

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: P557766

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-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: P557766
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-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

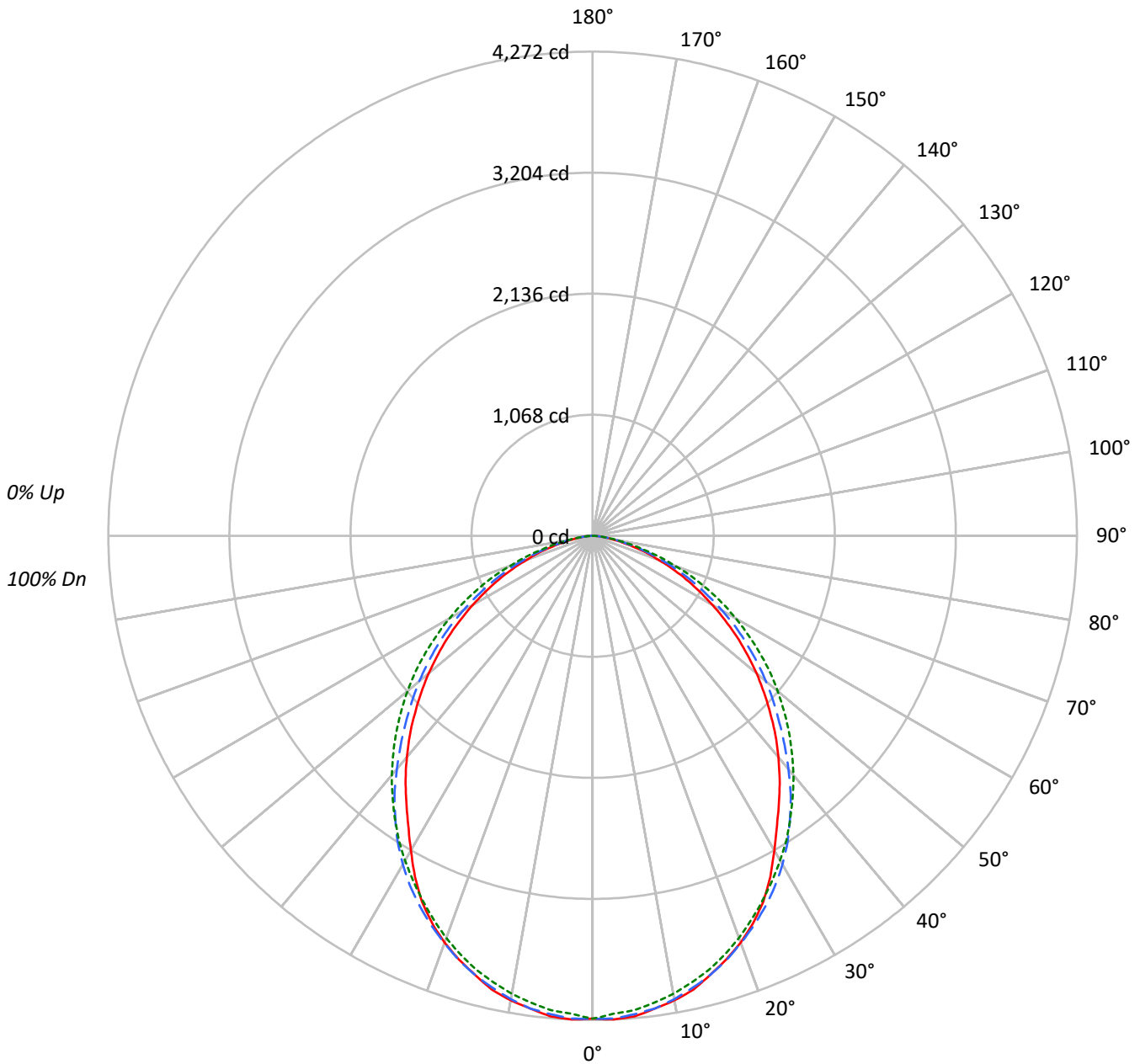
Lumens per Lamp: N/A
Luminaire Lumens: 9852.0 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11465	11465	11465
5°	11496	11447	11350
10°	11374	11343	11213
15°	11172	11172	11045
20°	10936	10950	10809
25°	10576	10707	10537
30°	9959	10406	10279
35°	9410	9975	9991
40°	8953	9436	9683
45°	8440	8864	9319
50°	7901	8353	8922
55°	7288	7772	8440
60°	6563	7092	7849
65°	5795	6306	7139
70°	4829	5371	6066
75°	3795	4289	4748
80°	2713	3019	3349
85°	1769	1769	1667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.2	4.1
10°-20°	1127.0	11.4
20°-30°	1646.9	16.7
30°-40°	1869.4	19.0
40°-50°	1804.6	18.3
50°-60°	1488.7	15.1
60°-70°	991.3	10.1
70°-80°	443.6	4.5
80°-90°	79.4	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°	3175.0	32.2
0°-40°	5044.4	51.2
0°-60°	8337.7	84.6
0°-90°	9852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9852.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4261	4261	4261	4261	4261	
5°	4256	4254	4238	4215	4202	403
15°	4010	4020	4010	3992	3964	1131
25°	3562	3590	3606	3580	3549	1631
35°	2864	2904	3036	3053	3041	1795
45°	2218	2256	2329	2436	2449	1711
55°	1553	1580	1656	1748	1799	1386
65°	910	935	990	1061	1121	902
75°	365	385	412	432	457	399
85°	57	57	57	54	54	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4260.7	4260.7	4260.7	4260.7	4260.7
2.5°	4272.2	4273.8	4264.0	4237.8	4221.5
5°	4255.8	4254.2	4237.8	4214.9	4201.8
7.5°	4208.4	4211.6	4206.7	4174.0	4156.0
10°	4162.5	4164.2	4151.1	4124.9	4103.6
12.5°	4103.6	4102.0	4084.0	4070.9	4036.5
15°	4010.3	4020.1	4010.3	3992.3	3964.5
17.5°	3920.3	3920.3	3926.8	3895.7	3874.4
20°	3818.8	3823.7	3823.7	3799.1	3774.6
22.5°	3700.9	3715.7	3720.6	3694.4	3664.9
25°	3561.8	3589.6	3606.0	3579.8	3548.7
27.5°	3393.2	3435.8	3484.9	3465.2	3430.8
30°	3205.0	3267.2	3349.0	3332.6	3308.1
32.5°	3026.5	3088.7	3201.7	3195.1	3182.0
35°	2864.5	2903.8	3036.4	3052.7	3041.3
37.5°	2710.6	2746.6	2871.0	2908.7	2898.9
40°	2548.6	2587.9	2686.1	2753.2	2756.5
42.5°	2388.2	2425.8	2506.0	2602.6	2602.6
45°	2217.9	2255.6	2329.2	2435.6	2448.7
47.5°	2051.0	2090.3	2162.3	2268.7	2290.0
50°	1887.3	1923.3	1995.3	2098.4	2131.2
52.5°	1717.1	1756.3	1826.7	1921.7	1969.1
55°	1553.4	1579.6	1656.5	1748.2	1798.9
57.5°	1383.1	1407.7	1494.4	1573.0	1625.4
60°	1219.5	1250.6	1317.7	1397.9	1458.4
62.5°	1062.3	1095.1	1152.3	1222.7	1291.5
65°	910.1	934.6	990.3	1060.7	1121.2
67.5°	762.8	784.1	839.7	888.8	952.7
70°	613.8	641.6	682.6	730.0	771.0
72.5°	494.3	505.8	540.2	574.5	617.1
75°	365.0	384.7	412.5	432.1	456.7
77.5°	261.9	273.4	289.7	306.1	329.0
80°	175.1	180.1	194.8	198.1	216.1
82.5°	106.4	109.7	112.9	114.6	121.1
85°	57.3	57.3	57.3	54.0	54.0
87.5°	32.7	32.7	27.8	22.9	16.4
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)