

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: P557237

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-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: P557237
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

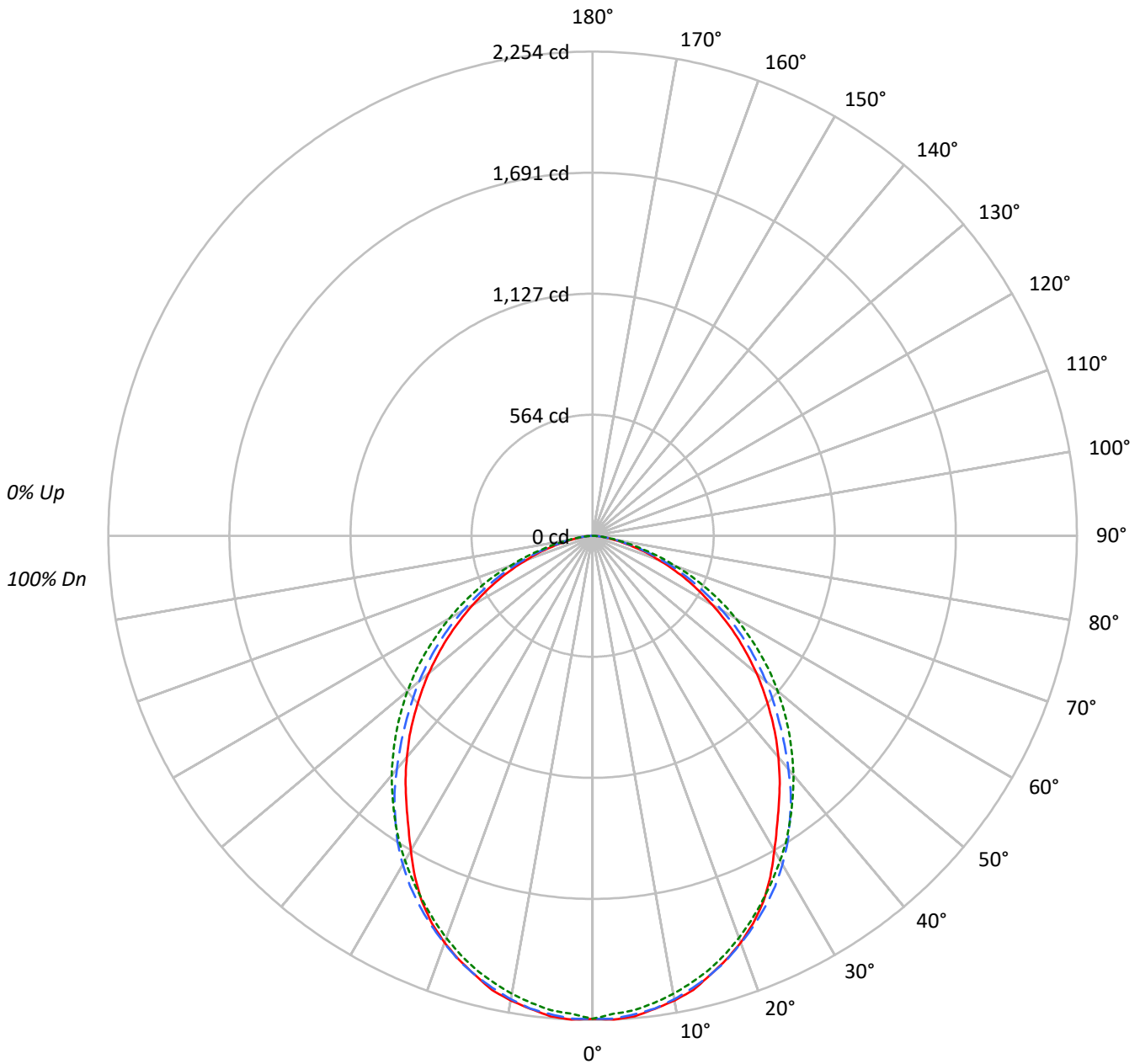
Lumens per Lamp: N/A
Luminaire Lumens: 5199.0 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6050	6050	6050
5°	6066	6041	5989
10°	6002	5986	5917
15°	5896	5896	5828
20°	5771	5778	5704
25°	5581	5650	5560
30°	5255	5491	5424
35°	4966	5264	5272
40°	4724	4979	5110
45°	4454	4678	4918
50°	4169	4408	4708
55°	3846	4101	4454
60°	3463	3742	4142
65°	3058	3328	3768
70°	2548	2834	3201
75°	2002	2263	2506
80°	1432	1593	1767
85°	932	932	880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.7	4.1
10°-20°	594.7	11.4
20°-30°	869.1	16.7
30°-40°	986.5	19.0
40°-50°	952.3	18.3
50°-60°	785.6	15.1
60°-70°	523.1	10.1
70°-80°	234.1	4.5
80°-90°	41.9	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°	1675.5	32.2
0°-40°	2662.0	51.2
0°-60°	4399.9	84.6
0°-90°	5199.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5199.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2248	2248	2248	2248	2248	
5°	2246	2245	2236	2224	2217	213
15°	2116	2122	2116	2107	2092	597
25°	1880	1894	1903	1889	1873	861
35°	1512	1532	1602	1611	1605	947
45°	1170	1190	1229	1285	1292	903
55°	820	834	874	922	949	732
65°	480	493	523	560	592	476
75°	193	203	218	228	241	211
85°	30	30	30	28	28	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2248.4	2248.4	2248.4	2248.4	2248.4
2.5°	2254.5	2255.3	2250.2	2236.3	2227.7
5°	2245.8	2245.0	2236.3	2224.2	2217.3
7.5°	2220.8	2222.5	2219.9	2202.7	2193.2
10°	2196.6	2197.5	2190.6	2176.7	2165.5
12.5°	2165.5	2164.6	2155.1	2148.2	2130.1
15°	2116.3	2121.5	2116.3	2106.8	2092.1
17.5°	2068.8	2068.8	2072.2	2055.8	2044.6
20°	2015.2	2017.8	2017.8	2004.8	1991.9
22.5°	1953.0	1960.8	1963.4	1949.6	1934.0
25°	1879.6	1894.3	1902.9	1889.1	1872.7
27.5°	1790.6	1813.1	1839.0	1828.6	1810.5
30°	1691.3	1724.1	1767.3	1758.7	1745.7
32.5°	1597.1	1630.0	1689.6	1686.1	1679.2
35°	1511.6	1532.4	1602.3	1611.0	1604.9
37.5°	1430.4	1449.4	1515.1	1534.9	1529.8
40°	1344.9	1365.6	1417.5	1452.9	1454.6
42.5°	1260.3	1280.1	1322.5	1373.4	1373.4
45°	1170.4	1190.3	1229.2	1285.3	1292.2
47.5°	1082.3	1103.1	1141.1	1197.2	1208.4
50°	995.9	1014.9	1053.0	1107.4	1124.6
52.5°	906.1	926.8	964.0	1014.1	1039.1
55°	819.7	833.6	874.2	922.5	949.3
57.5°	729.9	742.9	788.6	830.1	857.7
60°	643.5	659.9	695.3	737.7	769.6
62.5°	560.6	577.9	608.1	645.2	681.5
65°	480.3	493.2	522.6	559.7	591.7
67.5°	402.5	413.8	443.1	469.0	502.7
70°	323.9	338.6	360.2	385.2	406.8
72.5°	260.9	266.9	285.0	303.2	325.6
75°	192.6	203.0	217.7	228.0	241.0
77.5°	138.2	144.3	152.9	161.5	173.6
80°	92.4	95.0	102.8	104.5	114.0
82.5°	56.1	57.9	59.6	60.5	63.9
85°	30.2	30.2	30.2	28.5	28.5
87.5°	17.3	17.3	14.7	12.1	8.6
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)