

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: P556909

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-93-96-EDD**

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: P556909
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-LD4-1STD-50-UNV-93-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

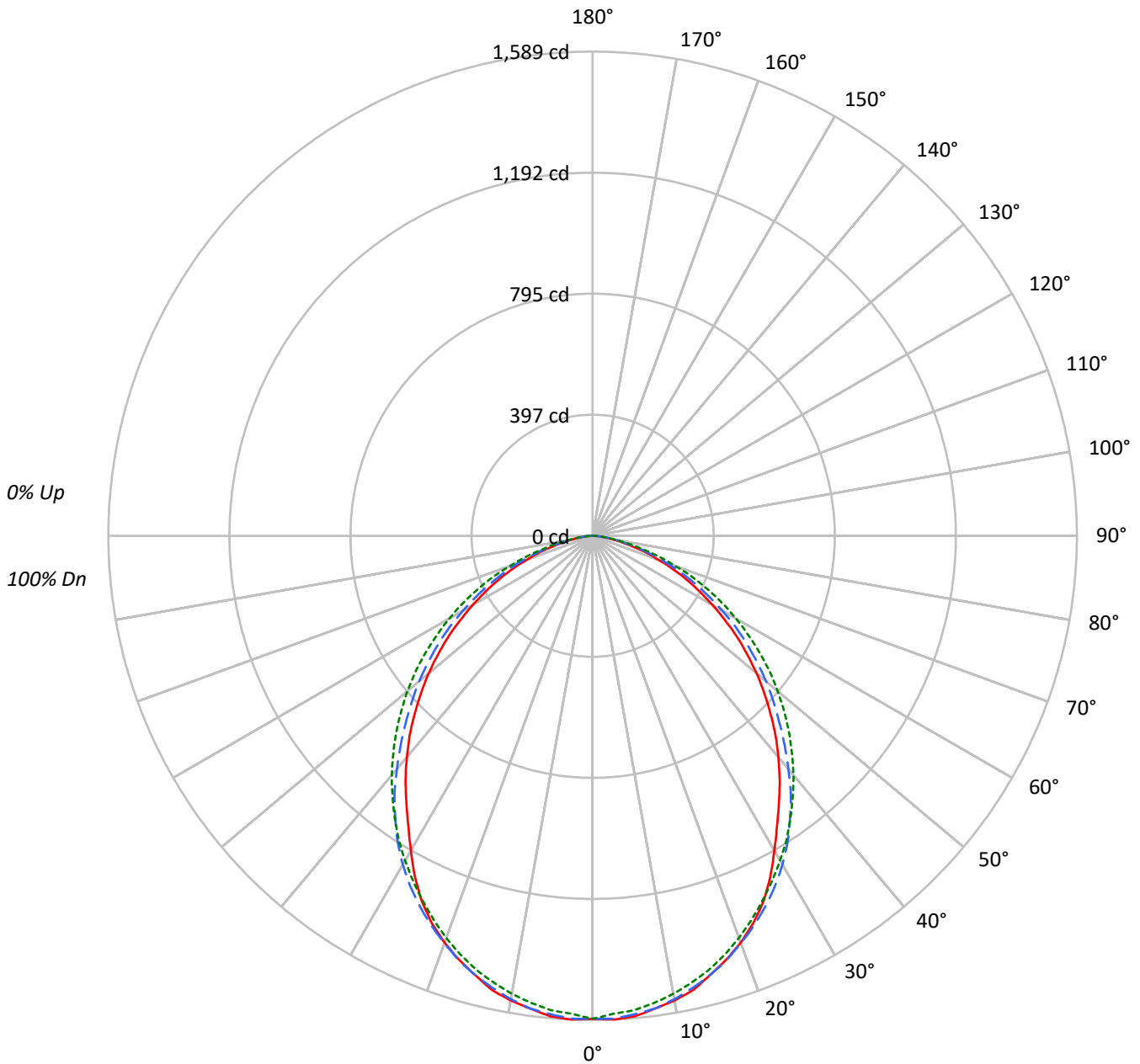
Lumens per Lamp: N/A
Luminaire Lumens: 3665.0 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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

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Luminous Intensity Polar Plot





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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°	4265	4265	4265
5°	4277	4259	4222
10°	4231	4220	4171
15°	4156	4156	4109
20°	4068	4073	4021
25°	3934	3983	3920
30°	3705	3871	3824
35°	3501	3710	3717
40°	3331	3510	3602
45°	3140	3298	3467
50°	2939	3108	3319
55°	2711	2891	3140
60°	2441	2638	2920
65°	2156	2346	2656
70°	1796	1998	2257
75°	1412	1595	1766
80°	1010	1124	1246
85°	658	658	621



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.2	4.1
10°-20°	419.2	11.4
20°-30°	612.6	16.7
30°-40°	695.4	19.0
40°-50°	671.3	18.3
50°-60°	553.8	15.1
60°-70°	368.8	10.1
70°-80°	165.0	4.5
80°-90°	29.5	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°	1181.1	32.2
0°-40°	1876.5	51.2
0°-60°	3101.7	84.6
0°-90°	3665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3665.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1585	1585	1585	1585	1585	
5°	1583	1583	1576	1568	1563	150
15°	1492	1496	1492	1485	1475	421
25°	1325	1335	1341	1332	1320	607
35°	1066	1080	1130	1136	1131	668
45°	825	839	866	906	911	637
55°	578	588	616	650	669	516
65°	339	348	368	395	417	336
75°	136	143	153	161	170	148
85°	21	21	21	20	20	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1585.0	1585.0	1585.0	1585.0	1585.0
2.5°	1589.3	1589.9	1586.2	1576.5	1570.4
5°	1583.2	1582.6	1576.5	1568.0	1563.1
7.5°	1565.5	1566.8	1564.9	1552.7	1546.0
10°	1548.5	1549.1	1544.2	1534.5	1526.6
12.5°	1526.6	1526.0	1519.3	1514.4	1501.6
15°	1491.9	1495.5	1491.9	1485.2	1474.8
17.5°	1458.4	1458.4	1460.8	1449.2	1441.3
20°	1420.6	1422.4	1422.4	1413.3	1404.2
22.5°	1376.8	1382.2	1384.1	1374.3	1363.4
25°	1325.0	1335.4	1341.4	1331.7	1320.1
27.5°	1262.3	1278.1	1296.4	1289.1	1276.3
30°	1192.3	1215.4	1245.8	1239.8	1230.6
32.5°	1125.9	1149.0	1191.0	1188.6	1183.7
35°	1065.6	1080.2	1129.5	1135.6	1131.4
37.5°	1008.4	1021.8	1068.0	1082.1	1078.4
40°	948.1	962.7	999.2	1024.2	1025.4
42.5°	888.4	902.4	932.3	968.2	968.2
45°	825.1	839.1	866.5	906.1	910.9
47.5°	763.0	777.6	804.4	844.0	851.9
50°	702.1	715.5	742.3	780.6	792.8
52.5°	638.8	653.4	679.6	714.9	732.5
55°	577.9	587.6	616.2	650.3	669.2
57.5°	514.5	523.7	555.9	585.2	604.7
60°	453.6	465.2	490.2	520.0	542.5
62.5°	395.2	407.4	428.7	454.9	480.4
65°	338.6	347.7	368.4	394.6	417.1
67.5°	283.8	291.7	312.4	330.6	354.4
70°	228.3	238.7	253.9	271.6	286.8
72.5°	183.9	188.2	200.9	213.7	229.6
75°	135.8	143.1	153.4	160.8	169.9
77.5°	97.4	101.7	107.8	113.9	122.4
80°	65.2	67.0	72.5	73.7	80.4
82.5°	39.6	40.8	42.0	42.6	45.1
85°	21.3	21.3	21.3	20.1	20.1
87.5°	12.2	12.2	10.4	8.5	6.1
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)