

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: P557894

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-81-87-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: P557894
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-50-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

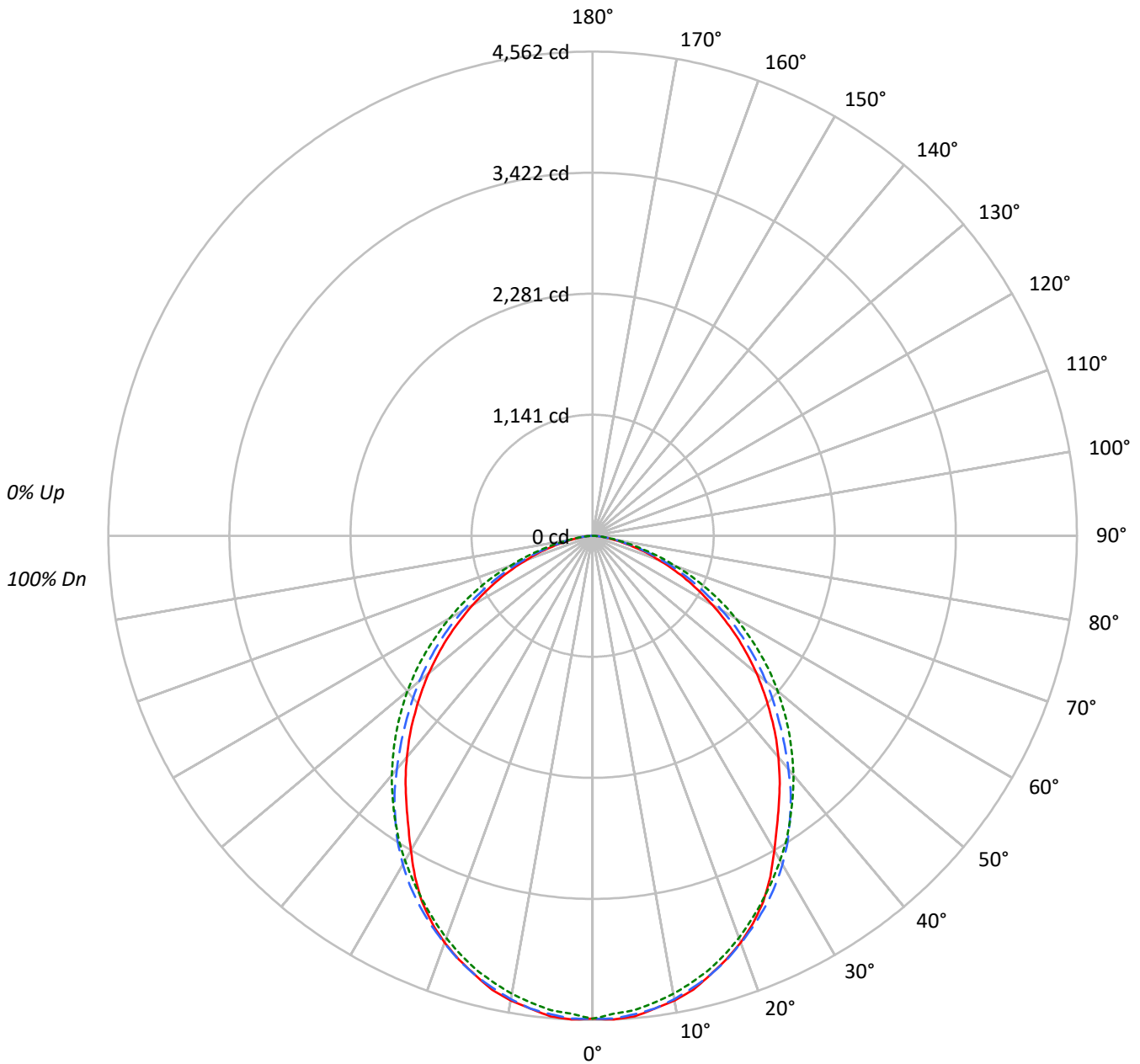
Lumens per Lamp: N/A
Luminaire Lumens: 10521.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12244	12244	12244
5°	12277	12225	12121
10°	12146	12113	11975
15°	11931	11931	11795
20°	11678	11693	11543
25°	11294	11434	11252
30°	10635	11113	10977
35°	10049	10652	10669
40°	9560	10077	10340
45°	9014	9466	9952
50°	8438	8920	9528
55°	7783	8299	9013
60°	7009	7573	8382
65°	6188	6734	7624
70°	5157	5735	6478
75°	4053	4580	5071
80°	2898	3223	3575
85°	1890	1890	1782



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	428.4	4.1
10°-20°	1203.5	11.4
20°-30°	1758.7	16.7
30°-40°	1996.3	19.0
40°-50°	1927.1	18.3
50°-60°	1589.8	15.1
60°-70°	1058.7	10.1
70°-80°	473.7	4.5
80°-90°	84.8	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°	3390.6	32.2
0°-40°	5386.9	51.2
0°-60°	8903.9	84.6
0°-90°	10521.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10521.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4550	4550	4550	4550	4550	
5°	4545	4543	4526	4501	4487	430
15°	4283	4293	4283	4263	4234	1207
25°	3804	3833	3851	3823	3790	1742
35°	3059	3101	3243	3260	3248	1917
45°	2368	2409	2487	2601	2615	1827
55°	1659	1687	1769	1867	1921	1481
65°	972	998	1058	1133	1197	964
75°	390	411	440	462	488	426
85°	61	61	61	58	58	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4550.1	4550.1	4550.1	4550.1	4550.1
2.5°	4562.3	4564.0	4553.6	4525.6	4508.1
5°	4544.8	4543.1	4525.6	4501.1	4487.1
7.5°	4494.1	4497.6	4492.4	4457.4	4438.2
10°	4445.2	4446.9	4432.9	4405.0	4382.3
12.5°	4382.3	4380.5	4361.3	4347.3	4310.6
15°	4282.6	4293.1	4282.6	4263.4	4233.7
17.5°	4186.5	4186.5	4193.5	4160.3	4137.5
20°	4078.1	4083.3	4083.3	4057.1	4030.9
22.5°	3952.2	3968.0	3973.2	3945.3	3913.8
25°	3803.7	3833.4	3850.9	3822.9	3789.7
27.5°	3623.6	3669.1	3721.5	3700.5	3663.8
30°	3422.6	3489.0	3576.4	3558.9	3532.7
32.5°	3232.1	3298.5	3419.1	3412.1	3398.1
35°	3059.0	3101.0	3242.6	3260.0	3247.8
37.5°	2894.7	2933.2	3066.0	3106.2	3095.7
40°	2721.6	2763.6	2868.5	2940.1	2943.6
42.5°	2550.3	2590.5	2676.2	2779.3	2779.3
45°	2368.5	2408.8	2487.4	2601.0	2615.0
47.5°	2190.3	2232.2	2309.1	2422.7	2445.5
50°	2015.5	2053.9	2130.8	2240.9	2275.9
52.5°	1833.7	1875.6	1950.8	2052.2	2102.9
55°	1658.9	1686.8	1769.0	1866.9	1921.1
57.5°	1477.1	1503.3	1595.9	1679.8	1735.8
60°	1302.3	1335.5	1407.1	1492.8	1557.5
62.5°	1134.5	1169.4	1230.6	1305.8	1379.2
65°	971.9	998.1	1057.5	1132.7	1197.4
67.5°	814.6	837.3	896.7	949.2	1017.3
70°	655.5	685.2	728.9	779.6	823.3
72.5°	527.9	540.1	576.8	613.6	659.0
75°	389.8	410.8	440.5	461.5	487.7
77.5°	279.7	291.9	309.4	326.9	351.3
80°	187.0	192.3	208.0	211.5	230.7
82.5°	113.6	117.1	120.6	122.4	129.4
85°	61.2	61.2	61.2	57.7	57.7
87.5°	35.0	35.0	29.7	24.5	17.5
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)