

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: P556315

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-82-94-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: P556315
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-40-UNV-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

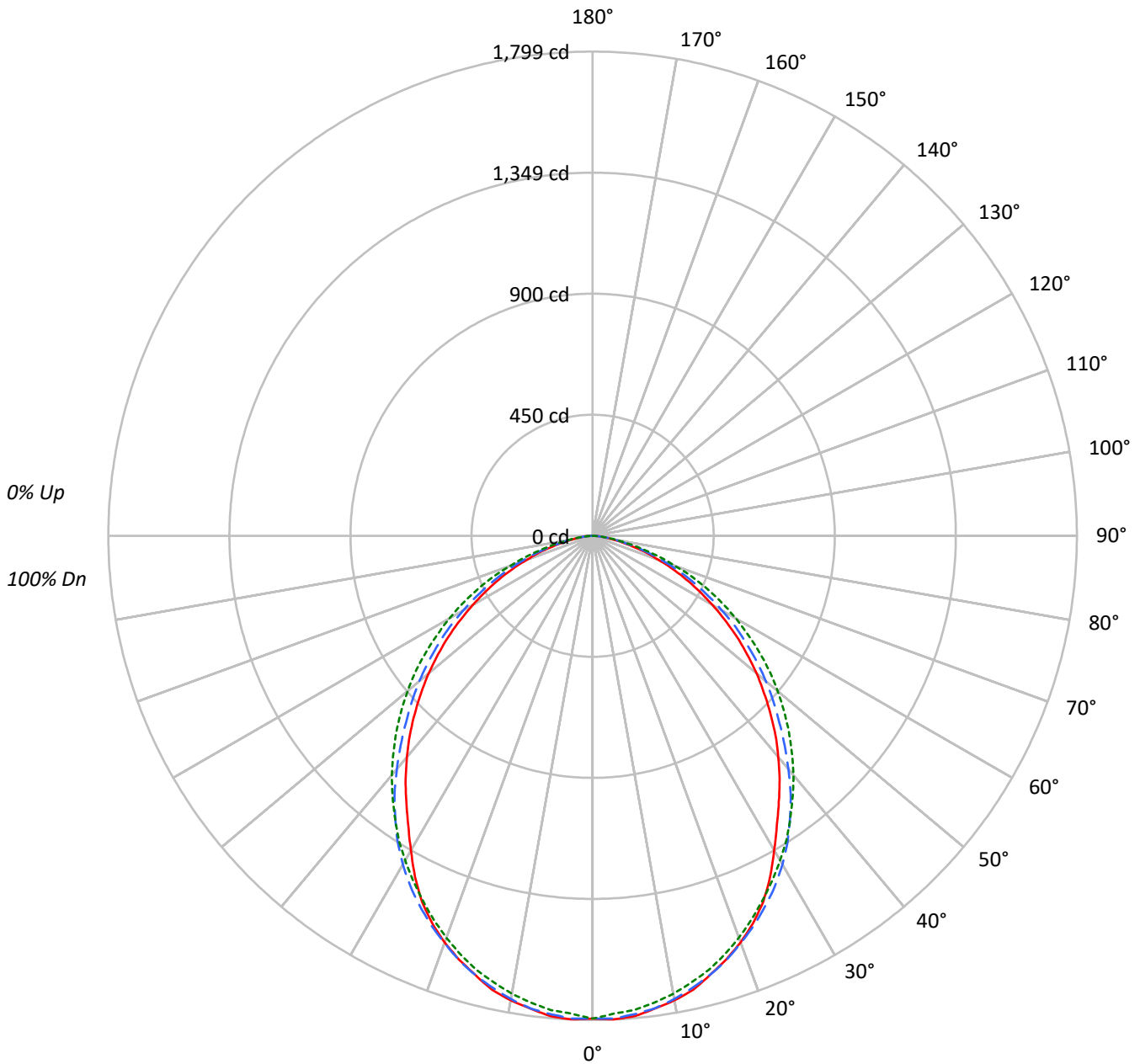
Lumens per Lamp: N/A
Luminaire Lumens: 4148.0 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (A_{in}): 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°	4827	4827	4827
5°	4840	4820	4779
10°	4789	4776	4721
15°	4704	4704	4650
20°	4604	4610	4551
25°	4453	4508	4436
30°	4193	4381	4328
35°	3962	4200	4207
40°	3769	3973	4077
45°	3554	3732	3924
50°	3327	3517	3756
55°	3068	3272	3553
60°	2763	2986	3305
65°	2440	2655	3006
70°	2033	2261	2554
75°	1598	1806	1999
80°	1142	1271	1410
85°	744	744	701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.9	4.1
10°-20°	474.5	11.4
20°-30°	693.4	16.7
30°-40°	787.1	19.0
40°-50°	759.8	18.3
50°-60°	626.8	15.1
60°-70°	417.4	10.1
70°-80°	186.8	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°	1336.8	32.2
0°-40°	2123.9	51.2
0°-60°	3510.4	84.6
0°-90°	4148.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4148.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1794	1794	1794	1794	1794	
5°	1792	1791	1784	1775	1769	170
15°	1688	1693	1688	1681	1669	476
25°	1500	1511	1518	1507	1494	687
35°	1206	1223	1278	1285	1280	756
45°	934	950	981	1026	1031	720
55°	654	665	697	736	757	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°	1793.9	1793.9	1793.9	1793.9	1793.9
2.5°	1798.7	1799.4	1795.3	1784.3	1777.4
5°	1791.8	1791.1	1784.3	1774.6	1769.1
7.5°	1771.8	1773.2	1771.2	1757.4	1749.8
10°	1752.6	1753.2	1747.7	1736.7	1727.7
12.5°	1727.7	1727.1	1719.5	1714.0	1699.5
15°	1688.5	1692.6	1688.5	1680.9	1669.2
17.5°	1650.6	1650.6	1653.3	1640.2	1631.3
20°	1607.8	1609.9	1609.9	1599.6	1589.2
22.5°	1558.2	1564.4	1566.5	1555.5	1543.0
25°	1499.6	1511.3	1518.2	1507.2	1494.1
27.5°	1428.6	1446.6	1467.2	1459.0	1444.5
30°	1349.4	1375.6	1410.0	1403.1	1392.8
32.5°	1274.3	1300.5	1348.0	1345.3	1339.7
35°	1206.0	1222.6	1278.4	1285.3	1280.5
37.5°	1141.3	1156.4	1208.8	1224.7	1220.5
40°	1073.0	1089.6	1130.9	1159.2	1160.6
42.5°	1005.5	1021.3	1055.1	1095.8	1095.8
45°	933.8	949.7	980.7	1025.5	1031.0
47.5°	863.5	880.1	910.4	955.2	964.1
50°	794.6	809.8	840.1	883.5	897.3
52.5°	722.9	739.5	769.1	809.1	829.1
55°	654.0	665.0	697.4	736.0	757.4
57.5°	582.3	592.7	629.2	662.3	684.3
60°	513.4	526.5	554.8	588.5	614.0
62.5°	447.3	461.1	485.2	514.8	543.8
65°	383.2	393.5	416.9	446.6	472.1
67.5°	321.2	330.1	353.5	374.2	401.1
70°	258.4	270.2	287.4	307.4	324.6
72.5°	208.1	213.0	227.4	241.9	259.8
75°	153.7	162.0	173.7	181.9	192.3
77.5°	110.3	115.1	122.0	128.9	138.5
80°	73.7	75.8	82.0	83.4	91.0
82.5°	44.8	46.2	47.6	48.2	51.0
85°	24.1	24.1	24.1	22.7	22.7
87.5°	13.8	13.8	11.7	9.6	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)