055.5	1051.9
40°	924.8	939.1	974.7	999.1	1000.2
42.5°	866.6	880.3	909.4	944.4	944.4
45°	804.8	818.5	845.2	883.8	888.6
47.5°	744.2	758.5	784.6	823.2	831.0
50°	684.8	697.9	724.0	761.5	773.3
52.5°	623.1	637.3	662.9	697.3	714.5
55°	563.7	573.2	601.1	634.4	652.8
57.5°	501.9	510.8	542.3	570.8	589.8
60°	442.5	453.8	478.1	507.2	529.2
62.5°	385.5	397.4	418.2	443.7	468.6
65°	330.2	339.2	359.3	384.9	406.9
67.5°	276.8	284.5	304.7	322.5	345.7
70°	222.7	232.8	247.7	264.9	279.8
72.5°	179.4	183.5	196.0	208.5	223.9
75°	132.5	139.6	149.7	156.8	165.7
77.5°	95.0	99.2	105.1	111.1	119.4
80°	63.6	65.3	70.7	71.9	78.4
82.5°	38.6	39.8	41.0	41.6	44.0
85°	20.8	20.8	20.8	19.6	19.6
87.5°	11.9	11.9	10.1	8.3	5.9
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)