

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: P558097

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-82-84-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: P558097
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-40-UNV-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

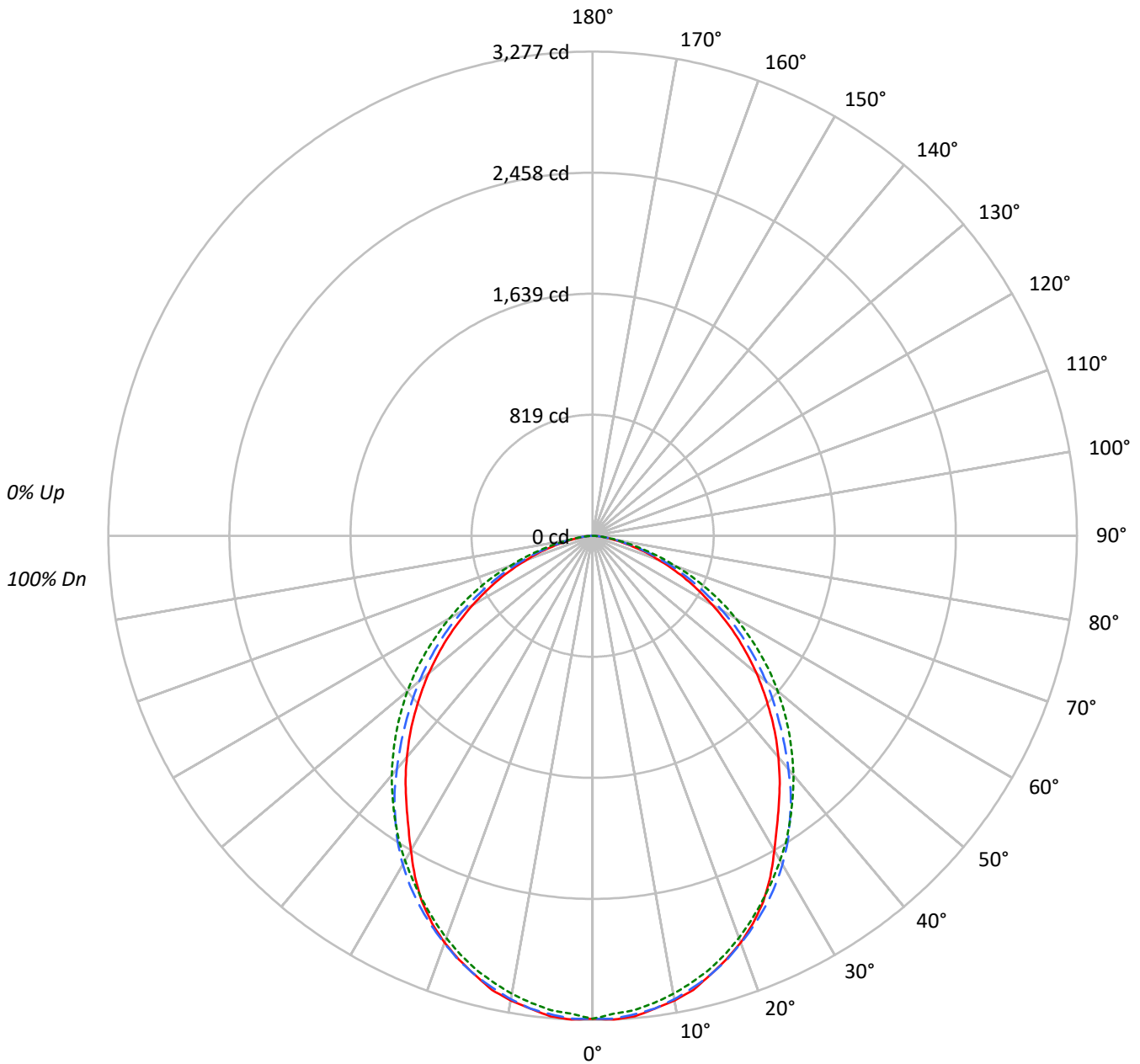
Lumens per Lamp: N/A
Luminaire Lumens: 7558.0 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8796	8796	8796
5°	8819	8782	8707
10°	8726	8702	8602
15°	8571	8571	8473
20°	8389	8400	8292
25°	8113	8214	8083
30°	7640	7983	7886
35°	7219	7652	7664
40°	6868	7239	7428
45°	6475	6800	7149
50°	6061	6408	6844
55°	5591	5962	6474
60°	5035	5441	6021
65°	4446	4837	5477
70°	3705	4120	4653
75°	2911	3290	3642
80°	2083	2315	2569
85°	1359	1359	1278



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.8	4.1
10°-20°	864.6	11.4
20°-30°	1263.4	16.7
30°-40°	1434.1	19.0
40°-50°	1384.4	18.3
50°-60°	1142.0	15.1
60°-70°	760.5	10.1
70°-80°	340.3	4.5
80°-90°	60.9	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°	2435.7	32.2
0°-40°	3869.8	51.2
0°-60°	6396.3	84.6
0°-90°	7558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7558.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3269	3269	3269	3269	3269	
5°	3265	3264	3251	3234	3223	309
15°	3076	3084	3076	3063	3041	867
25°	2732	2754	2766	2746	2722	1251
35°	2198	2228	2329	2342	2333	1377
45°	1702	1730	1787	1868	1879	1313
55°	1192	1212	1271	1341	1380	1064
65°	698	717	760	814	860	692
75°	280	295	316	332	350	306
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3268.6	3268.6	3268.6	3268.6	3268.6
2.5°	3277.4	3278.7	3271.2	3251.1	3238.5
5°	3264.9	3263.6	3251.1	3233.5	3223.4
7.5°	3228.5	3231.0	3227.2	3202.1	3188.3
10°	3193.3	3194.6	3184.5	3164.4	3148.1
12.5°	3148.1	3146.8	3133.0	3123.0	3096.6
15°	3076.5	3084.0	3076.5	3062.7	3041.4
17.5°	3007.5	3007.5	3012.5	2988.6	2972.3
20°	2929.6	2933.4	2933.4	2914.5	2895.7
22.5°	2839.2	2850.5	2854.3	2834.2	2811.6
25°	2732.4	2753.8	2766.4	2746.3	2722.4
27.5°	2603.1	2635.8	2673.4	2658.4	2632.0
30°	2458.7	2506.4	2569.2	2556.6	2537.8
32.5°	2321.8	2369.5	2456.2	2451.2	2441.1
35°	2197.5	2227.6	2329.4	2341.9	2333.1
37.5°	2079.5	2107.1	2202.5	2231.4	2223.9
40°	1955.2	1985.3	2060.6	2112.1	2114.6
42.5°	1832.1	1861.0	1922.5	1996.6	1996.6
45°	1701.5	1730.4	1786.9	1868.5	1878.6
47.5°	1573.4	1603.6	1658.8	1740.4	1756.8
50°	1447.8	1475.5	1530.7	1609.8	1634.9
52.5°	1317.3	1347.4	1401.4	1474.2	1510.6
55°	1191.7	1211.8	1270.8	1341.1	1380.0
57.5°	1061.1	1079.9	1146.5	1206.7	1246.9
60°	935.5	959.4	1010.9	1072.4	1118.8
62.5°	815.0	840.1	884.0	938.0	990.8
65°	698.2	717.0	759.7	813.7	860.2
67.5°	585.2	601.5	644.2	681.9	730.8
70°	470.9	492.2	523.6	560.1	591.4
72.5°	379.2	388.0	414.4	440.8	473.4
75°	280.0	295.1	316.4	331.5	350.3
77.5°	200.9	209.7	222.3	234.8	252.4
80°	134.4	138.1	149.4	151.9	165.8
82.5°	81.6	84.1	86.6	87.9	92.9
85°	44.0	44.0	44.0	41.4	41.4
87.5°	25.1	25.1	21.3	17.6	12.6
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)