

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: P556373

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-82-86-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: P556373
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-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

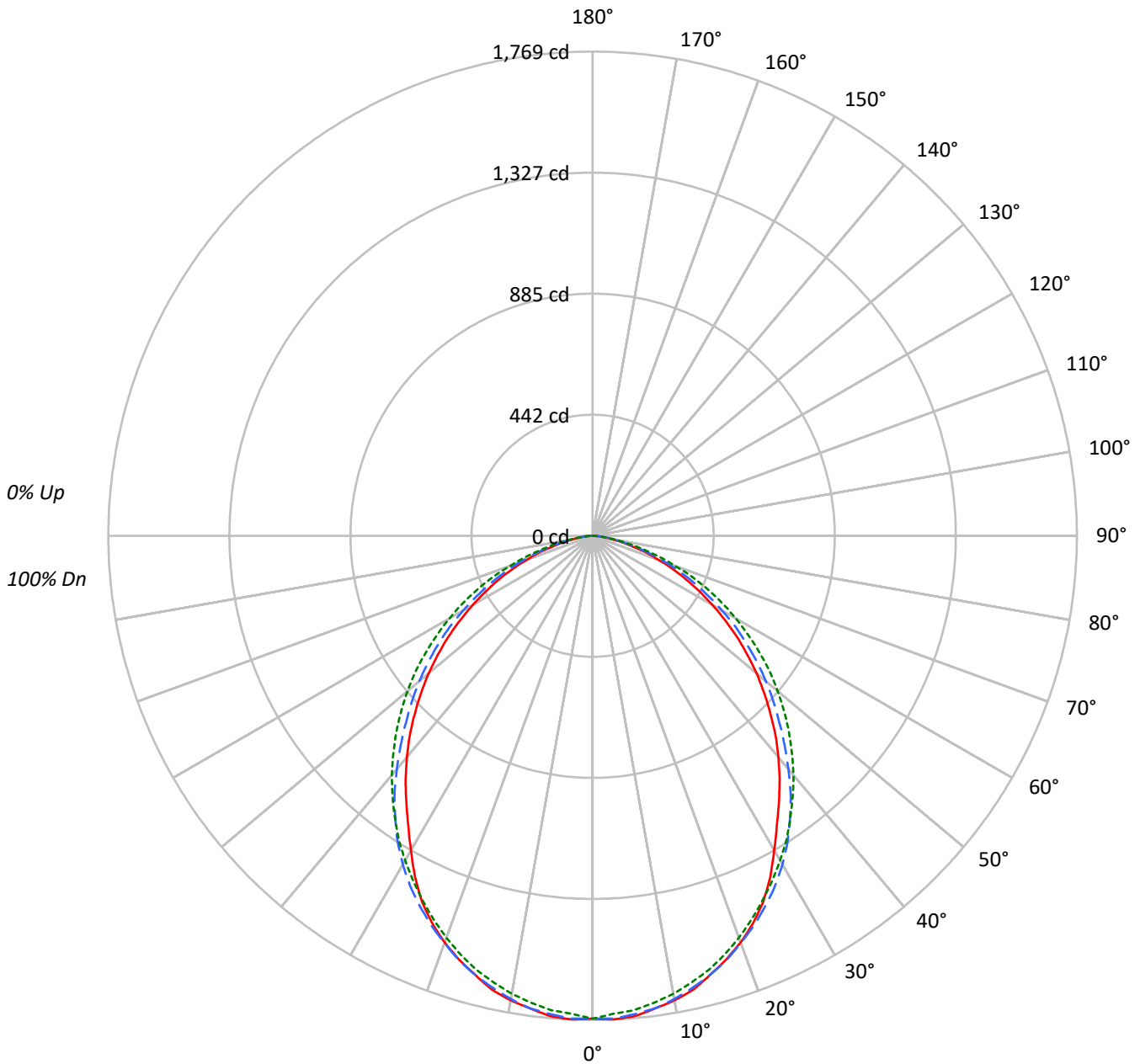
Lumens per Lamp: N/A
Luminaire Lumens: 4079.0 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	4747	4747	4747
5°	4760	4740	4699
10°	4709	4696	4643
15°	4626	4626	4573
20°	4528	4533	4475
25°	4379	4433	4363
30°	4123	4309	4256
35°	3896	4130	4137
40°	3707	3907	4009
45°	3495	3670	3858
50°	3271	3458	3694
55°	3017	3217	3494
60°	2717	2936	3250
65°	2399	2611	2956
70°	1999	2223	2511
75°	1571	1776	1966
80°	1124	1249	1387
85°	732	732	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.1	4.1
10°-20°	466.6	11.4
20°-30°	681.9	16.7
30°-40°	774.0	19.0
40°-50°	747.2	18.3
50°-60°	616.4	15.1
60°-70°	410.4	10.1
70°-80°	183.7	4.5
80°-90°	32.9	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°	1314.5	32.2
0°-40°	2088.5	51.2
0°-60°	3452.0	84.6
0°-90°	4079.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4079.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1764	1764	1764	1764	1764	
5°	1762	1761	1755	1745	1740	167
15°	1660	1664	1660	1653	1641	468
25°	1475	1486	1493	1482	1469	675
35°	1186	1202	1257	1264	1259	743
45°	918	934	964	1008	1014	709
55°	643	654	686	724	745	574
65°	377	387	410	439	464	374
75°	151	159	171	179	189	165
85°	24	24	24	22	22	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1764.1	1764.1	1764.1	1764.1	1764.1
2.5°	1768.8	1769.5	1765.4	1754.6	1747.8
5°	1762.0	1761.4	1754.6	1745.1	1739.7
7.5°	1742.4	1743.7	1741.7	1728.1	1720.7
10°	1723.4	1724.1	1718.7	1707.8	1699.0
12.5°	1699.0	1698.3	1690.9	1685.4	1671.2
15°	1660.4	1664.4	1660.4	1652.9	1641.4
17.5°	1623.1	1623.1	1625.8	1612.9	1604.1
20°	1581.1	1583.1	1583.1	1572.9	1562.8
22.5°	1532.3	1538.4	1540.4	1529.6	1517.4
25°	1474.7	1486.2	1493.0	1482.1	1469.3
27.5°	1404.9	1422.5	1442.8	1434.7	1420.5
30°	1326.9	1352.7	1386.6	1379.8	1369.6
32.5°	1253.1	1278.8	1325.6	1322.9	1317.5
35°	1186.0	1202.2	1257.1	1263.9	1259.2
37.5°	1122.3	1137.2	1188.7	1204.3	1200.2
40°	1055.2	1071.4	1112.1	1139.9	1141.3
42.5°	988.8	1004.4	1037.6	1077.5	1077.5
45°	918.3	933.9	964.4	1008.4	1013.8
47.5°	849.2	865.4	895.2	939.3	948.1
50°	781.4	796.3	826.1	868.8	882.4
52.5°	710.9	727.2	756.3	795.6	815.3
55°	643.1	654.0	685.8	723.8	744.8
57.5°	572.7	582.8	618.7	651.3	673.0
60°	504.9	517.8	545.6	578.8	603.8
62.5°	439.8	453.4	477.1	506.2	534.7
65°	376.8	387.0	410.0	439.2	464.2
67.5°	315.8	324.6	347.7	368.0	394.4
70°	254.1	265.7	282.6	302.3	319.2
72.5°	204.7	209.4	223.6	237.9	255.5
75°	151.1	159.3	170.8	178.9	189.1
77.5°	108.4	113.2	120.0	126.7	136.2
80°	72.5	74.5	80.6	82.0	89.5
82.5°	44.1	45.4	46.8	47.4	50.2
85°	23.7	23.7	23.7	22.4	22.4
87.5°	13.6	13.6	11.5	9.5	6.8
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)