

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: P558438

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-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: P558438
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-LD4-3STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

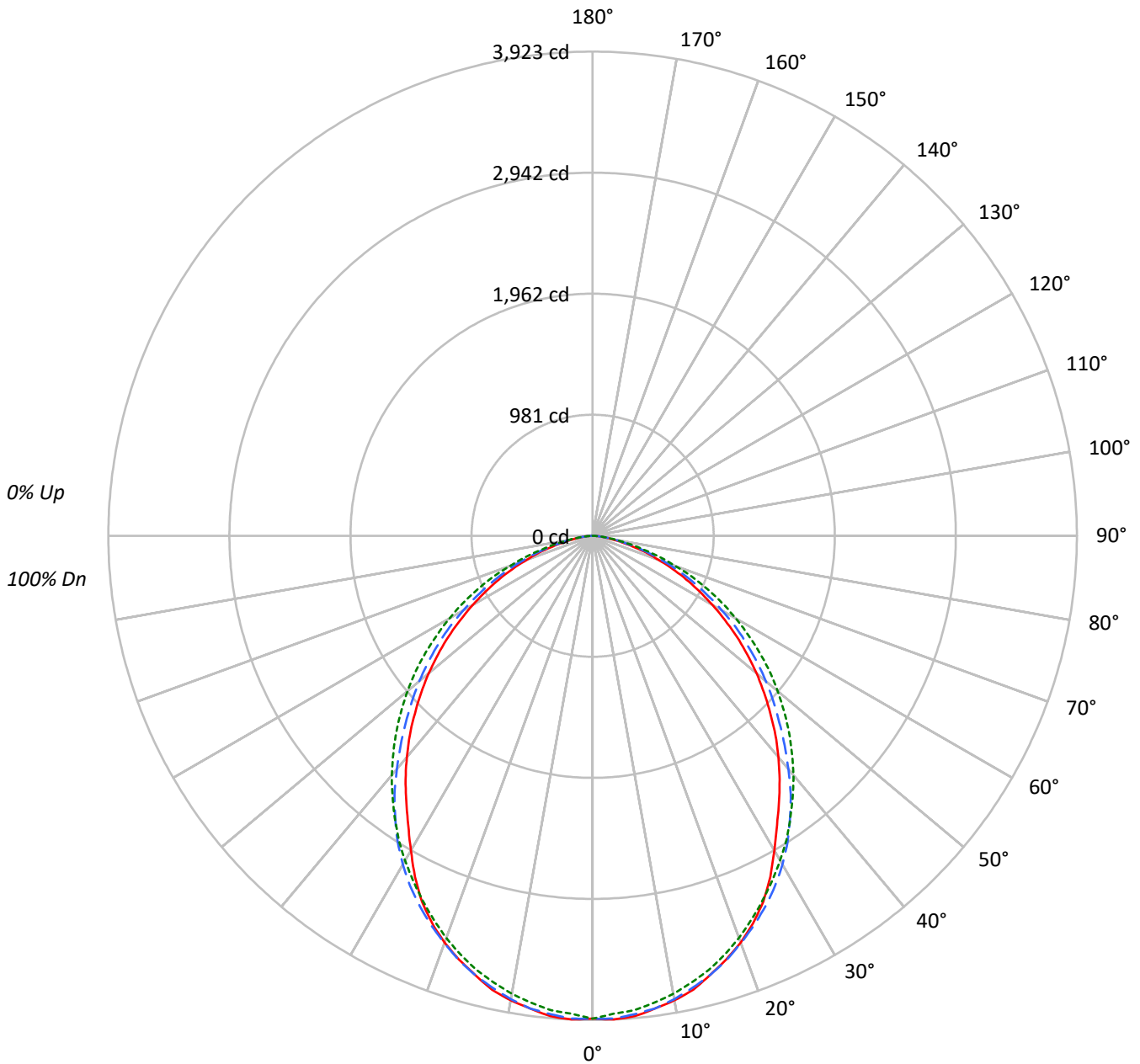
Lumens per Lamp: N/A
Luminaire Lumens: 9047.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P558438

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-93-87-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558438

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-93-87-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								
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°	10529	10529	10529
5°	10557	10512	10423
10°	10445	10416	10297
15°	10259	10259	10142
20°	10042	10055	9926
25°	9712	9832	9676
30°	9145	9556	9439
35°	8641	9160	9175
40°	8221	8665	8892
45°	7751	8140	8558
50°	7255	7671	8193
55°	6693	7136	7750
60°	6027	6512	7208
65°	5321	5791	6556
70°	4435	4932	5570
75°	3485	3938	4361
80°	2492	2772	3075
85°	1624	1624	1531



TEST NUMBER: P558438

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-93-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	368.4	4.1
10°-20°	1034.9	11.4
20°-30°	1512.3	16.7
30°-40°	1716.6	19.0
40°-50°	1657.2	18.3
50°-60°	1367.0	15.1
60°-70°	910.3	10.1
70°-80°	407.4	4.5
80°-90°	72.9	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°	2915.6	32.2
0°-40°	4632.2	51.2
0°-60°	7656.4	84.6
0°-90°	9047.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9047.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3913	3913	3913	3913	3913	
5°	3908	3907	3892	3870	3858	370
15°	3683	3692	3683	3666	3640	1038
25°	3271	3296	3311	3287	3259	1498
35°	2630	2666	2788	2803	2793	1648
45°	2037	2071	2139	2237	2249	1571
55°	1426	1450	1521	1605	1652	1273
65°	836	858	909	974	1030	829
75°	335	353	379	397	419	367
85°	53	53	53	50	50	71
90°	0	0	0	0	0	



TEST NUMBER: P558438

CATALOG NUMBER: FUSL-12-4-LD4-3STD-50-UNV-93-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3912.6	3912.6	3912.6	3912.6	3912.6
2.5°	3923.1	3924.6	3915.6	3891.6	3876.5
5°	3908.1	3906.6	3891.6	3870.5	3858.5
7.5°	3864.5	3867.5	3863.0	3832.9	3816.4
10°	3822.4	3823.9	3811.9	3787.8	3768.3
12.5°	3768.3	3766.8	3750.3	3738.2	3706.7
15°	3682.6	3691.6	3682.6	3666.1	3640.5
17.5°	3599.9	3599.9	3606.0	3577.4	3557.9
20°	3506.8	3511.3	3511.3	3488.7	3466.2
22.5°	3398.5	3412.1	3416.6	3392.5	3365.5
25°	3270.8	3296.3	3311.4	3287.3	3258.7
27.5°	3115.9	3155.0	3200.1	3182.1	3150.5
30°	2943.1	3000.2	3075.4	3060.3	3037.8
32.5°	2779.2	2836.4	2940.1	2934.1	2922.0
35°	2630.4	2666.5	2788.3	2803.3	2792.8
37.5°	2489.1	2522.2	2636.5	2671.0	2662.0
40°	2340.3	2376.4	2466.6	2528.2	2531.2
42.5°	2193.0	2227.6	2301.3	2389.9	2389.9
45°	2036.7	2071.3	2138.9	2236.6	2248.7
47.5°	1883.4	1919.5	1985.6	2083.3	2102.9
50°	1733.1	1766.2	1832.3	1927.0	1957.0
52.5°	1576.8	1612.8	1677.5	1764.7	1808.2
55°	1426.5	1450.5	1521.1	1605.3	1651.9
57.5°	1270.1	1292.7	1372.3	1444.5	1492.6
60°	1119.8	1148.4	1210.0	1283.7	1339.3
62.5°	975.5	1005.6	1058.2	1122.8	1186.0
65°	835.7	858.3	909.4	974.0	1029.6
67.5°	700.4	720.0	771.1	816.2	874.8
70°	563.7	589.2	626.8	670.4	708.0
72.5°	453.9	464.5	496.0	527.6	566.7
75°	335.2	353.2	378.8	396.8	419.4
77.5°	240.5	251.0	266.1	281.1	302.1
80°	160.8	165.3	178.9	181.9	198.4
82.5°	97.7	100.7	103.7	105.2	111.2
85°	52.6	52.6	52.6	49.6	49.6
87.5°	30.1	30.1	25.6	21.0	15.0
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)