

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: P557828

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-81-86-EDD-90**

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: P557828
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-40-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

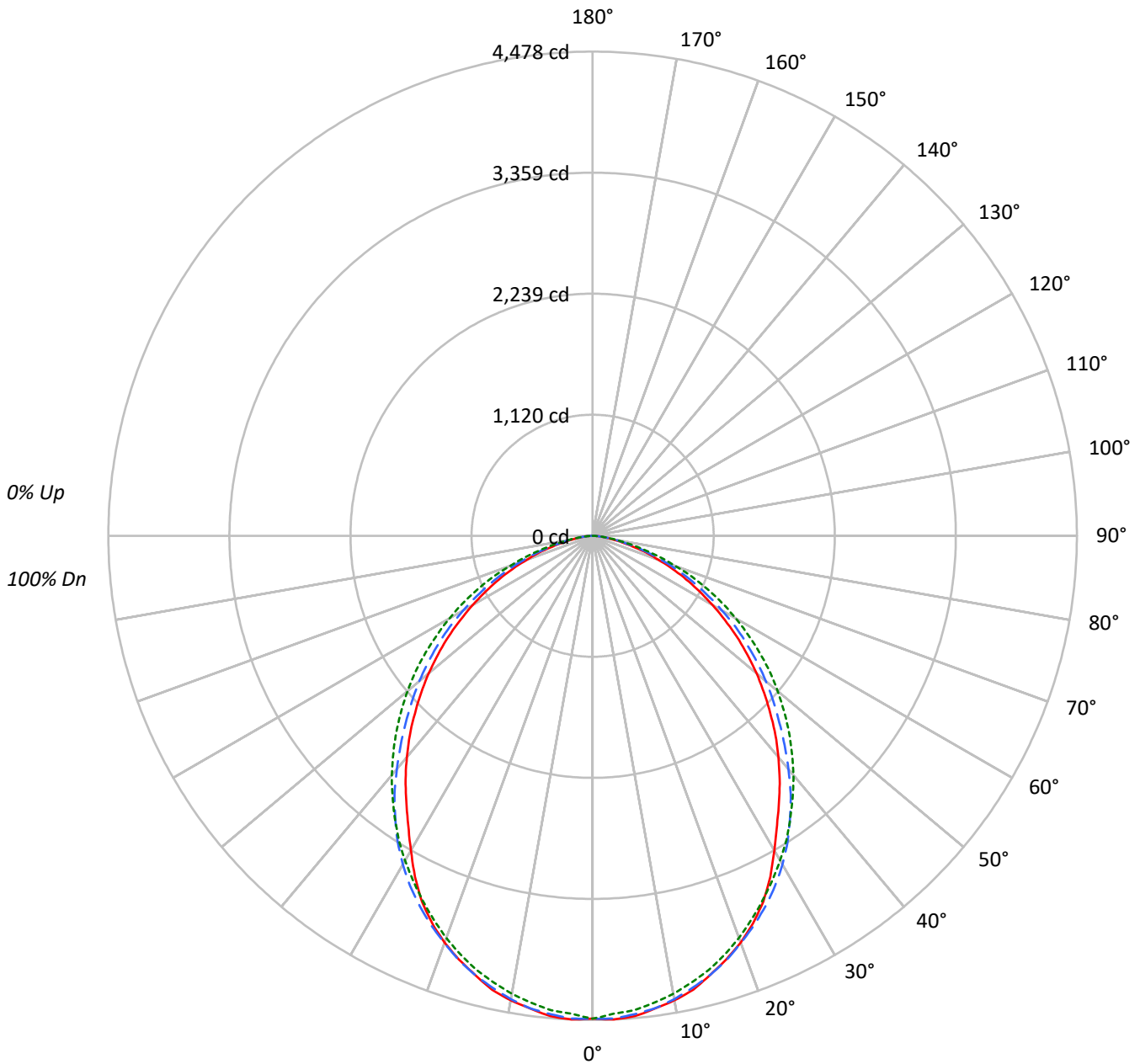
Lumens per Lamp: N/A
Luminaire Lumens: 10327.0 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12018	12018	12018
5°	12050	11999	11897
10°	11922	11890	11754
15°	11711	11711	11577
20°	11463	11478	11330
25°	11085	11223	11045
30°	10439	10908	10775
35°	9864	10456	10473
40°	9385	9891	10150
45°	8848	9291	9768
50°	8282	8756	9352
55°	7639	8146	8846
60°	6880	7434	8228
65°	6074	6609	7484
70°	5062	5629	6358
75°	3978	4496	4977
80°	2845	3164	3510
85°	1856	1856	1748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.5	4.1
10°-20°	1181.3	11.4
20°-30°	1726.3	16.7
30°-40°	1959.5	19.0
40°-50°	1891.6	18.3
50°-60°	1560.5	15.1
60°-70°	1039.1	10.1
70°-80°	465.0	4.5
80°-90°	83.2	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°	3328.1	32.2
0°-40°	5287.6	51.2
0°-60°	8739.7	84.6
0°-90°	10327.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10327.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4466	4466	4466	4466	4466	
5°	4461	4459	4442	4418	4404	422
15°	4204	4214	4204	4185	4156	1185
25°	3734	3763	3780	3752	3720	1710
35°	3003	3044	3183	3200	3188	1881
45°	2325	2364	2442	2553	2567	1794
55°	1628	1656	1736	1832	1886	1453
65°	954	980	1038	1112	1175	946
75°	383	403	432	453	479	418
85°	60	60	60	57	57	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4466.2	4466.2	4466.2	4466.2	4466.2
2.5°	4478.2	4479.9	4469.6	4442.1	4425.0
5°	4461.0	4459.3	4442.1	4418.1	4404.4
7.5°	4411.3	4414.7	4409.5	4375.2	4356.4
10°	4363.2	4364.9	4351.2	4323.8	4301.4
12.5°	4301.4	4299.7	4280.9	4267.1	4231.1
15°	4203.6	4213.9	4203.6	4184.8	4155.6
17.5°	4109.3	4109.3	4116.1	4083.5	4061.2
20°	4002.9	4008.0	4008.0	3982.3	3956.6
22.5°	3879.4	3894.8	3900.0	3872.5	3841.6
25°	3733.5	3762.7	3779.9	3752.4	3719.8
27.5°	3556.8	3601.4	3652.9	3632.3	3596.3
30°	3359.5	3424.7	3510.5	3493.3	3467.6
32.5°	3172.5	3237.7	3356.1	3349.2	3335.5
35°	3002.6	3043.8	3182.8	3199.9	3187.9
37.5°	2841.3	2879.1	3009.5	3048.9	3038.6
40°	2671.5	2712.6	2815.6	2885.9	2889.4
42.5°	2503.3	2542.8	2626.9	2728.1	2728.1
45°	2324.9	2364.3	2441.5	2553.1	2566.8
47.5°	2149.9	2191.0	2266.5	2378.1	2400.4
50°	1978.3	2016.0	2091.5	2199.6	2233.9
52.5°	1799.8	1841.0	1914.8	2014.3	2064.1
55°	1628.3	1655.7	1736.4	1832.4	1885.6
57.5°	1449.8	1475.6	1566.5	1648.9	1703.8
60°	1278.3	1310.9	1381.2	1465.3	1528.8
62.5°	1113.5	1147.9	1207.9	1281.7	1353.7
65°	954.0	979.7	1038.0	1111.8	1175.3
67.5°	799.6	821.9	880.2	931.7	998.6
70°	643.4	672.6	715.5	765.2	808.1
72.5°	518.2	530.2	566.2	602.2	646.8
75°	382.6	403.2	432.4	453.0	478.7
77.5°	274.5	286.5	303.7	320.8	344.9
80°	183.6	188.7	204.2	207.6	226.5
82.5°	111.5	115.0	118.4	120.1	127.0
85°	60.1	60.1	60.1	56.6	56.6
87.5°	34.3	34.3	29.2	24.0	17.2
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)