

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: P556381

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-82-96-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: P556381
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-50-UNV-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

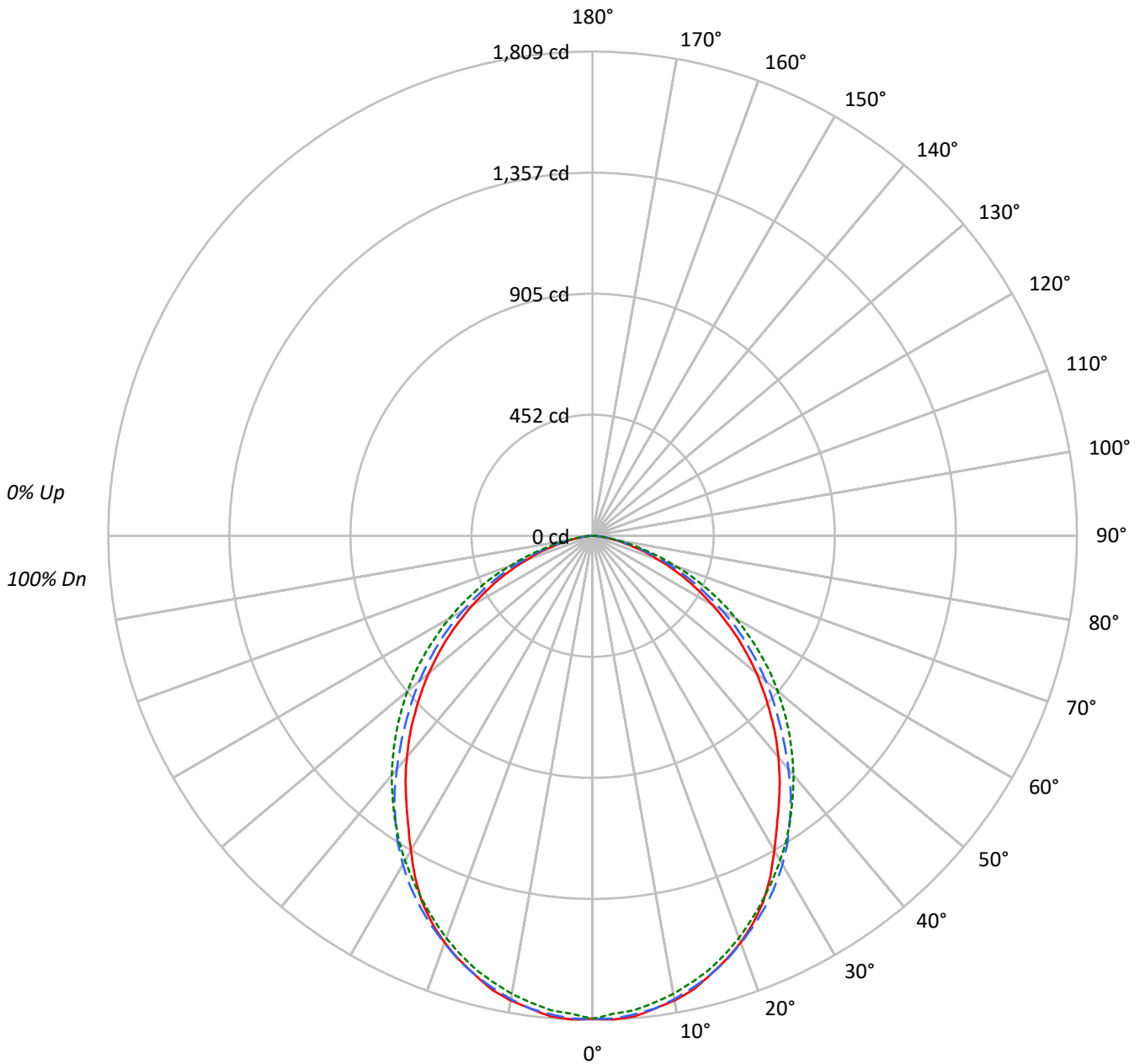
Lumens per Lamp: N/A
Luminaire Lumens: 4172.0 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4855	4855	4855
5°	4868	4848	4806
10°	4817	4803	4748
15°	4731	4731	4677
20°	4631	4637	4577
25°	4478	4534	4462
30°	4217	4407	4353
35°	3985	4224	4231
40°	3791	3996	4101
45°	3574	3754	3946
50°	3346	3538	3778
55°	3086	3291	3574
60°	2779	3003	3324
65°	2454	2670	3023
70°	2045	2274	2569
75°	1607	1816	2011
80°	1150	1278	1418
85°	750	750	707



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.9	4.1
10°-20°	477.2	11.4
20°-30°	697.4	16.7
30°-40°	791.6	19.0
40°-50°	764.2	18.3
50°-60°	630.4	15.1
60°-70°	419.8	10.1
70°-80°	187.9	4.5
80°-90°	33.6	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°	1344.5	32.2
0°-40°	2136.1	51.2
0°-60°	3530.8	84.6
0°-90°	4172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4172.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1804	1804	1804	1804	1804	
5°	1802	1802	1795	1785	1779	171
15°	1698	1702	1698	1691	1679	479
25°	1508	1520	1527	1516	1503	691
35°	1213	1230	1286	1293	1288	760
45°	939	955	986	1031	1037	725
55°	658	669	702	740	762	587
65°	385	396	419	449	475	382
75°	155	163	175	183	193	169
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°	1804.3	1804.3	1804.3	1804.3	1804.3
2.5°	1809.1	1809.8	1805.7	1794.6	1787.6
5°	1802.2	1801.5	1794.6	1784.9	1779.3
7.5°	1782.1	1783.5	1781.4	1767.5	1759.9
10°	1762.7	1763.4	1757.8	1746.8	1737.7
12.5°	1737.7	1737.0	1729.4	1723.9	1709.3
15°	1698.2	1702.4	1698.2	1690.6	1678.8
17.5°	1660.1	1660.1	1662.9	1649.7	1640.7
20°	1617.1	1619.2	1619.2	1608.8	1598.4
22.5°	1567.2	1573.5	1575.5	1564.5	1552.0
25°	1508.3	1520.1	1527.0	1515.9	1502.8
27.5°	1436.9	1454.9	1475.7	1467.4	1452.9
30°	1357.2	1383.5	1418.2	1411.3	1400.9
32.5°	1281.6	1308.0	1355.8	1353.0	1347.5
35°	1213.0	1229.7	1285.8	1292.7	1287.9
37.5°	1147.9	1163.1	1215.8	1231.7	1227.6
40°	1079.2	1095.9	1137.5	1165.9	1167.3
42.5°	1011.3	1027.3	1061.2	1102.1	1102.1
45°	939.2	955.2	986.4	1031.4	1037.0
47.5°	868.5	885.2	915.7	960.7	969.7
50°	799.2	814.5	845.0	888.6	902.5
52.5°	727.1	743.8	773.6	813.8	833.9
55°	657.8	668.9	701.5	740.3	761.8
57.5°	585.7	596.1	632.9	666.1	688.3
60°	516.4	529.6	558.0	592.0	617.6
62.5°	449.9	463.7	488.0	517.8	546.9
65°	385.4	395.8	419.4	449.2	474.8
67.5°	323.0	332.0	355.6	376.4	403.4
70°	259.9	271.7	289.0	309.1	326.5
72.5°	209.3	214.2	228.7	243.3	261.3
75°	154.6	162.9	174.7	183.0	193.4
77.5°	110.9	115.8	122.7	129.6	139.3
80°	74.2	76.2	82.5	83.9	91.5
82.5°	45.1	46.4	47.8	48.5	51.3
85°	24.3	24.3	24.3	22.9	22.9
87.5°	13.9	13.9	11.8	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)