

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: P558373

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-93-86-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: P558373
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-LD4-3STD-40-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

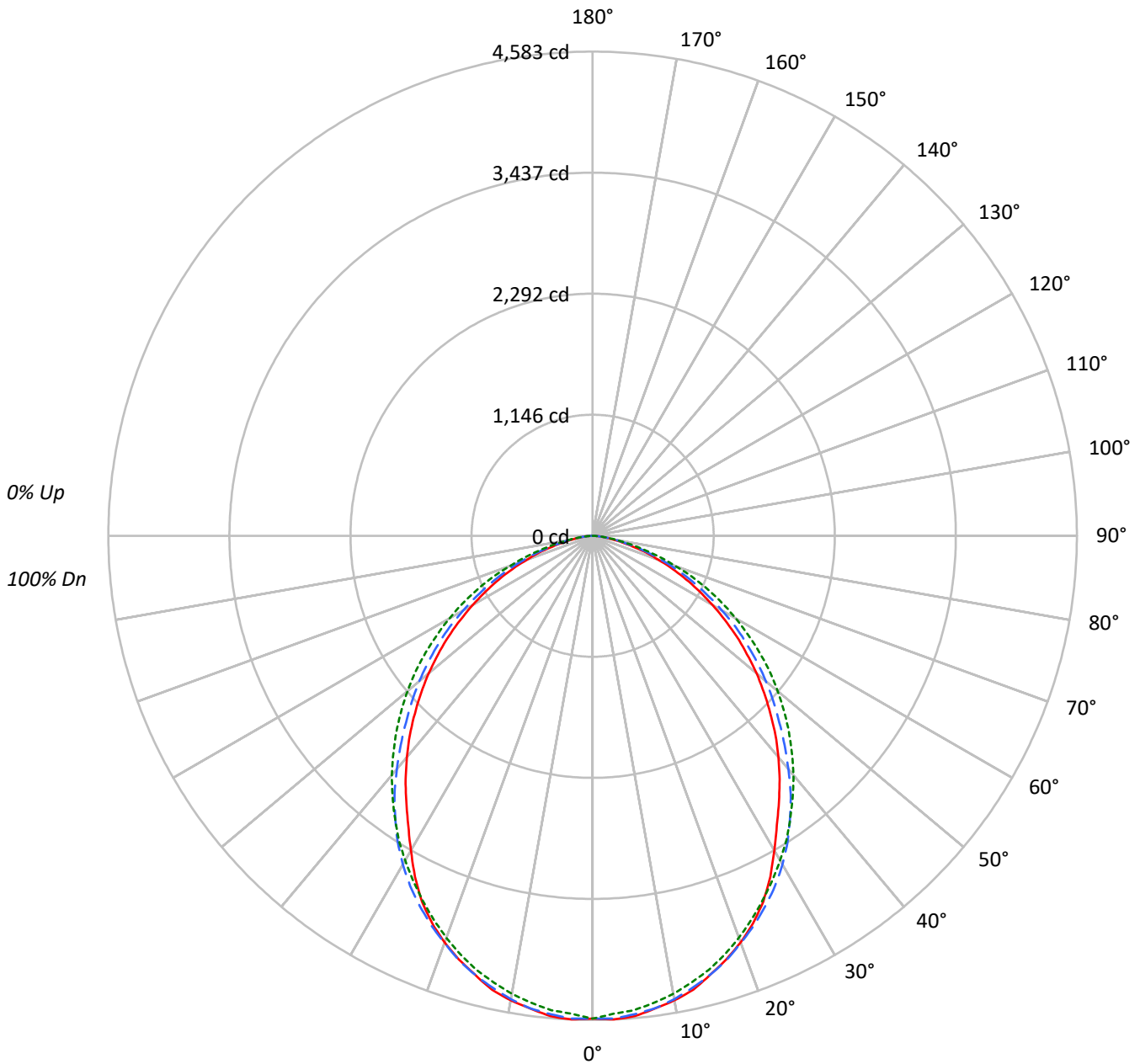
Lumens per Lamp: N/A
Luminaire Lumens: 10568.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	12299	12299	12299
5°	12332	12279	12175
10°	12201	12167	12028
15°	11984	11984	11847
20°	11730	11746	11595
25°	11344	11485	11302
30°	10682	11163	11026
35°	10094	10700	10717
40°	9603	10121	10387
45°	9054	9508	9996
50°	8475	8960	9571
55°	7818	8336	9053
60°	7040	7607	8420
65°	6216	6764	7658
70°	5180	5761	6507
75°	4070	4601	5094
80°	2912	3237	3592
85°	1899	1899	1788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	430.3	4.1
10°-20°	1208.9	11.4
20°-30°	1766.6	16.7
30°-40°	2005.2	19.0
40°-50°	1935.8	18.3
50°-60°	1596.9	15.1
60°-70°	1063.4	10.1
70°-80°	475.8	4.5
80°-90°	85.1	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°	3405.8	32.2
0°-40°	5411.0	51.2
0°-60°	8943.6	84.6
0°-90°	10568.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10568.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4570	4570	4570	4570	4570	
5°	4565	4563	4546	4521	4507	432
15°	4302	4312	4302	4282	4253	1213
25°	3821	3850	3868	3840	3807	1750
35°	3073	3115	3257	3275	3262	1925
45°	2379	2420	2498	2613	2627	1836
55°	1666	1694	1777	1875	1930	1487
65°	976	1003	1062	1138	1203	968
75°	392	413	442	464	490	428
85°	62	62	62	58	58	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4570.4	4570.4	4570.4	4570.4	4570.4
2.5°	4582.7	4584.4	4573.9	4545.8	4528.2
5°	4565.1	4563.4	4545.8	4521.2	4507.2
7.5°	4514.2	4517.7	4512.4	4477.3	4458.0
10°	4465.0	4466.8	4452.7	4424.7	4401.8
12.5°	4401.8	4400.1	4380.8	4366.7	4329.8
15°	4301.7	4312.3	4301.7	4282.4	4252.6
17.5°	4205.2	4205.2	4212.2	4178.8	4156.0
20°	4096.3	4101.6	4101.6	4075.2	4048.9
22.5°	3969.9	3985.7	3991.0	3962.9	3931.3
25°	3820.7	3850.5	3868.1	3840.0	3806.6
27.5°	3639.8	3685.5	3738.1	3717.1	3680.2
30°	3437.9	3504.6	3592.4	3574.8	3548.5
32.5°	3246.5	3313.2	3434.4	3427.4	3413.3
35°	3072.7	3114.8	3257.0	3274.6	3262.3
37.5°	2907.6	2946.3	3079.7	3120.1	3109.5
40°	2733.8	2775.9	2881.3	2953.3	2956.8
42.5°	2561.7	2602.1	2688.2	2791.7	2791.7
45°	2379.1	2419.5	2498.5	2612.7	2626.7
47.5°	2200.0	2242.2	2319.4	2433.6	2456.4
50°	2024.5	2063.1	2140.3	2251.0	2286.1
52.5°	1841.9	1884.0	1959.5	2061.3	2112.2
55°	1666.3	1694.4	1776.9	1875.2	1929.6
57.5°	1483.7	1510.0	1603.1	1687.3	1743.5
60°	1308.1	1341.4	1413.4	1499.5	1564.4
62.5°	1139.5	1174.6	1236.1	1311.6	1385.3
65°	976.2	1002.6	1062.3	1137.8	1202.7
67.5°	818.2	841.0	900.7	953.4	1021.9
70°	658.4	688.3	732.2	783.1	827.0
72.5°	530.3	542.5	579.4	616.3	661.9
75°	391.5	412.6	442.5	463.5	489.9
77.5°	280.9	293.2	310.8	328.3	352.9
80°	187.9	193.1	208.9	212.5	231.8
82.5°	114.1	117.6	121.2	122.9	129.9
85°	61.5	61.5	61.5	57.9	57.9
87.5°	35.1	35.1	29.8	24.6	17.6
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)