

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: P557408

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-93-84-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: P557408
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-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

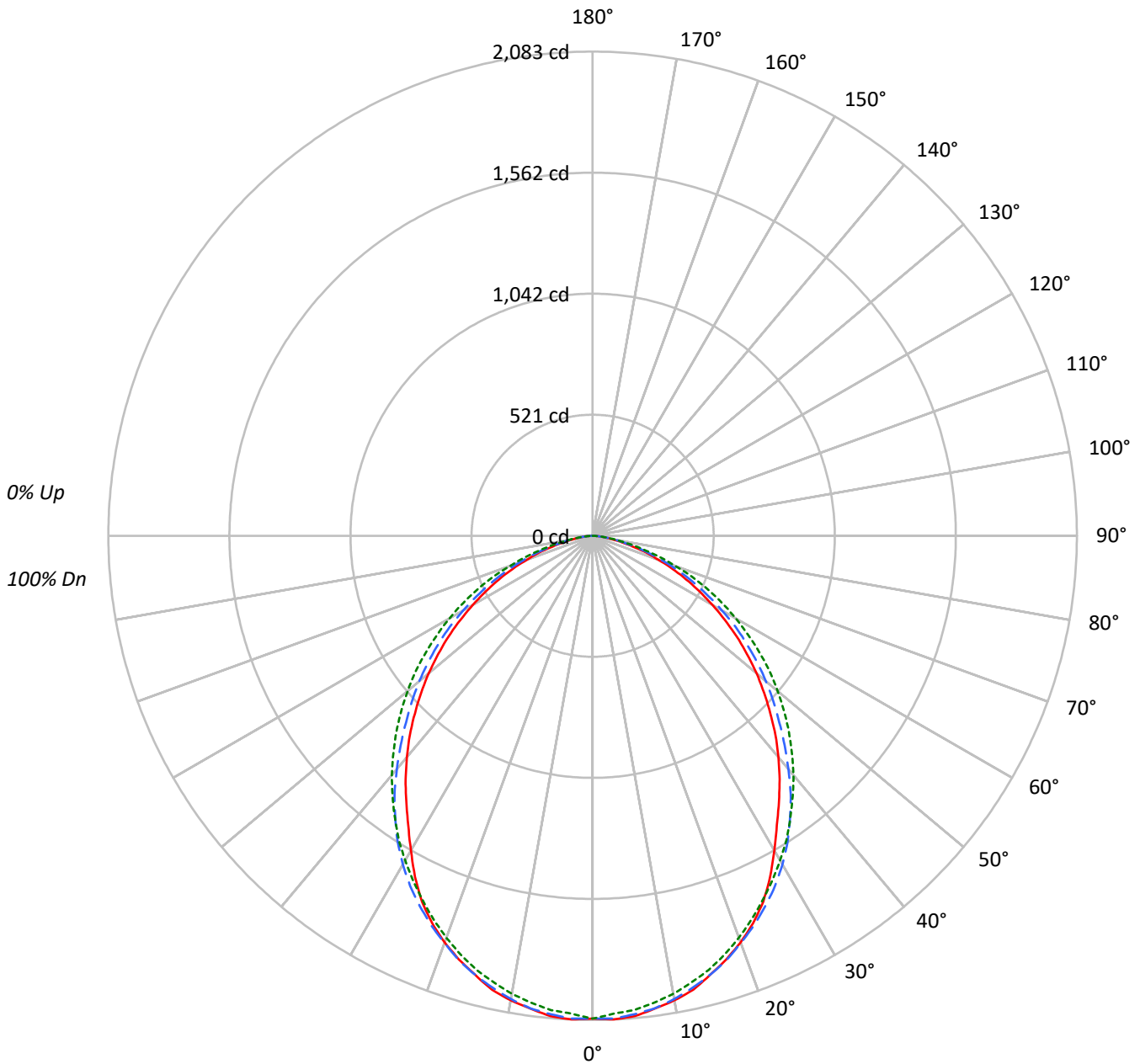
Lumens per Lamp: N/A
Luminaire Lumens: 4803.0 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5590	5590	5590
5°	5605	5581	5533
10°	5545	5530	5467
15°	5447	5447	5384
20°	5331	5338	5270
25°	5156	5220	5137
30°	4855	5073	5011
35°	4588	4863	4871
40°	4365	4600	4721
45°	4115	4321	4543
50°	3852	4073	4350
55°	3553	3789	4115
60°	3200	3457	3827
65°	2825	3074	3480
70°	2354	2618	2958
75°	1851	2091	2314
80°	1323	1472	1632
85°	861	861	812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.6	4.1
10°-20°	549.4	11.4
20°-30°	802.9	16.7
30°-40°	911.4	19.0
40°-50°	879.8	18.3
50°-60°	725.8	15.1
60°-70°	483.3	10.1
70°-80°	216.3	4.5
80°-90°	38.7	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°	1547.9	32.2
0°-40°	2459.2	51.2
0°-60°	4064.7	84.6
0°-90°	4803.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4803.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2077	2077	2077	2077	2077	
5°	2075	2074	2066	2055	2048	196
15°	1955	1960	1955	1946	1933	551
25°	1736	1750	1758	1745	1730	795
35°	1396	1416	1480	1488	1483	875
45°	1081	1100	1136	1187	1194	834
55°	757	770	808	852	877	676
65°	444	456	483	517	547	440
75°	178	188	201	211	223	195
85°	28	28	28	26	26	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2077.2	2077.2	2077.2	2077.2	2077.2
2.5°	2082.8	2083.6	2078.8	2066.0	2058.0
5°	2074.8	2074.0	2066.0	2054.8	2048.4
7.5°	2051.6	2053.2	2050.8	2034.9	2026.1
10°	2029.3	2030.1	2023.7	2010.9	2000.6
12.5°	2000.6	1999.8	1991.0	1984.6	1967.8
15°	1955.1	1959.9	1955.1	1946.3	1932.7
17.5°	1911.2	1911.2	1914.4	1899.2	1888.8
20°	1861.7	1864.1	1864.1	1852.1	1840.2
22.5°	1804.3	1811.4	1813.8	1801.1	1786.7
25°	1736.4	1750.0	1758.0	1745.2	1730.0
27.5°	1654.2	1675.0	1698.9	1689.3	1672.6
30°	1562.5	1592.8	1632.7	1624.7	1612.7
32.5°	1475.5	1505.8	1560.9	1557.7	1551.3
35°	1396.5	1415.6	1480.3	1488.3	1482.7
37.5°	1321.5	1339.0	1399.7	1418.0	1413.2
40°	1242.5	1261.6	1309.5	1342.2	1343.8
42.5°	1164.3	1182.6	1221.7	1268.8	1268.8
45°	1081.3	1099.6	1135.5	1187.4	1193.8
47.5°	999.9	1019.0	1054.1	1106.0	1116.4
50°	920.1	937.6	972.8	1023.0	1039.0
52.5°	837.1	856.2	890.6	936.8	960.0
55°	757.3	770.1	807.6	852.3	877.0
57.5°	674.3	686.3	728.6	766.9	792.4
60°	594.5	609.7	642.4	681.5	711.0
62.5°	517.9	533.9	561.8	596.1	629.6
65°	443.7	455.7	482.8	517.1	546.6
67.5°	371.9	382.2	409.4	433.3	464.4
70°	299.2	312.8	332.8	355.9	375.9
72.5°	241.0	246.6	263.3	280.1	300.8
75°	178.0	187.5	201.1	210.7	222.6
77.5°	127.7	133.3	141.2	149.2	160.4
80°	85.4	87.8	95.0	96.6	105.3
82.5°	51.9	53.5	55.1	55.9	59.1
85°	27.9	27.9	27.9	26.3	26.3
87.5°	16.0	16.0	13.6	11.2	8.0
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)