

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: P557640

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-81-88-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: P557640
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-50-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

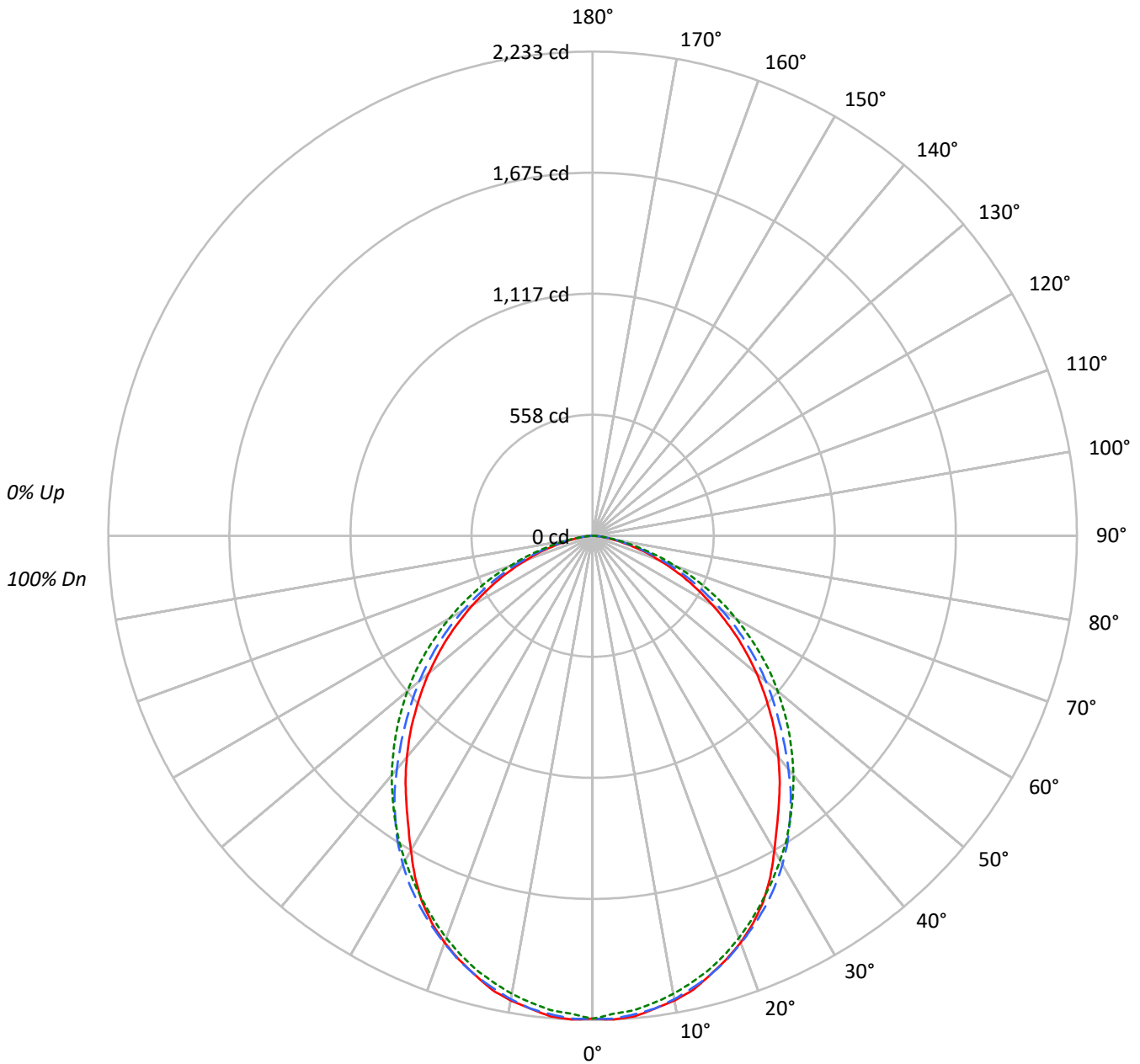
Lumens per Lamp: N/A
Luminaire Lumens: 5150.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P557640

CATALOG NUMBER: FUSL-12-4-LD4-2STD-50-UNV-81-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557640

CATALOG NUMBER: FUSL-12-4-LD4-2STD-50-UNV-81-88-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°	5993	5993	5993
5°	6009	5984	5933
10°	5946	5929	5861
15°	5840	5840	5774
20°	5716	5724	5650
25°	5528	5597	5508
30°	5206	5440	5373
35°	4919	5214	5223
40°	4680	4932	5062
45°	4412	4634	4871
50°	4130	4366	4664
55°	3810	4062	4412
60°	3431	3707	4103
65°	3029	3296	3732
70°	2525	2807	3171
75°	1984	2242	2482
80°	1420	1578	1750
85°	923	923	871



TEST NUMBER: P557640

CATALOG NUMBER: FUSL-12-4-LD4-2STD-50-UNV-81-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.7	4.1
10°-20°	589.1	11.4
20°-30°	860.9	16.7
30°-40°	977.2	19.0
40°-50°	943.3	18.3
50°-60°	778.2	15.1
60°-70°	518.2	10.1
70°-80°	231.9	4.5
80°-90°	41.5	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°	1659.7	32.2
0°-40°	2636.9	51.2
0°-60°	4358.4	84.6
0°-90°	5150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5150.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2227	2227	2227	2227	2227	
5°	2225	2224	2215	2203	2196	211
15°	2096	2102	2096	2087	2072	591
25°	1862	1876	1885	1871	1855	853
35°	1497	1518	1587	1596	1590	938
45°	1159	1179	1218	1273	1280	895
55°	812	826	866	914	940	725
65°	476	489	518	554	586	472
75°	191	201	216	226	239	209
85°	30	30	30	28	28	40
90°	0	0	0	0	0	



TEST NUMBER: P557640

CATALOG NUMBER: FUSL-12-4-LD4-2STD-50-UNV-81-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2227.2	2227.2	2227.2	2227.2	2227.2
2.5°	2233.2	2234.1	2229.0	2215.3	2206.7
5°	2224.7	2223.8	2215.3	2203.3	2196.4
7.5°	2199.9	2201.6	2199.0	2181.9	2172.5
10°	2175.9	2176.8	2169.9	2156.2	2145.1
12.5°	2145.1	2144.2	2134.8	2128.0	2110.0
15°	2096.3	2101.5	2096.3	2086.9	2072.4
17.5°	2049.3	2049.3	2052.7	2036.4	2025.3
20°	1996.2	1998.8	1998.8	1986.0	1973.1
22.5°	1934.6	1942.3	1944.9	1931.2	1915.8
25°	1861.9	1876.4	1885.0	1871.3	1855.0
27.5°	1773.8	1796.0	1821.7	1811.4	1793.4
30°	1675.4	1707.9	1750.6	1742.1	1729.3
32.5°	1582.1	1614.6	1673.6	1670.2	1663.4
35°	1497.4	1517.9	1587.2	1595.8	1589.8
37.5°	1416.9	1435.8	1500.8	1520.5	1515.3
40°	1332.2	1352.8	1404.1	1439.2	1440.9
42.5°	1248.4	1268.1	1310.0	1360.5	1360.5
45°	1159.4	1179.1	1217.6	1273.2	1280.0
47.5°	1072.1	1092.7	1130.3	1185.9	1197.0
50°	986.6	1005.4	1043.0	1096.9	1114.0
52.5°	897.6	918.1	954.9	1004.5	1029.3
55°	812.0	825.7	865.9	913.8	940.4
57.5°	723.0	735.9	781.2	822.3	849.7
60°	637.5	653.7	688.8	730.7	762.4
62.5°	555.3	572.4	602.4	639.2	675.1
65°	475.7	488.6	517.7	554.5	586.1
67.5°	398.7	409.9	438.9	464.6	498.0
70°	320.9	335.4	356.8	381.6	403.0
72.5°	258.4	264.4	282.4	300.3	322.6
75°	190.8	201.1	215.6	225.9	238.7
77.5°	136.9	142.9	151.4	160.0	172.0
80°	91.6	94.1	101.8	103.5	112.9
82.5°	55.6	57.3	59.0	59.9	63.3
85°	29.9	29.9	29.9	28.2	28.2
87.5°	17.1	17.1	14.5	12.0	8.6
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)