

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: P557144

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-82-88-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: P557144
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-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

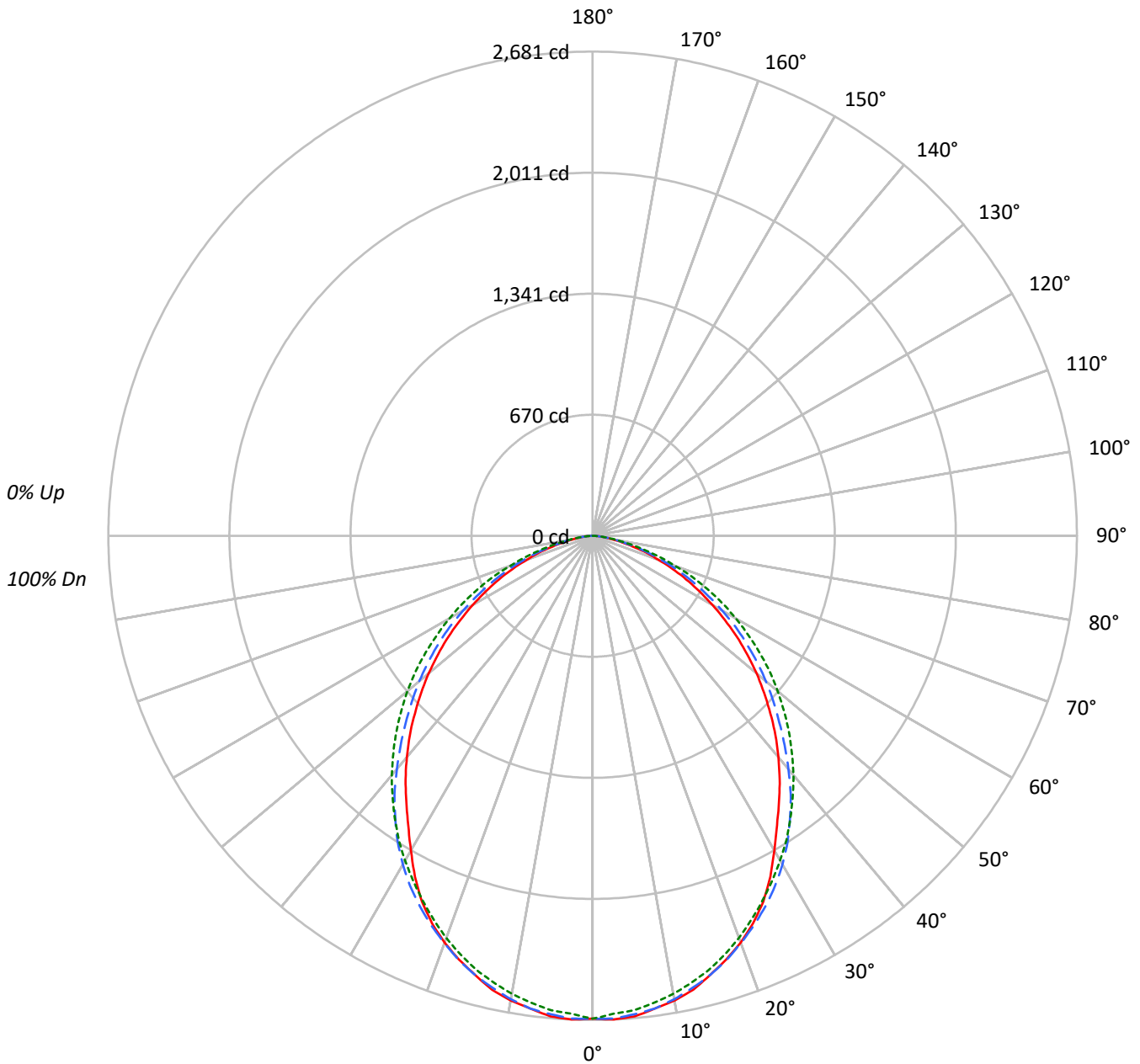
Lumens per Lamp: N/A
Luminaire Lumens: 6183.0 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7196	7196	7196
5°	7215	7184	7123
10°	7138	7119	7037
15°	7012	7012	6932
20°	6863	6872	6784
25°	6637	6720	6613
30°	6250	6531	6451
35°	5906	6260	6270
40°	5619	5922	6077
45°	5297	5563	5848
50°	4958	5242	5599
55°	4574	4877	5297
60°	4119	4451	4926
65°	3637	3957	4481
70°	3031	3371	3806
75°	2382	2692	2980
80°	1703	1894	2101
85°	1112	1112	1047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.8	4.1
10°-20°	707.3	11.4
20°-30°	1033.6	16.7
30°-40°	1173.2	19.0
40°-50°	1132.6	18.3
50°-60°	934.3	15.1
60°-70°	622.2	10.1
70°-80°	278.4	4.5
80°-90°	49.8	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°	1992.6	32.2
0°-40°	3165.8	51.2
0°-60°	5232.6	84.6
0°-90°	6183.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6183.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2674	2674	2674	2674	2674	
5°	2671	2670	2660	2645	2637	253
15°	2517	2523	2517	2506	2488	710
25°	2235	2253	2263	2247	2227	1024
35°	1798	1822	1906	1916	1909	1126
45°	1392	1416	1462	1529	1537	1074
55°	975	991	1040	1097	1129	870
65°	571	587	622	666	704	566
75°	229	241	259	271	287	250
85°	36	36	36	34	34	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2674.0	2674.0	2674.0	2674.0	2674.0
2.5°	2681.2	2682.2	2676.0	2659.6	2649.3
5°	2670.9	2669.9	2659.6	2645.2	2637.0
7.5°	2641.1	2643.2	2640.1	2619.5	2608.2
10°	2612.4	2613.4	2605.2	2588.7	2575.4
12.5°	2575.4	2574.3	2563.0	2554.8	2533.3
15°	2516.8	2523.0	2516.8	2505.5	2488.1
17.5°	2460.3	2460.3	2464.4	2444.9	2431.6
20°	2396.6	2399.7	2399.7	2384.3	2368.9
22.5°	2322.7	2331.9	2335.0	2318.6	2300.1
25°	2235.3	2252.8	2263.1	2246.6	2227.1
27.5°	2129.5	2156.2	2187.1	2174.7	2153.2
30°	2011.4	2050.4	2101.8	2091.5	2076.1
32.5°	1899.4	1938.5	2009.3	2005.2	1997.0
35°	1797.7	1822.4	1905.6	1915.9	1908.7
37.5°	1701.2	1723.8	1801.8	1825.5	1819.3
40°	1599.5	1624.1	1685.8	1727.9	1729.9
42.5°	1498.8	1522.4	1572.8	1633.4	1633.4
45°	1392.0	1415.6	1461.8	1528.6	1536.8
47.5°	1287.2	1311.8	1357.0	1423.8	1437.2
50°	1184.4	1207.0	1252.2	1317.0	1337.5
52.5°	1077.6	1102.3	1146.4	1206.0	1235.8
55°	974.9	991.3	1039.6	1097.1	1129.0
57.5°	868.0	883.5	937.9	987.2	1020.1
60°	765.3	784.8	827.0	877.3	915.3
62.5°	666.7	687.2	723.2	767.4	810.5
65°	571.2	586.6	621.5	665.7	703.7
67.5°	478.7	492.1	527.0	557.8	597.9
70°	385.2	402.7	428.4	458.2	483.8
72.5°	310.2	317.4	339.0	360.6	387.3
75°	229.1	241.4	258.9	271.2	286.6
77.5°	164.4	171.6	181.8	192.1	206.5
80°	109.9	113.0	122.2	124.3	135.6
82.5°	66.8	68.8	70.9	71.9	76.0
85°	36.0	36.0	36.0	33.9	33.9
87.5°	20.5	20.5	17.5	14.4	10.3
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)