

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: P557463

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-82-87-EDD**

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: P557463
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-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

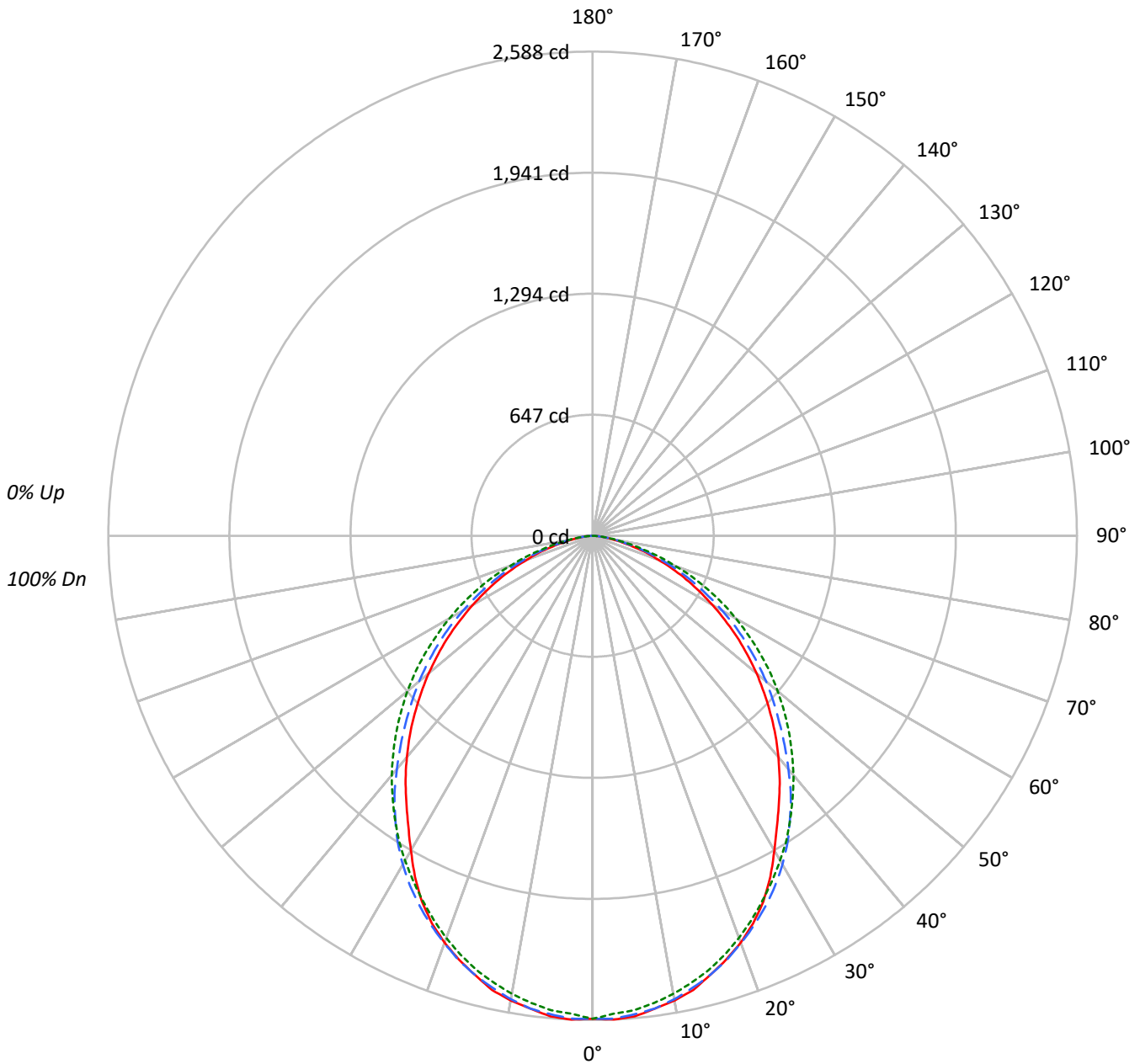
Lumens per Lamp: N/A
Luminaire Lumens: 5969.0 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6946	6946	6946
5°	6965	6936	6877
10°	6891	6872	6794
15°	6769	6769	6691
20°	6626	6634	6549
25°	6407	6487	6384
30°	6034	6305	6228
35°	5701	6043	6053
40°	5424	5717	5867
45°	5114	5370	5646
50°	4787	5061	5406
55°	4415	4708	5113
60°	3976	4296	4755
65°	3511	3820	4325
70°	2926	3253	3675
75°	2300	2598	2877
80°	1644	1829	2029
85°	1071	1071	1010



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.1	4.1
10°-20°	682.8	11.4
20°-30°	997.8	16.7
30°-40°	1132.6	19.0
40°-50°	1093.3	18.3
50°-60°	901.9	15.1
60°-70°	600.6	10.1
70°-80°	268.8	4.5
80°-90°	48.1	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°	1923.6	32.2
0°-40°	3056.3	51.2
0°-60°	5051.5	84.6
0°-90°	5969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5969.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2581	2581	2581	2581	2581	
5°	2578	2578	2568	2554	2546	244
15°	2430	2436	2430	2419	2402	685
25°	2158	2175	2185	2169	2150	988
35°	1736	1759	1840	1850	1843	1087
45°	1344	1367	1411	1476	1484	1037
55°	941	957	1004	1059	1090	840
65°	551	566	600	643	679	547
75°	221	233	250	262	277	242
85°	35	35	35	33	33	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2581.4	2581.4	2581.4	2581.4	2581.4
2.5°	2588.4	2589.4	2583.4	2567.6	2557.6
5°	2578.5	2577.5	2567.6	2553.7	2545.7
7.5°	2549.7	2551.7	2548.7	2528.9	2518.0
10°	2521.9	2522.9	2515.0	2499.1	2486.2
12.5°	2486.2	2485.2	2474.3	2466.4	2445.6
15°	2429.7	2435.7	2429.7	2418.8	2401.9
17.5°	2375.2	2375.2	2379.1	2360.3	2347.4
20°	2313.7	2316.7	2316.7	2301.8	2286.9
22.5°	2242.3	2251.2	2254.2	2238.3	2220.5
25°	2158.0	2174.8	2184.8	2168.9	2150.0
27.5°	2055.8	2081.6	2111.4	2099.5	2078.6
30°	1941.8	1979.5	2029.1	2019.1	2004.3
32.5°	1833.7	1871.4	1939.8	1935.8	1927.9
35°	1735.5	1759.3	1839.6	1849.6	1842.6
37.5°	1642.3	1664.1	1739.5	1762.3	1756.3
40°	1544.1	1567.9	1627.4	1668.1	1670.1
42.5°	1446.9	1469.7	1518.3	1576.8	1576.8
45°	1343.8	1366.6	1411.2	1475.7	1483.6
47.5°	1242.6	1266.4	1310.1	1374.5	1387.4
50°	1143.4	1165.3	1208.9	1271.4	1291.2
52.5°	1040.3	1064.1	1106.8	1164.3	1193.0
55°	941.1	957.0	1003.6	1059.2	1089.9
57.5°	838.0	852.9	905.4	953.0	984.8
60°	738.8	757.7	798.3	846.9	883.6
62.5°	643.6	663.5	698.2	740.8	782.5
65°	551.4	566.3	600.0	642.6	679.3
67.5°	462.1	475.0	508.8	538.5	577.2
70°	371.9	388.8	413.5	442.3	467.1
72.5°	299.5	306.4	327.3	348.1	373.9
75°	221.2	233.1	249.9	261.8	276.7
77.5°	158.7	165.6	175.5	185.5	199.3
80°	106.1	109.1	118.0	120.0	130.9
82.5°	64.5	66.4	68.4	69.4	73.4
85°	34.7	34.7	34.7	32.7	32.7
87.5°	19.8	19.8	16.9	13.9	9.9
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)