

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: P557474

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-93-85-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: P557474
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-LD4-2STD-30-UNV-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

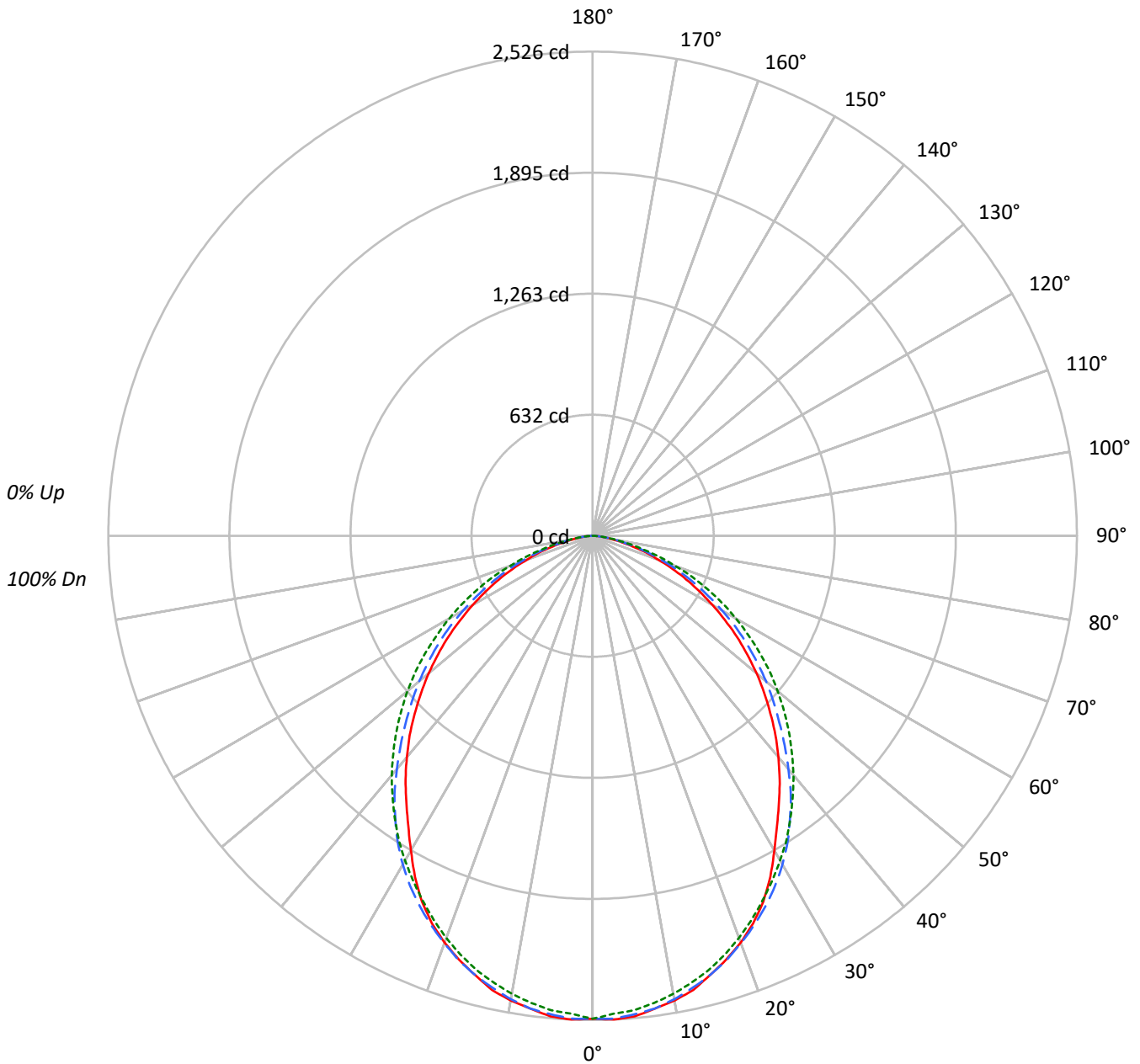
Lumens per Lamp: N/A
Luminaire Lumens: 5826.0 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6780	6780	6780
5°	6798	6769	6712
10°	6726	6707	6631
15°	6607	6607	6531
20°	6467	6475	6392
25°	6254	6331	6231
30°	5889	6154	6078
35°	5565	5899	5908
40°	5294	5580	5726
45°	4991	5242	5511
50°	4672	4940	5276
55°	4310	4596	4991
60°	3881	4194	4642
65°	3427	3729	4222
70°	2856	3175	3587
75°	2245	2536	2808
80°	1605	1785	1980
85°	1047	1047	985



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.2	4.1
10°-20°	666.4	11.4
20°-30°	973.9	16.7
30°-40°	1105.5	19.0
40°-50°	1067.2	18.3
50°-60°	880.3	15.1
60°-70°	586.2	10.1
70°-80°	262.3	4.5
80°-90°	46.9	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°	1877.5	32.2
0°-40°	2983.0	51.2
0°-60°	4930.5	84.6
0°-90°	5826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5826.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2520	2520	2520	2520	2520	
5°	2517	2516	2506	2492	2485	238
15°	2372	2377	2372	2361	2344	669
25°	2106	2123	2132	2117	2098	965
35°	1694	1717	1796	1805	1798	1061
45°	1312	1334	1377	1440	1448	1012
55°	919	934	980	1034	1064	820
65°	538	553	586	627	663	534
75°	216	228	244	256	270	236
85°	34	34	34	32	32	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2519.6	2519.6	2519.6	2519.6	2519.6
2.5°	2526.4	2527.3	2521.5	2506.0	2496.4
5°	2516.7	2515.7	2506.0	2492.5	2484.7
7.5°	2488.6	2490.6	2487.7	2468.3	2457.6
10°	2461.5	2462.5	2454.7	2439.3	2426.7
12.5°	2426.7	2425.7	2415.1	2407.3	2387.0
15°	2371.5	2377.3	2371.5	2360.8	2344.4
17.5°	2318.3	2318.3	2322.1	2303.7	2291.2
20°	2258.2	2261.1	2261.1	2246.6	2232.1
22.5°	2188.6	2197.3	2200.2	2184.7	2167.3
25°	2106.3	2122.7	2132.4	2116.9	2098.5
27.5°	2006.6	2031.7	2060.8	2049.2	2028.8
30°	1895.3	1932.0	1980.4	1970.8	1956.2
32.5°	1789.8	1826.5	1893.3	1889.5	1881.7
35°	1693.9	1717.2	1795.6	1805.2	1798.5
37.5°	1602.9	1624.2	1697.8	1720.1	1714.3
40°	1507.1	1530.3	1588.4	1628.1	1630.0
42.5°	1412.3	1434.5	1481.9	1539.1	1539.1
45°	1311.6	1333.8	1377.4	1440.3	1448.1
47.5°	1212.9	1236.1	1278.7	1341.6	1354.2
50°	1116.1	1137.4	1179.9	1240.9	1260.3
52.5°	1015.4	1038.6	1080.2	1136.4	1164.5
55°	918.6	934.1	979.6	1033.8	1063.8
57.5°	817.9	832.4	883.7	930.2	961.2
60°	721.1	739.5	779.2	826.6	862.5
62.5°	628.2	647.6	681.4	723.1	763.7
65°	538.2	552.7	585.6	627.2	663.1
67.5°	451.1	463.7	496.6	525.6	563.4
70°	363.0	379.4	403.6	431.7	455.9
72.5°	292.3	299.1	319.4	339.8	364.9
75°	215.9	227.5	243.9	255.5	270.1
77.5°	154.9	161.6	171.3	181.0	194.6
80°	103.6	106.5	115.2	117.1	127.8
82.5°	62.9	64.9	66.8	67.8	71.6
85°	33.9	33.9	33.9	31.9	31.9
87.5°	19.4	19.4	16.5	13.6	9.7
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)