

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: P558023

Luminaire Tested: **FUSL-12-4-LD4-3LO-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: P558023
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-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

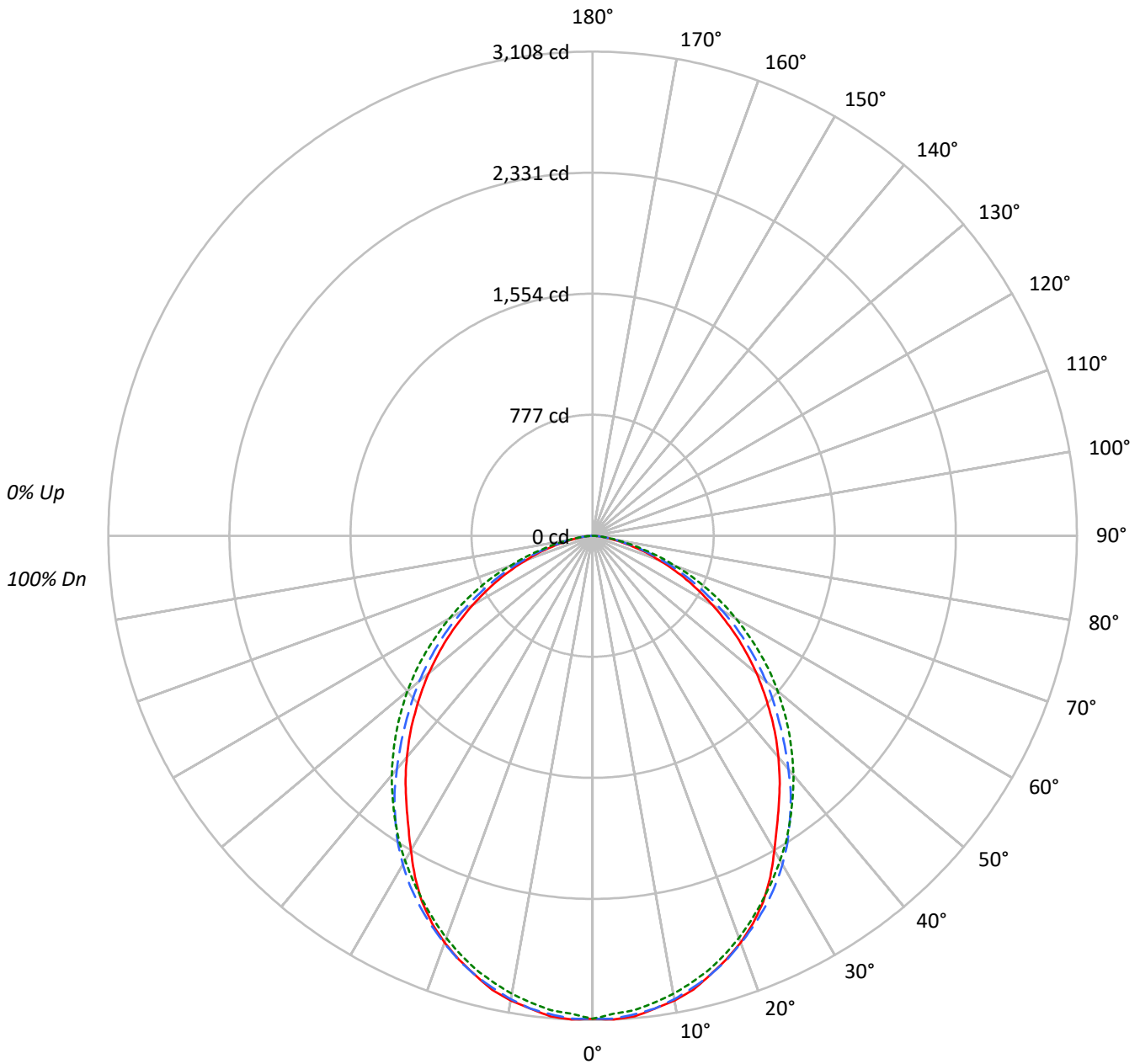
Lumens per Lamp: N/A
Luminaire Lumens: 7168.0 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8342	8342	8342
5°	8364	8329	8258
10°	8275	8253	8158
15°	8129	8129	8036
20°	7956	7967	7865
25°	7695	7790	7666
30°	7246	7571	7479
35°	6846	7257	7269
40°	6514	6865	7045
45°	6141	6449	6780
50°	5748	6077	6491
55°	5302	5654	6140
60°	4775	5160	5711
65°	4216	4588	5195
70°	3514	3907	4413
75°	2761	3120	3455
80°	1974	2196	2436
85°	1288	1288	1213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.9	4.1
10°-20°	820.0	11.4
20°-30°	1198.2	16.7
30°-40°	1360.1	19.0
40°-50°	1313.0	18.3
50°-60°	1083.1	15.1
60°-70°	721.3	10.1
70°-80°	322.8	4.5
80°-90°	57.7	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°	2310.0	32.2
0°-40°	3670.2	51.2
0°-60°	6066.2	84.6
0°-90°	7168.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7168.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3100	3100	3100	3100	3100	
5°	3096	3095	3083	3067	3057	293
15°	2918	2925	2918	2905	2884	823
25°	2592	2612	2624	2605	2582	1187
35°	2084	2113	2209	2221	2213	1306
45°	1614	1641	1695	1772	1782	1245
55°	1130	1149	1205	1272	1309	1009
65°	662	680	720	772	816	657
75°	266	280	300	314	332	290
85°	42	42	42	39	39	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3100.0	3100.0	3100.0	3100.0	3100.0
2.5°	3108.3	3109.5	3102.4	3083.3	3071.4
5°	3096.4	3095.2	3083.3	3066.6	3057.1
7.5°	3061.9	3064.2	3060.7	3036.9	3023.8
10°	3028.5	3029.7	3020.2	3001.1	2985.6
12.5°	2985.6	2984.5	2971.4	2961.8	2936.8
15°	2917.8	2924.9	2917.8	2904.7	2884.4
17.5°	2852.3	2852.3	2857.0	2834.4	2818.9
20°	2778.4	2782.0	2782.0	2764.1	2746.3
22.5°	2692.7	2703.4	2707.0	2687.9	2666.5
25°	2591.5	2611.7	2623.6	2604.6	2581.9
27.5°	2468.8	2499.7	2535.5	2521.2	2496.2
30°	2331.8	2377.1	2436.6	2424.7	2406.9
32.5°	2202.0	2247.3	2329.4	2324.7	2315.2
35°	2084.1	2112.7	2209.2	2221.1	2212.7
37.5°	1972.2	1998.4	2088.9	2116.3	2109.1
40°	1854.3	1882.9	1954.3	2003.1	2005.5
42.5°	1737.6	1764.9	1823.3	1893.6	1893.6
45°	1613.7	1641.1	1694.7	1772.1	1781.6
47.5°	1492.2	1520.8	1573.2	1650.6	1666.1
50°	1373.1	1399.3	1451.7	1526.8	1550.6
52.5°	1249.3	1277.9	1329.1	1398.1	1432.7
55°	1130.2	1149.2	1205.2	1271.9	1308.8
57.5°	1006.3	1024.2	1087.3	1144.5	1182.6
60°	887.2	909.9	958.7	1017.0	1061.1
62.5°	772.9	796.7	838.4	889.6	939.6
65°	662.2	680.0	720.5	771.7	815.8
67.5°	555.0	570.5	610.9	646.7	693.1
70°	446.6	466.8	496.6	531.2	560.9
72.5°	359.7	368.0	393.0	418.0	449.0
75°	265.6	279.9	300.1	314.4	332.3
77.5°	190.5	198.9	210.8	222.7	239.4
80°	127.4	131.0	141.7	144.1	157.2
82.5°	77.4	79.8	82.2	83.4	88.1
85°	41.7	41.7	41.7	39.3	39.3
87.5°	23.8	23.8	20.2	16.7	11.9
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)