

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: P558400

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-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: P558400
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-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

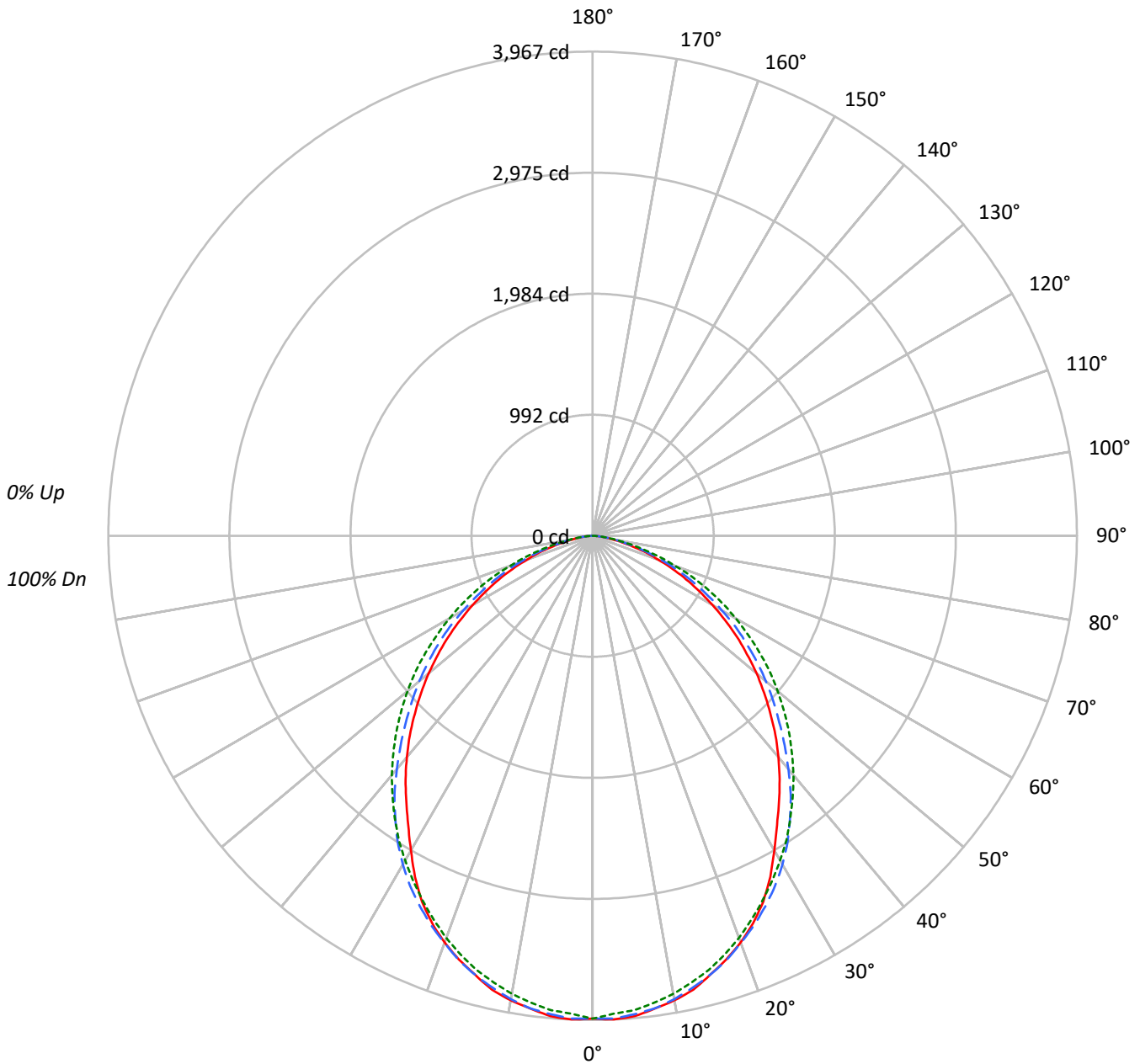
Lumens per Lamp: N/A
Luminaire Lumens: 9148.0 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	10646	10646	10646
5°	10675	10629	10539
10°	10561	10532	10412
15°	10374	10374	10255
20°	10154	10167	10037
25°	9820	9942	9784
30°	9247	9663	9545
35°	8738	9262	9277
40°	8313	8761	8991
45°	7838	8231	8653
50°	7336	7756	8285
55°	6767	7216	7837
60°	6094	6585	7288
65°	5381	5855	6629
70°	4485	4987	5633
75°	3524	3982	4408
80°	2520	2803	3109
85°	1643	1643	1550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	372.5	4.1
10°-20°	1046.4	11.4
20°-30°	1529.2	16.7
30°-40°	1735.8	19.0
40°-50°	1675.7	18.3
50°-60°	1382.3	15.1
60°-70°	920.5	10.1
70°-80°	411.9	4.5
80°-90°	73.7	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°	2948.1	32.2
0°-40°	4683.9	51.2
0°-60°	7741.9	84.6
0°-90°	9148.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9148.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3956	3956	3956	3956	3956	
5°	3952	3950	3935	3914	3902	374
15°	3724	3733	3724	3707	3681	1050
25°	3307	3333	3348	3324	3295	1515
35°	2660	2696	2819	2835	2824	1667
45°	2060	2094	2163	2262	2274	1589
55°	1442	1467	1538	1623	1670	1287
65°	845	868	920	985	1041	838
75°	339	357	383	401	424	371
85°	53	53	53	50	50	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3956.3	3956.3	3956.3	3956.3	3956.3
2.5°	3966.9	3968.4	3959.3	3935.0	3919.8
5°	3951.7	3950.2	3935.0	3913.7	3901.6
7.5°	3907.6	3910.7	3906.1	3875.7	3859.0
10°	3865.1	3866.6	3854.4	3830.1	3810.4
12.5°	3810.4	3808.8	3792.1	3780.0	3748.0
15°	3723.7	3732.8	3723.7	3707.0	3681.2
17.5°	3640.1	3640.1	3646.2	3617.3	3597.6
20°	3545.9	3550.5	3550.5	3527.7	3504.9
22.5°	3436.5	3450.2	3454.7	3430.4	3403.0
25°	3307.3	3333.1	3348.3	3324.0	3295.1
27.5°	3150.7	3190.2	3235.8	3217.6	3185.7
30°	2975.9	3033.7	3109.7	3094.5	3071.7
32.5°	2810.3	2868.0	2972.9	2966.8	2954.7
35°	2659.8	2696.3	2819.4	2834.6	2824.0
37.5°	2516.9	2550.4	2665.9	2700.8	2691.7
40°	2366.5	2402.9	2494.1	2556.5	2559.5
42.5°	2217.5	2252.5	2327.0	2416.6	2416.6
45°	2059.5	2094.4	2162.8	2261.6	2273.8
47.5°	1904.4	1940.9	2007.8	2106.6	2126.3
50°	1752.4	1785.9	1852.7	1948.5	1978.9
52.5°	1594.4	1630.8	1696.2	1784.4	1828.4
55°	1442.4	1466.7	1538.1	1623.2	1670.4
57.5°	1284.3	1307.1	1387.7	1460.6	1509.3
60°	1132.3	1161.2	1223.5	1298.0	1354.2
62.5°	986.4	1016.8	1070.0	1135.4	1199.2
65°	845.1	867.9	919.5	984.9	1041.1
67.5°	708.3	728.0	779.7	825.3	884.6
70°	570.0	595.8	633.8	677.9	715.9
72.5°	459.0	469.6	501.6	533.5	573.0
75°	338.9	357.2	383.0	401.3	424.0
77.5°	243.2	253.8	269.0	284.2	305.5
80°	162.6	167.2	180.9	183.9	200.6
82.5°	98.8	101.8	104.9	106.4	112.5
85°	53.2	53.2	53.2	50.2	50.2
87.5°	30.4	30.4	25.8	21.3	15.2
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)