

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: P557029

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-93-86-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: P557029
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-35-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

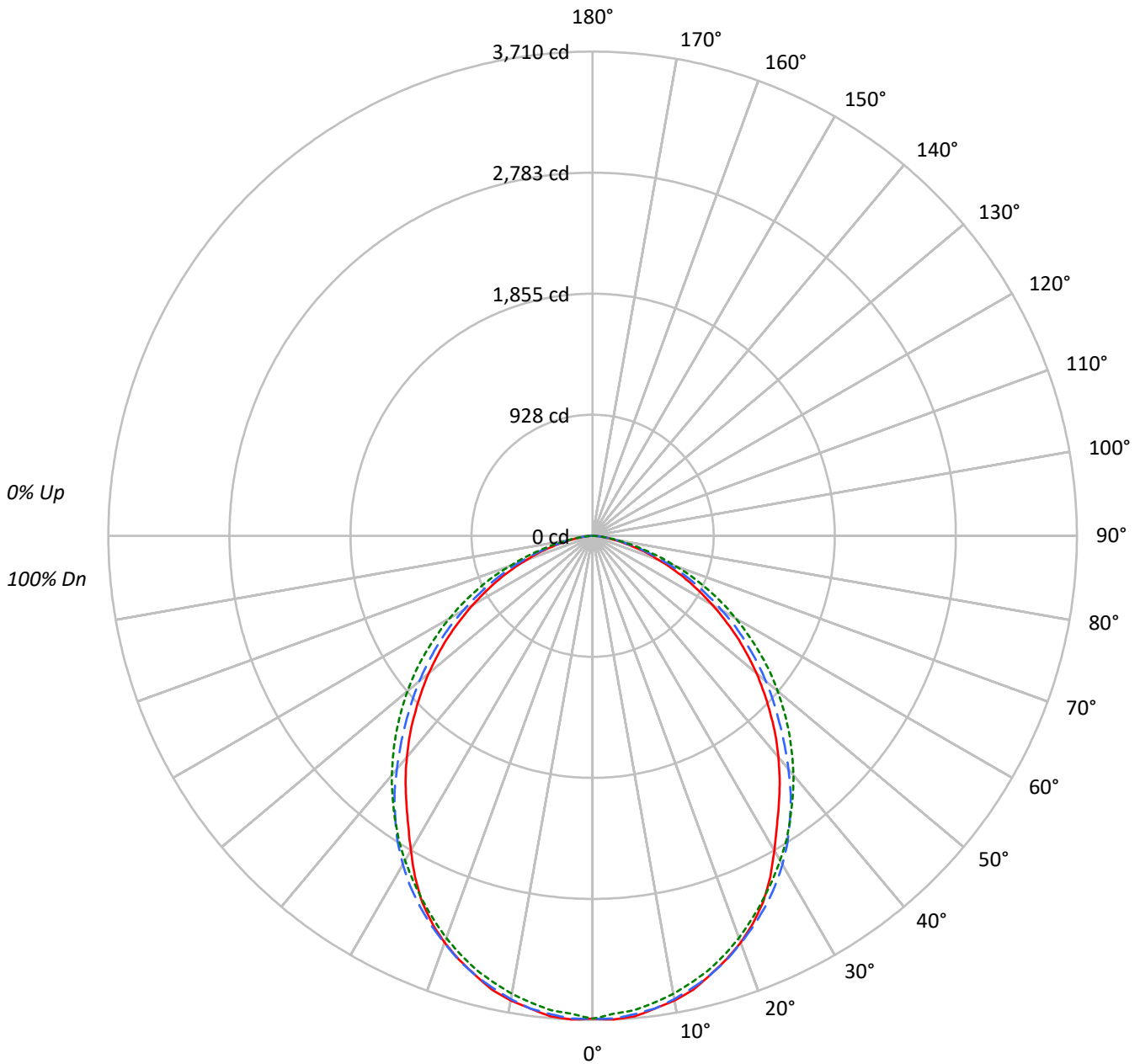
Lumens per Lamp: N/A
Luminaire Lumens: 8556.0 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	9957	9957	9957
5°	9984	9941	9857
10°	9878	9851	9738
15°	9703	9703	9592
20°	9497	9509	9387
25°	9185	9298	9151
30°	8649	9038	8927
35°	8172	8662	8677
40°	7775	8194	8409
45°	7330	7698	8093
50°	6862	7254	7748
55°	6329	6749	7330
60°	5699	6159	6817
65°	5033	5476	6200
70°	4194	4664	5268
75°	3296	3724	4124
80°	2357	2622	2907
85°	1538	1538	1448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.4	4.1
10°-20°	978.7	11.4
20°-30°	1430.2	16.7
30°-40°	1623.5	19.0
40°-50°	1567.2	18.3
50°-60°	1292.8	15.1
60°-70°	860.9	10.1
70°-80°	385.3	4.5
80°-90°	68.9	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°	2757.4	32.2
0°-40°	4380.8	51.2
0°-60°	7240.9	84.6
0°-90°	8556.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8556.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3700	3700	3700	3700	3700	
5°	3696	3695	3680	3660	3649	350
15°	3483	3491	3483	3467	3443	982
25°	3093	3117	3132	3109	3082	1417
35°	2488	2522	2637	2651	2641	1559
45°	1926	1959	2023	2115	2127	1486
55°	1349	1372	1439	1518	1562	1204
65°	790	812	860	921	974	784
75°	317	334	358	375	397	347
85°	50	50	50	47	47	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3700.2	3700.2	3700.2	3700.2	3700.2
2.5°	3710.2	3711.6	3703.1	3680.3	3666.1
5°	3696.0	3694.6	3680.3	3660.4	3649.1
7.5°	3654.8	3657.6	3653.3	3624.9	3609.3
10°	3615.0	3616.4	3605.0	3582.3	3563.8
12.5°	3563.8	3562.4	3546.7	3535.4	3505.5
15°	3482.8	3491.3	3482.8	3467.1	3443.0
17.5°	3404.6	3404.6	3410.3	3383.2	3364.8
20°	3316.4	3320.7	3320.7	3299.4	3278.1
22.5°	3214.1	3226.9	3231.1	3208.4	3182.8
25°	3093.3	3117.4	3131.6	3108.9	3081.9
27.5°	2946.8	2983.8	3026.4	3009.4	2979.5
30°	2783.4	2837.4	2908.5	2894.2	2872.9
32.5°	2628.4	2682.4	2780.5	2774.8	2763.5
35°	2487.7	2521.8	2636.9	2651.2	2641.2
37.5°	2354.1	2385.3	2493.4	2526.1	2517.5
40°	2213.3	2247.4	2332.7	2391.0	2393.9
42.5°	2074.0	2106.7	2176.4	2260.2	2260.2
45°	1926.2	1958.9	2022.8	2115.2	2126.6
47.5°	1781.2	1815.3	1877.8	1970.2	1988.7
50°	1639.0	1670.3	1732.8	1822.4	1850.8
52.5°	1491.2	1525.3	1586.4	1668.9	1710.1
55°	1349.0	1371.8	1438.6	1518.2	1562.3
57.5°	1201.2	1222.5	1297.9	1366.1	1411.6
60°	1059.0	1086.1	1144.3	1214.0	1266.6
62.5°	922.6	951.0	1000.8	1061.9	1121.6
65°	790.4	811.7	860.0	921.2	973.7
67.5°	662.4	680.9	729.2	771.9	827.3
70°	533.1	557.2	592.8	634.0	669.5
72.5°	429.3	439.3	469.1	499.0	535.9
75°	317.0	334.1	358.2	375.3	396.6
77.5°	227.4	237.4	251.6	265.8	285.7
80°	152.1	156.4	169.2	172.0	187.6
82.5°	92.4	95.2	98.1	99.5	105.2
85°	49.8	49.8	49.8	46.9	46.9
87.5°	28.4	28.4	24.2	19.9	14.2
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)