

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: P557330

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-82-85-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: P557330
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-40-UNV-82-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

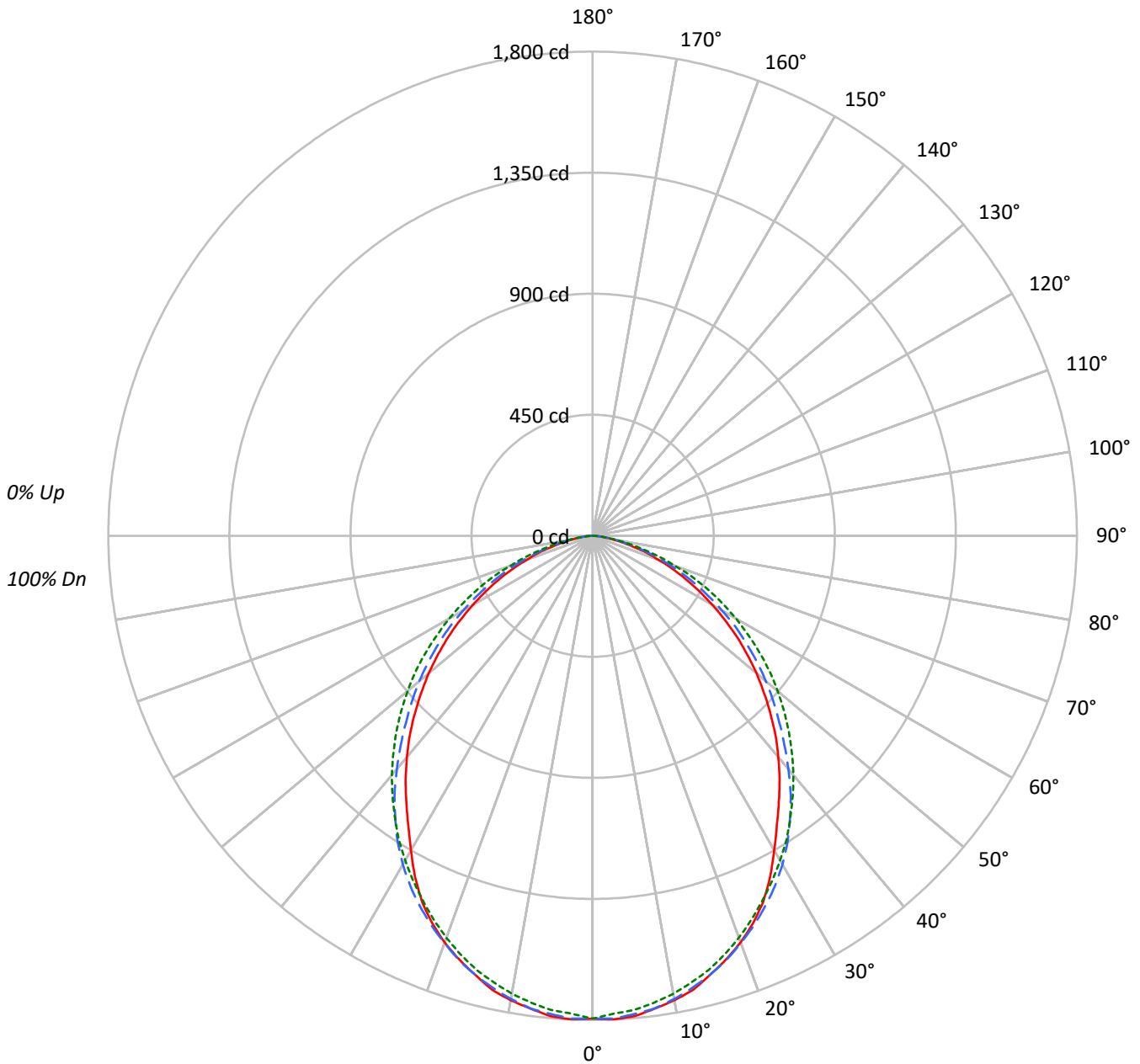
Lumens per Lamp: N/A
Luminaire Lumens: 4150.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4830	4830	4830
5°	4843	4822	4781
10°	4791	4778	4723
15°	4706	4706	4652
20°	4607	4613	4553
25°	4455	4510	4438
30°	4195	4383	4330
35°	3964	4202	4209
40°	3771	3975	4079
45°	3556	3734	3925
50°	3328	3519	3758
55°	3070	3274	3555
60°	2765	2987	3306
65°	2441	2656	3007
70°	2035	2262	2555
75°	1599	1807	2000
80°	1144	1272	1410
85°	744	744	704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.0	4.1
10°-20°	474.7	11.4
20°-30°	693.7	16.7
30°-40°	787.5	19.0
40°-50°	760.2	18.3
50°-60°	627.1	15.1
60°-70°	417.6	10.1
70°-80°	186.9	4.5
80°-90°	33.4	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°	1337.4	32.2
0°-40°	2124.9	51.2
0°-60°	3512.1	84.6
0°-90°	4150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4150.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1795	1795	1795	1795	1795	
5°	1793	1792	1785	1776	1770	170
15°	1689	1693	1689	1682	1670	476
25°	1500	1512	1519	1508	1495	687
35°	1207	1223	1279	1286	1281	756
45°	934	950	981	1026	1032	721
55°	654	665	698	736	758	584
65°	383	394	417	447	472	380
75°	154	162	174	182	192	168
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1794.8	1794.8	1794.8	1794.8	1794.8
2.5°	1799.6	1800.3	1796.1	1785.1	1778.2
5°	1792.7	1792.0	1785.1	1775.5	1769.9
7.5°	1772.7	1774.1	1772.0	1758.2	1750.6
10°	1753.4	1754.1	1748.6	1737.5	1728.6
12.5°	1728.6	1727.9	1720.3	1714.8	1700.3
15°	1689.3	1693.4	1689.3	1681.7	1670.0
17.5°	1651.4	1651.4	1654.1	1641.0	1632.0
20°	1608.6	1610.7	1610.7	1600.3	1590.0
22.5°	1559.0	1565.2	1567.2	1556.2	1543.8
25°	1500.4	1512.1	1519.0	1507.9	1494.8
27.5°	1429.3	1447.3	1467.9	1459.7	1445.2
30°	1350.0	1376.2	1410.7	1403.8	1393.5
32.5°	1274.9	1301.1	1348.7	1345.9	1340.4
35°	1206.6	1223.2	1279.0	1285.9	1281.1
37.5°	1141.8	1157.0	1209.4	1225.2	1221.1
40°	1073.6	1090.1	1131.5	1159.7	1161.1
42.5°	1006.0	1021.8	1055.6	1096.3	1096.3
45°	934.3	950.1	981.2	1026.0	1031.5
47.5°	863.9	880.5	910.8	955.6	964.6
50°	795.0	810.2	840.5	883.9	897.7
52.5°	723.3	739.8	769.5	809.5	829.5
55°	654.3	665.4	697.8	736.4	757.8
57.5°	582.6	593.0	629.5	662.6	684.7
60°	513.7	526.8	555.0	588.8	614.3
62.5°	447.5	461.3	485.4	515.1	544.0
65°	383.4	393.7	417.1	446.8	472.3
67.5°	321.3	330.3	353.7	374.4	401.3
70°	258.6	270.3	287.5	307.5	324.8
72.5°	208.2	213.1	227.5	242.0	259.9
75°	153.8	162.0	173.8	182.0	192.4
77.5°	110.3	115.1	122.0	128.9	138.6
80°	73.8	75.8	82.1	83.4	91.0
82.5°	44.8	46.2	47.6	48.3	51.0
85°	24.1	24.1	24.1	22.8	22.8
87.5°	13.8	13.8	11.7	9.7	6.9
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)