

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: P556362

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-81-94-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: P556362
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-81-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

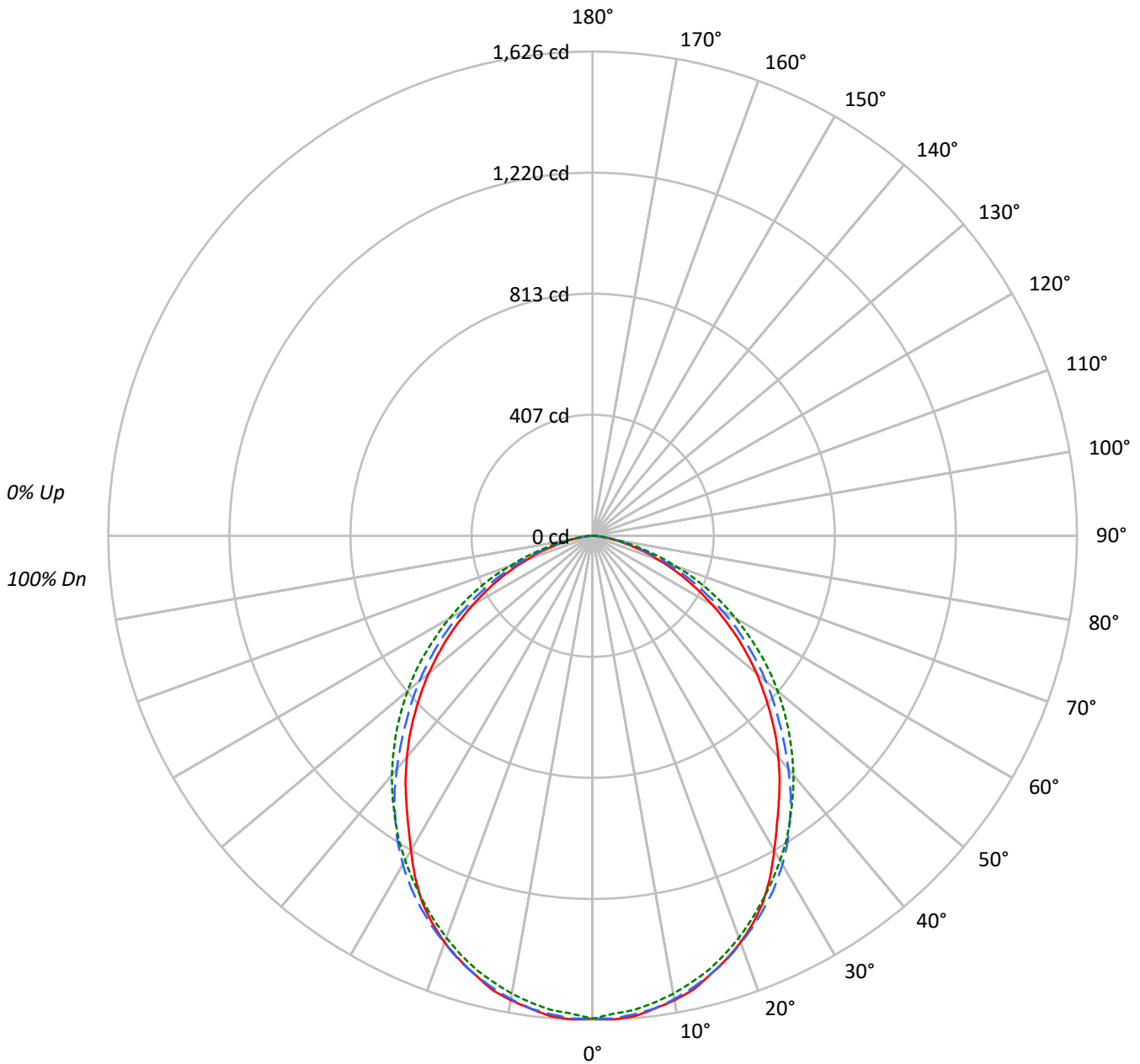
Lumens per Lamp: N/A
Luminaire Lumens: 3749.0 lumens
Efficiency: N/A
Efficacy: 86.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	4363	4363	4363
5°	4375	4356	4319
10°	4328	4316	4267
15°	4251	4251	4203
20°	4161	4167	4113
25°	4024	4074	4010
30°	3790	3960	3911
35°	3581	3796	3802
40°	3407	3590	3685
45°	3212	3373	3546
50°	3007	3179	3395
55°	2773	2958	3211
60°	2497	2699	2987
65°	2205	2399	2717
70°	1838	2043	2308
75°	1444	1632	1807
80°	1032	1148	1274
85°	673	673	636



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.7	4.1
10°-20°	428.8	11.4
20°-30°	626.7	16.7
30°-40°	711.4	19.0
40°-50°	686.7	18.3
50°-60°	566.5	15.1
60°-70°	377.2	10.1
70°-80°	168.8	4.5
80°-90°	30.2	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°	1208.2	32.2
0°-40°	1919.6	51.2
0°-60°	3172.8	84.6
0°-90°	3749.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3749.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1621	1621	1621	1621	1621	
5°	1620	1619	1613	1604	1599	153
15°	1526	1530	1526	1519	1509	430
25°	1355	1366	1372	1362	1350	621
35°	1090	1105	1155	1162	1157	683
45°	844	858	886	927	932	651
55°	591	601	630	665	684	528
65°	346	356	377	404	427	343
75°	139	146	157	164	174	152
85°	22	22	22	21	21	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1621.3	1621.3	1621.3	1621.3	1621.3
2.5°	1625.7	1626.3	1622.6	1612.6	1606.4
5°	1619.5	1618.9	1612.6	1603.9	1598.9
7.5°	1601.4	1602.7	1600.8	1588.3	1581.5
10°	1584.0	1584.6	1579.6	1569.6	1561.5
12.5°	1561.5	1560.9	1554.1	1549.1	1536.0
15°	1526.0	1529.8	1526.0	1519.2	1508.6
17.5°	1491.8	1491.8	1494.3	1482.4	1474.3
20°	1453.2	1455.0	1455.0	1445.7	1436.4
22.5°	1408.3	1413.9	1415.8	1405.8	1394.6
25°	1355.4	1366.0	1372.2	1362.2	1350.4
27.5°	1291.2	1307.4	1326.1	1318.6	1305.5
30°	1219.6	1243.3	1274.4	1268.2	1258.8
32.5°	1151.7	1175.4	1218.3	1215.9	1210.9
35°	1090.0	1105.0	1155.4	1161.7	1157.3
37.5°	1031.5	1045.2	1092.5	1106.9	1103.1
40°	969.8	984.8	1022.1	1047.7	1048.9
42.5°	908.8	923.1	953.6	990.4	990.4
45°	844.0	858.3	886.4	926.8	931.8
47.5°	780.5	795.4	822.8	863.3	871.4
50°	718.2	731.9	759.3	798.5	811.0
52.5°	653.4	668.3	695.1	731.3	749.3
55°	591.1	601.1	630.4	665.2	684.5
57.5°	526.3	535.7	568.7	598.6	618.5
60°	464.0	475.9	501.4	531.9	555.0
62.5°	404.2	416.7	438.5	465.3	491.4
65°	346.3	355.7	376.8	403.6	426.7
67.5°	290.3	298.4	319.5	338.2	362.5
70°	233.6	244.2	259.7	277.8	293.4
72.5°	188.1	192.5	205.5	218.6	234.8
75°	138.9	146.4	157.0	164.4	173.8
77.5°	99.7	104.0	110.2	116.5	125.2
80°	66.6	68.5	74.1	75.4	82.2
82.5°	40.5	41.7	43.0	43.6	46.1
85°	21.8	21.8	21.8	20.6	20.6
87.5°	12.5	12.5	10.6	8.7	6.2
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)