

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: P556968

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-93-88-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: P556968
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-30-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

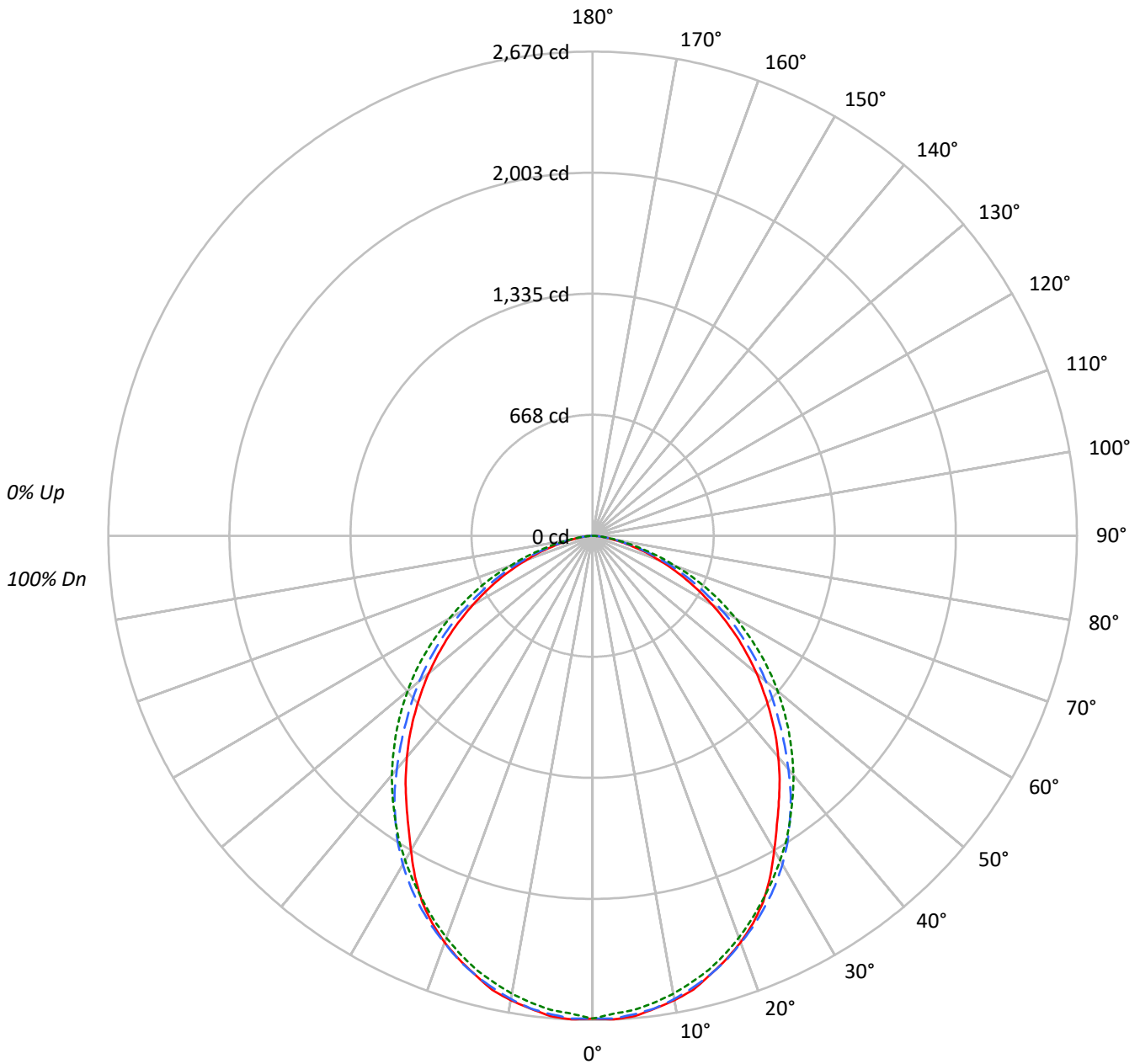
Lumens per Lamp: N/A
Luminaire Lumens: 6156.0 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7164	7164	7164
5°	7183	7153	7092
10°	7107	7088	7006
15°	6981	6981	6901
20°	6833	6842	6754
25°	6608	6690	6584
30°	6223	6502	6423
35°	5880	6233	6243
40°	5594	5896	6050
45°	5274	5539	5823
50°	4937	5220	5575
55°	4554	4856	5273
60°	4101	4431	4905
65°	3621	3940	4461
70°	3017	3356	3790
75°	2372	2679	2967
80°	1695	1886	2092
85°	1105	1105	1044



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.7	4.1
10°-20°	704.2	11.4
20°-30°	1029.0	16.7
30°-40°	1168.1	19.0
40°-50°	1127.6	18.3
50°-60°	930.2	15.1
60°-70°	619.4	10.1
70°-80°	277.2	4.5
80°-90°	49.6	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°	1983.9	32.2
0°-40°	3152.0	51.2
0°-60°	5209.8	84.6
0°-90°	6156.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6156.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2662	2662	2662	2662	2662	
5°	2659	2658	2648	2634	2626	252
15°	2506	2512	2506	2495	2477	706
25°	2226	2243	2253	2237	2217	1019
35°	1790	1814	1897	1908	1900	1121
45°	1386	1409	1455	1522	1530	1069
55°	971	987	1035	1092	1124	866
65°	569	584	619	663	701	564
75°	228	240	258	270	285	249
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°	2662.3	2662.3	2662.3	2662.3	2662.3
2.5°	2669.5	2670.5	2664.4	2648.0	2637.8
5°	2659.2	2658.2	2648.0	2633.7	2625.5
7.5°	2629.6	2631.6	2628.6	2608.1	2596.9
10°	2600.9	2602.0	2593.8	2577.4	2564.1
12.5°	2564.1	2563.1	2551.9	2543.7	2522.2
15°	2505.8	2512.0	2505.8	2494.6	2477.2
17.5°	2449.6	2449.6	2453.7	2434.2	2420.9
20°	2386.2	2389.2	2389.2	2373.9	2358.5
22.5°	2312.5	2321.7	2324.8	2308.4	2290.0
25°	2225.6	2243.0	2253.2	2236.8	2217.4
27.5°	2120.2	2146.8	2177.5	2165.2	2143.8
30°	2002.6	2041.5	2092.6	2082.4	2067.0
32.5°	1891.1	1930.0	2000.6	1996.5	1988.3
35°	1789.9	1814.4	1897.3	1907.5	1900.3
37.5°	1693.7	1716.2	1794.0	1817.5	1811.4
40°	1592.5	1617.0	1678.4	1720.3	1722.4
42.5°	1492.2	1515.8	1565.9	1626.2	1626.2
45°	1385.9	1409.4	1455.4	1521.9	1530.1
47.5°	1281.6	1306.1	1351.1	1417.6	1430.9
50°	1179.3	1201.8	1246.8	1311.2	1331.7
52.5°	1072.9	1097.4	1141.4	1200.8	1230.4
55°	970.6	987.0	1035.1	1092.3	1124.0
57.5°	864.3	879.6	933.8	982.9	1015.6
60°	762.0	781.4	823.3	873.5	911.3
62.5°	663.8	684.2	720.0	764.0	807.0
65°	568.7	584.0	618.8	662.8	700.6
67.5°	476.6	489.9	524.7	555.4	595.3
70°	383.5	400.9	426.5	456.2	481.7
72.5°	308.9	316.0	337.5	359.0	385.6
75°	228.1	240.4	257.7	270.0	285.4
77.5°	163.6	170.8	181.0	191.3	205.6
80°	109.4	112.5	121.7	123.8	135.0
82.5°	66.5	68.5	70.6	71.6	75.7
85°	35.8	35.8	35.8	33.8	33.8
87.5°	20.5	20.5	17.4	14.3	10.2
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)