

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: P558421

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-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: P558421
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

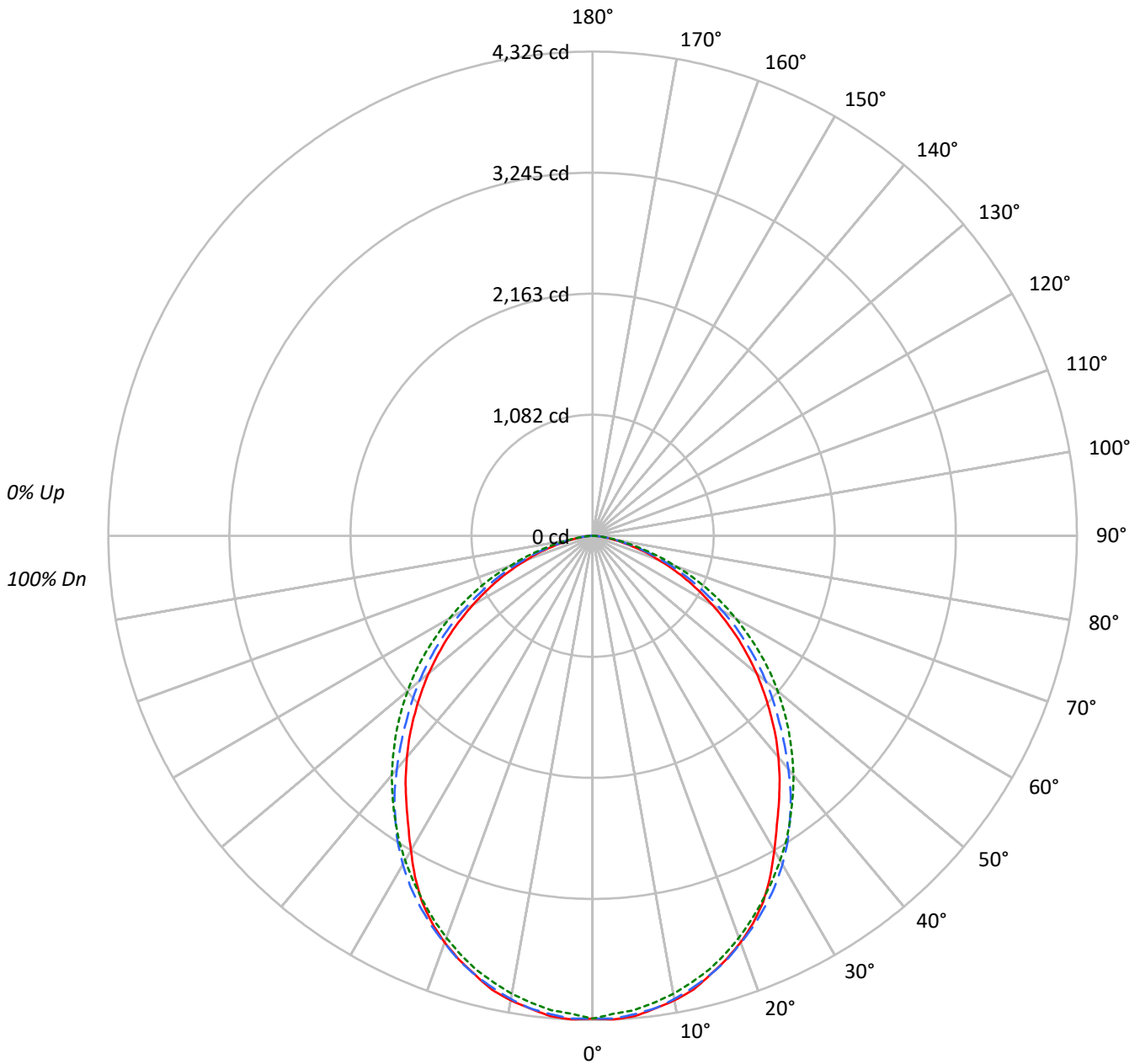
Lumens per Lamp: N/A
Luminaire Lumens: 9975.0 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	11609	11609	11609
5°	11640	11590	11492
10°	11516	11484	11353
15°	11312	11312	11183
20°	11072	11086	10944
25°	10708	10840	10668
30°	10083	10536	10408
35°	9528	10099	10115
40°	9064	9553	9804
45°	8546	8975	9435
50°	8000	8457	9033
55°	7379	7869	8545
60°	6645	7180	7947
65°	5868	6385	7228
70°	4890	5438	6142
75°	3843	4342	4808
80°	2748	3056	3391
85°	1791	1791	1689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	406.2	4.1
10°-20°	1141.0	11.4
20°-30°	1667.4	16.7
30°-40°	1892.7	19.0
40°-50°	1827.1	18.3
50°-60°	1507.3	15.1
60°-70°	1003.7	10.1
70°-80°	449.1	4.5
80°-90°	80.3	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°	3214.7	32.2
0°-40°	5107.4	51.2
0°-60°	8441.8	84.6
0°-90°	9975.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9975.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4314	4314	4314	4314	4314	
5°	4309	4307	4291	4268	4254	408
15°	4060	4070	4060	4042	4014	1145
25°	3606	3634	3651	3624	3593	1652
35°	2900	2940	3074	3091	3079	1817
45°	2246	2284	2358	2466	2479	1733
55°	1573	1599	1677	1770	1821	1404
65°	922	946	1003	1074	1135	914
75°	370	390	418	438	462	404
85°	58	58	58	55	55	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4313.9	4313.9	4313.9	4313.9	4313.9
2.5°	4325.5	4327.2	4317.2	4290.7	4274.2
5°	4309.0	4307.3	4290.7	4267.5	4254.3
7.5°	4260.9	4264.2	4259.2	4226.1	4207.9
10°	4214.5	4216.1	4202.9	4176.4	4154.8
12.5°	4154.8	4153.2	4134.9	4121.7	4086.9
15°	4060.4	4070.3	4060.4	4042.1	4014.0
17.5°	3969.2	3969.2	3975.8	3944.4	3922.8
20°	3866.5	3871.4	3871.4	3846.6	3821.7
22.5°	3747.1	3762.1	3767.0	3740.5	3710.7
25°	3606.3	3634.4	3651.0	3624.5	3593.0
27.5°	3435.6	3478.7	3528.4	3508.5	3473.7
30°	3245.0	3308.0	3390.8	3374.2	3349.4
32.5°	3064.3	3127.3	3241.7	3235.0	3221.8
35°	2900.3	2940.0	3074.3	3090.8	3079.2
37.5°	2744.5	2780.9	2906.9	2945.0	2935.1
40°	2580.4	2620.2	2719.6	2787.6	2790.9
42.5°	2418.0	2456.1	2537.3	2635.1	2635.1
45°	2245.6	2283.7	2358.3	2466.0	2479.3
47.5°	2076.6	2116.4	2189.3	2297.0	2318.6
50°	1910.9	1947.3	2020.2	2124.6	2157.8
52.5°	1738.5	1778.3	1849.5	1945.7	1993.7
55°	1572.8	1599.3	1677.2	1770.0	1821.4
57.5°	1400.4	1425.3	1513.1	1592.7	1645.7
60°	1234.7	1266.2	1334.1	1415.3	1476.6
62.5°	1075.6	1108.7	1166.7	1238.0	1307.6
65°	921.5	946.3	1002.7	1073.9	1135.2
67.5°	772.3	793.8	850.2	899.9	964.5
70°	621.5	649.7	691.1	739.2	780.6
72.5°	500.5	512.1	546.9	581.7	624.8
75°	369.6	389.5	417.6	437.5	462.4
77.5°	265.2	276.8	293.3	309.9	333.1
80°	177.3	182.3	197.2	200.5	218.8
82.5°	107.7	111.0	114.4	116.0	122.6
85°	58.0	58.0	58.0	54.7	54.7
87.5°	33.1	33.1	28.2	23.2	16.6
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)