

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: P557350

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-93-87-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: P557350
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-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

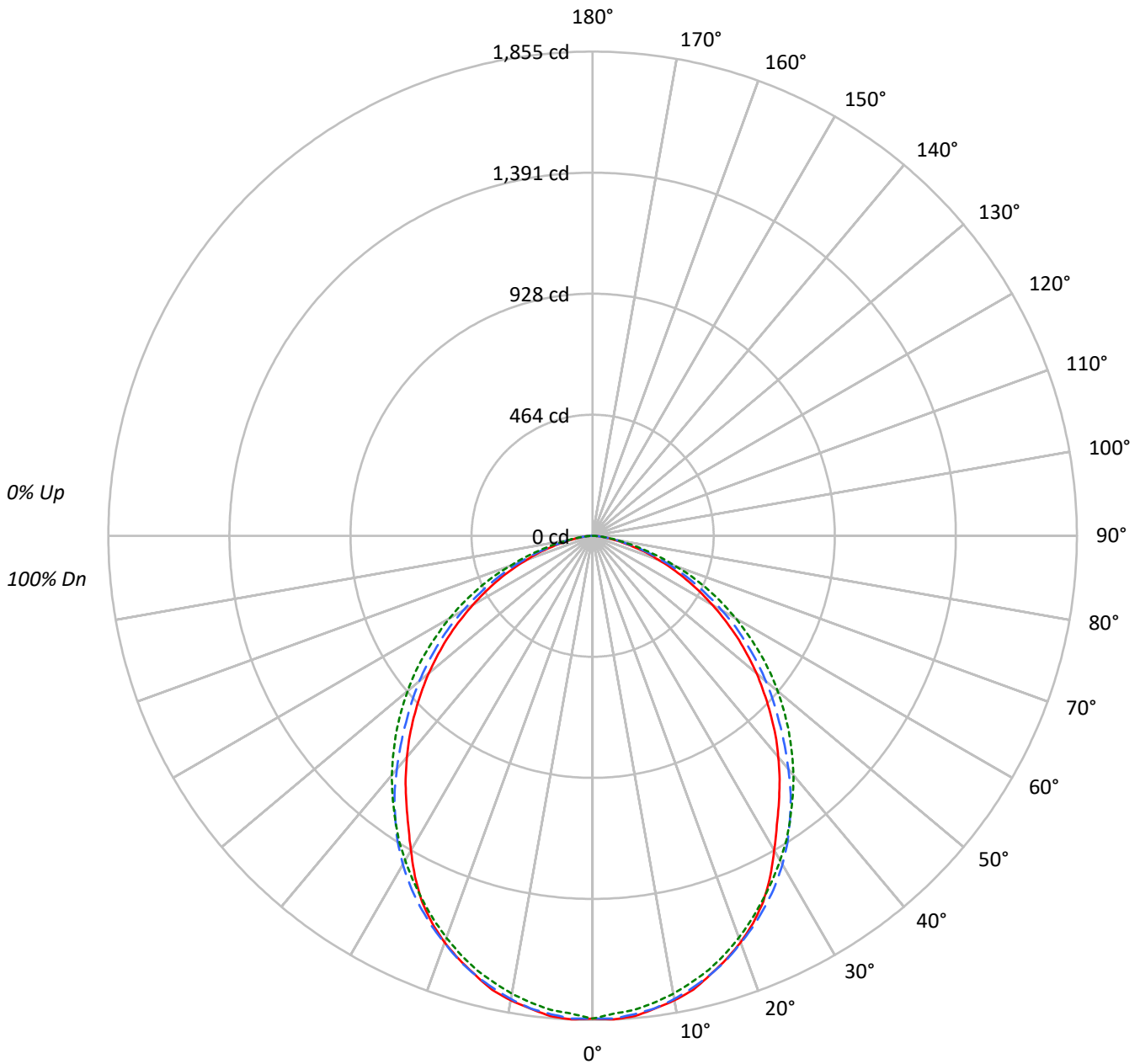
Lumens per Lamp: N/A
Luminaire Lumens: 4277.0 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P557350

CATALOG NUMBER: FUSL-12-4-LD4-2LO-40-UNV-93-87-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°	4978	4978	4978
5°	4991	4970	4927
10°	4938	4924	4868
15°	4850	4850	4795
20°	4747	4754	4692
25°	4591	4648	4574
30°	4323	4518	4462
35°	4085	4330	4337
40°	3887	4096	4204
45°	3664	3848	4046
50°	3430	3626	3873
55°	3164	3374	3664
60°	2849	3078	3407
65°	2516	2737	3100
70°	2097	2331	2633
75°	1648	1862	2062
80°	1178	1311	1454
85°	769	769	722



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.2	4.1
10°-20°	489.2	11.4
20°-30°	715.0	16.7
30°-40°	811.6	19.0
40°-50°	783.4	18.3
50°-60°	646.3	15.1
60°-70°	430.4	10.1
70°-80°	192.6	4.5
80°-90°	34.4	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°	1378.4	32.2
0°-40°	2189.9	51.2
0°-60°	3619.6	84.6
0°-90°	4277.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4277.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1850	1850	1850	1850	1850	
5°	1848	1847	1840	1830	1824	175
15°	1741	1745	1741	1733	1721	491
25°	1546	1558	1566	1554	1541	708
35°	1244	1261	1318	1325	1320	779
45°	963	979	1011	1057	1063	743
55°	674	686	719	759	781	602
65°	395	406	430	460	487	392
75°	158	167	179	188	198	173
85°	25	25	25	23	23	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1849.7	1849.7	1849.7	1849.7	1849.7
2.5°	1854.7	1855.4	1851.1	1839.7	1832.6
5°	1847.6	1846.8	1839.7	1829.8	1824.1
7.5°	1827.0	1828.4	1826.2	1812.0	1804.2
10°	1807.1	1807.8	1802.1	1790.7	1781.5
12.5°	1781.5	1780.8	1772.9	1767.3	1752.3
15°	1741.0	1745.2	1741.0	1733.2	1721.1
17.5°	1701.9	1701.9	1704.7	1691.2	1682.0
20°	1657.8	1660.0	1660.0	1649.3	1638.6
22.5°	1606.7	1613.1	1615.2	1603.8	1591.0
25°	1546.3	1558.3	1565.5	1554.1	1540.6
27.5°	1473.1	1491.5	1512.9	1504.3	1489.4
30°	1391.4	1418.4	1453.9	1446.8	1436.1
32.5°	1313.9	1340.9	1389.9	1387.1	1381.4
35°	1243.6	1260.6	1318.2	1325.3	1320.3
37.5°	1176.8	1192.4	1246.4	1262.7	1258.5
40°	1106.4	1123.5	1166.1	1195.2	1196.7
42.5°	1036.8	1053.1	1087.9	1129.9	1129.9
45°	962.9	979.2	1011.2	1057.4	1063.1
47.5°	890.4	907.4	938.7	984.9	994.1
50°	819.3	835.0	866.2	911.0	925.2
52.5°	745.4	762.5	793.0	834.2	854.9
55°	674.4	685.7	719.1	758.9	780.9
57.5°	600.5	611.1	648.8	682.9	705.6
60°	529.4	542.9	572.0	606.9	633.1
62.5°	461.2	475.4	500.3	530.8	560.7
65°	395.1	405.8	429.9	460.5	486.8
67.5°	331.1	340.4	364.5	385.9	413.6
70°	266.5	278.6	296.3	316.9	334.7
72.5°	214.6	219.6	234.5	249.4	267.9
75°	158.5	167.0	179.1	187.6	198.3
77.5°	113.7	118.7	125.8	132.9	142.8
80°	76.0	78.2	84.6	86.0	93.8
82.5°	46.2	47.6	49.0	49.7	52.6
85°	24.9	24.9	24.9	23.4	23.4
87.5°	14.2	14.2	12.1	9.9	7.1
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)