

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: P558051

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-93-85-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: P558051
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-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

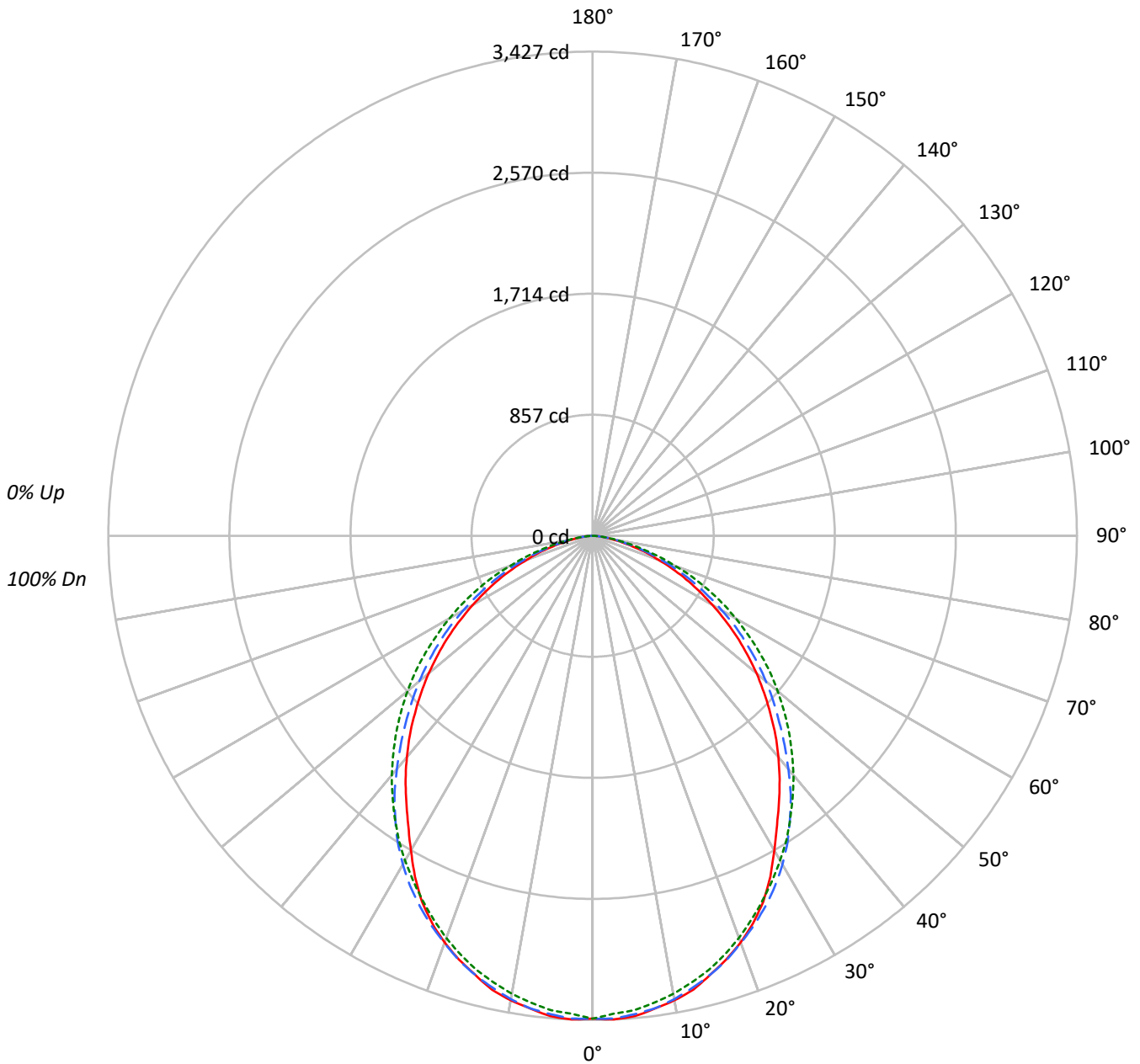
Lumens per Lamp: N/A
Luminaire Lumens: 7903.0 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (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°	9197	9197	9197
5°	9222	9183	9105
10°	9124	9099	8995
15°	8962	8962	8860
20°	8772	8784	8671
25°	8484	8589	8452
30°	7988	8348	8246
35°	7548	8001	8014
40°	7182	7569	7768
45°	6771	7111	7475
50°	6338	6701	7157
55°	5846	6234	6770
60°	5265	5689	6296
65°	4649	5058	5727
70°	3874	4308	4866
75°	3044	3440	3808
80°	2177	2422	2686
85°	1420	1420	1337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.8	4.1
10°-20°	904.0	11.4
20°-30°	1321.1	16.7
30°-40°	1499.6	19.0
40°-50°	1447.6	18.3
50°-60°	1194.2	15.1
60°-70°	795.2	10.1
70°-80°	355.8	4.5
80°-90°	63.7	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°	2546.9	32.2
0°-40°	4046.5	51.2
0°-60°	6688.3	84.6
0°-90°	7903.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7903.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3418	3418	3418	3418	3418	
5°	3414	3413	3400	3381	3371	323
15°	3217	3225	3217	3202	3180	907
25°	2857	2880	2893	2872	2847	1308
35°	2298	2329	2436	2449	2440	1440
45°	1779	1809	1868	1954	1964	1373
55°	1246	1267	1329	1402	1443	1112
65°	730	750	794	851	899	724
75°	293	309	331	347	366	320
85°	46	46	46	43	43	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3417.8	3417.8	3417.8	3417.8	3417.8
2.5°	3427.0	3428.3	3420.5	3399.5	3386.3
5°	3413.9	3412.6	3399.5	3381.1	3370.6
7.5°	3375.8	3378.5	3374.5	3348.3	3333.8
10°	3339.1	3340.4	3329.9	3308.9	3291.8
12.5°	3291.8	3290.5	3276.0	3265.5	3238.0
15°	3216.9	3224.8	3216.9	3202.5	3180.2
17.5°	3144.7	3144.7	3150.0	3125.0	3108.0
20°	3063.3	3067.3	3067.3	3047.6	3027.9
22.5°	2968.8	2980.6	2984.5	2963.5	2939.9
25°	2857.2	2879.5	2892.6	2871.6	2846.7
27.5°	2721.9	2756.1	2795.5	2779.7	2752.1
30°	2570.9	2620.8	2686.5	2673.3	2653.7
32.5°	2427.8	2477.7	2568.3	2563.1	2552.5
35°	2297.8	2329.3	2435.7	2448.8	2439.6
37.5°	2174.4	2203.3	2303.1	2333.3	2325.4
40°	2044.4	2075.9	2154.7	2208.5	2211.2
42.5°	1915.7	1945.9	2010.3	2087.7	2087.7
45°	1779.2	1809.4	1868.5	1953.8	1964.3
47.5°	1645.2	1676.8	1734.5	1819.9	1836.9
50°	1513.9	1542.8	1600.6	1683.3	1709.6
52.5°	1377.4	1408.9	1465.4	1541.5	1579.6
55°	1246.1	1267.1	1328.8	1402.3	1443.0
57.5°	1109.5	1129.2	1198.8	1261.8	1303.8
60°	978.2	1003.2	1057.0	1121.3	1169.9
62.5°	852.2	878.4	924.4	980.8	1036.0
65°	730.1	749.7	794.4	850.8	899.4
67.5°	611.9	628.9	673.6	713.0	764.2
70°	492.4	514.7	547.5	585.6	618.4
72.5°	396.5	405.7	433.3	460.9	495.0
75°	292.8	308.6	330.9	346.6	366.3
77.5°	210.1	219.3	232.4	245.5	263.9
80°	140.5	144.4	156.3	158.9	173.3
82.5°	85.3	88.0	90.6	91.9	97.2
85°	46.0	46.0	46.0	43.3	43.3
87.5°	26.3	26.3	22.3	18.4	13.1
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)