

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: P556231

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-81-87-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: P556231
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-35-UNV-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

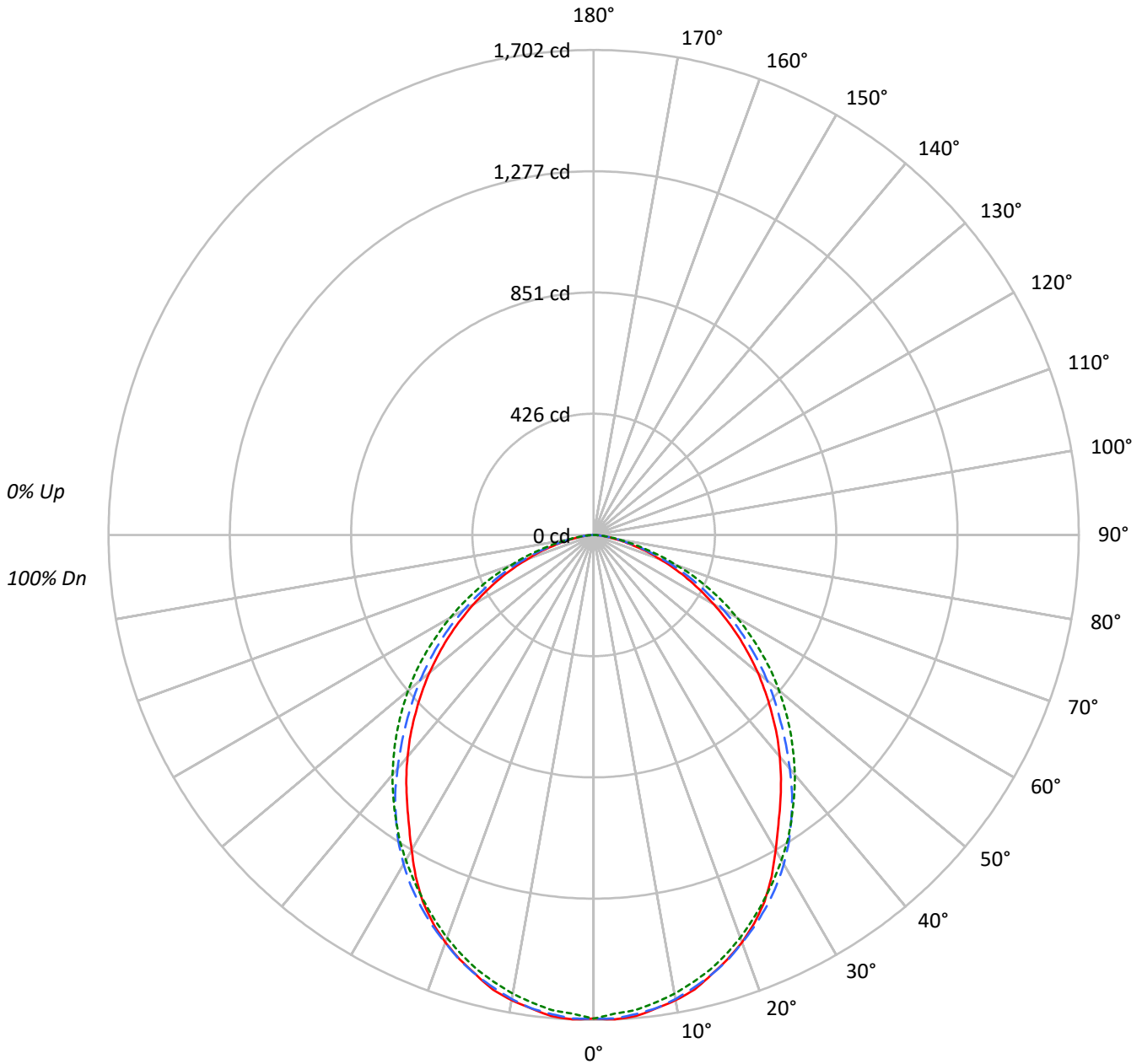
Lumens per Lamp: N/A
Luminaire Lumens: 3925.0 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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

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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°	4568	4568	4568
5°	4580	4561	4522
10°	4531	4519	4467
15°	4451	4451	4400
20°	4357	4362	4306
25°	4213	4266	4198
30°	3967	4146	4095
35°	3749	3974	3980
40°	3567	3759	3858
45°	3363	3532	3713
50°	3148	3328	3555
55°	2904	3096	3362
60°	2615	2826	3127
65°	2309	2512	2844
70°	1924	2139	2416
75°	1512	1708	1891
80°	1082	1203	1334
85°	704	704	664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.8	4.1
10°-20°	449.0	11.4
20°-30°	656.1	16.7
30°-40°	744.8	19.0
40°-50°	718.9	18.3
50°-60°	593.1	15.1
60°-70°	394.9	10.1
70°-80°	176.7	4.5
80°-90°	31.6	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°	1264.9	32.2
0°-40°	2009.7	51.2
0°-60°	3321.7	84.6
0°-90°	3925.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3925.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1698	1698	1698	1698	1698	
5°	1696	1695	1688	1679	1674	160
15°	1598	1602	1598	1590	1579	450
25°	1419	1430	1437	1426	1414	650
35°	1141	1157	1210	1216	1212	715
45°	884	899	928	970	976	682
55°	619	629	660	696	717	552
65°	363	372	394	423	447	360
75°	145	153	164	172	182	159
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1697.5	1697.5	1697.5	1697.5	1697.5
2.5°	1702.0	1702.7	1698.8	1688.3	1681.8
5°	1695.5	1694.9	1688.3	1679.2	1674.0
7.5°	1676.6	1677.9	1675.9	1662.9	1655.7
10°	1658.3	1659.0	1653.8	1643.3	1634.9
12.5°	1634.9	1634.2	1627.0	1621.8	1608.1
15°	1597.7	1601.6	1597.7	1590.5	1579.4
17.5°	1561.8	1561.8	1564.4	1552.0	1543.6
20°	1521.4	1523.3	1523.3	1513.6	1503.8
22.5°	1474.4	1480.3	1482.3	1471.8	1460.1
25°	1419.0	1430.1	1436.6	1426.2	1413.8
27.5°	1351.8	1368.8	1388.4	1380.5	1366.8
30°	1276.8	1301.6	1334.2	1327.7	1317.9
32.5°	1205.8	1230.5	1275.5	1272.9	1267.7
35°	1141.2	1156.9	1209.7	1216.2	1211.6
37.5°	1079.9	1094.3	1143.8	1158.8	1154.9
40°	1015.3	1031.0	1070.1	1096.9	1098.2
42.5°	951.4	966.4	998.4	1036.9	1036.9
45°	883.6	898.6	928.0	970.4	975.6
47.5°	817.1	832.8	861.4	903.8	912.3
50°	751.9	766.2	794.9	836.0	849.1
52.5°	684.1	699.7	727.8	765.6	784.5
55°	618.9	629.3	659.9	696.5	716.7
57.5°	551.0	560.8	595.4	626.7	647.6
60°	485.8	498.2	525.0	556.9	581.0
62.5°	423.2	436.3	459.1	487.1	514.5
65°	362.6	372.4	394.5	422.6	446.7
67.5°	303.9	312.4	334.5	354.1	379.5
70°	244.5	255.6	271.9	290.8	307.1
72.5°	196.9	201.5	215.2	228.9	245.8
75°	145.4	153.2	164.3	172.2	181.9
77.5°	104.3	108.9	115.4	121.9	131.1
80°	69.8	71.7	77.6	78.9	86.1
82.5°	42.4	43.7	45.0	45.6	48.3
85°	22.8	22.8	22.8	21.5	21.5
87.5°	13.0	13.0	11.1	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)