

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: P557285

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-86-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: P557285
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-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

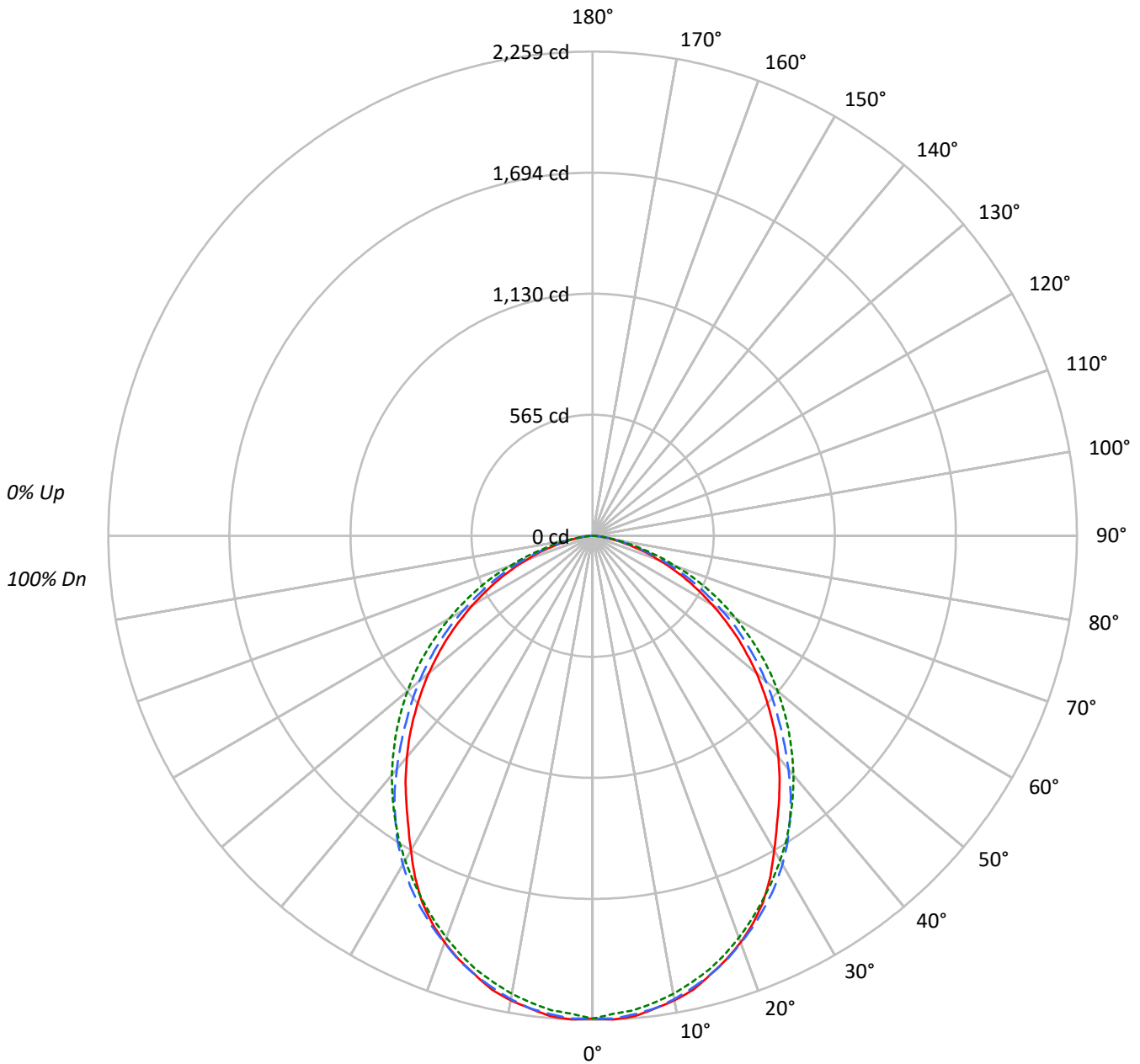
Lumens per Lamp: N/A
Luminaire Lumens: 5209.0 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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°	6062	6062	6062
5°	6078	6052	6001
10°	6014	5997	5929
15°	5907	5907	5840
20°	5782	5790	5715
25°	5592	5661	5571
30°	5265	5502	5435
35°	4975	5274	5282
40°	4734	4989	5120
45°	4463	4687	4927
50°	4178	4417	4717
55°	3853	4109	4462
60°	3470	3750	4150
65°	3064	3334	3775
70°	2553	2840	3207
75°	2007	2268	2511
80°	1435	1596	1770
85°	936	936	883



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.1	4.1
10°-20°	595.9	11.4
20°-30°	870.7	16.7
30°-40°	988.4	19.0
40°-50°	954.1	18.3
50°-60°	787.1	15.1
60°-70°	524.1	10.1
70°-80°	234.6	4.5
80°-90°	42.0	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°	1678.7	32.2
0°-40°	2667.1	51.2
0°-60°	4408.4	84.6
0°-90°	5209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5209.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2253	2253	2253	2253	2253	
5°	2250	2249	2241	2228	2222	213
15°	2120	2126	2120	2111	2096	598
25°	1883	1898	1907	1893	1876	862
35°	1514	1535	1605	1614	1608	949
45°	1173	1193	1232	1288	1295	905
55°	821	835	876	924	951	733
65°	481	494	524	561	593	477
75°	193	203	218	228	242	211
85°	30	30	30	29	29	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2252.8	2252.8	2252.8	2252.8	2252.8
2.5°	2258.8	2259.7	2254.5	2240.6	2232.0
5°	2250.2	2249.3	2240.6	2228.5	2221.6
7.5°	2225.1	2226.8	2224.2	2206.9	2197.4
10°	2200.8	2201.7	2194.8	2180.9	2169.7
12.5°	2169.7	2168.8	2159.3	2152.4	2134.2
15°	2120.3	2125.5	2120.3	2110.8	2096.1
17.5°	2072.7	2072.7	2076.2	2059.8	2048.5
20°	2019.1	2021.7	2021.7	2008.7	1995.7
22.5°	1956.8	1964.6	1967.2	1953.3	1937.7
25°	1883.2	1897.9	1906.6	1892.7	1876.3
27.5°	1794.1	1816.6	1842.5	1832.2	1814.0
30°	1694.5	1727.4	1770.7	1762.0	1749.1
32.5°	1600.2	1633.1	1692.8	1689.4	1682.4
35°	1514.5	1535.3	1605.4	1614.1	1608.0
37.5°	1433.2	1452.2	1518.0	1537.9	1532.7
40°	1347.5	1368.3	1420.2	1455.7	1457.4
42.5°	1262.7	1282.6	1325.0	1376.1	1376.1
45°	1172.7	1192.6	1231.5	1287.8	1294.7
47.5°	1084.4	1105.2	1143.3	1199.5	1210.8
50°	997.9	1016.9	1055.0	1109.5	1126.8
52.5°	907.9	928.6	965.8	1016.0	1041.1
55°	821.3	835.2	875.8	924.3	951.1
57.5°	731.3	744.3	790.2	831.7	859.4
60°	644.8	661.2	696.7	739.1	771.1
62.5°	561.7	579.0	609.3	646.5	682.8
65°	481.2	494.2	523.6	560.8	592.8
67.5°	403.3	414.5	444.0	469.9	503.7
70°	324.5	339.3	360.9	386.0	407.6
72.5°	261.4	267.4	285.6	303.8	326.3
75°	193.0	203.4	218.1	228.5	241.5
77.5°	138.5	144.5	153.2	161.8	174.0
80°	92.6	95.2	103.0	104.7	114.2
82.5°	56.3	58.0	59.7	60.6	64.0
85°	30.3	30.3	30.3	28.6	28.6
87.5°	17.3	17.3	14.7	12.1	8.7
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)