

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: P557165

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-93-96-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: P557165
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-LD4-2HI-50-UNV-93-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

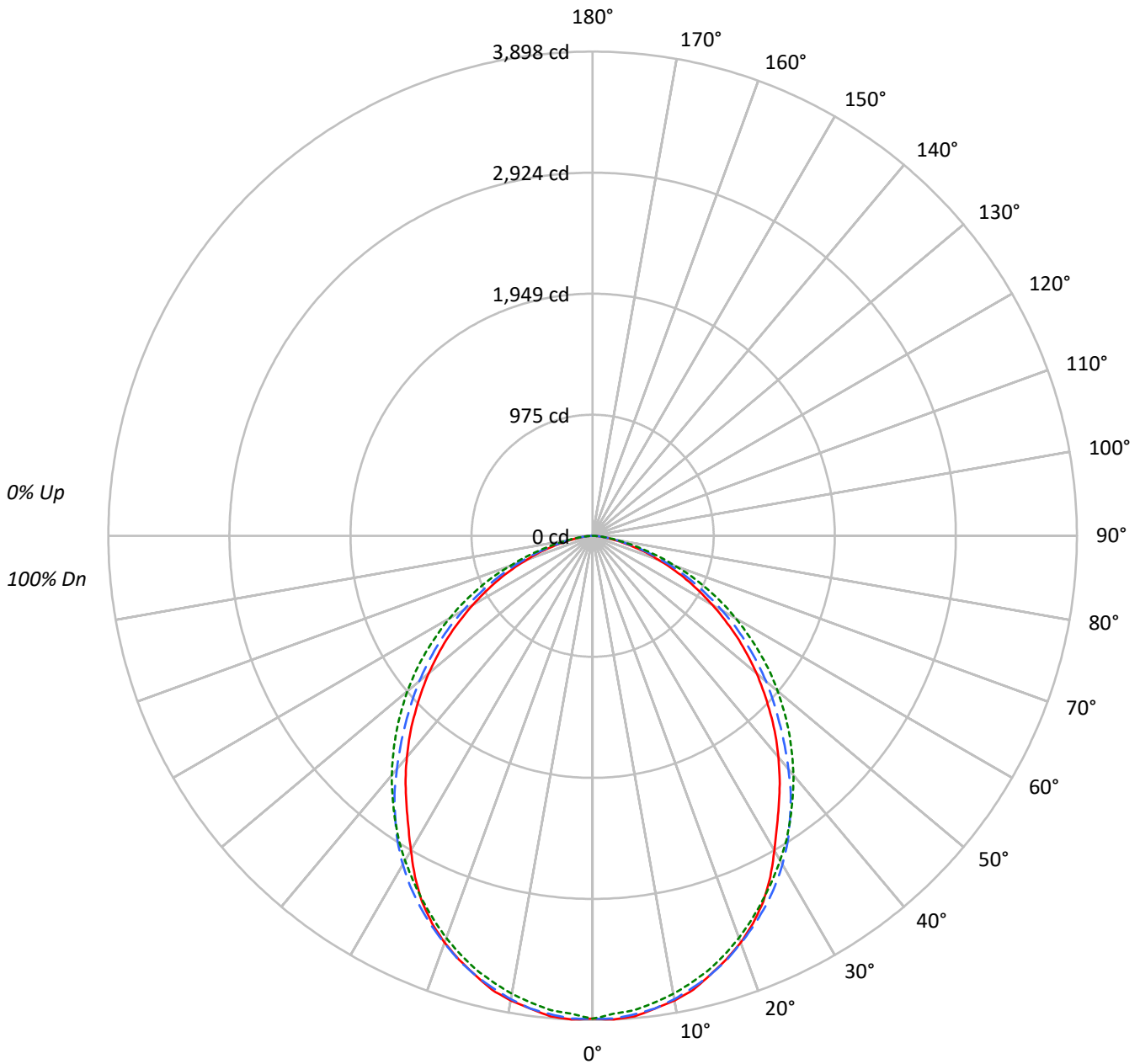
Lumens per Lamp: N/A
Luminaire Lumens: 8990.0 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	10462	10462	10462
5°	10490	10446	10357
10°	10379	10350	10232
15°	10195	10195	10078
20°	9979	9992	9863
25°	9650	9770	9615
30°	9087	9496	9380
35°	8587	9102	9117
40°	8169	8610	8836
45°	7702	8088	8504
50°	7210	7622	8141
55°	6650	7092	7701
60°	5989	6471	7162
65°	5288	5754	6514
70°	4407	4900	5535
75°	3463	3913	4332
80°	2476	2754	3056
85°	1615	1615	1522



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.1	4.1
10°-20°	1028.4	11.4
20°-30°	1502.8	16.7
30°-40°	1705.8	19.0
40°-50°	1646.7	18.3
50°-60°	1358.4	15.1
60°-70°	904.6	10.1
70°-80°	404.8	4.5
80°-90°	72.4	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°	2897.2	32.2
0°-40°	4603.0	51.2
0°-60°	7608.2	84.6
0°-90°	8990.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8990.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3888	3888	3888	3888	3888	
5°	3884	3882	3867	3846	3834	368
15°	3659	3668	3659	3643	3618	1032
25°	3250	3276	3290	3267	3238	1488
35°	2614	2650	2771	2786	2775	1638
45°	2024	2058	2125	2222	2234	1562
55°	1418	1441	1512	1595	1642	1265
65°	830	853	904	968	1023	823
75°	333	351	376	394	417	364
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3887.9	3887.9	3887.9	3887.9	3887.9
2.5°	3898.4	3899.9	3890.9	3867.0	3852.1
5°	3883.5	3882.0	3867.0	3846.1	3834.2
7.5°	3840.1	3843.1	3838.7	3808.8	3792.3
10°	3798.3	3799.8	3787.9	3764.0	3744.6
12.5°	3744.6	3743.1	3726.6	3714.7	3683.3
15°	3659.4	3668.4	3659.4	3643.0	3617.6
17.5°	3577.3	3577.3	3583.2	3554.9	3535.4
20°	3484.7	3489.1	3489.1	3466.7	3444.3
22.5°	3377.1	3390.6	3395.0	3371.1	3344.3
25°	3250.2	3275.6	3290.5	3266.6	3238.2
27.5°	3096.3	3135.1	3180.0	3162.0	3130.7
30°	2924.5	2981.3	3056.0	3041.0	3018.6
32.5°	2761.7	2818.5	2921.6	2915.6	2903.6
35°	2613.9	2649.7	2770.7	2785.6	2775.2
37.5°	2473.5	2506.3	2619.8	2654.2	2645.2
40°	2325.6	2361.4	2451.1	2512.3	2515.3
42.5°	2179.2	2213.6	2286.8	2374.9	2374.9
45°	2023.9	2058.2	2125.4	2222.5	2234.5
47.5°	1871.5	1907.4	1973.1	2070.2	2089.6
50°	1722.2	1755.0	1820.7	1914.8	1944.7
52.5°	1566.8	1602.7	1666.9	1753.5	1796.8
55°	1417.5	1441.4	1511.6	1595.2	1641.5
57.5°	1262.1	1284.5	1363.7	1435.4	1483.2
60°	1112.8	1141.1	1202.4	1275.6	1330.8
62.5°	969.4	999.2	1051.5	1115.7	1178.5
65°	830.5	852.9	903.7	967.9	1023.1
67.5°	696.0	715.5	766.2	811.0	869.3
70°	560.1	585.5	622.8	666.2	703.5
72.5°	451.1	461.5	492.9	524.3	563.1
75°	333.1	351.0	376.4	394.3	416.7
77.5°	239.0	249.4	264.4	279.3	300.2
80°	159.8	164.3	177.7	180.7	197.2
82.5°	97.1	100.1	103.1	104.6	110.5
85°	52.3	52.3	52.3	49.3	49.3
87.5°	29.9	29.9	25.4	20.9	14.9
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)