

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: P556396

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-93-96-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: P556396
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-LD4-1HI-50-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

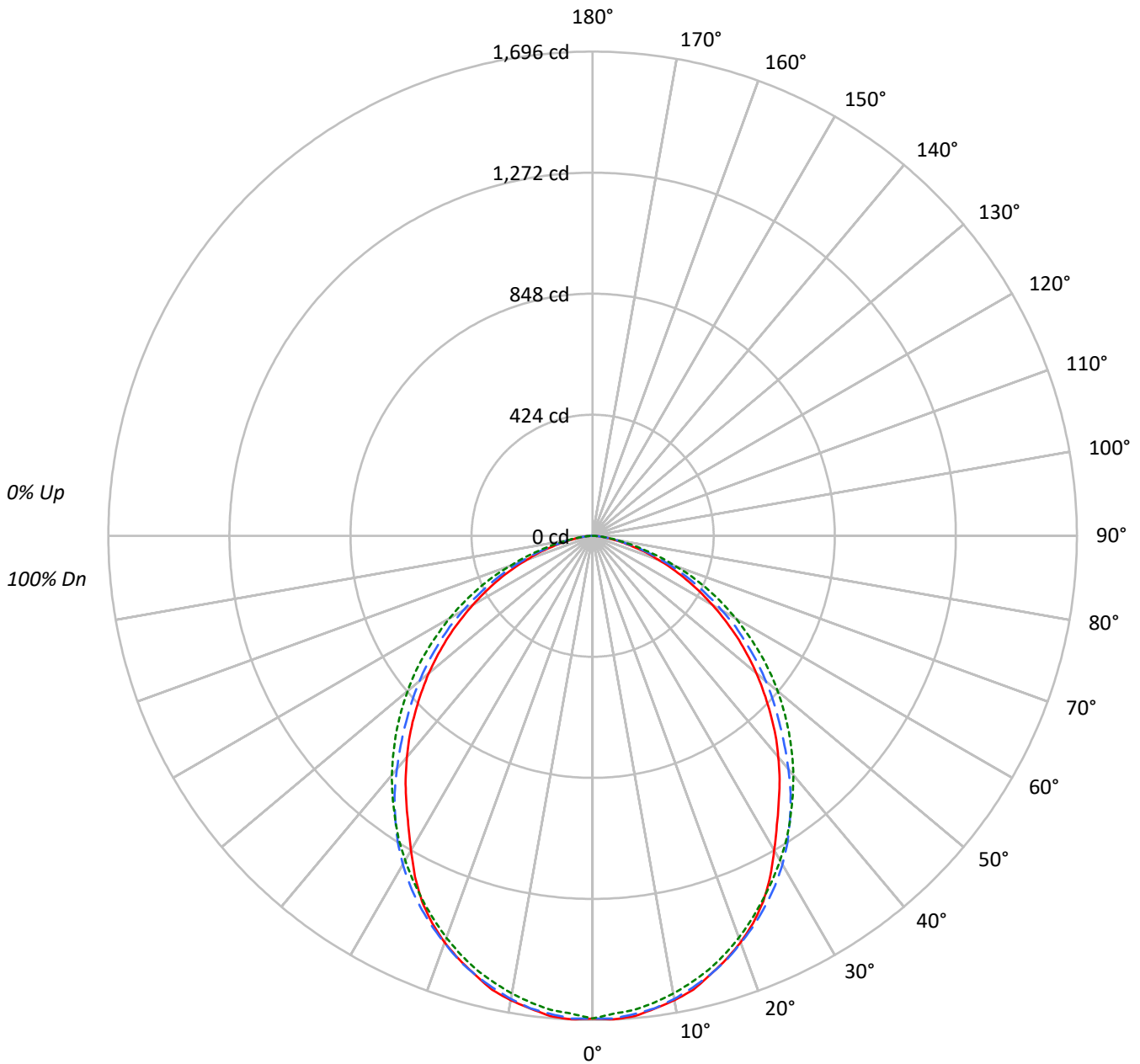
Lumens per Lamp: N/A
Luminaire Lumens: 3910.0 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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: P556396

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-96-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556396

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-96-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°	4550	4550	4550
5°	4562	4543	4505
10°	4514	4502	4450
15°	4434	4434	4383
20°	4340	4346	4290
25°	4197	4249	4182
30°	3952	4130	4080
35°	3734	3959	3965
40°	3553	3745	3843
45°	3350	3518	3698
50°	3136	3315	3541
55°	2892	3084	3349
60°	2605	2814	3115
65°	2300	2502	2833
70°	1917	2131	2408
75°	1507	1702	1884
80°	1077	1198	1330
85°	701	701	661



TEST NUMBER: P556396

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-96-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.2	4.1
10°-20°	447.3	11.4
20°-30°	653.6	16.7
30°-40°	741.9	19.0
40°-50°	716.2	18.3
50°-60°	590.8	15.1
60°-70°	393.4	10.1
70°-80°	176.1	4.5
80°-90°	31.5	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°	1260.1	32.2
0°-40°	2002.0	51.2
0°-60°	3309.0	84.6
0°-90°	3910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3910.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1691	1691	1691	1691	1691	
5°	1689	1688	1682	1673	1668	160
15°	1592	1596	1592	1584	1573	449
25°	1414	1425	1431	1421	1408	647
35°	1137	1152	1205	1212	1207	712
45°	880	895	924	967	972	679
55°	616	627	657	694	714	550
65°	361	371	393	421	445	358
75°	145	153	164	172	181	158
85°	23	23	23	21	21	31
90°	0	0	0	0	0	



TEST NUMBER: P556396

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-96-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1691.0	1691.0	1691.0	1691.0	1691.0
2.5°	1695.5	1696.2	1692.3	1681.9	1675.4
5°	1689.0	1688.4	1681.9	1672.8	1667.6
7.5°	1670.2	1671.5	1669.5	1656.5	1649.4
10°	1652.0	1652.6	1647.4	1637.1	1628.6
12.5°	1628.6	1628.0	1620.8	1615.6	1602.0
15°	1591.6	1595.5	1591.6	1584.4	1573.4
17.5°	1555.9	1555.9	1558.5	1546.1	1537.7
20°	1515.6	1517.5	1517.5	1507.8	1498.0
22.5°	1468.8	1474.6	1476.6	1466.2	1454.5
25°	1413.6	1424.6	1431.1	1420.7	1408.4
27.5°	1346.7	1363.6	1383.1	1375.3	1361.6
30°	1272.0	1296.7	1329.1	1322.6	1312.9
32.5°	1201.2	1225.8	1270.7	1268.1	1262.9
35°	1136.8	1152.4	1205.1	1211.6	1207.0
37.5°	1075.8	1090.1	1139.4	1154.4	1150.5
40°	1011.5	1027.1	1066.0	1092.7	1094.0
42.5°	947.8	962.7	994.6	1032.9	1032.9
45°	880.2	895.2	924.4	966.6	971.8
47.5°	814.0	829.6	858.2	900.4	908.8
50°	749.0	763.3	791.9	832.8	845.8
52.5°	681.5	697.0	725.0	762.7	781.5
55°	616.5	626.9	657.4	693.8	713.9
57.5°	548.9	558.7	593.1	624.3	645.1
60°	484.0	496.3	522.9	554.8	578.8
62.5°	421.6	434.6	457.3	485.3	512.6
65°	361.2	370.9	393.0	421.0	445.0
67.5°	302.7	311.2	333.3	352.7	378.1
70°	243.6	254.7	270.9	289.7	306.0
72.5°	196.2	200.7	214.4	228.0	244.9
75°	144.9	152.7	163.7	171.5	181.2
77.5°	103.9	108.5	115.0	121.5	130.6
80°	69.5	71.5	77.3	78.6	85.8
82.5°	42.2	43.5	44.8	45.5	48.1
85°	22.7	22.7	22.7	21.4	21.4
87.5°	13.0	13.0	11.0	9.1	6.5
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)