

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: P558213

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-81-86-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: P558213
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-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 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

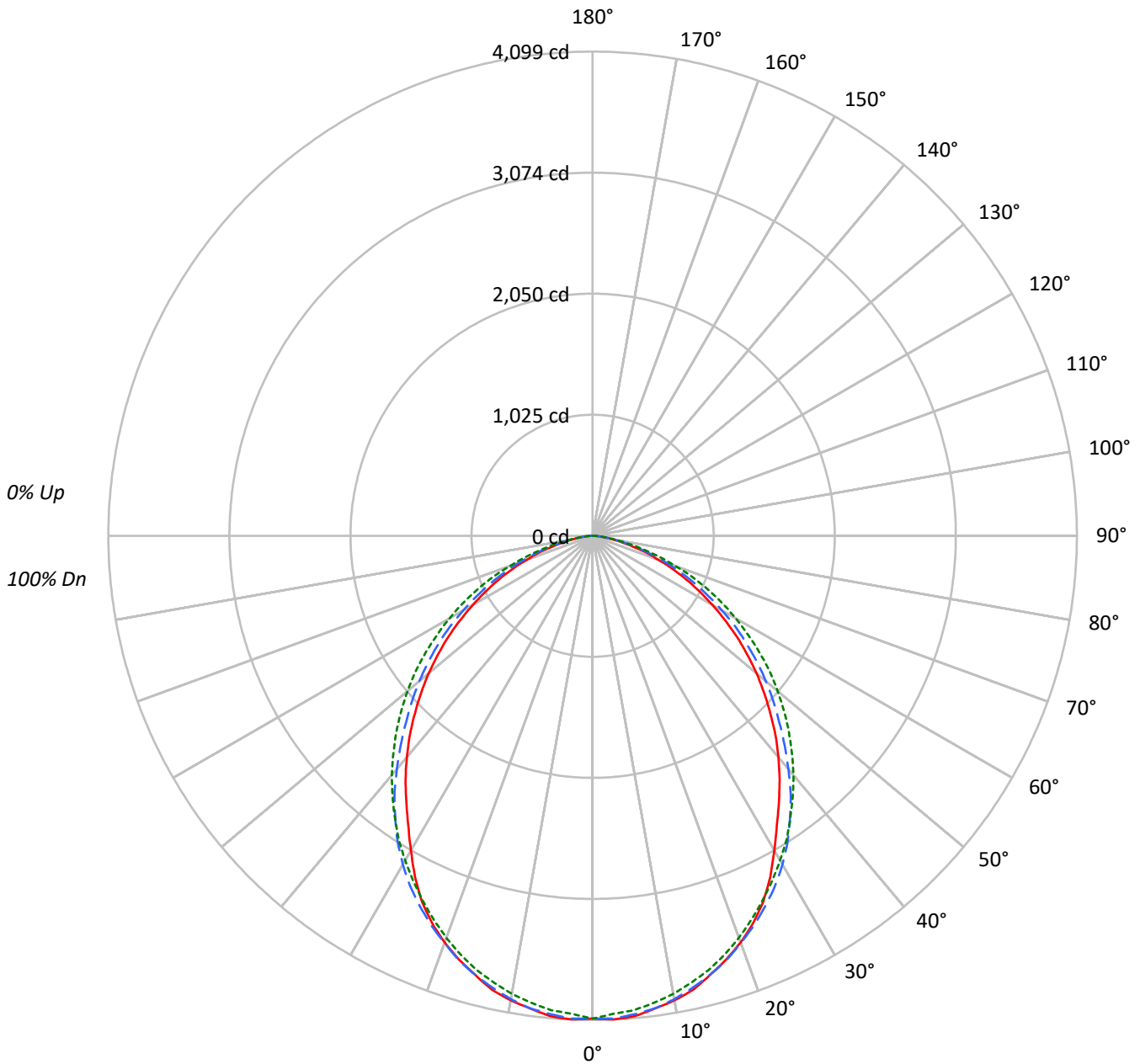
Lumens per Lamp: N/A
Luminaire Lumens: 9452.0 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					20					
RC	80					70					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°	11000	11000	11000
5°	11029	10983	10889
10°	10912	10882	10758
15°	10719	10719	10596
20°	10492	10505	10370
25°	10146	10272	10109
30°	9554	9984	9862
35°	9028	9570	9585
40°	8589	9053	9290
45°	8098	8504	8941
50°	7580	8014	8560
55°	6992	7456	8097
60°	6296	6804	7530
65°	5559	6050	6849
70°	4633	5153	5820
75°	3641	4114	4555
80°	2603	2896	3212
85°	1698	1698	1599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.9	4.1
10°-20°	1081.2	11.4
20°-30°	1580.0	16.7
30°-40°	1793.5	19.0
40°-50°	1731.3	18.3
50°-60°	1428.2	15.1
60°-70°	951.1	10.1
70°-80°	425.6	4.5
80°-90°	76.1	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°	3046.1	32.2
0°-40°	4839.6	51.2
0°-60°	7999.2	84.6
0°-90°	9452.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9452.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4088	4088	4088	4088	4088	
5°	4083	4082	4066	4044	4031	386
15°	3848	3857	3848	3830	3804	1085
25°	3417	3444	3460	3434	3405	1565
35°	2748	2786	2913	2929	2918	1722
45°	2128	2164	2235	2337	2349	1642
55°	1490	1515	1589	1677	1726	1330
65°	873	897	950	1018	1076	866
75°	350	369	396	415	438	383
85°	55	55	55	52	52	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4087.7	4087.7	4087.7	4087.7	4087.7
2.5°	4098.7	4100.3	4090.9	4065.8	4050.1
5°	4083.0	4081.5	4065.8	4043.8	4031.2
7.5°	4037.5	4040.6	4035.9	4004.5	3987.2
10°	3993.5	3995.1	3982.5	3957.4	3937.0
12.5°	3937.0	3935.4	3918.1	3905.6	3872.6
15°	3847.5	3856.9	3847.5	3830.2	3803.5
17.5°	3761.1	3761.1	3767.4	3737.5	3717.1
20°	3663.7	3668.4	3668.4	3644.9	3621.3
22.5°	3550.7	3564.8	3569.5	3544.4	3516.1
25°	3417.2	3443.9	3459.6	3434.5	3404.6
27.5°	3255.4	3296.3	3343.4	3324.5	3291.6
30°	3074.8	3134.5	3213.0	3197.3	3173.8
32.5°	2903.7	2963.3	3071.7	3065.4	3052.9
35°	2748.2	2785.9	2913.1	2928.8	2917.8
37.5°	2600.6	2635.1	2754.5	2790.6	2781.2
40°	2445.1	2482.8	2577.0	2641.4	2644.6
42.5°	2291.2	2327.3	2404.3	2496.9	2496.9
45°	2127.9	2164.0	2234.7	2336.8	2349.3
47.5°	1967.7	2005.4	2074.5	2176.6	2197.0
50°	1810.7	1845.2	1914.3	2013.3	2044.7
52.5°	1647.3	1685.0	1752.6	1843.6	1889.2
55°	1490.3	1515.4	1589.2	1677.2	1725.9
57.5°	1327.0	1350.5	1433.8	1509.2	1559.4
60°	1169.9	1199.8	1264.2	1341.1	1399.2
62.5°	1019.2	1050.6	1105.6	1173.1	1239.0
65°	873.1	896.7	950.1	1017.6	1075.7
67.5°	731.8	752.2	805.6	852.7	914.0
70°	588.9	615.6	654.9	700.4	739.7
72.5°	474.3	485.3	518.2	551.2	592.0
75°	350.2	369.0	395.7	414.6	438.1
77.5°	251.3	262.3	278.0	293.7	315.6
80°	168.0	172.7	186.9	190.0	207.3
82.5°	102.1	105.2	108.4	109.9	116.2
85°	55.0	55.0	55.0	51.8	51.8
87.5°	31.4	31.4	26.7	22.0	15.7
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)