

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: P557380

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-81-86-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: P557380
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-50-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

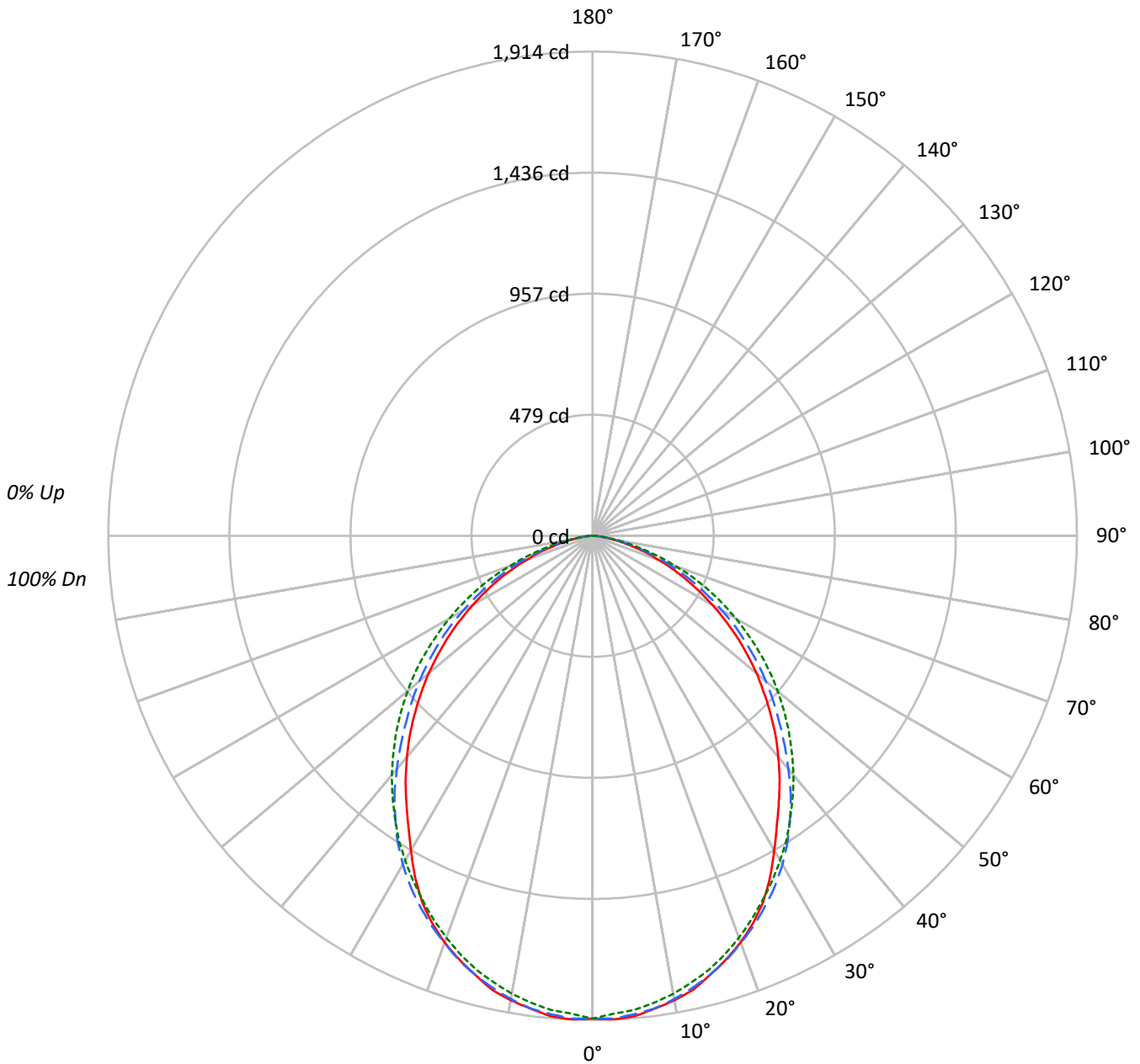
Lumens per Lamp: N/A
Luminaire Lumens: 4413.0 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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°	5136	5136	5136
5°	5149	5128	5084
10°	5095	5081	5023
15°	5004	5004	4947
20°	4898	4905	4842
25°	4737	4796	4720
30°	4461	4661	4604
35°	4215	4468	4475
40°	4010	4227	4337
45°	3781	3970	4174
50°	3539	3742	3996
55°	3264	3481	3780
60°	2940	3176	3516
65°	2596	2825	3198
70°	2163	2405	2717
75°	1700	1921	2127
80°	1216	1353	1500
85°	794	794	747



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.7	4.1
10°-20°	504.8	11.4
20°-30°	737.7	16.7
30°-40°	837.4	19.0
40°-50°	808.3	18.3
50°-60°	666.8	15.1
60°-70°	444.0	10.1
70°-80°	198.7	4.5
80°-90°	35.6	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°	1422.2	32.2
0°-40°	2259.5	51.2
0°-60°	3734.7	84.6
0°-90°	4413.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4413.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1908	1908	1908	1908	1908	
5°	1906	1906	1898	1888	1882	180
15°	1796	1801	1796	1788	1776	506
25°	1595	1608	1615	1604	1590	731
35°	1283	1301	1360	1367	1362	804
45°	994	1010	1043	1091	1097	767
55°	696	708	742	783	806	621
65°	408	419	444	475	502	404
75°	164	172	185	194	205	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°	1908.5	1908.5	1908.5	1908.5	1908.5
2.5°	1913.6	1914.4	1910.0	1898.2	1890.9
5°	1906.3	1905.6	1898.2	1888.0	1882.1
7.5°	1885.0	1886.5	1884.3	1869.6	1861.6
10°	1864.5	1865.2	1859.4	1847.7	1838.1
12.5°	1838.1	1837.4	1829.3	1823.5	1808.1
15°	1796.3	1800.7	1796.3	1788.3	1775.8
17.5°	1756.0	1756.0	1758.9	1745.0	1735.5
20°	1710.5	1712.7	1712.7	1701.7	1690.7
22.5°	1657.8	1664.4	1666.6	1654.8	1641.6
25°	1595.4	1607.9	1615.2	1603.5	1589.6
27.5°	1519.9	1539.0	1561.0	1552.2	1536.8
30°	1435.6	1463.5	1500.1	1492.8	1481.8
32.5°	1355.7	1383.5	1434.1	1431.2	1425.3
35°	1283.1	1300.7	1360.1	1367.4	1362.3
37.5°	1214.2	1230.3	1286.0	1302.9	1298.5
40°	1141.6	1159.2	1203.2	1233.2	1234.7
42.5°	1069.7	1086.6	1122.5	1165.8	1165.8
45°	993.5	1010.3	1043.3	1091.0	1096.9
47.5°	918.7	936.3	968.6	1016.2	1025.7
50°	845.4	861.5	893.8	940.0	954.6
52.5°	769.1	786.7	818.2	860.8	882.0
55°	695.8	707.5	742.0	783.1	805.8
57.5°	619.6	630.5	669.4	704.6	728.1
60°	546.2	560.2	590.2	626.1	653.3
62.5°	475.8	490.5	516.2	547.7	578.5
65°	407.7	418.7	443.6	475.1	502.2
67.5°	341.7	351.2	376.1	398.1	426.7
70°	274.9	287.4	305.7	327.0	345.3
72.5°	221.4	226.6	242.0	257.4	276.4
75°	163.5	172.3	184.8	193.6	204.6
77.5°	117.3	122.4	129.8	137.1	147.4
80°	78.5	80.7	87.3	88.7	96.8
82.5°	47.7	49.1	50.6	51.3	54.3
85°	25.7	25.7	25.7	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)