

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: P558378

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-93-94-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: P558378
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-40-UNV-93-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

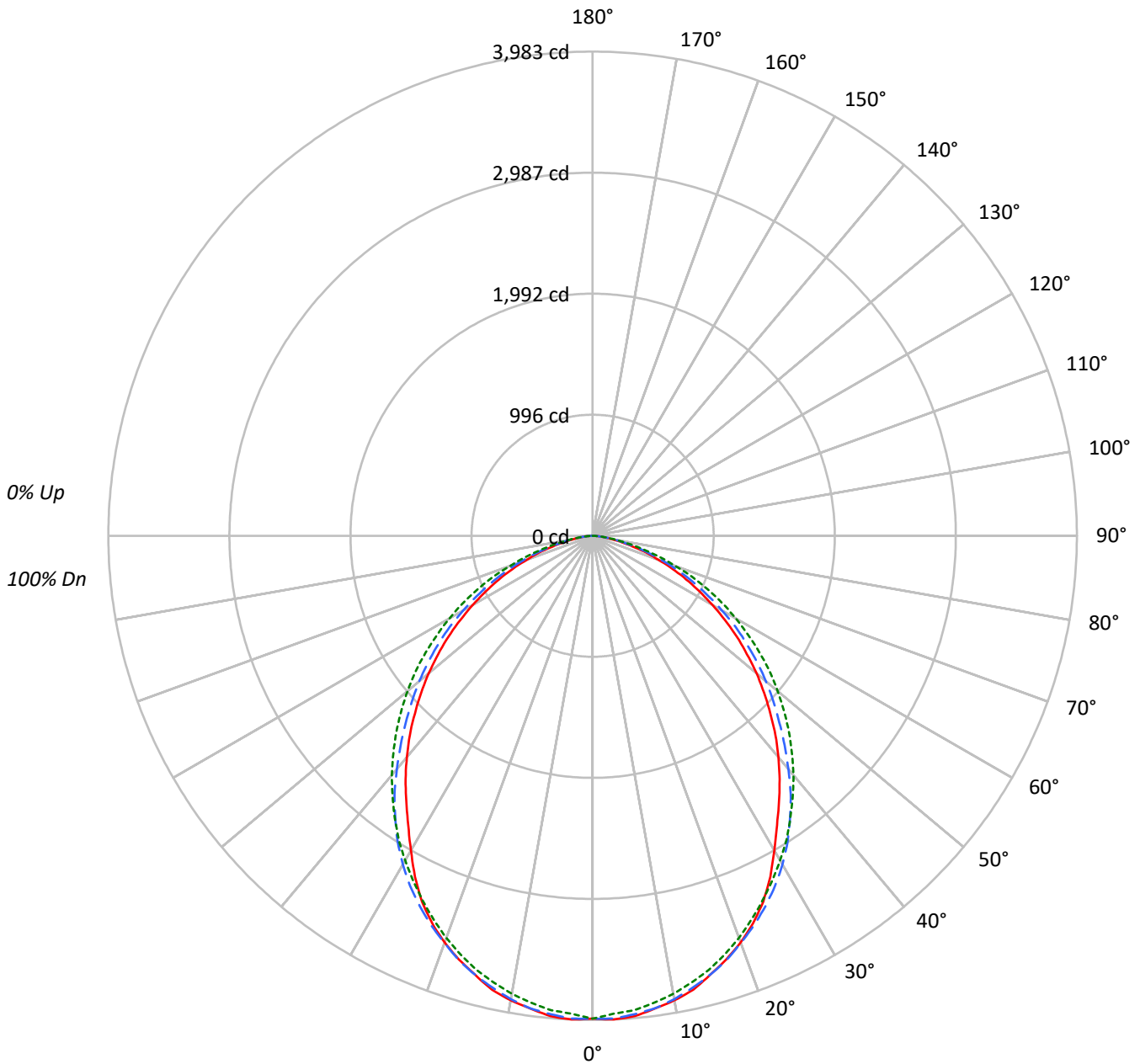
Lumens per Lamp: N/A
Luminaire Lumens: 9185.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
Input Voltage (V): NR
Input Current (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: P558378

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-93-94-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558378

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-93-94-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	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°	10689	10689	10689
5°	10718	10672	10582
10°	10604	10575	10454
15°	10416	10416	10297
20°	10195	10208	10077
25°	9860	9982	9823
30°	9285	9702	9583
35°	8773	9299	9315
40°	8346	8797	9027
45°	7869	8264	8688
50°	7366	7788	8318
55°	6794	7245	7868
60°	6119	6612	7318
65°	5403	5879	6656
70°	4503	5007	5655
75°	3538	3999	4427
80°	2531	2814	3121
85°	1649	1649	1556



TEST NUMBER: P558378

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-93-94-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	374.0	4.1
10°-20°	1050.7	11.4
20°-30°	1535.4	16.7
30°-40°	1742.8	19.0
40°-50°	1682.4	18.3
50°-60°	1387.9	15.1
60°-70°	924.2	10.1
70°-80°	413.6	4.5
80°-90°	74.0	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°	2960.1	32.2
0°-40°	4702.9	51.2
0°-60°	7773.2	84.6
0°-90°	9185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9185.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3972	3972	3972	3972	3972	
5°	3968	3966	3951	3930	3917	376
15°	3739	3748	3739	3722	3696	1054
25°	3321	3347	3362	3337	3308	1521
35°	2671	2707	2831	2846	2835	1673
45°	2068	2103	2172	2271	2283	1595
55°	1448	1473	1544	1630	1677	1293
65°	848	871	923	989	1045	841
75°	340	359	385	403	426	372
85°	53	53	53	50	50	72
90°	0	0	0	0	0	



TEST NUMBER: P558378

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-93-94-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3972.3	3972.3	3972.3	3972.3	3972.3
2.5°	3983.0	3984.5	3975.3	3950.9	3935.7
5°	3967.7	3966.2	3950.9	3929.5	3917.3
7.5°	3923.4	3926.5	3921.9	3891.4	3874.6
10°	3880.7	3882.2	3870.0	3845.6	3825.8
12.5°	3825.8	3824.2	3807.5	3795.3	3763.2
15°	3738.8	3747.9	3738.8	3722.0	3696.1
17.5°	3654.9	3654.9	3661.0	3632.0	3612.1
20°	3560.2	3564.8	3564.8	3541.9	3519.0
22.5°	3450.4	3464.1	3468.7	3444.3	3416.8
25°	3320.7	3346.6	3361.9	3337.4	3308.4
27.5°	3163.5	3203.2	3248.9	3230.6	3198.6
30°	2988.0	3046.0	3122.3	3107.0	3084.1
32.5°	2821.6	2879.6	2984.9	2978.8	2966.6
35°	2670.6	2707.2	2830.8	2846.1	2835.4
37.5°	2527.1	2560.7	2676.7	2711.8	2702.6
40°	2376.0	2412.7	2504.2	2566.8	2569.8
42.5°	2226.5	2261.6	2336.4	2426.4	2426.4
45°	2067.8	2102.9	2171.6	2270.7	2283.0
47.5°	1912.1	1948.7	2015.9	2115.1	2134.9
50°	1759.5	1793.1	1860.2	1956.4	1986.9
52.5°	1600.8	1637.4	1703.1	1791.6	1835.8
55°	1448.2	1472.6	1544.3	1629.8	1677.1
57.5°	1289.5	1312.4	1393.3	1466.5	1515.4
60°	1136.9	1165.9	1228.5	1303.2	1359.7
62.5°	990.4	1020.9	1074.3	1139.9	1204.0
65°	848.5	871.4	923.3	988.9	1045.3
67.5°	711.1	731.0	782.9	828.6	888.2
70°	572.3	598.2	636.4	680.6	718.8
72.5°	460.9	471.5	503.6	535.6	575.3
75°	340.3	358.6	384.6	402.9	425.8
77.5°	244.2	254.8	270.1	285.4	306.7
80°	163.3	167.9	181.6	184.7	201.4
82.5°	99.2	102.2	105.3	106.8	112.9
85°	53.4	53.4	53.4	50.4	50.4
87.5°	30.5	30.5	25.9	21.4	15.3
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)