

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: P558229

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-86-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: P558229
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-LD4-3STD-30-UNV-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

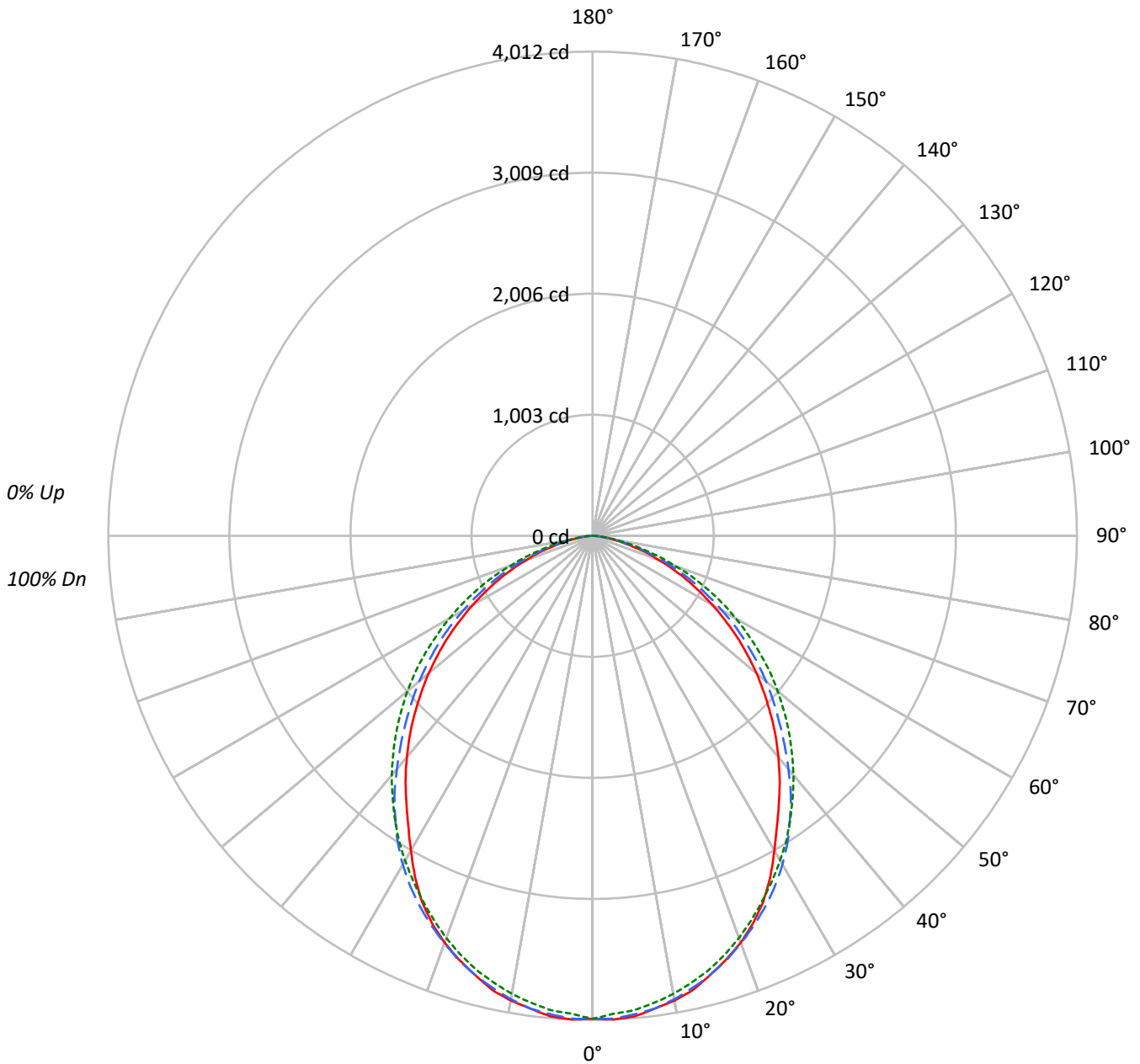
Lumens per Lamp: N/A
Luminaire Lumens: 9253.0 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	10768	10768	10768
5°	10797	10752	10660
10°	10682	10653	10531
15°	10493	10493	10373
20°	10271	10284	10152
25°	9932	10056	9896
30°	9353	9774	9654
35°	8838	9368	9383
40°	8408	8862	9094
45°	7927	8325	8753
50°	7420	7845	8380
55°	6845	7299	7926
60°	6164	6661	7372
65°	5443	5922	6706
70°	4536	5044	5697
75°	3564	4028	4459
80°	2549	2834	3144
85°	1661	1661	1565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	376.8	4.1
10°-20°	1058.5	11.4
20°-30°	1546.8	16.7
30°-40°	1755.7	19.0
40°-50°	1694.9	18.3
50°-60°	1398.2	15.1
60°-70°	931.1	10.1
70°-80°	416.6	4.5
80°-90°	74.5	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°	2982.0	32.2
0°-40°	4737.7	51.2
0°-60°	7830.8	84.6
0°-90°	9253.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9253.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4002	4002	4002	4002	4002	
5°	3997	3996	3980	3959	3946	378
15°	3766	3776	3766	3750	3723	1062
25°	3345	3371	3387	3362	3333	1532
35°	2690	2727	2852	2867	2856	1686
45°	2083	2118	2188	2288	2300	1607
55°	1459	1484	1556	1642	1690	1302
65°	855	878	930	996	1053	848
75°	343	361	387	406	429	375
85°	54	54	54	51	51	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4001.7	4001.7	4001.7	4001.7	4001.7
2.5°	4012.4	4014.0	4004.8	3980.2	3964.8
5°	3997.1	3995.5	3980.2	3958.6	3946.3
7.5°	3952.5	3955.6	3951.0	3920.2	3903.3
10°	3909.4	3911.0	3898.7	3874.1	3854.1
12.5°	3854.1	3852.6	3835.7	3823.4	3791.1
15°	3766.5	3775.7	3766.5	3749.6	3723.4
17.5°	3681.9	3681.9	3688.1	3658.9	3638.9
20°	3586.6	3591.2	3591.2	3568.2	3545.1
22.5°	3475.9	3489.8	3494.4	3469.8	3442.1
25°	3345.2	3371.4	3386.7	3362.2	3332.9
27.5°	3186.9	3226.9	3273.0	3254.5	3222.3
30°	3010.1	3068.5	3145.4	3130.0	3107.0
32.5°	2842.5	2901.0	3007.0	3000.9	2988.6
35°	2690.3	2727.2	2851.8	2867.1	2856.4
37.5°	2545.8	2579.6	2696.5	2731.8	2722.6
40°	2393.6	2430.5	2522.8	2585.8	2588.9
42.5°	2243.0	2278.3	2353.7	2444.4	2444.4
45°	2083.1	2118.4	2187.6	2287.6	2299.9
47.5°	1926.3	1963.2	2030.8	2130.7	2150.7
50°	1772.5	1806.4	1874.0	1970.9	2001.6
52.5°	1612.7	1649.6	1715.7	1804.8	1849.4
55°	1458.9	1483.5	1555.8	1641.9	1689.5
57.5°	1299.0	1322.1	1403.6	1477.4	1526.6
60°	1145.3	1174.5	1237.6	1312.9	1369.8
62.5°	997.7	1028.5	1082.3	1148.4	1213.0
65°	854.8	877.8	930.1	996.2	1053.1
67.5°	716.4	736.4	788.7	834.8	894.7
70°	576.5	602.6	641.1	685.7	724.1
72.5°	464.3	475.0	507.3	539.6	579.6
75°	342.8	361.3	387.4	405.9	428.9
77.5°	246.0	256.7	272.1	287.5	309.0
80°	164.5	169.1	182.9	186.0	202.9
82.5°	99.9	103.0	106.1	107.6	113.8
85°	53.8	53.8	53.8	50.7	50.7
87.5°	30.7	30.7	26.1	21.5	15.4
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)