

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: P557364

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-80-86-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: P557364
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-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

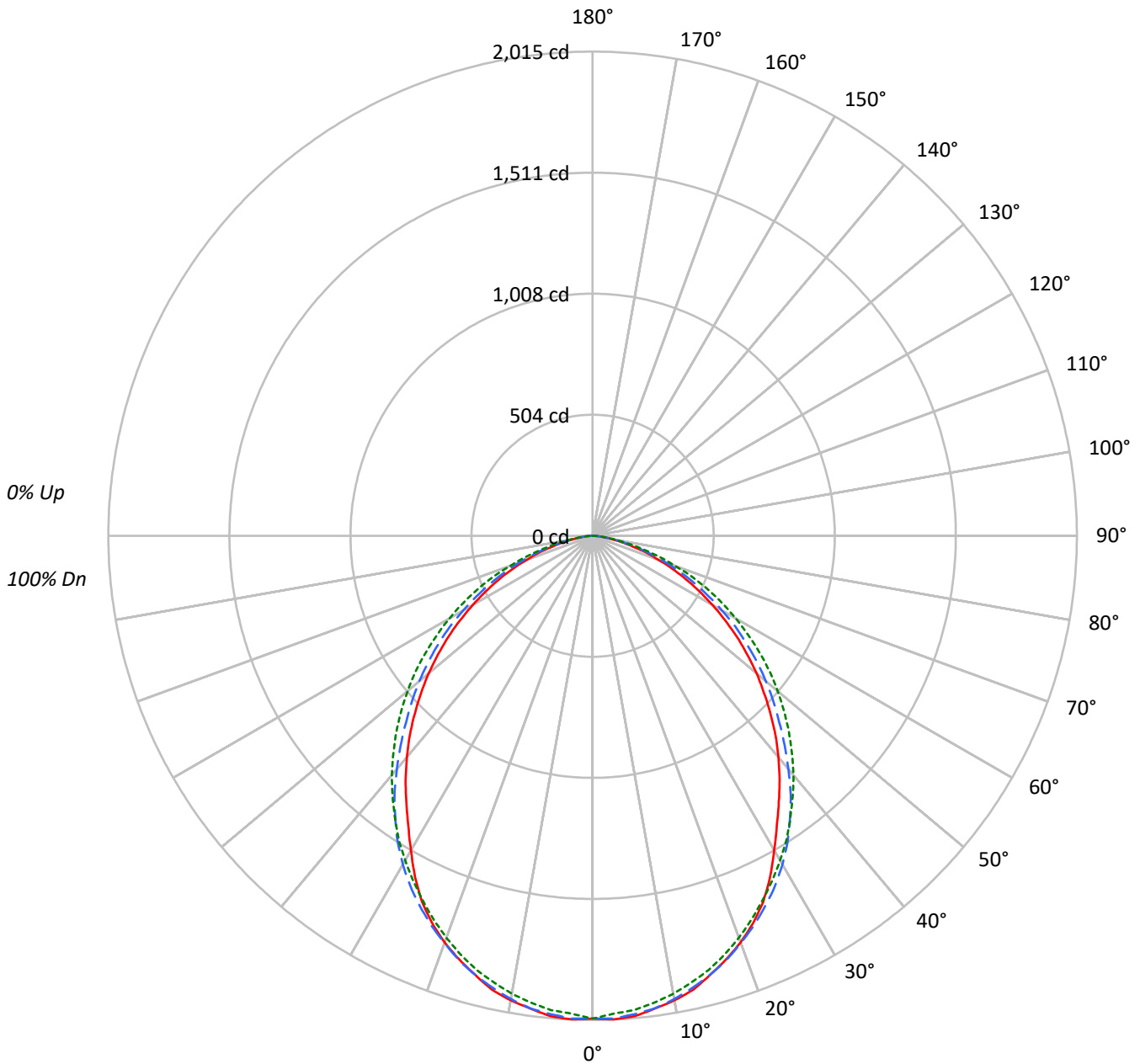
Lumens per Lamp: N/A
Luminaire Lumens: 4646.0 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5407	5407	5407
5°	5421	5398	5353
10°	5364	5349	5288
15°	5269	5269	5209
20°	5157	5164	5097
25°	4987	5049	4969
30°	4696	4907	4847
35°	4437	4704	4711
40°	4222	4450	4566
45°	3980	4180	4395
50°	3726	3939	4207
55°	3437	3665	3980
60°	3095	3344	3702
65°	2733	2974	3367
70°	2278	2533	2861
75°	1789	2022	2240
80°	1280	1424	1579
85°	834	834	787



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.2	4.1
10°-20°	531.5	11.4
20°-30°	776.6	16.7
30°-40°	881.6	19.0
40°-50°	851.0	18.3
50°-60°	702.0	15.1
60°-70°	467.5	10.1
70°-80°	209.2	4.5
80°-90°	37.4	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°	1497.3	32.2
0°-40°	2378.8	51.2
0°-60°	3931.9	84.6
0°-90°	4646.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4646.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2009	2009	2009	2009	2009	
5°	2007	2006	1998	1988	1982	190
15°	1891	1896	1891	1883	1870	533
25°	1680	1693	1700	1688	1674	769
35°	1351	1369	1432	1440	1434	846
45°	1046	1064	1098	1149	1155	807
55°	732	745	781	824	848	654
65°	429	441	467	500	529	426
75°	172	181	194	204	215	188
85°	27	27	27	26	26	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2009.3	2009.3	2009.3	2009.3	2009.3
2.5°	2014.7	2015.5	2010.8	1998.5	1990.7
5°	2007.0	2006.2	1998.5	1987.7	1981.5
7.5°	1984.6	1986.1	1983.8	1968.4	1959.9
10°	1963.0	1963.7	1957.6	1945.2	1935.2
12.5°	1935.2	1934.4	1925.9	1919.7	1903.5
15°	1891.2	1895.8	1891.2	1882.7	1869.6
17.5°	1848.7	1848.7	1851.8	1837.1	1827.1
20°	1800.9	1803.2	1803.2	1791.6	1780.0
22.5°	1745.3	1752.2	1754.5	1742.2	1728.3
25°	1679.7	1692.8	1700.5	1688.2	1673.5
27.5°	1600.2	1620.2	1643.4	1634.1	1617.9
30°	1511.4	1540.7	1579.3	1571.6	1560.0
32.5°	1427.3	1456.6	1509.9	1506.8	1500.6
35°	1350.8	1369.4	1431.9	1439.6	1434.2
37.5°	1278.3	1295.3	1353.9	1371.7	1367.0
40°	1201.9	1220.4	1266.7	1298.3	1299.9
42.5°	1126.2	1144.0	1181.8	1227.3	1227.3
45°	1045.9	1063.7	1098.4	1148.6	1154.8
47.5°	967.2	985.7	1019.7	1069.9	1079.9
50°	890.0	907.0	941.0	989.6	1005.0
52.5°	809.7	828.3	861.4	906.2	928.6
55°	732.5	744.9	781.2	824.4	848.3
57.5°	652.3	663.8	704.8	741.8	766.5
60°	575.1	589.7	621.4	659.2	687.8
62.5°	501.0	516.4	543.4	576.6	609.0
65°	429.2	440.8	467.0	500.2	528.8
67.5°	359.7	369.7	396.0	419.1	449.3
70°	289.5	302.6	321.9	344.3	363.6
72.5°	233.1	238.5	254.7	270.9	291.0
75°	172.1	181.4	194.5	203.8	215.4
77.5°	123.5	128.9	136.6	144.3	155.2
80°	82.6	84.9	91.9	93.4	101.9
82.5°	50.2	51.7	53.3	54.0	57.1
85°	27.0	27.0	27.0	25.5	25.5
87.5°	15.4	15.4	13.1	10.8	7.7
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)