

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: P557701

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-81-86-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: P557701
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-LD4-3HI-30-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

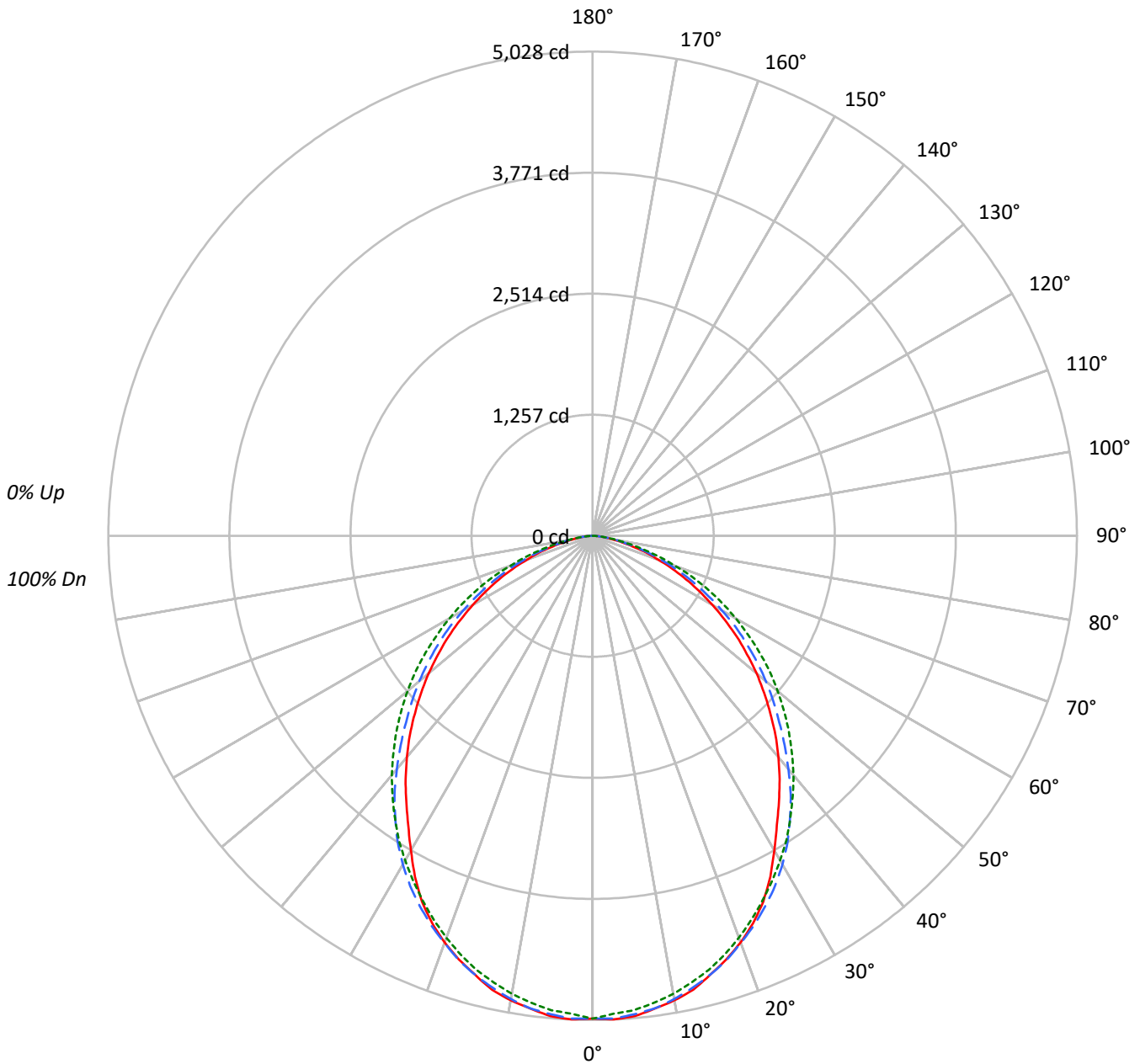
Lumens per Lamp: N/A
Luminaire Lumens: 11594.0 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	13493	13493	13493
5°	13529	13471	13357
10°	13385	13348	13196
15°	13148	13148	12997
20°	12869	12886	12720
25°	12446	12600	12400
30°	11720	12246	12097
35°	11074	11738	11757
40°	10536	11104	11395
45°	9933	10432	10967
50°	9298	9830	10500
55°	8576	9146	9932
60°	7724	8346	9237
65°	6819	7421	8402
70°	5684	6320	7139
75°	4467	5047	5587
80°	3194	3552	3941
85°	2081	2081	1964



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	472.1	4.1
10°-20°	1326.2	11.4
20°-30°	1938.1	16.7
30°-40°	2199.9	19.0
40°-50°	2123.7	18.3
50°-60°	1751.9	15.1
60°-70°	1166.6	10.1
70°-80°	522.0	4.5
80°-90°	93.4	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°	3736.4	32.2
0°-40°	5936.3	51.2
0°-60°	9811.9	84.6
0°-90°	11594.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11594.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5014	5014	5014	5014	5014	
5°	5008	5006	4987	4960	4945	474
15°	4719	4731	4719	4698	4665	1330
25°	4192	4224	4244	4213	4176	1920
35°	3371	3417	3573	3592	3579	2112
45°	2610	2654	2741	2866	2882	2014
55°	1828	1859	1949	2057	2117	1632
65°	1071	1100	1165	1248	1320	1062
75°	430	453	485	508	537	470
85°	67	67	67	64	64	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5014.1	5014.1	5014.1	5014.1	5014.1
2.5°	5027.6	5029.5	5018.0	4987.1	4967.9
5°	5008.3	5006.4	4987.1	4960.2	4944.8
7.5°	4952.5	4956.3	4950.5	4912.0	4890.8
10°	4898.5	4900.5	4885.0	4854.2	4829.2
12.5°	4829.2	4827.3	4806.1	4790.7	4750.2
15°	4719.4	4730.9	4719.4	4698.2	4665.4
17.5°	4613.4	4613.4	4621.1	4584.5	4559.5
20°	4494.0	4499.8	4499.8	4470.9	4442.0
22.5°	4355.3	4372.7	4378.4	4347.6	4312.9
25°	4191.6	4224.3	4243.6	4212.8	4176.2
27.5°	3993.2	4043.3	4101.0	4077.9	4037.5
30°	3771.7	3844.9	3941.2	3921.9	3893.0
32.5°	3561.7	3634.9	3767.8	3760.1	3744.7
35°	3371.0	3417.2	3573.2	3592.5	3579.0
37.5°	3189.9	3232.3	3378.7	3423.0	3411.4
40°	2999.2	3045.4	3161.0	3240.0	3243.9
42.5°	2810.4	2854.7	2949.1	3062.8	3062.8
45°	2610.1	2654.4	2741.1	2866.3	2881.7
47.5°	2413.6	2459.9	2544.6	2669.8	2694.9
50°	2221.0	2263.4	2348.1	2469.5	2508.0
52.5°	2020.7	2066.9	2149.7	2261.5	2317.3
55°	1828.0	1858.9	1949.4	2057.3	2117.0
57.5°	1627.7	1656.6	1758.7	1851.2	1912.8
60°	1435.1	1471.7	1550.7	1645.0	1716.3
62.5°	1250.2	1288.7	1356.1	1438.9	1519.8
65°	1071.0	1099.9	1165.4	1248.2	1319.5
67.5°	897.6	922.7	988.2	1046.0	1121.1
70°	722.4	755.1	803.3	859.1	907.3
72.5°	581.7	595.2	635.7	676.1	726.2
75°	429.6	452.7	485.4	508.5	537.4
77.5°	308.2	321.7	341.0	360.2	387.2
80°	206.1	211.9	229.2	233.1	254.3
82.5°	125.2	129.1	132.9	134.8	142.5
85°	67.4	67.4	67.4	63.6	63.6
87.5°	38.5	38.5	32.7	27.0	19.3
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)