

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: P557301

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-80-86-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: P557301
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-40-UNV-80-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

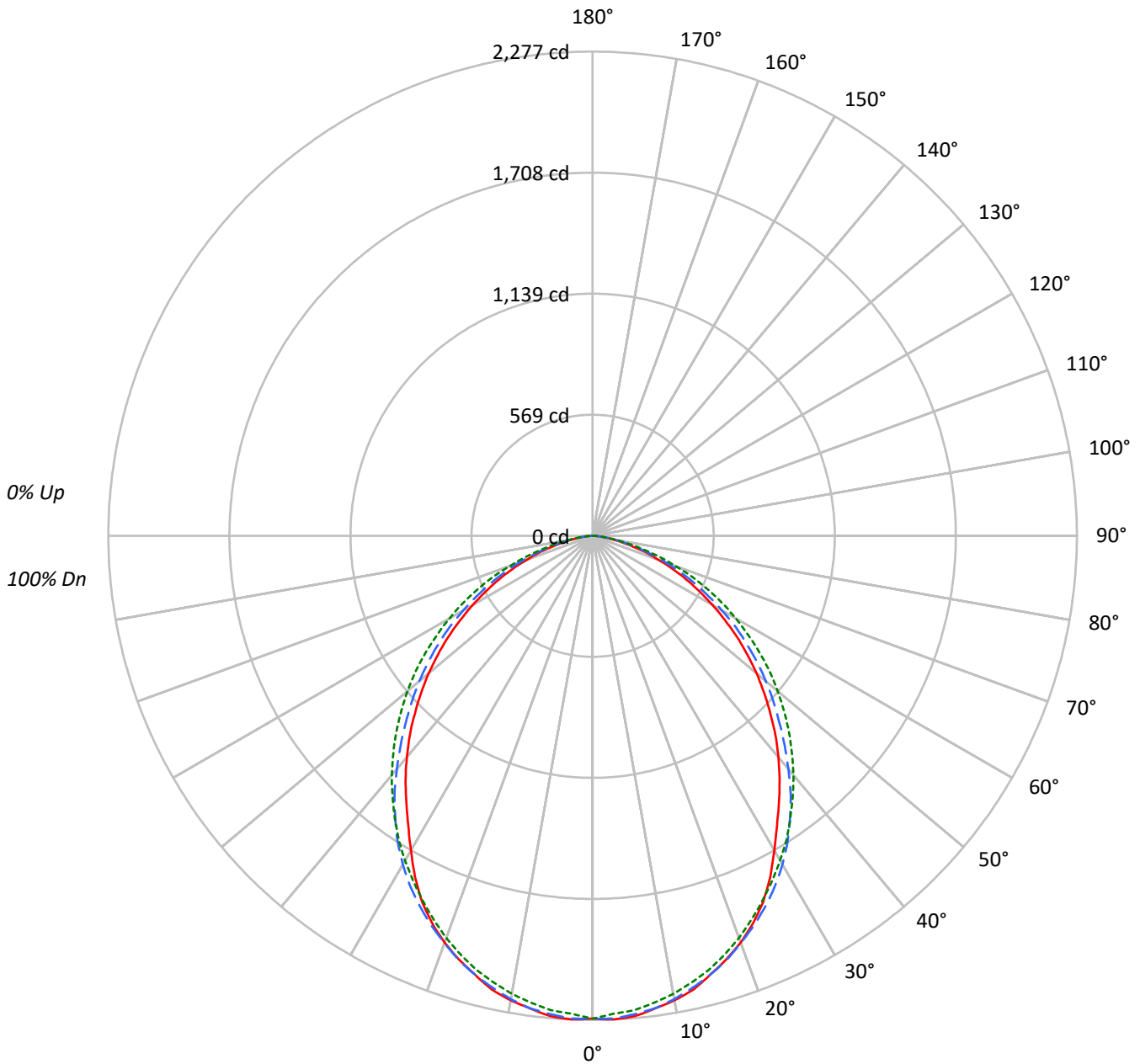
Lumens per Lamp: N/A
Luminaire Lumens: 5251.0 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6111	6111	6111
5°	6127	6101	6049
10°	6062	6046	5977
15°	5955	5955	5887
20°	5829	5836	5761
25°	5637	5707	5616
30°	5308	5546	5479
35°	5015	5316	5325
40°	4772	5029	5161
45°	4499	4725	4967
50°	4211	4452	4755
55°	3884	4142	4498
60°	3498	3780	4183
65°	3089	3361	3805
70°	2574	2862	3233
75°	2023	2286	2531
80°	1446	1609	1785
85°	942	942	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.8	4.1
10°-20°	600.7	11.4
20°-30°	877.8	16.7
30°-40°	996.4	19.0
40°-50°	961.8	18.3
50°-60°	793.4	15.1
60°-70°	528.4	10.1
70°-80°	236.4	4.5
80°-90°	42.3	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°	1692.2	32.2
0°-40°	2688.6	51.2
0°-60°	4443.9	84.6
0°-90°	5251.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5251.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2271	2271	2271	2271	2271	
5°	2268	2267	2259	2246	2240	215
15°	2137	2143	2137	2128	2113	603
25°	1898	1913	1922	1908	1891	869
35°	1527	1548	1618	1627	1621	957
45°	1182	1202	1242	1298	1305	912
55°	828	842	883	932	959	739
65°	485	498	528	565	598	481
75°	195	205	220	230	243	213
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°	2270.9	2270.9	2270.9	2270.9	2270.9
2.5°	2277.0	2277.9	2272.7	2258.7	2250.0
5°	2268.3	2267.4	2258.7	2246.5	2239.5
7.5°	2243.0	2244.7	2242.1	2224.7	2215.1
10°	2218.6	2219.4	2212.5	2198.5	2187.2
12.5°	2187.2	2186.3	2176.7	2169.7	2151.4
15°	2137.4	2142.7	2137.4	2127.8	2113.0
17.5°	2089.5	2089.5	2092.9	2076.4	2065.0
20°	2035.4	2038.0	2038.0	2024.9	2011.8
22.5°	1972.6	1980.4	1983.0	1969.1	1953.4
25°	1898.4	1913.2	1922.0	1908.0	1891.4
27.5°	1808.5	1831.2	1857.4	1846.9	1828.6
30°	1708.2	1741.4	1785.0	1776.3	1763.2
32.5°	1613.1	1646.3	1706.5	1703.0	1696.0
35°	1526.7	1547.7	1618.3	1627.1	1621.0
37.5°	1444.7	1463.9	1530.2	1550.3	1545.1
40°	1358.4	1379.3	1431.6	1467.4	1469.2
42.5°	1272.9	1292.9	1335.7	1387.2	1387.2
45°	1182.1	1202.2	1241.5	1298.2	1305.1
47.5°	1093.1	1114.1	1152.5	1209.2	1220.5
50°	1005.9	1025.1	1063.5	1118.4	1135.9
52.5°	915.2	936.1	973.6	1024.2	1049.5
55°	827.9	841.9	882.9	931.7	958.8
57.5°	737.2	750.3	796.5	838.4	866.3
60°	650.0	666.5	702.3	745.1	777.3
62.5°	566.2	583.7	614.2	651.7	688.3
65°	485.1	498.2	527.8	565.3	597.6
67.5°	406.5	417.9	447.6	473.7	507.8
70°	327.2	342.0	363.8	389.1	410.9
72.5°	263.5	269.6	287.9	306.2	328.9
75°	194.6	205.0	219.9	230.3	243.4
77.5°	139.6	145.7	154.4	163.1	175.4
80°	93.3	96.0	103.8	105.6	115.2
82.5°	56.7	58.5	60.2	61.1	64.6
85°	30.5	30.5	30.5	28.8	28.8
87.5°	17.4	17.4	14.8	12.2	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)