

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: P557328

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-82-84-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: P557328
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-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

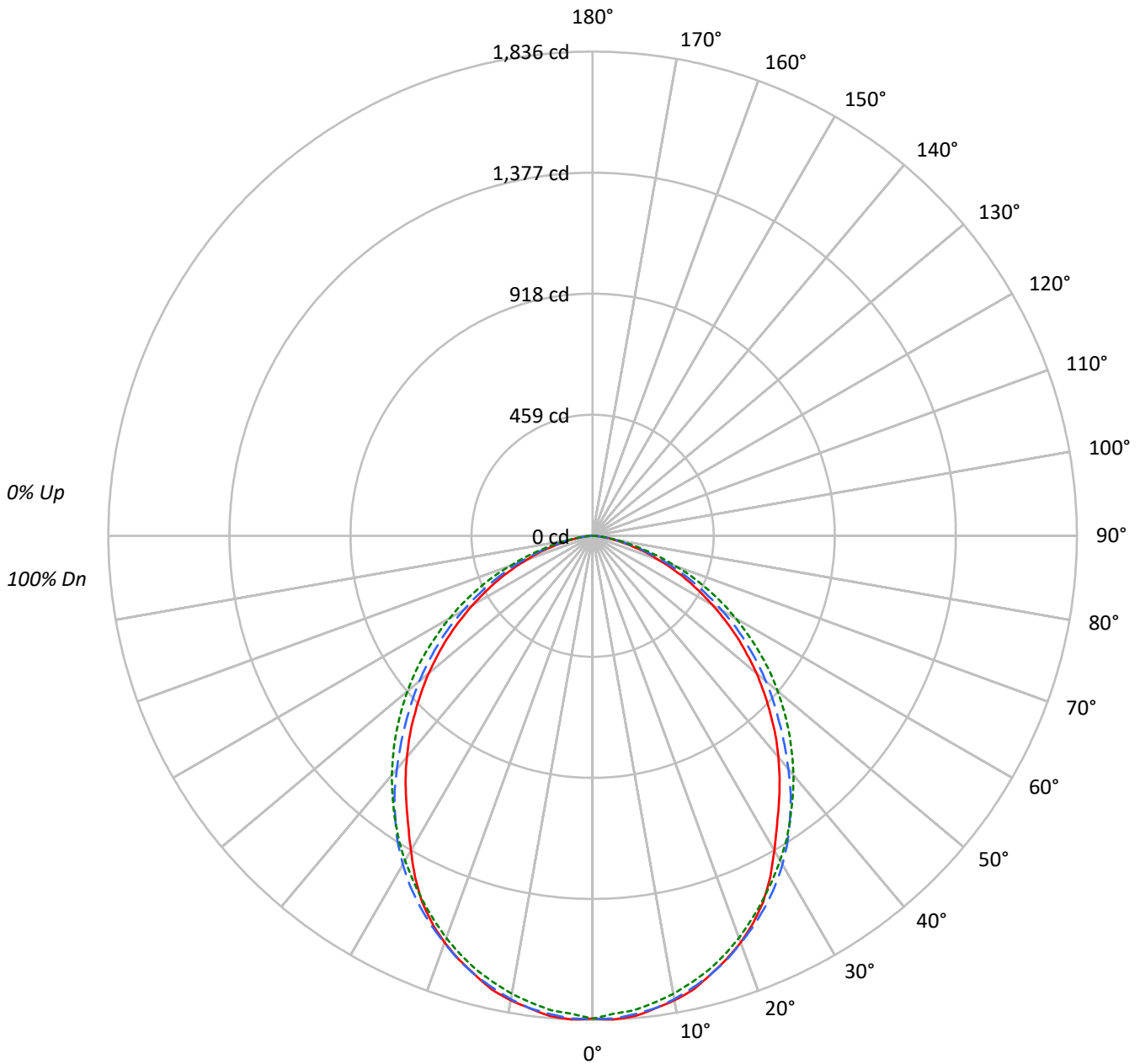
Lumens per Lamp: N/A
Luminaire Lumens: 4234.0 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4927	4927	4927
5°	4941	4920	4878
10°	4888	4875	4819
15°	4802	4802	4747
20°	4700	4706	4645
25°	4545	4601	4528
30°	4280	4472	4418
35°	4044	4287	4294
40°	3848	4055	4161
45°	3628	3809	4005
50°	3396	3590	3834
55°	3132	3340	3627
60°	2821	3048	3373
65°	2490	2710	3068
70°	2076	2308	2607
75°	1631	1843	2041
80°	1167	1297	1440
85°	760	760	716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.4	4.1
10°-20°	484.3	11.4
20°-30°	707.8	16.7
30°-40°	803.4	19.0
40°-50°	775.5	18.3
50°-60°	639.8	15.1
60°-70°	426.0	10.1
70°-80°	190.6	4.5
80°-90°	34.1	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°	1364.5	32.2
0°-40°	2167.9	51.2
0°-60°	3583.2	84.6
0°-90°	4234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4234.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1831	1831	1831	1831	1831	
5°	1829	1828	1821	1811	1806	173
15°	1724	1728	1724	1716	1704	486
25°	1531	1543	1550	1538	1525	701
35°	1231	1248	1305	1312	1307	771
45°	953	969	1001	1047	1052	735
55°	668	679	712	751	773	596
65°	391	402	426	456	482	388
75°	157	165	177	186	196	172
85°	25	25	25	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1831.1	1831.1	1831.1	1831.1	1831.1
2.5°	1836.0	1836.7	1832.5	1821.2	1814.2
5°	1829.0	1828.3	1821.2	1811.4	1805.8
7.5°	1808.6	1810.0	1807.9	1793.8	1786.1
10°	1788.9	1789.6	1784.0	1772.7	1763.6
12.5°	1763.6	1762.9	1755.1	1749.5	1734.7
15°	1723.5	1727.7	1723.5	1715.7	1703.8
17.5°	1684.8	1684.8	1687.6	1674.2	1665.1
20°	1641.2	1643.3	1643.3	1632.7	1622.2
22.5°	1590.5	1596.8	1599.0	1587.7	1575.0
25°	1530.7	1542.7	1549.7	1538.5	1525.1
27.5°	1458.3	1476.6	1497.7	1489.2	1474.4
30°	1377.4	1404.1	1439.3	1432.2	1421.7
32.5°	1300.7	1327.4	1376.0	1373.1	1367.5
35°	1231.0	1247.9	1304.9	1311.9	1307.0
37.5°	1164.9	1180.4	1233.9	1250.0	1245.8
40°	1095.3	1112.2	1154.4	1183.2	1184.6
42.5°	1026.3	1042.5	1077.0	1118.5	1118.5
45°	953.2	969.4	1001.0	1046.7	1052.4
47.5°	881.4	898.3	929.3	975.0	984.1
50°	811.1	826.6	857.5	901.8	915.9
52.5°	737.9	754.8	785.1	825.9	846.3
55°	667.6	678.8	711.9	751.3	773.1
57.5°	594.4	605.0	642.3	676.0	698.5
60°	524.1	537.4	566.3	600.8	626.8
62.5°	456.5	470.6	495.2	525.5	555.0
65°	391.1	401.7	425.6	455.8	481.9
67.5°	327.8	337.0	360.9	382.0	409.4
70°	263.8	275.8	293.3	313.7	331.3
72.5°	212.4	217.4	232.1	246.9	265.2
75°	156.9	165.3	177.3	185.7	196.3
77.5°	112.6	117.5	124.5	131.5	141.4
80°	75.3	77.4	83.7	85.1	92.9
82.5°	45.7	47.1	48.5	49.2	52.1
85°	24.6	24.6	24.6	23.2	23.2
87.5°	14.1	14.1	12.0	9.8	7.0
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)