

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: P557952

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-81-84-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: P557952
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-LD4-3LO-30-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

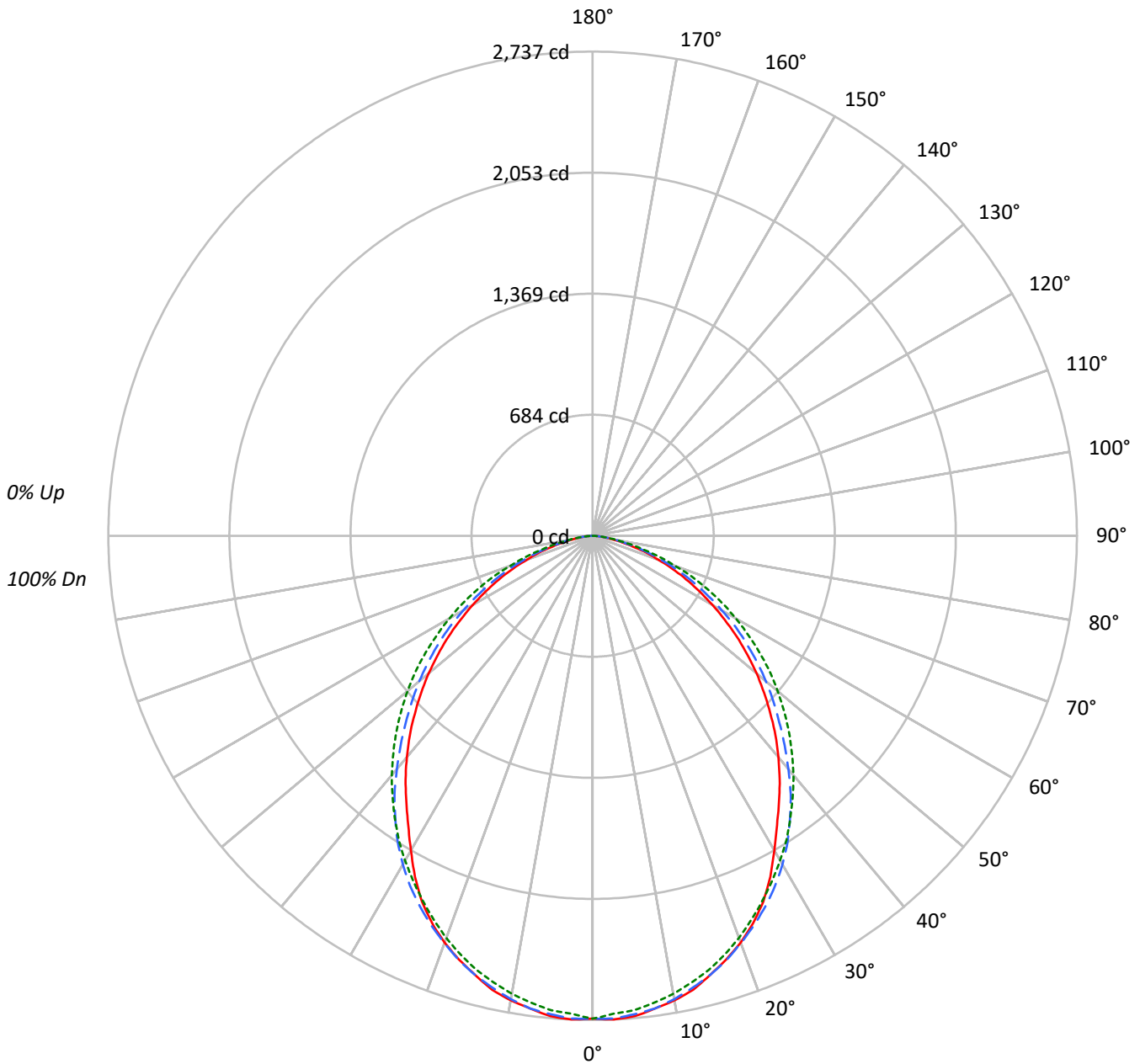
Lumens per Lamp: N/A
Luminaire Lumens: 6312.0 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	7346	7346	7346
5°	7365	7334	7272
10°	7287	7267	7184
15°	7158	7158	7076
20°	7006	7015	6925
25°	6776	6860	6751
30°	6380	6667	6586
35°	6029	6390	6401
40°	5736	6045	6204
45°	5408	5679	5971
50°	5062	5352	5716
55°	4669	4979	5407
60°	4205	4543	5029
65°	3713	4040	4574
70°	3094	3441	3886
75°	2432	2748	3042
80°	1739	1934	2145
85°	1133	1133	1068



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.0	4.1
10°-20°	722.0	11.4
20°-30°	1055.1	16.7
30°-40°	1197.7	19.0
40°-50°	1156.2	18.3
50°-60°	953.8	15.1
60°-70°	635.1	10.1
70°-80°	284.2	4.5
80°-90°	50.9	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°	2034.2	32.2
0°-40°	3231.9	51.2
0°-60°	5341.8	84.6
0°-90°	6312.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6312.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2730	2730	2730	2730	2730	
5°	2727	2726	2715	2700	2692	258
15°	2569	2576	2569	2558	2540	724
25°	2282	2300	2310	2294	2274	1045
35°	1835	1860	1945	1956	1948	1150
45°	1421	1445	1492	1560	1569	1096
55°	995	1012	1061	1120	1152	888
65°	583	599	634	680	718	578
75°	234	246	264	277	293	256
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2729.8	2729.8	2729.8	2729.8	2729.8
2.5°	2737.1	2738.2	2731.9	2715.1	2704.6
5°	2726.6	2725.6	2715.1	2700.4	2692.0
7.5°	2696.2	2698.3	2695.2	2674.2	2662.7
10°	2666.9	2667.9	2659.5	2642.7	2629.1
12.5°	2629.1	2628.1	2616.5	2608.1	2586.1
15°	2569.3	2575.6	2569.3	2557.8	2540.0
17.5°	2511.6	2511.6	2515.8	2495.9	2482.3
20°	2446.6	2449.8	2449.8	2434.0	2418.3
22.5°	2371.1	2380.6	2383.7	2366.9	2348.0
25°	2282.0	2299.8	2310.3	2293.5	2273.6
27.5°	2174.0	2201.2	2232.7	2220.1	2198.1
30°	2053.4	2093.2	2145.6	2135.2	2119.4
32.5°	1939.1	1978.9	2051.3	2047.1	2038.7
35°	1835.2	1860.4	1945.3	1955.8	1948.5
37.5°	1736.7	1759.7	1839.4	1863.5	1857.3
40°	1632.8	1658.0	1720.9	1763.9	1766.0
42.5°	1530.1	1554.2	1605.6	1667.4	1667.4
45°	1421.0	1445.1	1492.3	1560.5	1568.9
47.5°	1314.0	1339.2	1385.3	1453.5	1467.1
50°	1209.2	1232.2	1278.4	1344.4	1365.4
52.5°	1100.1	1125.3	1170.4	1231.2	1261.6
55°	995.2	1012.0	1061.3	1120.0	1152.5
57.5°	886.2	901.9	957.5	1007.8	1041.4
60°	781.3	801.2	844.2	895.6	934.4
62.5°	680.6	701.6	738.3	783.4	827.4
65°	583.1	598.8	634.5	679.6	718.4
67.5°	488.7	502.3	538.0	569.4	610.3
70°	393.3	411.1	437.3	467.7	493.9
72.5°	316.7	324.0	346.1	368.1	395.4
75°	233.9	246.4	264.3	276.9	292.6
77.5°	167.8	175.1	185.6	196.1	210.8
80°	112.2	115.4	124.8	126.9	138.4
82.5°	68.2	70.3	72.4	73.4	77.6
85°	36.7	36.7	36.7	34.6	34.6
87.5°	21.0	21.0	17.8	14.7	10.5
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)