

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: P557200

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-82-84-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: P557200
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-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

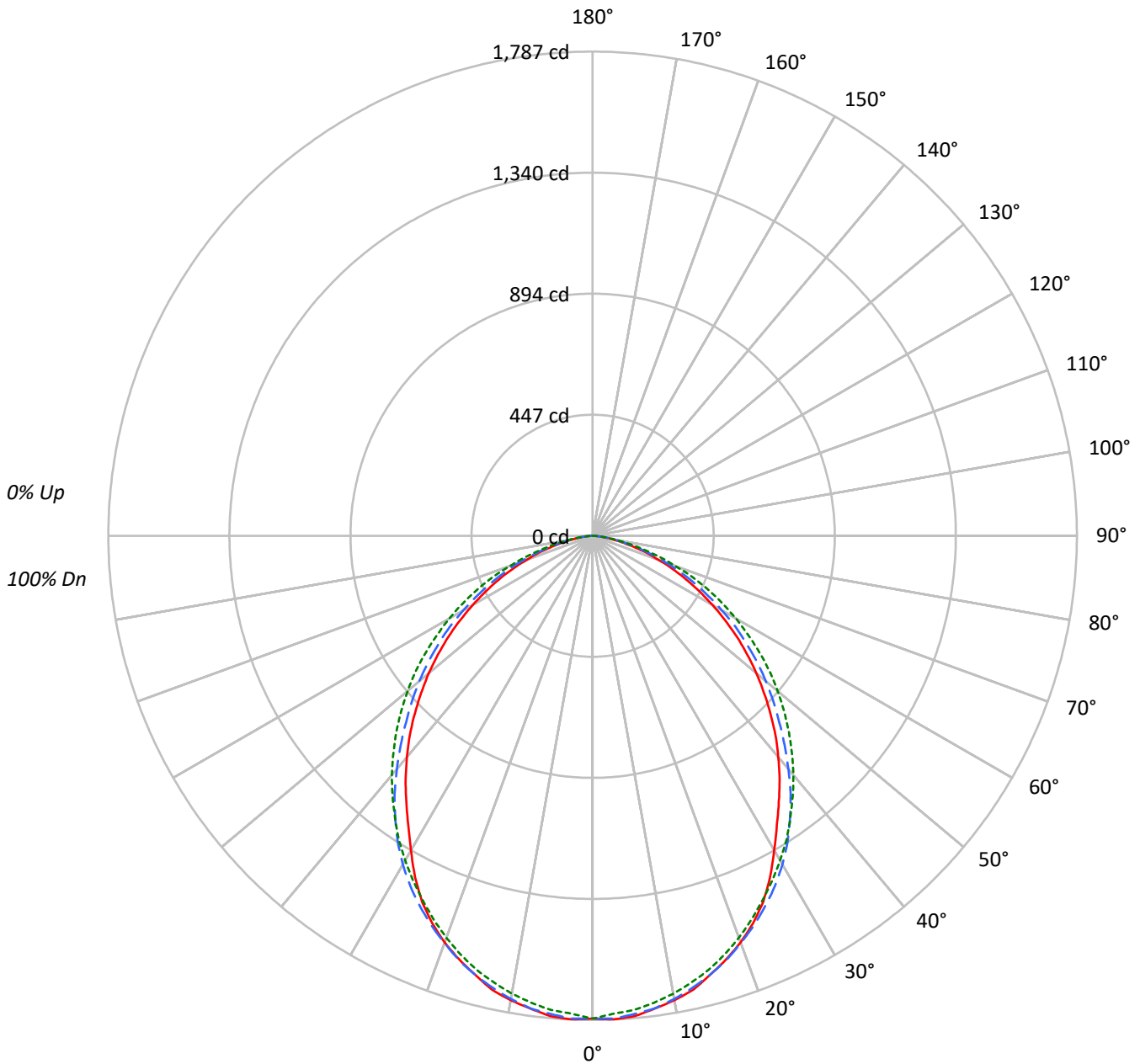
Lumens per Lamp: N/A
Luminaire Lumens: 4120.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4795	4795	4795
5°	4807	4787	4747
10°	4756	4743	4689
15°	4672	4672	4619
20°	4573	4579	4520
25°	4423	4478	4406
30°	4165	4352	4299
35°	3935	4171	4178
40°	3744	3946	4049
45°	3530	3707	3897
50°	3304	3493	3731
55°	3048	3250	3529
60°	2745	2965	3282
65°	2423	2637	2986
70°	2020	2245	2537
75°	1587	1794	1986
80°	1134	1263	1401
85°	741	741	698



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.8	4.1
10°-20°	471.3	11.4
20°-30°	688.7	16.7
30°-40°	781.8	19.0
40°-50°	754.7	18.3
50°-60°	622.6	15.1
60°-70°	414.6	10.1
70°-80°	185.5	4.5
80°-90°	33.2	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°	1327.8	32.2
0°-40°	2109.5	51.2
0°-60°	3486.7	84.6
0°-90°	4120.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4120.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1782	1782	1782	1782	1782	
5°	1780	1779	1772	1763	1757	168
15°	1677	1681	1677	1670	1658	473
25°	1490	1501	1508	1497	1484	682
35°	1198	1214	1270	1277	1272	751
45°	928	943	974	1019	1024	716
55°	650	661	693	731	752	580
65°	381	391	414	444	469	377
75°	153	161	172	181	191	167
85°	24	24	24	23	23	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1781.8	1781.8	1781.8	1781.8	1781.8
2.5°	1786.6	1787.3	1783.2	1772.2	1765.4
5°	1779.7	1779.1	1772.2	1762.6	1757.2
7.5°	1759.9	1761.3	1759.2	1745.5	1738.0
10°	1740.7	1741.4	1735.9	1725.0	1716.1
12.5°	1716.1	1715.4	1707.9	1702.4	1688.0
15°	1677.1	1681.2	1677.1	1669.5	1657.9
17.5°	1639.4	1639.4	1642.2	1629.1	1620.2
20°	1597.0	1599.0	1599.0	1588.8	1578.5
22.5°	1547.7	1553.8	1555.9	1545.0	1532.6
25°	1489.5	1501.1	1508.0	1497.0	1484.0
27.5°	1419.0	1436.8	1457.3	1449.1	1434.7
30°	1340.3	1366.3	1400.5	1393.7	1383.4
32.5°	1265.7	1291.7	1338.9	1336.2	1330.7
35°	1197.9	1214.3	1269.8	1276.6	1271.8
37.5°	1133.6	1148.6	1200.6	1216.4	1212.3
40°	1065.8	1082.2	1123.3	1151.4	1152.7
42.5°	998.7	1014.5	1048.0	1088.4	1088.4
45°	927.5	943.3	974.1	1018.6	1024.0
47.5°	857.7	874.1	904.2	948.7	957.6
50°	789.2	804.3	834.4	877.5	891.2
52.5°	718.1	734.5	763.9	803.6	823.5
55°	649.6	660.6	692.7	731.1	752.3
57.5°	578.4	588.7	625.0	657.8	679.7
60°	510.0	523.0	551.0	584.6	609.9
62.5°	444.3	457.9	481.9	511.3	540.1
65°	380.6	390.9	414.1	443.6	468.9
67.5°	319.0	327.9	351.2	371.7	398.4
70°	256.7	268.3	285.4	305.3	322.4
72.5°	206.7	211.5	225.9	240.3	258.1
75°	152.6	160.9	172.5	180.7	191.0
77.5°	109.5	114.3	121.2	128.0	137.6
80°	73.2	75.3	81.5	82.8	90.4
82.5°	44.5	45.9	47.2	47.9	50.7
85°	24.0	24.0	24.0	22.6	22.6
87.5°	13.7	13.7	11.6	9.6	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)