

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: P557339

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-82-94-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: P557339
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-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

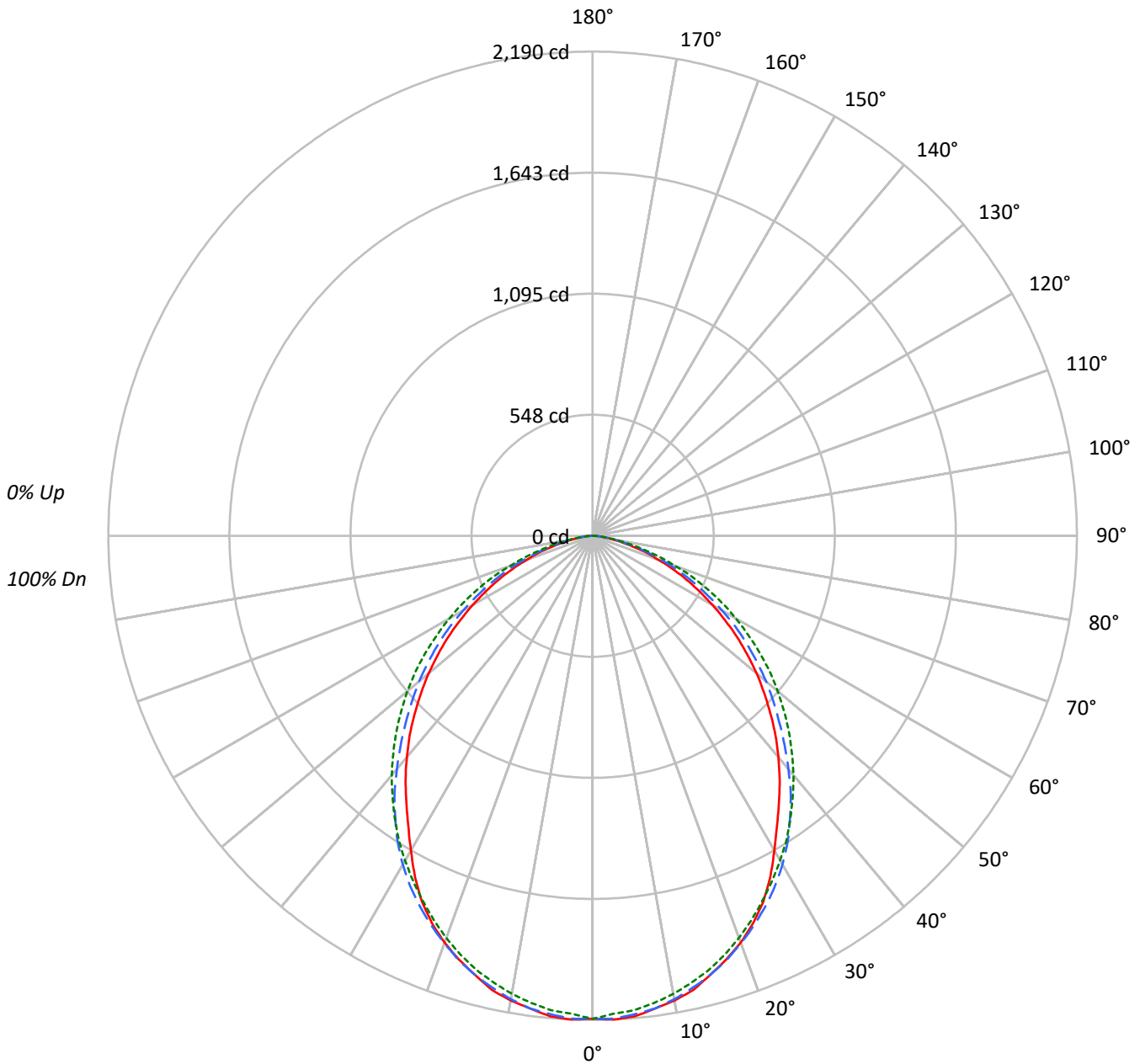
Lumens per Lamp: N/A
Luminaire Lumens: 5051.0 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5878	5878	5878
5°	5894	5869	5819
10°	5831	5815	5749
15°	5728	5728	5662
20°	5607	5614	5542
25°	5422	5489	5402
30°	5106	5335	5270
35°	4824	5114	5122
40°	4590	4838	4964
45°	4327	4545	4778
50°	4051	4283	4574
55°	3736	3985	4327
60°	3365	3636	4024
65°	2971	3233	3660
70°	2476	2753	3110
75°	1945	2199	2434
80°	1392	1548	1717
85°	908	908	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.7	4.1
10°-20°	577.8	11.4
20°-30°	844.3	16.7
30°-40°	958.4	19.0
40°-50°	925.2	18.3
50°-60°	763.2	15.1
60°-70°	508.2	10.1
70°-80°	227.4	4.5
80°-90°	40.7	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°	1627.8	32.2
0°-40°	2586.2	51.2
0°-60°	4274.6	84.6
0°-90°	5051.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5051.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2184	2184	2184	2184	2184	
5°	2182	2181	2173	2161	2154	207
15°	2056	2061	2056	2047	2032	580
25°	1826	1840	1849	1835	1819	836
35°	1469	1489	1557	1565	1559	920
45°	1137	1156	1194	1249	1255	877
55°	796	810	849	896	922	711
65°	467	479	508	544	575	463
75°	187	197	212	222	234	205
85°	29	29	29	28	28	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2184.4	2184.4	2184.4	2184.4	2184.4
2.5°	2190.3	2191.1	2186.1	2172.7	2164.3
5°	2181.9	2181.1	2172.7	2160.9	2154.2
7.5°	2157.6	2159.3	2156.7	2139.9	2130.7
10°	2134.1	2134.9	2128.2	2114.8	2103.9
12.5°	2103.9	2103.0	2093.8	2087.1	2069.5
15°	2056.0	2061.1	2056.0	2046.8	2032.5
17.5°	2009.9	2009.9	2013.2	1997.3	1986.4
20°	1957.8	1960.4	1960.4	1947.8	1935.2
22.5°	1897.4	1905.0	1907.5	1894.1	1879.0
25°	1826.1	1840.4	1848.7	1835.3	1819.4
27.5°	1739.7	1761.5	1786.6	1776.6	1759.0
30°	1643.1	1675.0	1717.0	1708.6	1696.0
32.5°	1551.7	1583.6	1641.5	1638.1	1631.4
35°	1468.6	1488.7	1556.7	1565.1	1559.2
37.5°	1389.7	1408.2	1471.9	1491.3	1486.2
40°	1306.6	1326.8	1377.1	1411.5	1413.2
42.5°	1224.4	1243.7	1284.8	1334.3	1334.3
45°	1137.1	1156.4	1194.2	1248.7	1255.4
47.5°	1051.5	1071.7	1108.6	1163.1	1174.0
50°	967.6	986.1	1023.0	1075.8	1092.6
52.5°	880.3	900.5	936.5	985.2	1009.6
55°	796.4	809.8	849.3	896.3	922.3
57.5°	709.1	721.7	766.2	806.5	833.3
60°	625.2	641.1	675.6	716.7	747.7
62.5°	544.6	561.4	590.8	626.9	662.1
65°	466.6	479.2	507.7	543.8	574.8
67.5°	391.1	402.0	430.5	455.7	488.4
70°	314.7	329.0	349.9	374.3	395.3
72.5°	253.4	259.3	276.9	294.6	316.4
75°	187.1	197.2	211.5	221.5	234.1
77.5°	134.3	140.1	148.5	156.9	168.7
80°	89.8	92.3	99.9	101.5	110.8
82.5°	54.5	56.2	57.9	58.7	62.1
85°	29.4	29.4	29.4	27.7	27.7
87.5°	16.8	16.8	14.3	11.7	8.4
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)