

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: P557528

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-82-88-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: P557528
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-LD4-2STD-35-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

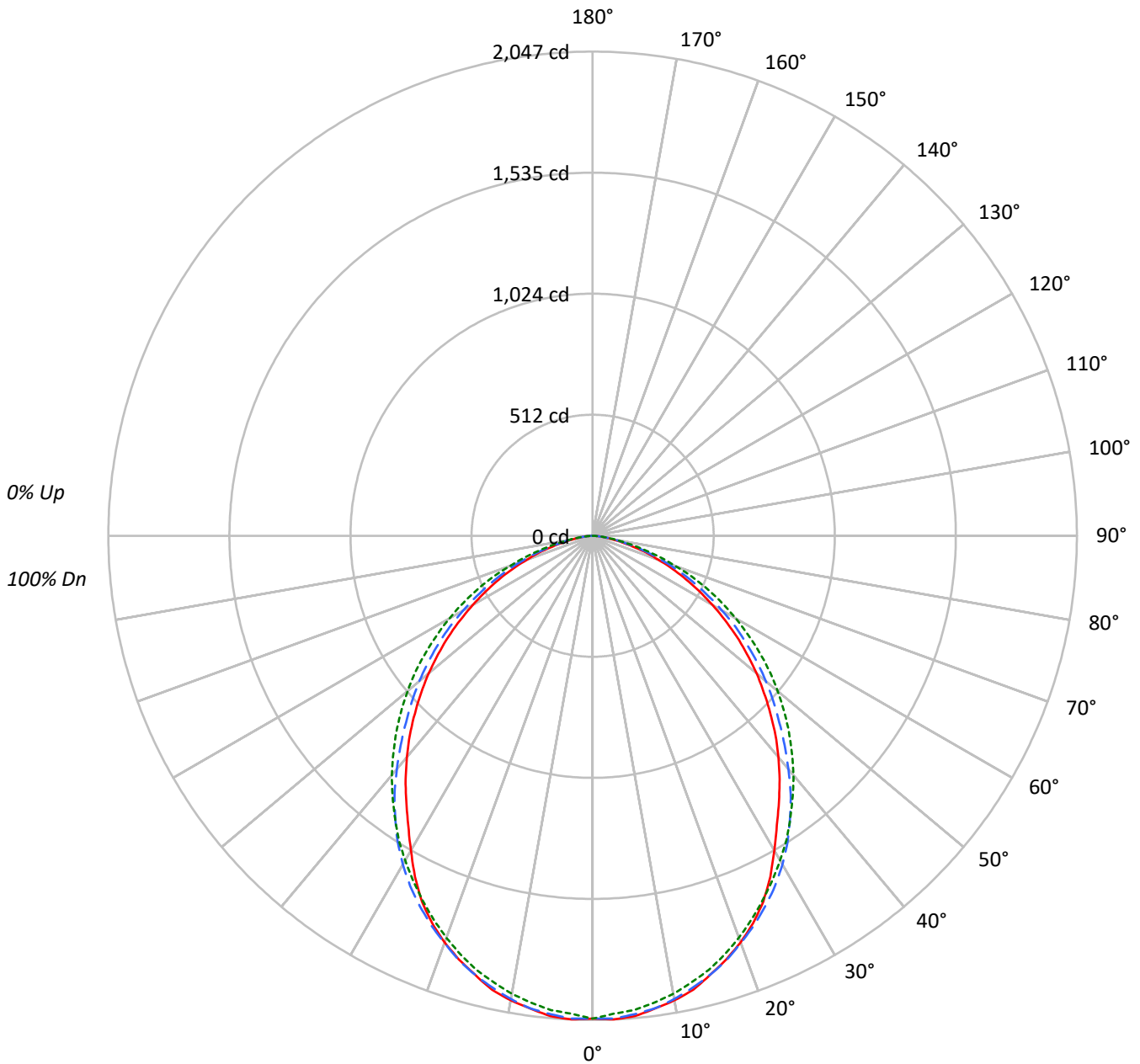
Lumens per Lamp: N/A
Luminaire Lumens: 4720.0 lumens
Efficiency: N/A
Efficacy: 70.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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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CATALOG NUMBER: FUSL-12-4-LD4-2STD-35-UNV-82-88-EDD-90

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°	5493	5493	5493
5°	5508	5484	5438
10°	5449	5434	5372
15°	5353	5353	5291
20°	5239	5246	5179
25°	5067	5130	5048
30°	4771	4986	4925
35°	4508	4779	4786
40°	4289	4521	4639
45°	4044	4247	4465
50°	3785	4002	4274
55°	3491	3723	4043
60°	3144	3398	3760
65°	2776	3021	3421
70°	2314	2573	2906
75°	1818	2054	2275
80°	1300	1446	1604
85°	846	846	800



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.2	4.1
10°-20°	539.9	11.4
20°-30°	789.0	16.7
30°-40°	895.6	19.0
40°-50°	864.6	18.3
50°-60°	713.2	15.1
60°-70°	474.9	10.1
70°-80°	212.5	4.5
80°-90°	38.0	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°	1521.1	32.2
0°-40°	2416.7	51.2
0°-60°	3994.5	84.6
0°-90°	4720.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4720.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2041	2041	2041	2041	2041	
5°	2039	2038	2030	2019	2013	193
15°	1921	1926	1921	1913	1899	542
25°	1706	1720	1728	1715	1700	781
35°	1372	1391	1455	1462	1457	860
45°	1063	1081	1116	1167	1173	820
55°	744	757	794	838	862	664
65°	436	448	474	508	537	432
75°	175	184	198	207	219	191
85°	27	27	27	26	26	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2041.3	2041.3	2041.3	2041.3	2041.3
2.5°	2046.8	2047.6	2042.8	2030.3	2022.5
5°	2038.9	2038.1	2030.3	2019.3	2013.0
7.5°	2016.2	2017.8	2015.4	1999.7	1991.1
10°	1994.2	1995.0	1988.7	1976.2	1966.0
12.5°	1966.0	1965.2	1956.6	1950.3	1933.8
15°	1921.3	1926.0	1921.3	1912.7	1899.3
17.5°	1878.2	1878.2	1881.3	1866.4	1856.2
20°	1829.5	1831.9	1831.9	1820.1	1808.4
22.5°	1773.1	1780.1	1782.5	1769.9	1755.8
25°	1706.4	1719.8	1727.6	1715.1	1700.2
27.5°	1625.7	1646.0	1669.6	1660.2	1643.7
30°	1535.5	1565.3	1604.5	1596.6	1584.9
32.5°	1450.0	1479.8	1533.9	1530.8	1524.5
35°	1372.4	1391.2	1454.7	1462.5	1457.0
37.5°	1298.6	1315.9	1375.5	1393.5	1388.8
40°	1221.0	1239.8	1286.9	1319.0	1320.6
42.5°	1144.2	1162.2	1200.6	1246.9	1246.9
45°	1062.6	1080.6	1115.9	1166.9	1173.2
47.5°	982.6	1001.4	1035.9	1086.9	1097.1
50°	904.2	921.4	955.9	1005.3	1021.0
52.5°	822.6	841.4	875.2	920.7	943.4
55°	744.2	756.8	793.6	837.5	861.8
57.5°	662.7	674.4	716.0	753.6	778.7
60°	584.2	599.1	631.3	669.7	698.7
62.5°	508.9	524.6	552.1	585.8	618.7
65°	436.0	447.8	474.4	508.2	537.2
67.5°	365.4	375.6	402.3	425.8	456.4
70°	294.1	307.4	327.0	349.8	369.4
72.5°	236.8	242.3	258.8	275.3	295.6
75°	174.9	184.3	197.6	207.0	218.8
77.5°	125.5	131.0	138.8	146.6	157.6
80°	83.9	86.3	93.3	94.9	103.5
82.5°	51.0	52.5	54.1	54.9	58.0
85°	27.4	27.4	27.4	25.9	25.9
87.5°	15.7	15.7	13.3	11.0	7.8
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)