

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: P557988

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-93-86-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: P557988
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-LD4-3LO-30-UNV-93-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

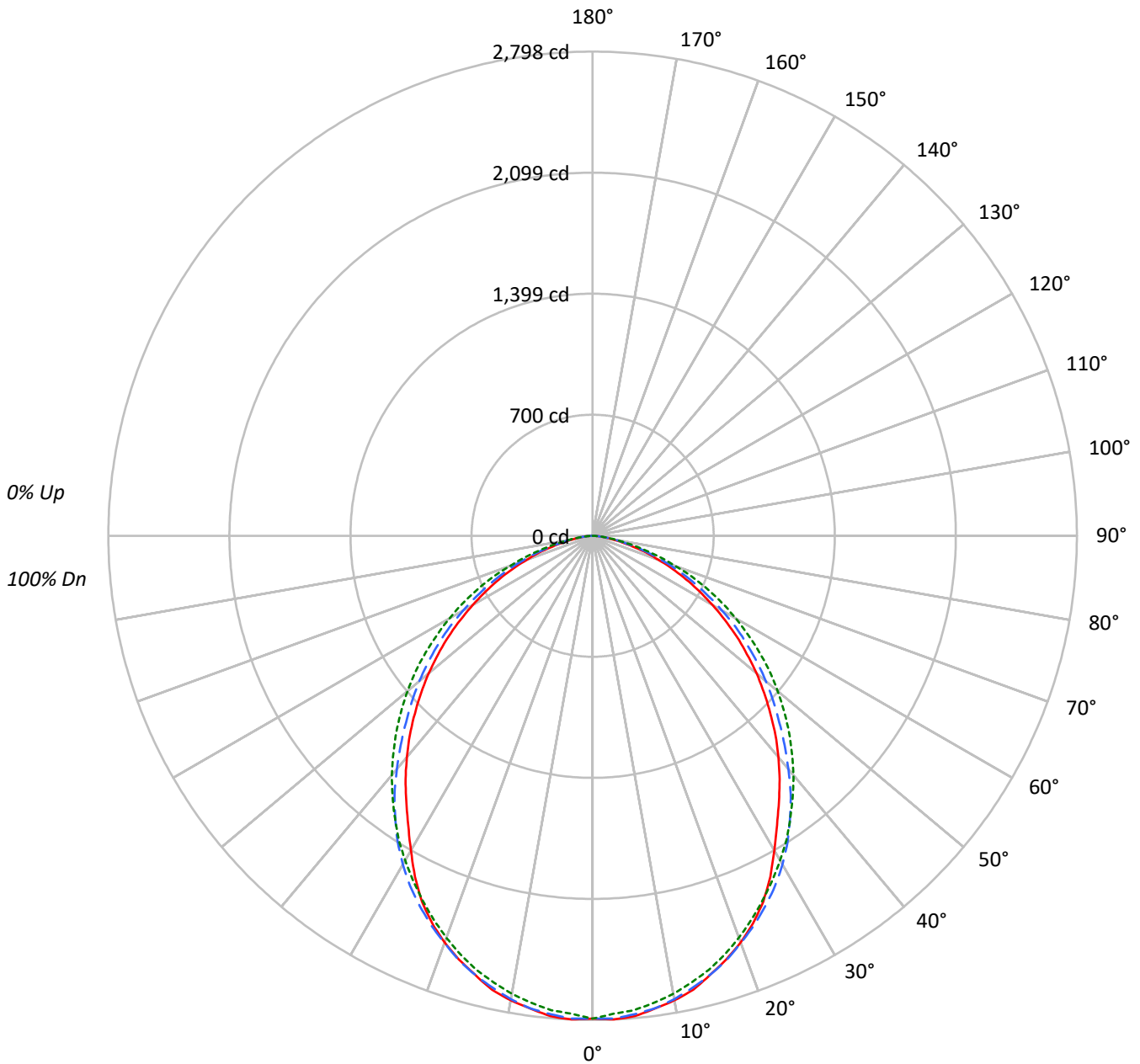
Lumens per Lamp: N/A
Luminaire Lumens: 6452.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	7509	7509	7509
5°	7529	7497	7433
10°	7449	7428	7343
15°	7317	7317	7233
20°	7162	7171	7079
25°	6926	7012	6900
30°	6522	6815	6732
35°	6162	6532	6543
40°	5863	6179	6341
45°	5528	5805	6103
50°	5174	5470	5843
55°	4773	5089	5527
60°	4298	4644	5140
65°	3795	4129	4676
70°	3163	3517	3973
75°	2485	2808	3110
80°	1777	1977	2193
85°	1158	1158	1093



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.7	4.1
10°-20°	738.0	11.4
20°-30°	1078.5	16.7
30°-40°	1224.3	19.0
40°-50°	1181.8	18.3
50°-60°	974.9	15.1
60°-70°	649.2	10.1
70°-80°	290.5	4.5
80°-90°	52.0	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°	2079.3	32.2
0°-40°	3303.5	51.2
0°-60°	5460.3	84.6
0°-90°	6452.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6452.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2790	2790	2790	2790	2790	
5°	2787	2786	2775	2760	2752	264
15°	2626	2633	2626	2614	2596	740
25°	2333	2351	2362	2344	2324	1068
35°	1876	1902	1988	1999	1992	1175
45°	1452	1477	1525	1595	1604	1121
55°	1017	1034	1085	1145	1178	908
65°	596	612	648	695	734	591
75°	239	252	270	283	299	261
85°	38	38	38	35	35	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2790.3	2790.3	2790.3	2790.3	2790.3
2.5°	2797.8	2798.9	2792.5	2775.3	2764.6
5°	2787.1	2786.0	2775.3	2760.3	2751.7
7.5°	2756.0	2758.2	2754.9	2733.5	2721.7
10°	2726.0	2727.1	2718.5	2701.4	2687.4
12.5°	2687.4	2686.3	2674.6	2666.0	2643.5
15°	2626.3	2632.7	2626.3	2614.5	2596.3
17.5°	2567.4	2567.4	2571.6	2551.3	2537.3
20°	2500.9	2504.1	2504.1	2488.0	2471.9
22.5°	2423.7	2433.4	2436.6	2419.4	2400.1
25°	2332.6	2350.8	2361.5	2344.4	2324.0
27.5°	2222.2	2250.1	2282.2	2269.3	2246.8
30°	2098.9	2139.6	2193.2	2182.5	2166.4
32.5°	1982.1	2022.8	2096.8	2092.5	2083.9
35°	1875.9	1901.7	1988.5	1999.2	1991.7
37.5°	1775.2	1798.8	1880.2	1904.9	1898.4
40°	1669.0	1694.8	1759.1	1803.0	1805.2
42.5°	1564.0	1588.7	1641.2	1704.4	1704.4
45°	1452.5	1477.2	1525.4	1595.1	1603.7
47.5°	1343.2	1368.9	1416.1	1485.7	1499.7
50°	1236.0	1259.6	1306.7	1374.3	1395.7
52.5°	1124.5	1150.2	1196.3	1258.5	1289.6
55°	1017.3	1034.4	1084.8	1144.9	1178.1
57.5°	905.8	921.9	978.7	1030.2	1064.5
60°	798.6	819.0	862.9	915.5	955.1
62.5°	695.7	717.1	754.7	800.8	845.8
65°	596.0	612.1	648.5	694.6	734.3
67.5°	499.5	513.5	549.9	582.1	623.9
70°	402.0	420.2	447.0	478.1	504.9
72.5°	323.7	331.2	353.7	376.3	404.1
75°	239.0	251.9	270.1	283.0	299.1
77.5°	171.5	179.0	189.7	200.5	215.5
80°	114.7	117.9	127.6	129.7	141.5
82.5°	69.7	71.8	74.0	75.0	79.3
85°	37.5	37.5	37.5	35.4	35.4
87.5°	21.4	21.4	18.2	15.0	10.7
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)