

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: P557314

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-81-85-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: P557314
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-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

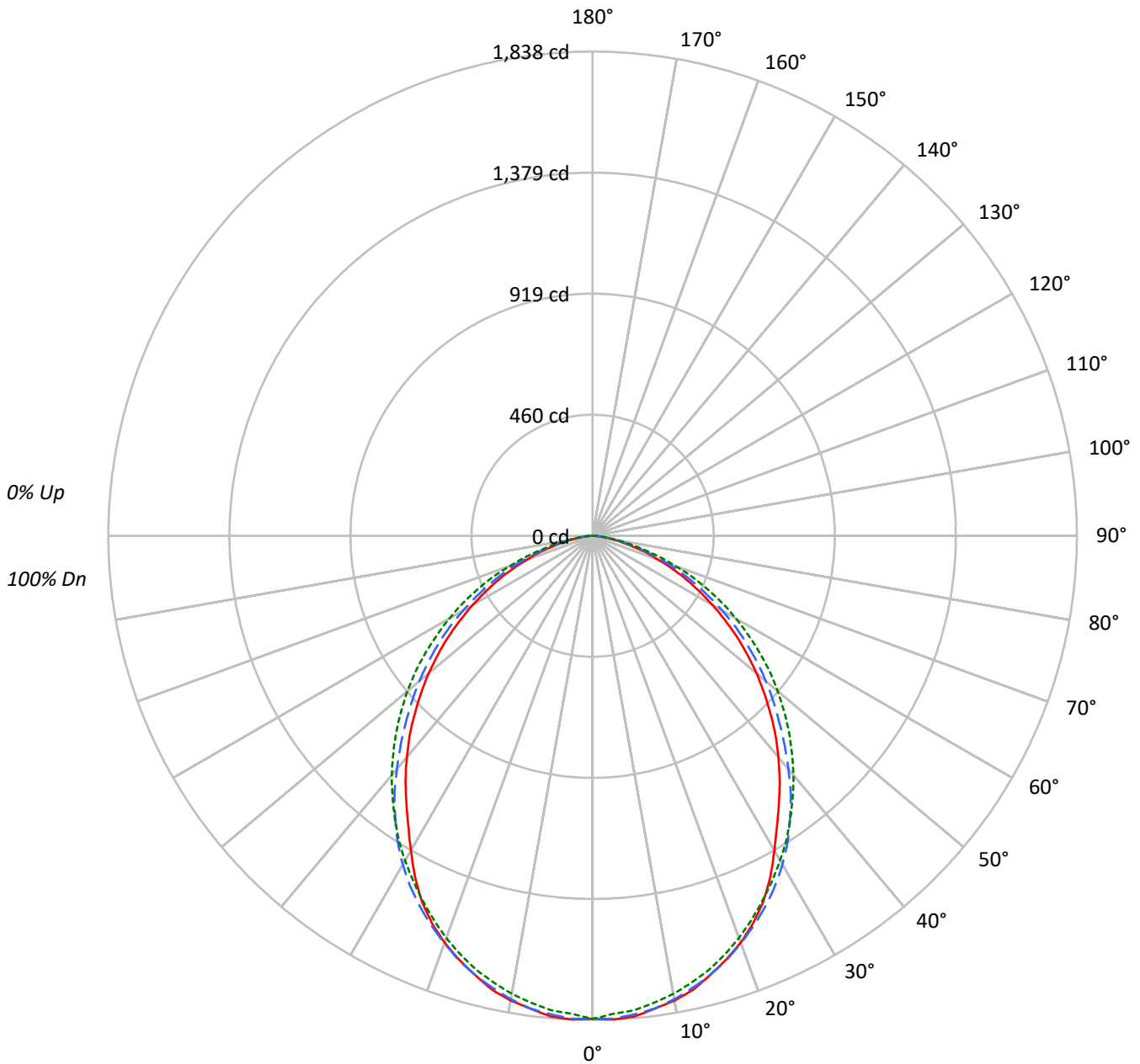
Lumens per Lamp: N/A
Luminaire Lumens: 4239.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4933	4933	4933
5°	4946	4925	4884
10°	4894	4881	4824
15°	4807	4807	4752
20°	4705	4711	4651
25°	4550	4607	4534
30°	4285	4478	4423
35°	4049	4292	4299
40°	3852	4060	4166
45°	3632	3814	4010
50°	3399	3594	3839
55°	3136	3344	3631
60°	2824	3052	3377
65°	2493	2713	3072
70°	2078	2311	2610
75°	1633	1845	2043
80°	1168	1299	1441
85°	763	763	716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.6	4.1
10°-20°	484.9	11.4
20°-30°	708.6	16.7
30°-40°	804.3	19.0
40°-50°	776.5	18.3
50°-60°	640.5	15.1
60°-70°	426.5	10.1
70°-80°	190.9	4.5
80°-90°	34.2	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°	1366.1	32.2
0°-40°	2170.4	51.2
0°-60°	3587.4	84.6
0°-90°	4239.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4239.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1833	1833	1833	1833	1833	
5°	1831	1830	1823	1814	1808	173
15°	1726	1730	1726	1718	1706	486
25°	1532	1544	1552	1540	1527	702
35°	1232	1249	1306	1314	1309	772
45°	954	970	1002	1048	1054	736
55°	668	680	713	752	774	597
65°	392	402	426	456	482	388
75°	157	166	178	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°	1833.3	1833.3	1833.3	1833.3	1833.3
2.5°	1838.2	1838.9	1834.7	1823.4	1816.4
5°	1831.1	1830.4	1823.4	1813.5	1807.9
7.5°	1810.7	1812.1	1810.0	1795.9	1788.2
10°	1791.0	1791.7	1786.1	1774.8	1765.6
12.5°	1765.6	1764.9	1757.2	1751.6	1736.8
15°	1725.5	1729.7	1725.5	1717.8	1705.8
17.5°	1686.8	1686.8	1689.6	1676.2	1667.0
20°	1643.1	1645.2	1645.2	1634.6	1624.1
22.5°	1592.4	1598.7	1600.8	1589.6	1576.9
25°	1532.5	1544.5	1551.5	1540.3	1526.9
27.5°	1460.0	1478.3	1499.4	1491.0	1476.2
30°	1379.0	1405.8	1441.0	1433.9	1423.4
32.5°	1302.2	1329.0	1377.6	1374.8	1369.1
35°	1232.5	1249.4	1306.5	1313.5	1308.6
37.5°	1166.3	1181.8	1235.3	1251.5	1247.3
40°	1096.6	1113.5	1155.7	1184.6	1186.0
42.5°	1027.6	1043.8	1078.3	1119.8	1119.8
45°	954.3	970.5	1002.2	1048.0	1053.6
47.5°	882.5	899.4	930.4	976.1	985.3
50°	812.0	827.5	858.5	902.9	917.0
52.5°	738.8	755.7	786.0	826.8	847.3
55°	668.4	679.6	712.7	752.2	774.0
57.5°	595.1	605.7	643.0	676.8	699.4
60°	524.7	538.1	567.0	601.5	627.5
62.5°	457.1	471.2	495.8	526.1	555.7
65°	391.6	402.1	426.1	456.4	482.4
67.5°	328.2	337.4	361.3	382.4	409.9
70°	264.1	276.1	293.7	314.1	331.7
72.5°	212.7	217.6	232.4	247.2	265.5
75°	157.1	165.5	177.5	185.9	196.5
77.5°	112.7	117.6	124.7	131.7	141.6
80°	75.4	77.5	83.8	85.2	93.0
82.5°	45.8	47.2	48.6	49.3	52.1
85°	24.7	24.7	24.7	23.2	23.2
87.5°	14.1	14.1	12.0	9.9	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)