

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: P557344

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-93-84-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: P557344
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-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

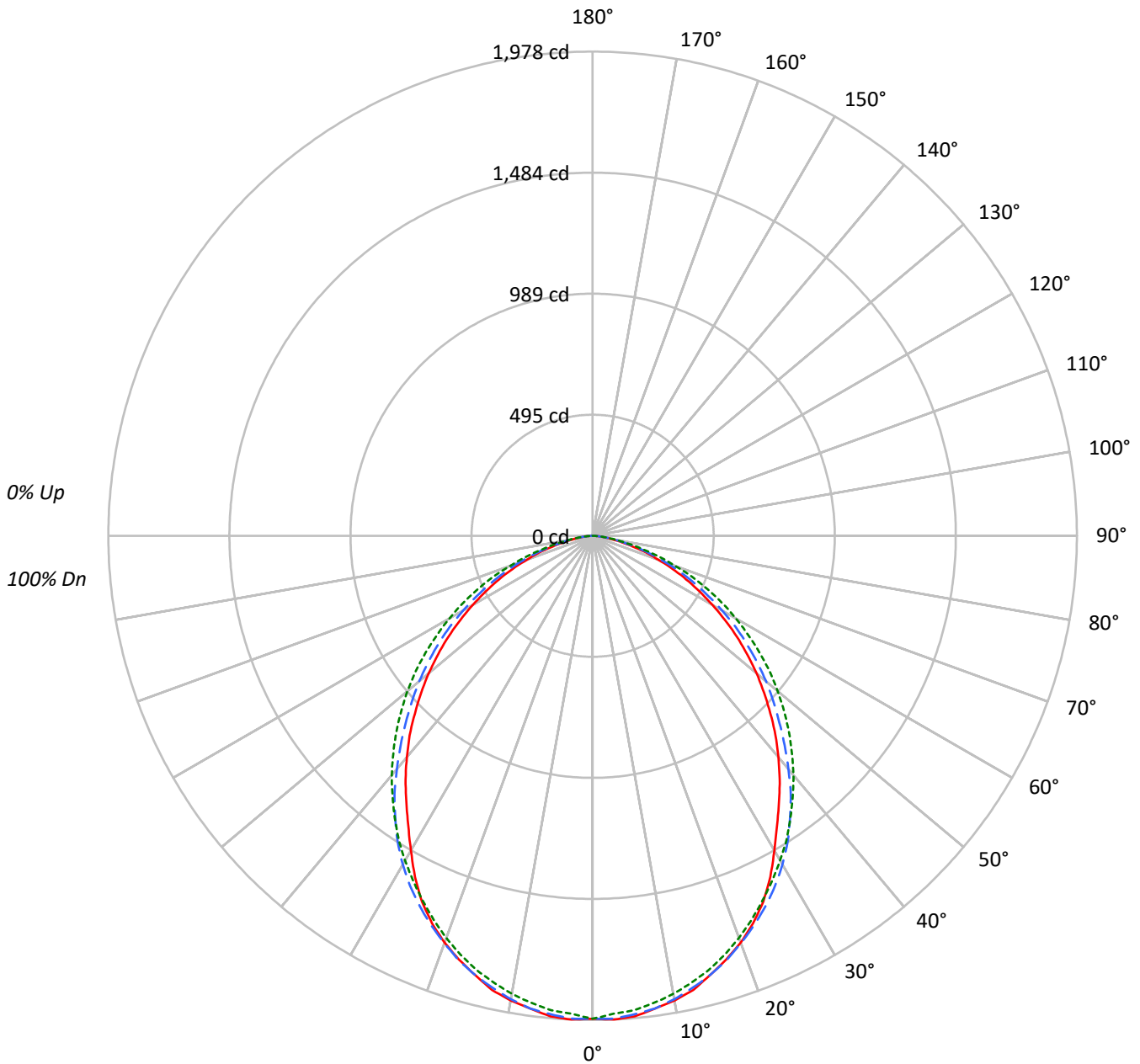
Lumens per Lamp: N/A
Luminaire Lumens: 4562.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P557344

CATALOG NUMBER: FUSL-12-4-LD4-2LO-40-UNV-93-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557344

CATALOG NUMBER: FUSL-12-4-LD4-2LO-40-UNV-93-84-EDD-90

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°	5309	5309	5309
5°	5323	5301	5256
10°	5267	5252	5192
15°	5173	5173	5114
20°	5064	5070	5005
25°	4897	4958	4879
30°	4612	4819	4760
35°	4357	4619	4626
40°	4145	4369	4484
45°	3908	4105	4315
50°	3659	3868	4132
55°	3375	3598	3908
60°	3039	3284	3634
65°	2683	2920	3306
70°	2236	2487	2809
75°	1757	1986	2199
80°	1257	1398	1550
85°	818	818	772



TEST NUMBER: P557344

CATALOG NUMBER: FUSL-12-4-LD4-2LO-40-UNV-93-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.8	4.1
10°-20°	521.8	11.4
20°-30°	762.6	16.7
30°-40°	865.6	19.0
40°-50°	835.6	18.3
50°-60°	689.3	15.1
60°-70°	459.1	10.1
70°-80°	205.4	4.5
80°-90°	36.8	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°	1470.2	32.2
0°-40°	2335.8	51.2
0°-60°	3860.8	84.6
0°-90°	4562.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4562.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1973	1973	1973	1973	1973	
5°	1971	1970	1962	1952	1946	187
15°	1857	1862	1857	1849	1836	524
25°	1649	1662	1670	1658	1643	755
35°	1326	1345	1406	1414	1408	831
45°	1027	1044	1079	1128	1134	792
55°	719	731	767	810	833	642
65°	421	433	459	491	519	418
75°	169	178	191	200	212	185
85°	26	26	26	25	25	36
90°	0	0	0	0	0	



TEST NUMBER: P557344

CATALOG NUMBER: FUSL-12-4-LD4-2LO-40-UNV-93-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1972.9	1972.9	1972.9	1972.9	1972.9
2.5°	1978.3	1979.0	1974.5	1962.3	1954.8
5°	1970.7	1969.9	1962.3	1951.7	1945.7
7.5°	1948.7	1950.2	1947.9	1932.8	1924.4
10°	1927.5	1928.2	1922.2	1910.0	1900.2
12.5°	1900.2	1899.4	1891.1	1885.0	1869.1
15°	1857.0	1861.5	1857.0	1848.6	1835.8
17.5°	1815.3	1815.3	1818.3	1803.9	1794.1
20°	1768.3	1770.6	1770.6	1759.2	1747.8
22.5°	1713.7	1720.5	1722.8	1710.7	1697.1
25°	1649.3	1662.2	1669.8	1657.6	1643.2
27.5°	1571.2	1590.9	1613.7	1604.6	1588.7
30°	1484.1	1512.9	1550.8	1543.2	1531.8
32.5°	1401.5	1430.3	1482.6	1479.5	1473.5
35°	1326.4	1344.6	1406.0	1413.6	1408.3
37.5°	1255.2	1271.8	1329.4	1346.9	1342.3
40°	1180.1	1198.3	1243.8	1274.9	1276.4
42.5°	1105.9	1123.3	1160.4	1205.1	1205.1
45°	1027.0	1044.5	1078.6	1127.8	1133.9
47.5°	949.7	967.9	1001.3	1050.5	1060.4
50°	873.9	890.6	923.9	971.7	986.9
52.5°	795.1	813.3	845.9	889.8	911.8
55°	719.3	731.4	767.0	809.5	833.0
57.5°	640.5	651.8	692.0	728.4	752.6
60°	564.7	579.1	610.2	647.3	675.3
62.5°	491.9	507.1	533.6	566.2	598.0
65°	421.4	432.8	458.6	491.2	519.2
67.5°	353.2	363.1	388.8	411.6	441.1
70°	284.2	297.1	316.1	338.0	357.0
72.5°	228.9	234.2	250.1	266.0	285.7
75°	169.0	178.1	191.0	200.1	211.5
77.5°	121.3	126.6	134.2	141.7	152.3
80°	81.1	83.4	90.2	91.7	100.0
82.5°	49.3	50.8	52.3	53.1	56.1
85°	26.5	26.5	26.5	25.0	25.0
87.5°	15.2	15.2	12.9	10.6	7.6
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)