

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: P557910

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-82-87-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: P557910
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-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 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

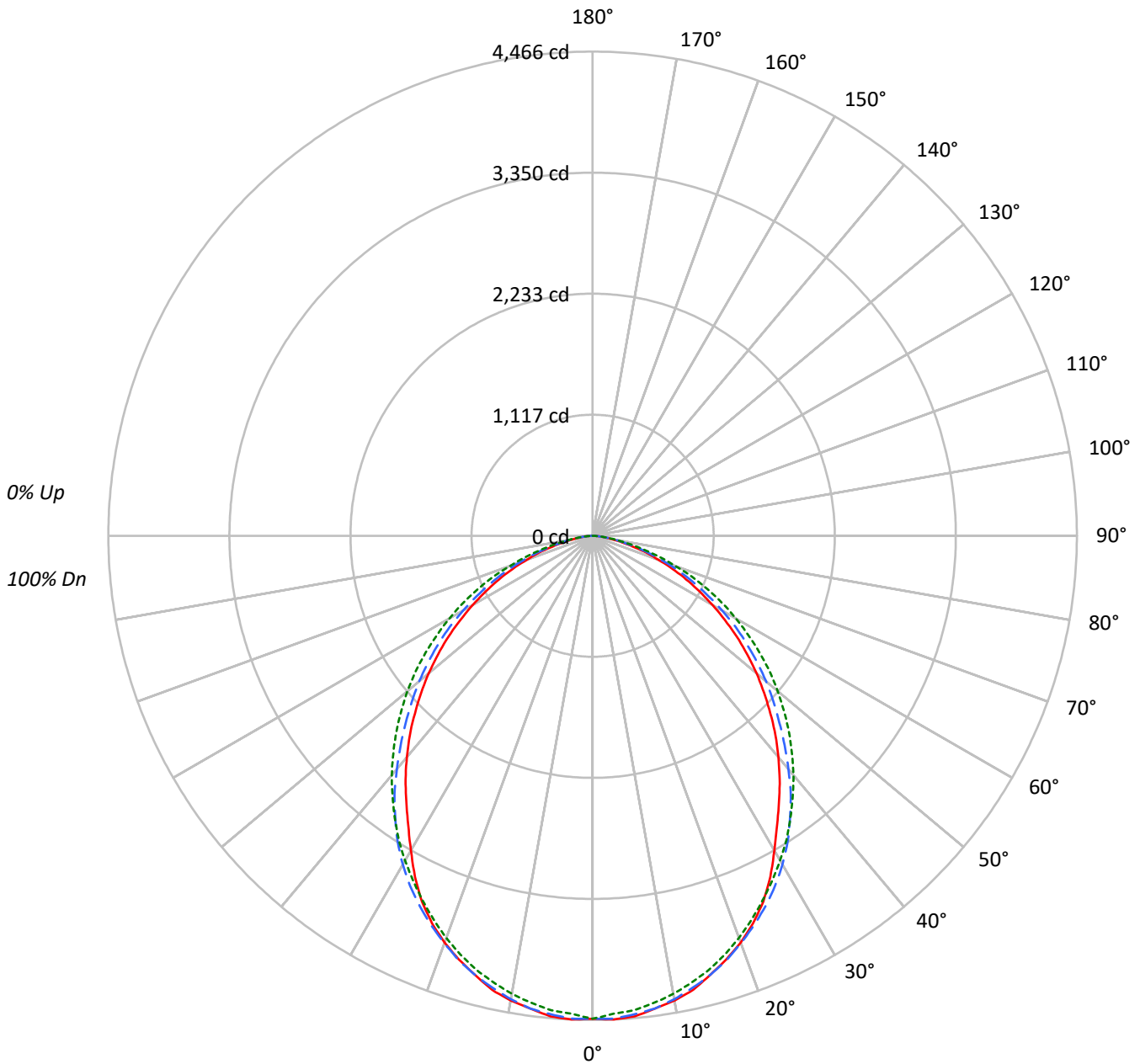
Lumens per Lamp: N/A
Luminaire Lumens: 10300.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557910

CATALOG NUMBER: FUSL-12-4-LD4-3HI-50-UNV-82-87-EDD-90

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°	11987	11987	11987
5°	12019	11968	11866
10°	11891	11858	11723
15°	11680	11680	11547
20°	11433	11448	11301
25°	11057	11194	11016
30°	10412	10880	10747
35°	9838	10428	10445
40°	9360	9865	10123
45°	8824	9267	9743
50°	8260	8733	9328
55°	7619	8125	8823
60°	6861	7414	8206
65°	6059	6592	7464
70°	5049	5615	6342
75°	3968	4483	4964
80°	2837	3155	3501
85°	1849	1849	1744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.4	4.1
10°-20°	1178.2	11.4
20°-30°	1721.8	16.7
30°-40°	1954.4	19.0
40°-50°	1886.7	18.3
50°-60°	1556.4	15.1
60°-70°	1036.4	10.1
70°-80°	463.8	4.5
80°-90°	83.0	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°	3319.4	32.2
0°-40°	5273.8	51.2
0°-60°	8716.8	84.6
0°-90°	10300.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10300.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4454	4454	4454	4454	4454	
5°	4449	4448	4430	4407	4393	421
15°	4193	4203	4193	4174	4145	1182
25°	3724	3753	3770	3743	3710	1705
35°	2995	3036	3174	3192	3180	1876
45°	2319	2358	2435	2546	2560	1789
55°	1624	1651	1732	1828	1881	1449
65°	952	977	1035	1109	1172	943
75°	382	402	431	452	477	417
85°	60	60	60	56	56	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4454.5	4454.5	4454.5	4454.5	4454.5
2.5°	4466.5	4468.2	4457.9	4430.5	4413.4
5°	4449.4	4447.6	4430.5	4406.6	4392.9
7.5°	4399.7	4403.1	4398.0	4363.8	4345.0
10°	4351.8	4353.5	4339.8	4312.4	4290.2
12.5°	4290.2	4288.5	4269.7	4256.0	4220.0
15°	4192.7	4202.9	4192.7	4173.8	4144.7
17.5°	4098.5	4098.5	4105.4	4072.9	4050.6
20°	3992.4	3997.6	3997.6	3971.9	3946.2
22.5°	3869.2	3884.6	3889.8	3862.4	3831.6
25°	3723.8	3752.9	3770.0	3742.6	3710.1
27.5°	3547.5	3592.0	3643.3	3622.8	3586.9
30°	3350.7	3415.7	3501.3	3484.2	3458.5
32.5°	3164.2	3229.2	3347.3	3340.4	3326.7
35°	2994.8	3035.8	3174.4	3191.6	3179.6
37.5°	2833.9	2871.5	3001.6	3041.0	3030.7
40°	2664.5	2705.5	2808.2	2878.4	2881.8
42.5°	2496.8	2536.1	2620.0	2720.9	2720.9
45°	2318.8	2358.2	2435.2	2546.4	2560.1
47.5°	2144.2	2185.3	2260.6	2371.8	2394.1
50°	1973.1	2010.8	2086.1	2193.9	2228.1
52.5°	1795.1	1836.2	1909.8	2009.1	2058.7
55°	1624.0	1651.4	1731.8	1827.7	1880.7
57.5°	1446.0	1471.7	1562.4	1644.5	1699.3
60°	1274.9	1307.4	1377.6	1461.4	1524.8
62.5°	1110.6	1144.9	1204.7	1278.3	1350.2
65°	951.5	977.1	1035.3	1108.9	1172.2
67.5°	797.5	819.7	877.9	929.2	996.0
70°	641.7	670.8	713.6	763.2	806.0
72.5°	516.8	528.8	564.7	600.7	645.2
75°	381.6	402.2	431.2	451.8	477.4
77.5°	273.8	285.8	302.9	320.0	344.0
80°	183.1	188.2	203.6	207.1	225.9
82.5°	111.2	114.7	118.1	119.8	126.6
85°	59.9	59.9	59.9	56.5	56.5
87.5°	34.2	34.2	29.1	24.0	17.1
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)