

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: P557270

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-82-87-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: P557270
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-35-UNV-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

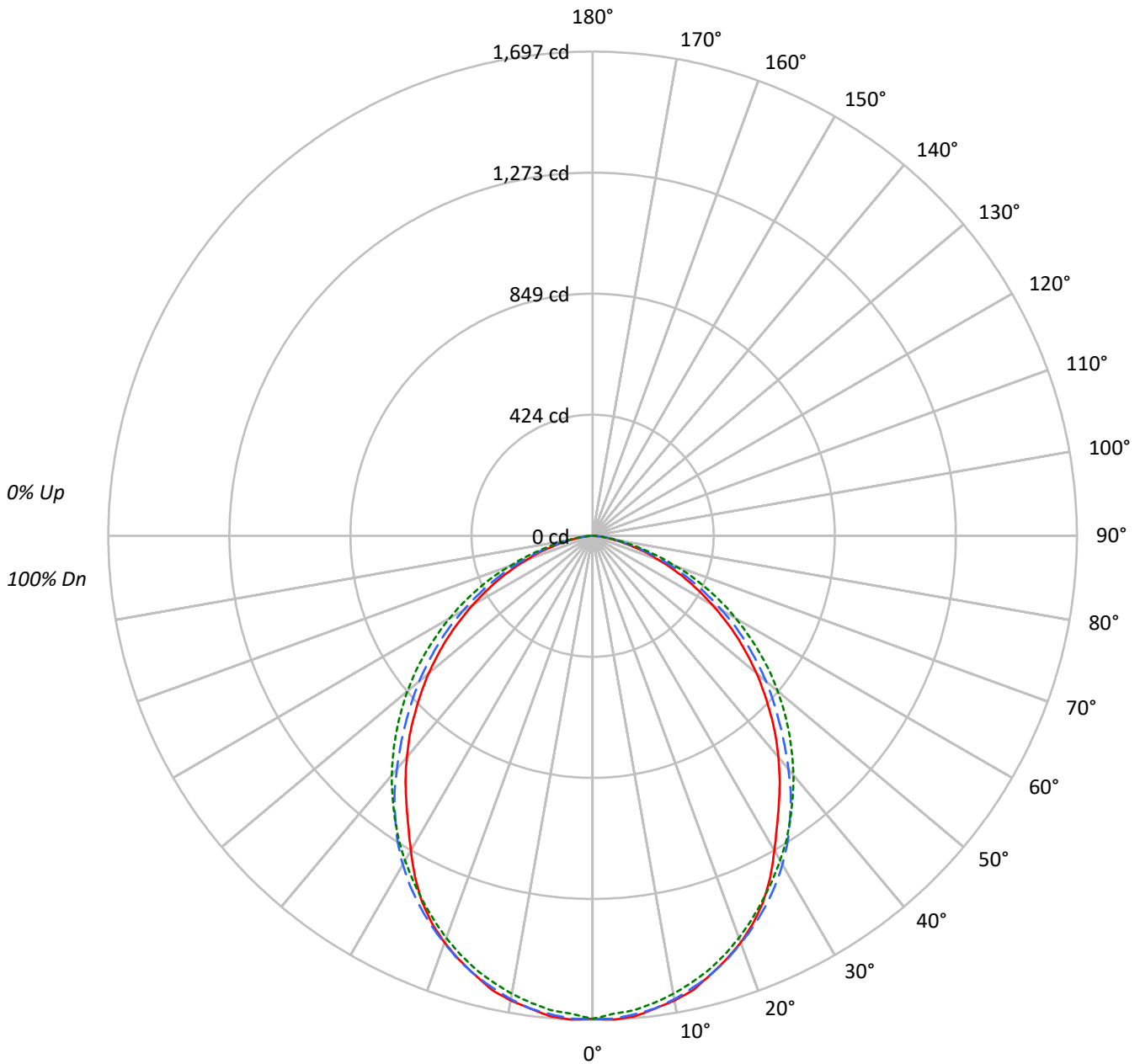
Lumens per Lamp: N/A
Luminaire Lumens: 3914.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4555	4555	4555
5°	4567	4548	4509
10°	4519	4506	4455
15°	4439	4439	4388
20°	4344	4350	4294
25°	4201	4254	4186
30°	3956	4134	4084
35°	3738	3963	3969
40°	3557	3749	3847
45°	3353	3522	3702
50°	3139	3319	3545
55°	2895	3088	3353
60°	2608	2817	3118
65°	2302	2505	2836
70°	1919	2134	2410
75°	1508	1704	1886
80°	1079	1199	1330
85°	704	704	664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.4	4.1
10°-20°	447.7	11.4
20°-30°	654.3	16.7
30°-40°	742.7	19.0
40°-50°	716.9	18.3
50°-60°	591.4	15.1
60°-70°	393.8	10.1
70°-80°	176.2	4.5
80°-90°	31.5	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°	1261.4	32.2
0°-40°	2004.1	51.2
0°-60°	3312.4	84.6
0°-90°	3914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1693	1693	1693	1693	1693	
5°	1691	1690	1684	1674	1669	160
15°	1593	1597	1593	1586	1575	449
25°	1415	1426	1433	1422	1410	648
35°	1138	1154	1206	1213	1208	713
45°	881	896	925	968	973	680
55°	617	628	658	694	715	551
65°	362	371	393	421	445	359
75°	145	153	164	172	181	159
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1692.7	1692.7	1692.7	1692.7	1692.7
2.5°	1697.3	1697.9	1694.0	1683.6	1677.1
5°	1690.8	1690.1	1683.6	1674.5	1669.3
7.5°	1671.9	1673.2	1671.2	1658.2	1651.1
10°	1653.7	1654.3	1649.1	1638.7	1630.3
12.5°	1630.3	1629.6	1622.5	1617.3	1603.6
15°	1593.2	1597.1	1593.2	1586.1	1575.0
17.5°	1557.4	1557.4	1560.0	1547.7	1539.2
20°	1517.1	1519.1	1519.1	1509.3	1499.6
22.5°	1470.3	1476.2	1478.1	1467.7	1456.0
25°	1415.0	1426.1	1432.6	1422.2	1409.8
27.5°	1348.1	1365.0	1384.5	1376.7	1363.0
30°	1273.3	1298.0	1330.5	1324.0	1314.2
32.5°	1202.4	1227.1	1272.0	1269.4	1264.2
35°	1138.0	1153.6	1206.3	1212.8	1208.2
37.5°	1076.9	1091.2	1140.6	1155.6	1151.7
40°	1012.5	1028.1	1067.1	1093.8	1095.1
42.5°	948.8	963.7	995.6	1034.0	1034.0
45°	881.1	896.1	925.4	967.6	972.8
47.5°	814.8	830.4	859.0	901.3	909.8
50°	749.8	764.1	792.7	833.7	846.7
52.5°	682.2	697.8	725.7	763.4	782.3
55°	617.1	627.5	658.1	694.5	714.7
57.5°	549.5	559.2	593.7	624.9	645.7
60°	484.5	496.8	523.5	555.3	579.4
62.5°	422.0	435.0	457.8	485.8	513.1
65°	361.6	371.3	393.4	421.4	445.4
67.5°	303.0	311.5	333.6	353.1	378.5
70°	243.9	254.9	271.2	290.0	306.3
72.5°	196.4	200.9	214.6	228.3	245.2
75°	145.0	152.8	163.9	171.7	181.4
77.5°	104.0	108.6	115.1	121.6	130.7
80°	69.6	71.5	77.4	78.7	85.8
82.5°	42.3	43.6	44.9	45.5	48.1
85°	22.8	22.8	22.8	21.5	21.5
87.5°	13.0	13.0	11.1	9.1	6.5
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)