

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: P557188

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-81-86-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: P557188
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-LD4-2LO-30-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

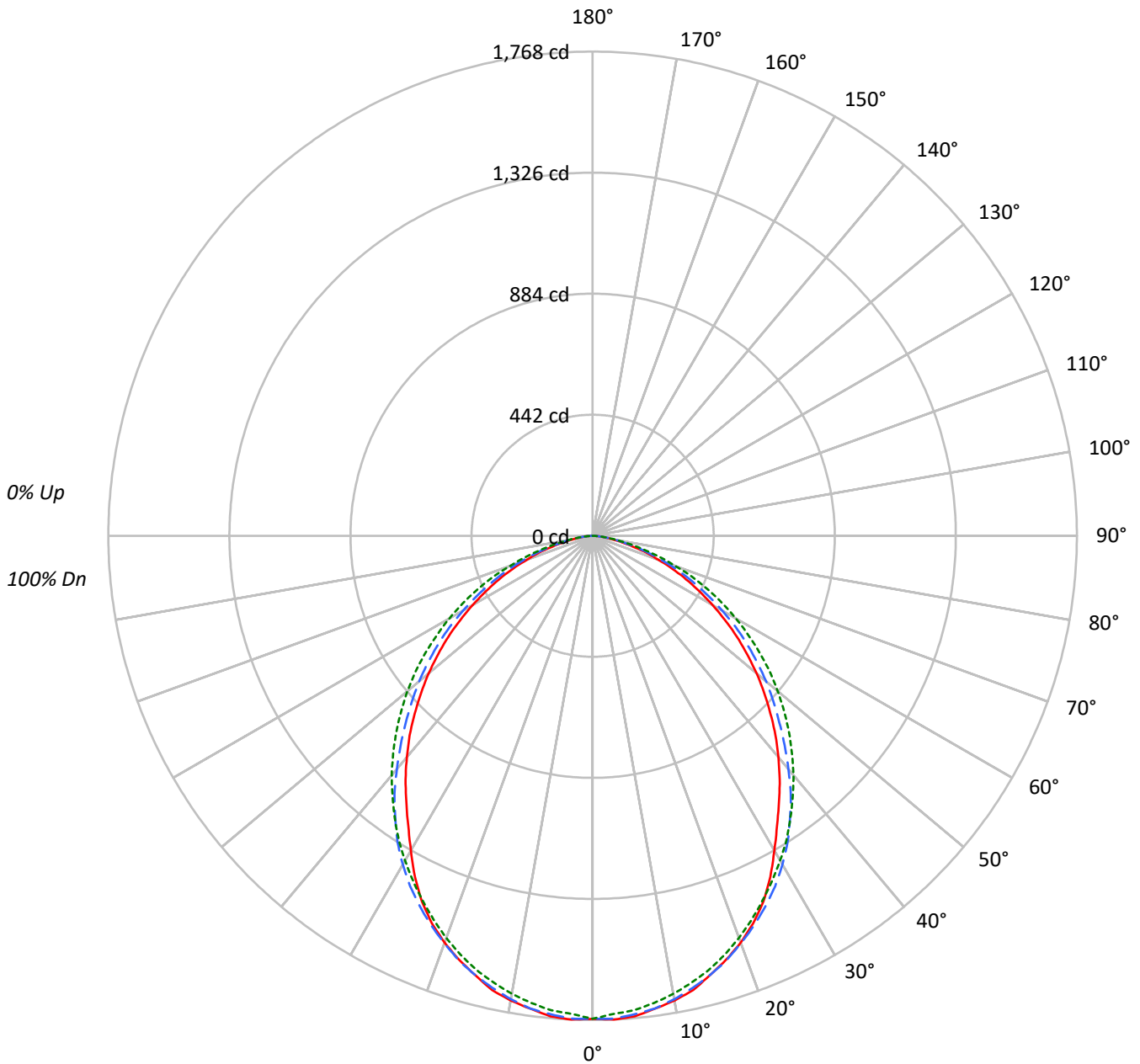
Lumens per Lamp: N/A
Luminaire Lumens: 4078.0 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	4746	4746	4746
5°	4759	4738	4698
10°	4708	4695	4641
15°	4625	4625	4572
20°	4527	4532	4474
25°	4377	4432	4361
30°	4122	4307	4255
35°	3895	4129	4136
40°	3706	3906	4008
45°	3494	3669	3857
50°	3270	3458	3693
55°	3017	3217	3493
60°	2717	2935	3249
65°	2399	2610	2955
70°	1999	2223	2511
75°	1571	1775	1965
80°	1124	1249	1385
85°	732	732	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.1	4.1
10°-20°	466.5	11.4
20°-30°	681.7	16.7
30°-40°	773.8	19.0
40°-50°	747.0	18.3
50°-60°	616.2	15.1
60°-70°	410.3	10.1
70°-80°	183.6	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°	1314.2	32.2
0°-40°	2088.0	51.2
0°-60°	3451.2	84.6
0°-90°	4078.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4078.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1764	1764	1764	1764	1764	
5°	1762	1761	1754	1745	1739	167
15°	1660	1664	1660	1652	1641	468
25°	1474	1486	1493	1482	1469	675
35°	1186	1202	1257	1264	1259	743
45°	918	934	964	1008	1014	708
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°	1763.6	1763.6	1763.6	1763.6	1763.6
2.5°	1768.4	1769.0	1765.0	1754.1	1747.4
5°	1761.6	1760.9	1754.1	1744.7	1739.2
7.5°	1741.9	1743.3	1741.3	1727.7	1720.3
10°	1723.0	1723.7	1718.2	1707.4	1698.6
12.5°	1698.6	1697.9	1690.5	1685.0	1670.8
15°	1660.0	1664.0	1660.0	1652.5	1641.0
17.5°	1622.7	1622.7	1625.4	1612.5	1603.7
20°	1580.7	1582.7	1582.7	1572.6	1562.4
22.5°	1531.9	1538.0	1540.0	1529.2	1517.0
25°	1474.3	1485.8	1492.6	1481.8	1468.9
27.5°	1404.5	1422.2	1442.5	1434.3	1420.1
30°	1326.6	1352.4	1386.2	1379.5	1369.3
32.5°	1252.8	1278.5	1325.3	1322.6	1317.1
35°	1185.7	1202.0	1256.8	1263.6	1258.9
37.5°	1122.0	1136.9	1188.4	1204.0	1199.9
40°	1054.9	1071.2	1111.8	1139.6	1141.0
42.5°	988.5	1004.1	1037.3	1077.3	1077.3
45°	918.1	933.6	964.1	1008.2	1013.6
47.5°	849.0	865.2	895.0	939.1	947.9
50°	781.2	796.1	825.9	868.6	882.2
52.5°	710.7	727.0	756.1	795.4	815.1
55°	643.0	653.8	685.7	723.6	744.6
57.5°	572.5	582.7	618.6	651.1	672.8
60°	504.8	517.6	545.4	578.6	603.7
62.5°	439.7	453.3	477.0	506.1	534.6
65°	376.7	386.9	409.9	439.0	464.1
67.5°	315.7	324.5	347.6	367.9	394.3
70°	254.1	265.6	282.5	302.2	319.1
72.5°	204.6	209.4	223.6	237.8	255.4
75°	151.1	159.2	170.7	178.9	189.0
77.5°	108.4	113.1	119.9	126.7	136.2
80°	72.5	74.5	80.6	82.0	89.4
82.5°	44.0	45.4	46.8	47.4	50.1
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)