

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: P557175

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-80-87-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: P557175
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-30-UNV-80-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

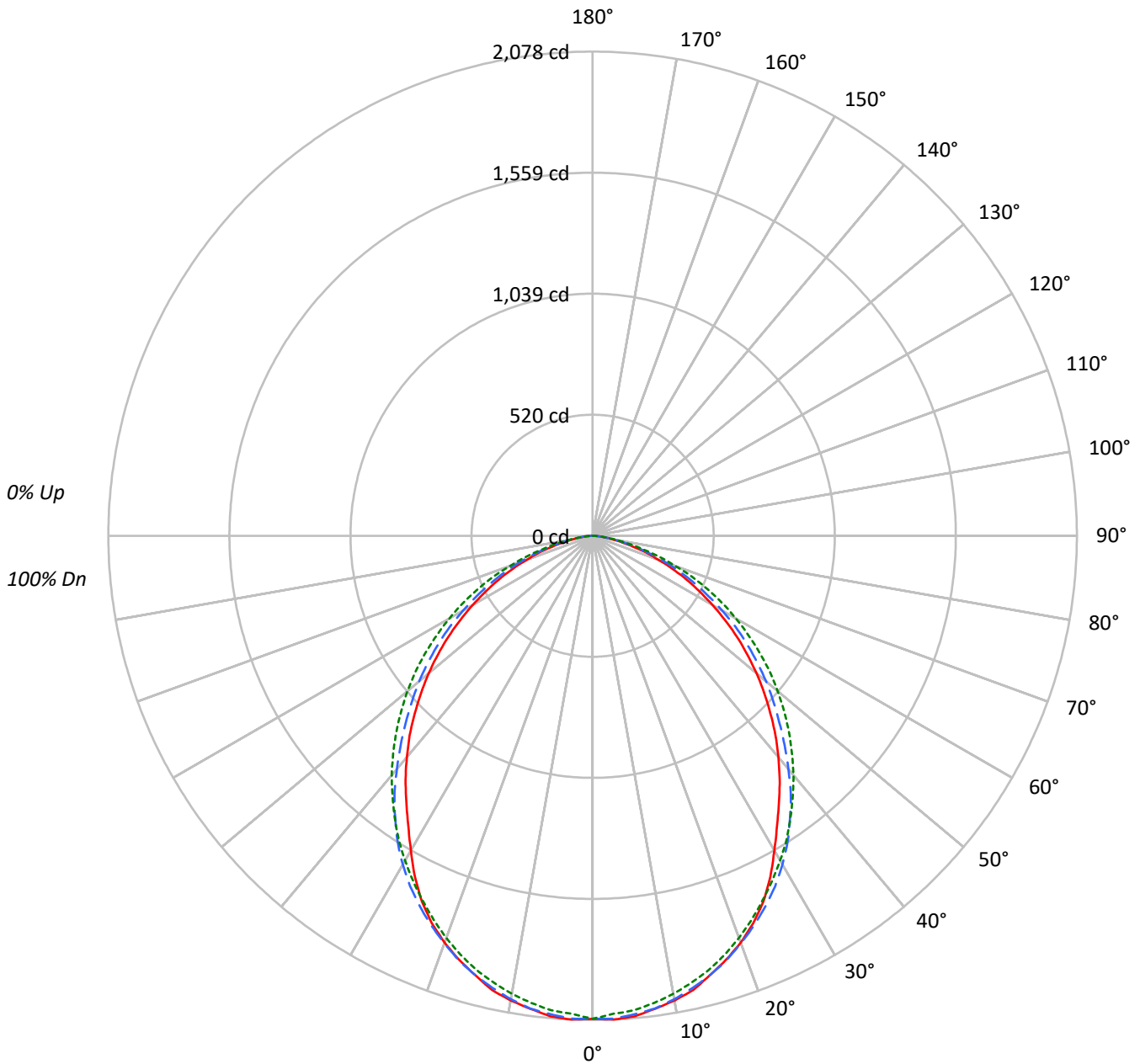
Lumens per Lamp: N/A
Luminaire Lumens: 4793.0 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5578	5578	5578
5°	5593	5569	5522
10°	5534	5518	5455
15°	5435	5435	5373
20°	5320	5327	5259
25°	5145	5209	5126
30°	4845	5063	5001
35°	4578	4853	4861
40°	4356	4591	4711
45°	4106	4313	4534
50°	3844	4064	4340
55°	3545	3781	4106
60°	3193	3450	3818
65°	2819	3068	3473
70°	2349	2613	2951
75°	1847	2087	2310
80°	1320	1469	1629
85°	861	861	812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.2	4.1
10°-20°	548.3	11.4
20°-30°	801.2	16.7
30°-40°	909.5	19.0
40°-50°	877.9	18.3
50°-60°	724.2	15.1
60°-70°	482.3	10.1
70°-80°	215.8	4.5
80°-90°	38.6	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°	1544.6	32.2
0°-40°	2454.1	51.2
0°-60°	4056.3	84.6
0°-90°	4793.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4793.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2073	2073	2073	2073	2073	
5°	2070	2070	2062	2051	2044	196
15°	1951	1956	1951	1942	1929	550
25°	1733	1746	1754	1742	1726	794
35°	1394	1413	1477	1485	1480	873
45°	1079	1097	1133	1185	1191	833
55°	756	768	806	850	875	675
65°	443	455	482	516	546	439
75°	178	187	201	210	222	194
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°	2072.8	2072.8	2072.8	2072.8	2072.8
2.5°	2078.4	2079.2	2074.4	2061.7	2053.7
5°	2070.5	2069.7	2061.7	2050.6	2044.2
7.5°	2047.4	2049.0	2046.6	2030.6	2021.9
10°	2025.1	2025.9	2019.5	2006.8	1996.4
12.5°	1996.4	1995.6	1986.8	1980.5	1963.8
15°	1951.0	1955.8	1951.0	1942.3	1928.7
17.5°	1907.2	1907.2	1910.4	1895.3	1884.9
20°	1857.8	1860.2	1860.2	1848.3	1836.3
22.5°	1800.5	1807.7	1810.1	1797.3	1783.0
25°	1732.8	1746.4	1754.3	1741.6	1726.4
27.5°	1650.8	1671.5	1695.4	1685.8	1669.1
30°	1559.2	1589.5	1629.3	1621.3	1609.4
32.5°	1472.4	1502.7	1557.6	1554.4	1548.1
35°	1393.6	1412.7	1477.2	1485.2	1479.6
37.5°	1318.7	1336.2	1396.8	1415.1	1410.3
40°	1239.9	1259.0	1306.8	1339.4	1341.0
42.5°	1161.8	1180.2	1219.2	1266.2	1266.2
45°	1079.0	1097.3	1133.2	1184.9	1191.3
47.5°	997.8	1016.9	1052.0	1103.7	1114.1
50°	918.2	935.7	970.7	1020.9	1036.8
52.5°	835.4	854.5	888.7	934.9	958.0
55°	755.7	768.5	805.9	850.5	875.2
57.5°	672.9	684.8	727.0	765.3	790.8
60°	593.3	608.4	641.0	680.1	709.5
62.5°	516.8	532.7	560.6	594.9	628.3
65°	442.8	454.7	481.8	516.0	545.5
67.5°	371.1	381.4	408.5	432.4	463.5
70°	298.6	312.2	332.1	355.2	375.1
72.5°	240.5	246.1	262.8	279.5	300.2
75°	177.6	187.1	200.7	210.2	222.2
77.5°	127.4	133.0	141.0	148.9	160.1
80°	85.2	87.6	94.8	96.4	105.1
82.5°	51.8	53.4	54.9	55.7	58.9
85°	27.9	27.9	27.9	26.3	26.3
87.5°	15.9	15.9	13.5	11.1	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)