

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: P557282

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-85-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: P557282
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-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

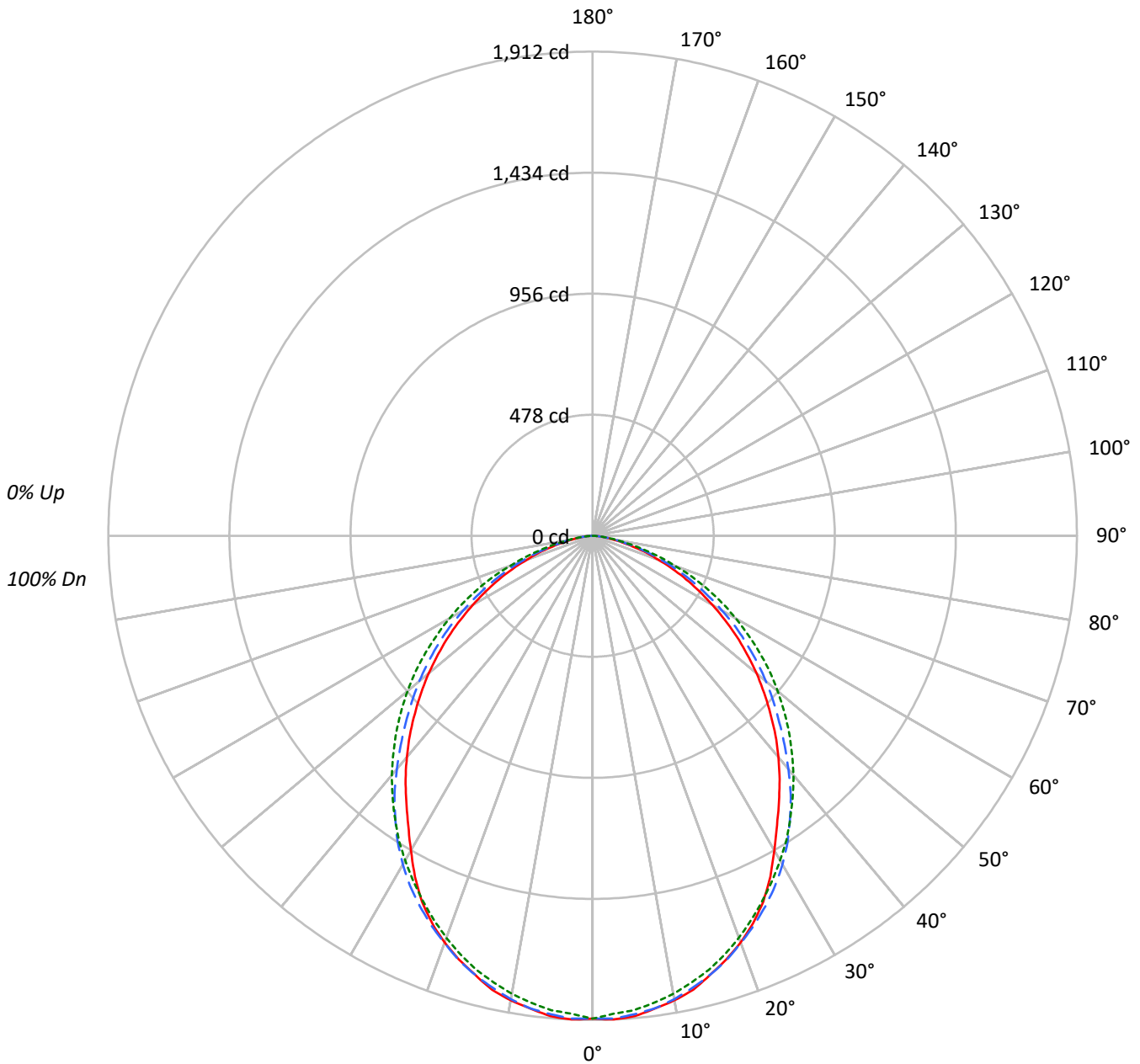
Lumens per Lamp: N/A
Luminaire Lumens: 4409.0 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5131	5131	5131
5°	5145	5123	5079
10°	5090	5076	5018
15°	5000	5000	4943
20°	4894	4900	4837
25°	4733	4792	4715
30°	4457	4657	4600
35°	4211	4464	4471
40°	4007	4223	4333
45°	3777	3967	4171
50°	3536	3738	3993
55°	3262	3478	3777
60°	2937	3174	3513
65°	2593	2822	3195
70°	2161	2404	2714
75°	1699	1919	2125
80°	1215	1351	1499
85°	790	790	747



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.5	4.1
10°-20°	504.3	11.4
20°-30°	737.0	16.7
30°-40°	836.6	19.0
40°-50°	807.6	18.3
50°-60°	666.2	15.1
60°-70°	443.7	10.1
70°-80°	198.5	4.5
80°-90°	35.5	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°	1420.9	32.2
0°-40°	2257.5	51.2
0°-60°	3731.3	84.6
0°-90°	4409.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4409.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1907	1907	1907	1907	1907	
5°	1905	1904	1896	1886	1880	180
15°	1795	1799	1795	1787	1774	506
25°	1594	1606	1614	1602	1588	730
35°	1282	1300	1359	1366	1361	803
45°	993	1009	1042	1090	1096	766
55°	695	707	741	782	805	620
65°	407	418	443	475	502	404
75°	163	172	185	193	204	179
85°	26	26	26	24	24	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1906.8	1906.8	1906.8	1906.8	1906.8
2.5°	1911.9	1912.6	1908.2	1896.5	1889.2
5°	1904.6	1903.8	1896.5	1886.3	1880.4
7.5°	1883.3	1884.8	1882.6	1868.0	1859.9
10°	1862.8	1863.6	1857.7	1846.0	1836.5
12.5°	1836.5	1835.7	1827.7	1821.8	1806.4
15°	1794.7	1799.1	1794.7	1786.6	1774.2
17.5°	1754.4	1754.4	1757.3	1743.4	1733.9
20°	1709.0	1711.2	1711.2	1700.2	1689.2
22.5°	1656.3	1662.8	1665.0	1653.3	1640.1
25°	1594.0	1606.4	1613.8	1602.0	1588.1
27.5°	1518.5	1537.6	1559.6	1550.8	1535.4
30°	1434.3	1462.1	1498.8	1491.4	1480.4
32.5°	1354.5	1382.3	1432.8	1429.9	1424.0
35°	1281.9	1299.5	1358.8	1366.2	1361.0
37.5°	1213.1	1229.2	1284.9	1301.7	1297.3
40°	1140.6	1158.1	1202.1	1232.1	1233.6
42.5°	1068.8	1085.6	1121.5	1164.7	1164.7
45°	992.6	1009.4	1042.4	1090.0	1095.9
47.5°	917.9	935.4	967.7	1015.3	1024.8
50°	844.6	860.7	893.0	939.1	953.8
52.5°	768.4	786.0	817.5	860.0	881.2
55°	695.2	706.9	741.3	782.3	805.1
57.5°	619.0	630.0	668.8	704.0	727.4
60°	545.7	559.7	589.7	625.6	652.7
62.5°	475.4	490.1	515.7	547.2	578.0
65°	407.3	418.3	443.2	474.7	501.8
67.5°	341.4	350.9	375.8	397.8	426.3
70°	274.7	287.2	305.5	326.7	345.0
72.5°	221.2	226.4	241.7	257.1	276.2
75°	163.4	172.1	184.6	193.4	204.4
77.5°	117.2	122.3	129.7	137.0	147.2
80°	78.4	80.6	87.2	88.6	96.7
82.5°	47.6	49.1	50.5	51.3	54.2
85°	25.6	25.6	25.6	24.2	24.2
87.5°	14.7	14.7	12.5	10.3	7.3
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)