

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: P558056

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-93-88-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: P558056
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-LD4-3LO-35-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

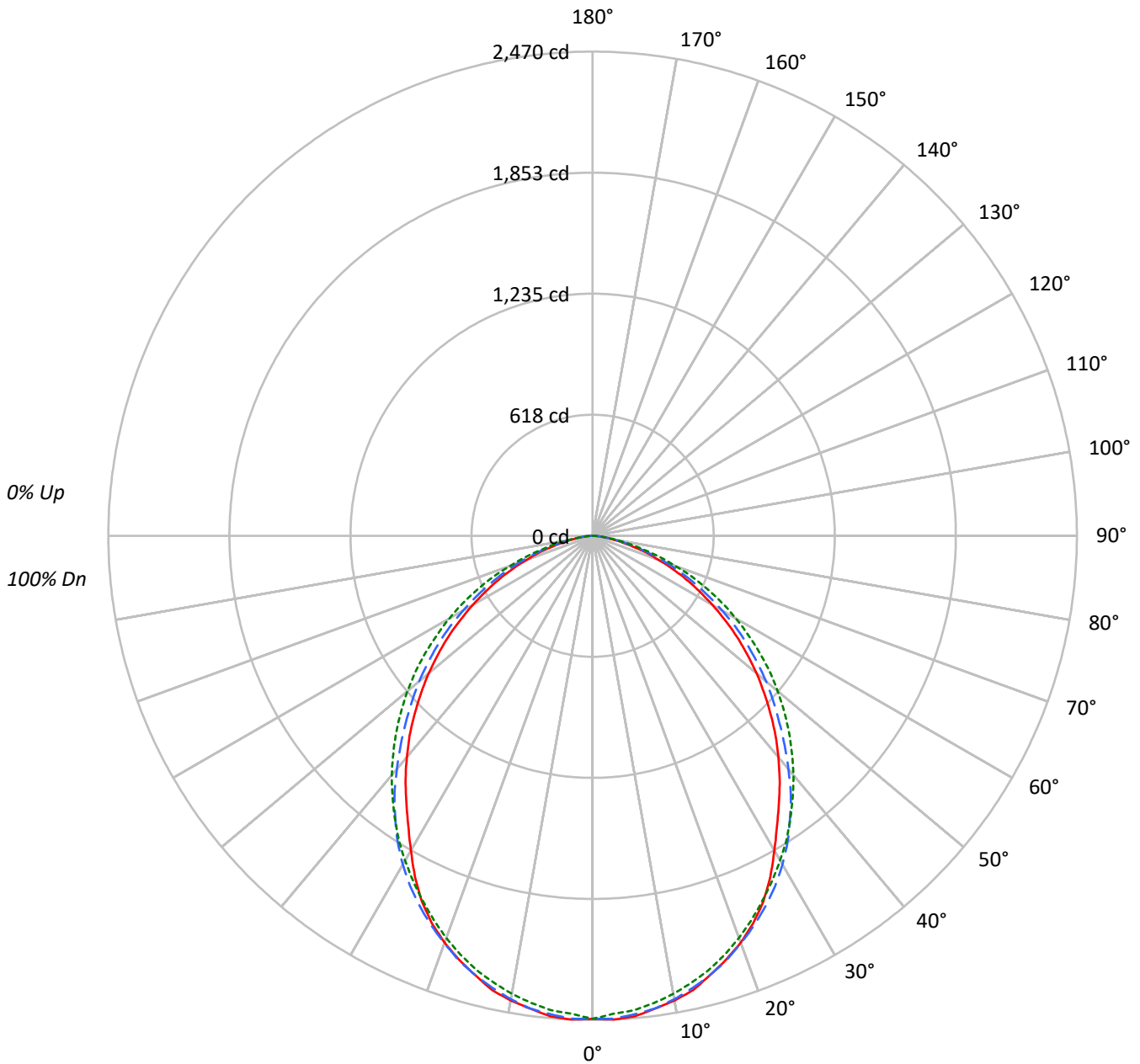
Lumens per Lamp: N/A
Luminaire Lumens: 5697.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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: P558056

CATALOG NUMBER: FUSL-12-4-LD4-3LO-35-UNV-93-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558056

CATALOG NUMBER: FUSL-12-4-LD4-3LO-35-UNV-93-88-EDD-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				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			100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86			86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73			73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63			63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54			54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47			47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42			42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37			37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34			34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30			30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28			28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6630	6630	6630
5°	6648	6620	6563
10°	6577	6559	6484
15°	6461	6461	6387
20°	6324	6332	6251
25°	6115	6191	6093
30°	5759	6018	5944
35°	5441	5768	5777
40°	5177	5456	5599
45°	4881	5126	5389
50°	4569	4830	5159
55°	4214	4494	4880
60°	3795	4101	4539
65°	3351	3646	4129
70°	2792	3105	3508
75°	2195	2480	2746
80°	1570	1745	1936
85°	1022	1022	963



TEST NUMBER: P558056

CATALOG NUMBER: FUSL-12-4-LD4-3LO-35-UNV-93-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.0	4.1
10°-20°	651.7	11.4
20°-30°	952.3	16.7
30°-40°	1081.0	19.0
40°-50°	1043.5	18.3
50°-60°	860.8	15.1
60°-70°	573.3	10.1
70°-80°	256.5	4.5
80°-90°	45.9	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°	1836.0	32.2
0°-40°	2917.0	51.2
0°-60°	4821.3	84.6
0°-90°	5697.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5697.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2464	2464	2464	2464	2464	
5°	2461	2460	2451	2437	2430	233
15°	2319	2325	2319	2309	2292	654
25°	2060	2076	2085	2070	2052	943
35°	1656	1679	1756	1765	1759	1038
45°	1282	1304	1347	1408	1416	990
55°	898	913	958	1011	1040	802
65°	526	540	573	613	648	522
75°	211	222	238	250	264	231
85°	33	33	33	31	31	45
90°	0	0	0	0	0	



TEST NUMBER: P558056

CATALOG NUMBER: FUSL-12-4-LD4-3LO-35-UNV-93-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2463.8	2463.8	2463.8	2463.8	2463.8
2.5°	2470.4	2471.4	2465.7	2450.6	2441.1
5°	2461.0	2460.0	2450.6	2437.3	2429.7
7.5°	2433.5	2435.4	2432.6	2413.6	2403.2
10°	2407.0	2408.0	2400.4	2385.2	2372.9
12.5°	2372.9	2372.0	2361.6	2354.0	2334.1
15°	2319.0	2324.7	2319.0	2308.6	2292.5
17.5°	2266.9	2266.9	2270.7	2252.7	2240.4
20°	2208.2	2211.1	2211.1	2196.9	2182.7
22.5°	2140.1	2148.6	2151.5	2136.3	2119.3
25°	2059.6	2075.7	2085.2	2070.1	2052.1
27.5°	1962.1	1986.8	2015.2	2003.8	1983.9
30°	1853.3	1889.3	1936.6	1927.1	1912.9
32.5°	1750.1	1786.1	1851.4	1847.6	1840.0
35°	1656.4	1679.1	1755.8	1765.3	1758.6
37.5°	1567.4	1588.3	1660.2	1682.0	1676.3
40°	1473.7	1496.5	1553.2	1592.1	1593.9
42.5°	1381.0	1402.8	1449.1	1505.0	1505.0
45°	1282.5	1304.3	1346.9	1408.4	1416.0
47.5°	1186.0	1208.7	1250.4	1311.9	1324.2
50°	1091.3	1112.2	1153.8	1213.4	1232.4
52.5°	992.9	1015.6	1056.3	1111.2	1138.7
55°	898.3	913.4	957.9	1010.9	1040.2
57.5°	799.8	814.0	864.2	909.6	939.9
60°	705.2	723.1	762.0	808.3	843.4
62.5°	614.3	633.2	666.4	707.1	746.8
65°	526.3	540.5	572.6	613.3	648.4
67.5°	441.1	453.4	485.6	514.0	550.9
70°	354.9	371.0	394.7	422.2	445.8
72.5°	285.9	292.5	312.4	332.2	356.8
75°	211.1	222.4	238.5	249.9	264.1
77.5°	151.4	158.1	167.5	177.0	190.3
80°	101.3	104.1	112.6	114.5	124.9
82.5°	61.5	63.4	65.3	66.3	70.0
85°	33.1	33.1	33.1	31.2	31.2
87.5°	18.9	18.9	16.1	13.3	9.5
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)