

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: P556398

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-93-97-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: P556398
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-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

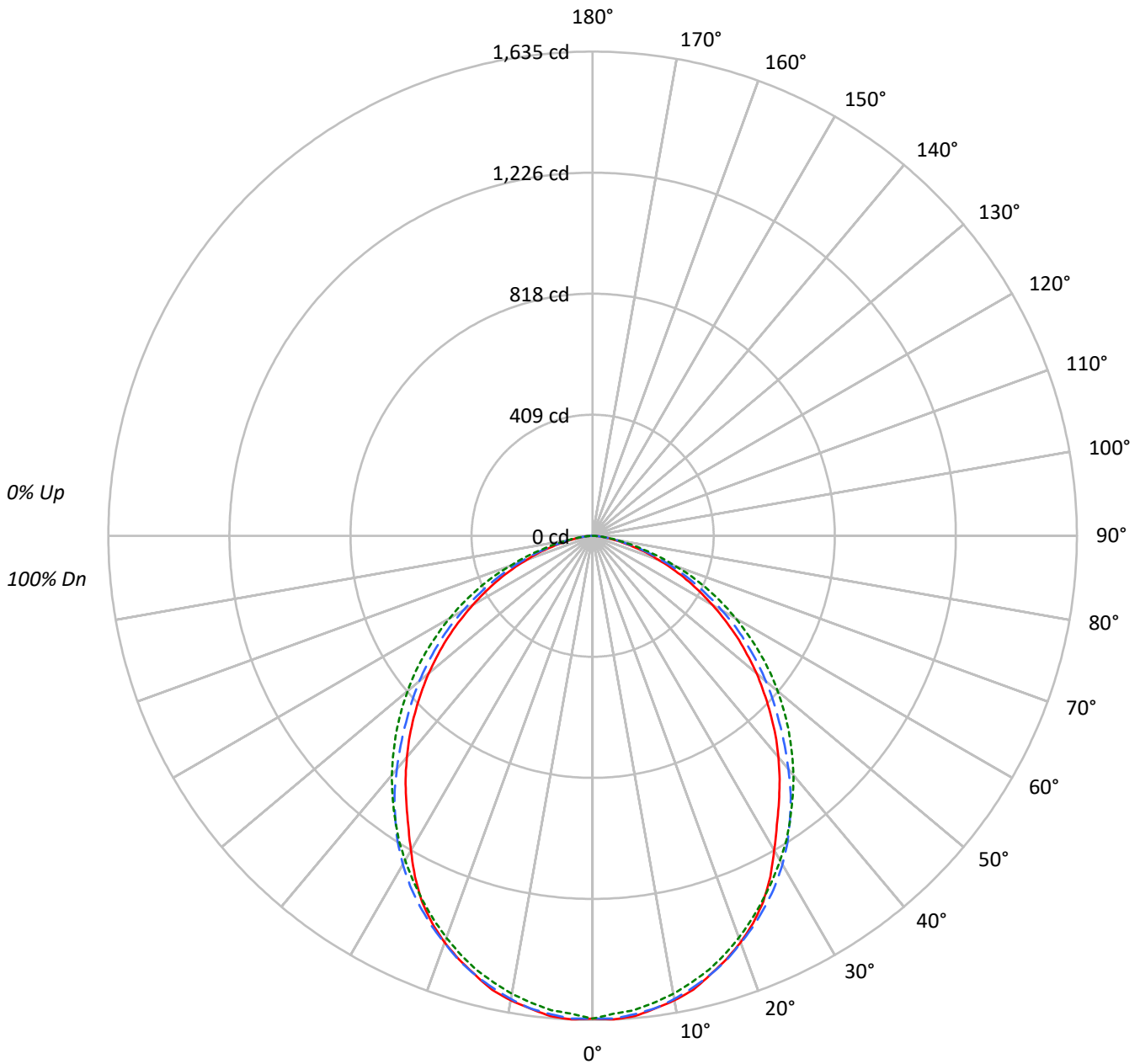
Lumens per Lamp: N/A
Luminaire Lumens: 3770.0 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P556398

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-97-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556398

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-97-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°	4387	4387	4387
5°	4399	4381	4343
10°	4352	4341	4291
15°	4275	4275	4226
20°	4185	4190	4136
25°	4047	4097	4032
30°	3811	3982	3933
35°	3601	3817	3823
40°	3426	3611	3705
45°	3230	3392	3566
50°	3023	3196	3414
55°	2789	2974	3230
60°	2511	2714	3004
65°	2218	2413	2732
70°	1848	2055	2321
75°	1452	1641	1817
80°	1038	1155	1282
85°	676	676	639



TEST NUMBER: P556398

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-97-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.5	4.1
10°-20°	431.3	11.4
20°-30°	630.2	16.7
30°-40°	715.4	19.0
40°-50°	690.6	18.3
50°-60°	569.7	15.1
60°-70°	379.4	10.1
70°-80°	169.8	4.5
80°-90°	30.4	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°	1215.0	32.2
0°-40°	1930.3	51.2
0°-60°	3190.5	84.6
0°-90°	3770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3770.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1630	1630	1630	1630	1630	
5°	1628	1628	1622	1613	1608	154
15°	1535	1538	1535	1528	1517	433
25°	1363	1374	1380	1370	1358	624
35°	1096	1111	1162	1168	1164	687
45°	849	863	891	932	937	655
55°	594	604	634	669	688	531
65°	348	358	379	406	429	345
75°	140	147	158	165	175	153
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



TEST NUMBER: P556398

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-97-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1630.4	1630.4	1630.4	1630.4	1630.4
2.5°	1634.8	1635.4	1631.7	1621.7	1615.4
5°	1628.5	1627.9	1621.7	1612.9	1607.9
7.5°	1610.4	1611.6	1609.8	1597.2	1590.3
10°	1592.8	1593.5	1588.5	1578.4	1570.3
12.5°	1570.3	1569.7	1562.8	1557.8	1544.6
15°	1534.6	1538.4	1534.6	1527.7	1517.1
17.5°	1500.1	1500.1	1502.6	1490.7	1482.6
20°	1461.3	1463.2	1463.2	1453.8	1444.4
22.5°	1416.2	1421.8	1423.7	1413.7	1402.4
25°	1363.0	1373.6	1379.9	1369.9	1358.0
27.5°	1298.5	1314.7	1333.5	1326.0	1312.9
30°	1226.4	1250.2	1281.5	1275.3	1265.9
32.5°	1158.1	1182.0	1225.2	1222.7	1217.7
35°	1096.1	1111.2	1161.9	1168.2	1163.8
37.5°	1037.3	1051.0	1098.6	1113.1	1109.3
40°	975.3	990.3	1027.9	1053.5	1054.8
42.5°	913.9	928.3	959.0	995.9	995.9
45°	848.7	863.1	891.3	932.0	937.0
47.5°	784.8	799.9	827.4	868.1	876.3
50°	722.2	736.0	763.5	803.0	815.5
52.5°	657.1	672.1	699.0	735.4	753.5
55°	594.4	604.4	633.9	669.0	688.4
57.5°	529.3	538.7	571.9	601.9	622.0
60°	466.6	478.5	504.2	534.9	558.1
62.5°	406.5	419.0	441.0	467.9	494.2
65°	348.3	357.7	379.0	405.9	429.1
67.5°	291.9	300.0	321.3	340.1	364.5
70°	234.9	245.5	261.2	279.4	295.0
72.5°	189.2	193.5	206.7	219.9	236.1
75°	139.7	147.2	157.8	165.4	174.8
77.5°	100.2	104.6	110.9	117.1	125.9
80°	67.0	68.9	74.5	75.8	82.7
82.5°	40.7	42.0	43.2	43.8	46.4
85°	21.9	21.9	21.9	20.7	20.7
87.5°	12.5	12.5	10.6	8.8	6.3
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)