

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: P558208

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-81-84-EDD-90**

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: P558208
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-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

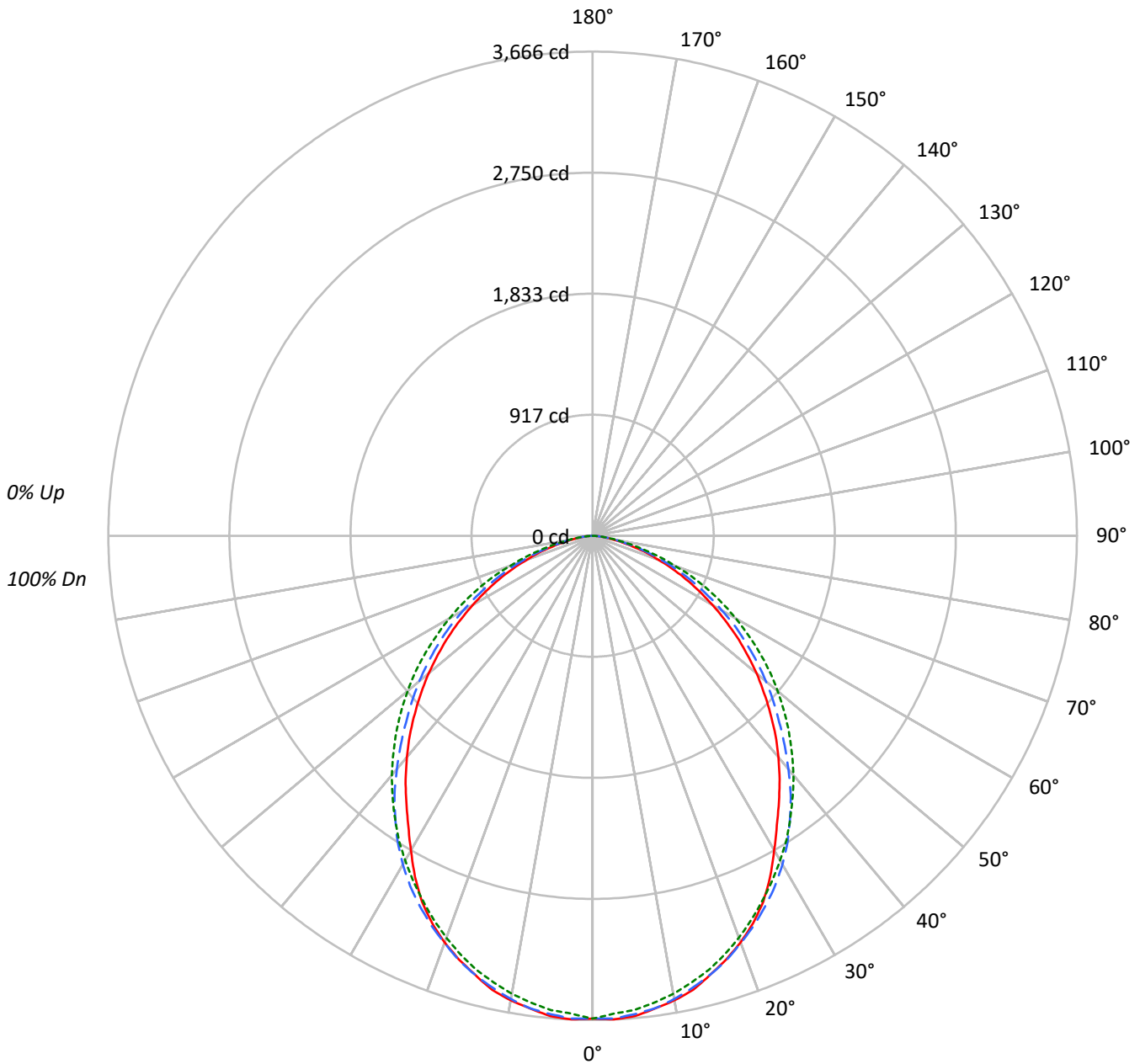
Lumens per Lamp: N/A
Luminaire Lumens: 8453.0 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9837	9837	9837
5°	9864	9822	9738
10°	9759	9732	9621
15°	9586	9586	9476
20°	9383	9395	9274
25°	9074	9186	9041
30°	8545	8928	8819
35°	8074	8558	8572
40°	7681	8096	8308
45°	7242	7606	7996
50°	6779	7167	7655
55°	6253	6668	7241
60°	5631	6085	6734
65°	4972	5410	6125
70°	4144	4607	5205
75°	3256	3680	4074
80°	2329	2590	2873
85°	1519	1519	1430



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	344.2	4.1
10°-20°	966.9	11.4
20°-30°	1413.0	16.7
30°-40°	1603.9	19.0
40°-50°	1548.3	18.3
50°-60°	1277.3	15.1
60°-70°	850.6	10.1
70°-80°	380.6	4.5
80°-90°	68.1	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°	2724.2	32.2
0°-40°	4328.1	51.2
0°-60°	7153.7	84.6
0°-90°	8453.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8453.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3656	3656	3656	3656	3656	
5°	3652	3650	3636	3616	3605	346
15°	3441	3449	3441	3425	3402	970
25°	3056	3080	3094	3072	3045	1400
35°	2458	2491	2605	2619	2609	1540
45°	1903	1935	1998	2090	2101	1468
55°	1333	1355	1421	1500	1544	1190
65°	781	802	850	910	962	774
75°	313	330	354	371	392	342
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3655.7	3655.7	3655.7	3655.7	3655.7
2.5°	3665.5	3666.9	3658.5	3636.0	3622.0
5°	3651.5	3650.1	3636.0	3616.4	3605.1
7.5°	3610.8	3613.6	3609.4	3581.3	3565.8
10°	3571.4	3572.8	3561.6	3539.1	3520.9
12.5°	3520.9	3519.5	3504.0	3492.8	3463.3
15°	3440.8	3449.3	3440.8	3425.4	3401.5
17.5°	3363.6	3363.6	3369.2	3342.5	3324.3
20°	3276.5	3280.7	3280.7	3259.7	3238.6
22.5°	3175.4	3188.0	3192.2	3169.8	3144.5
25°	3056.0	3079.9	3093.9	3071.5	3044.8
27.5°	2911.4	2947.9	2990.0	2973.2	2943.7
30°	2749.9	2803.2	2873.4	2859.4	2838.3
32.5°	2596.8	2650.1	2747.0	2741.4	2730.2
35°	2457.7	2491.4	2605.2	2619.2	2609.4
37.5°	2325.7	2356.6	2463.4	2495.7	2487.2
40°	2186.7	2220.4	2304.7	2362.2	2365.0
42.5°	2049.0	2081.3	2150.2	2233.0	2233.0
45°	1903.0	1935.3	1998.5	2089.8	2101.0
47.5°	1759.7	1793.4	1855.2	1946.5	1964.8
50°	1619.3	1650.2	1712.0	1800.5	1828.6
52.5°	1473.2	1506.9	1567.3	1648.8	1689.5
55°	1332.8	1355.3	1421.3	1499.9	1543.5
57.5°	1186.7	1207.8	1282.2	1349.6	1394.6
60°	1046.3	1073.0	1130.6	1199.4	1251.3
62.5°	911.5	939.6	988.7	1049.1	1108.1
65°	780.9	801.9	849.7	910.1	962.0
67.5°	654.5	672.7	720.5	762.6	817.4
70°	526.7	550.5	585.6	626.4	661.5
72.5°	424.1	434.0	463.5	493.0	529.5
75°	313.2	330.0	353.9	370.8	391.8
77.5°	224.7	234.5	248.6	262.6	282.3
80°	150.3	154.5	167.1	169.9	185.4
82.5°	91.3	94.1	96.9	98.3	103.9
85°	49.2	49.2	49.2	46.3	46.3
87.5°	28.1	28.1	23.9	19.7	14.0
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)