

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: P557767

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-81-87-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: P557767
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-35-UNV-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

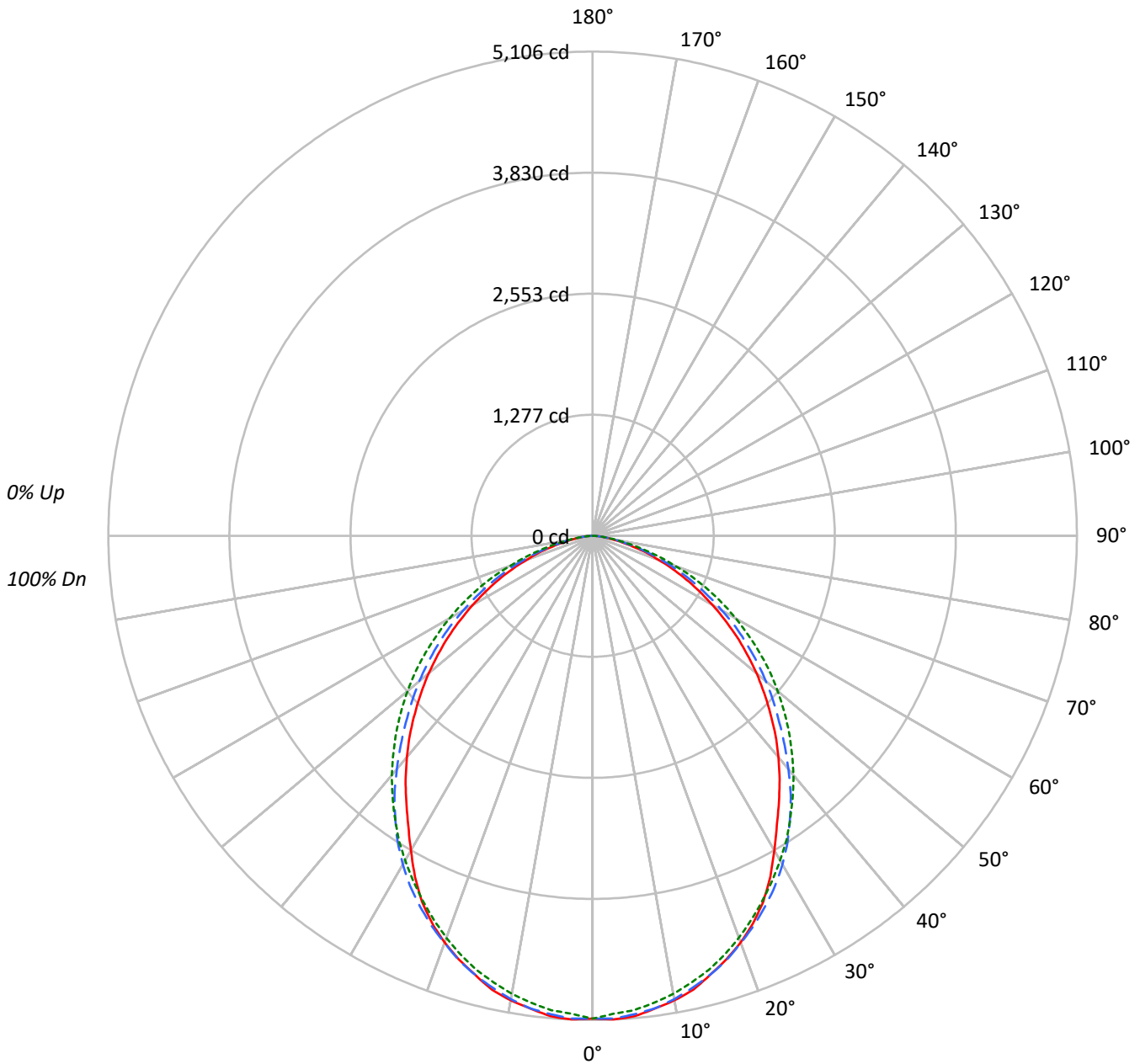
Lumens per Lamp: N/A
Luminaire Lumens: 11774.0 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P557767

CATALOG NUMBER: FUSL-12-4-LD4-3HI-35-UNV-81-87-EDD

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°	13702	13702	13702
5°	13739	13681	13564
10°	13593	13556	13401
15°	13352	13352	13199
20°	13069	13086	12918
25°	12639	12796	12592
30°	11901	12437	12285
35°	11246	11921	11940
40°	10699	11277	11572
45°	10087	10594	11137
50°	9442	9983	10663
55°	8709	9288	10086
60°	7844	8475	9381
65°	6925	7536	8532
70°	5772	6418	7249
75°	4535	5126	5675
80°	3243	3608	4001
85°	2115	2115	1995



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	479.4	4.1
10°-20°	1346.8	11.4
20°-30°	1968.2	16.7
30°-40°	2234.1	19.0
40°-50°	2156.7	18.3
50°-60°	1779.1	15.1
60°-70°	1184.7	10.1
70°-80°	530.2	4.5
80°-90°	94.9	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°	3794.4	32.2
0°-40°	6028.5	51.2
0°-60°	9964.3	84.6
0°-90°	11774.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11774.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5092	5092	5092	5092	5092	
5°	5086	5084	5065	5037	5022	481
15°	4793	4804	4793	4771	4738	1351
25°	4257	4290	4310	4278	4241	1949
35°	3423	3470	3629	3648	3635	2145
45°	2651	2696	2784	2911	2926	2045
55°	1856	1888	1980	2089	2150	1657
65°	1088	1117	1184	1268	1340	1078
75°	436	460	493	516	546	477
85°	68	68	68	65	65	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5092.0	5092.0	5092.0	5092.0	5092.0
2.5°	5105.6	5107.6	5095.9	5064.6	5045.0
5°	5086.1	5084.1	5064.6	5037.2	5021.5
7.5°	5029.4	5033.3	5027.4	4988.3	4966.8
10°	4974.6	4976.5	4960.9	4929.6	4904.2
12.5°	4904.2	4902.2	4880.7	4865.0	4824.0
15°	4792.7	4804.4	4792.7	4771.1	4737.9
17.5°	4685.1	4685.1	4692.9	4655.7	4630.3
20°	4563.8	4569.6	4569.6	4540.3	4511.0
22.5°	4422.9	4440.5	4446.4	4415.1	4379.9
25°	4256.7	4289.9	4309.5	4278.2	4241.0
27.5°	4055.2	4106.0	4164.7	4141.2	4100.2
30°	3830.2	3904.5	4002.4	3982.8	3953.5
32.5°	3617.0	3691.3	3826.3	3818.5	3802.8
35°	3423.3	3470.3	3628.7	3648.3	3634.6
37.5°	3239.4	3282.5	3431.1	3476.1	3464.4
40°	3045.8	3092.7	3210.1	3290.3	3294.2
42.5°	2854.1	2899.1	2994.9	3110.3	3110.3
45°	2650.6	2695.6	2783.7	2910.8	2926.5
47.5°	2451.1	2498.0	2584.1	2711.3	2736.7
50°	2255.5	2298.5	2384.6	2507.8	2547.0
52.5°	2052.0	2099.0	2183.1	2296.6	2353.3
55°	1856.4	1887.7	1979.7	2089.2	2149.8
57.5°	1653.0	1682.3	1786.0	1879.9	1942.5
60°	1457.4	1494.5	1574.7	1670.6	1743.0
62.5°	1269.6	1308.7	1377.2	1461.3	1543.4
65°	1087.6	1117.0	1183.5	1267.6	1340.0
67.5°	911.6	937.0	1003.5	1062.2	1138.5
70°	733.6	766.8	815.7	872.5	921.4
72.5°	590.8	604.5	645.5	686.6	737.5
75°	436.2	459.7	493.0	516.4	545.8
77.5°	313.0	326.7	346.2	365.8	393.2
80°	209.3	215.2	232.8	236.7	258.2
82.5°	127.2	131.1	135.0	136.9	144.8
85°	68.5	68.5	68.5	64.6	64.6
87.5°	39.1	39.1	33.3	27.4	19.6
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)