

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: P557159

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-93-87-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: P557159
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-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

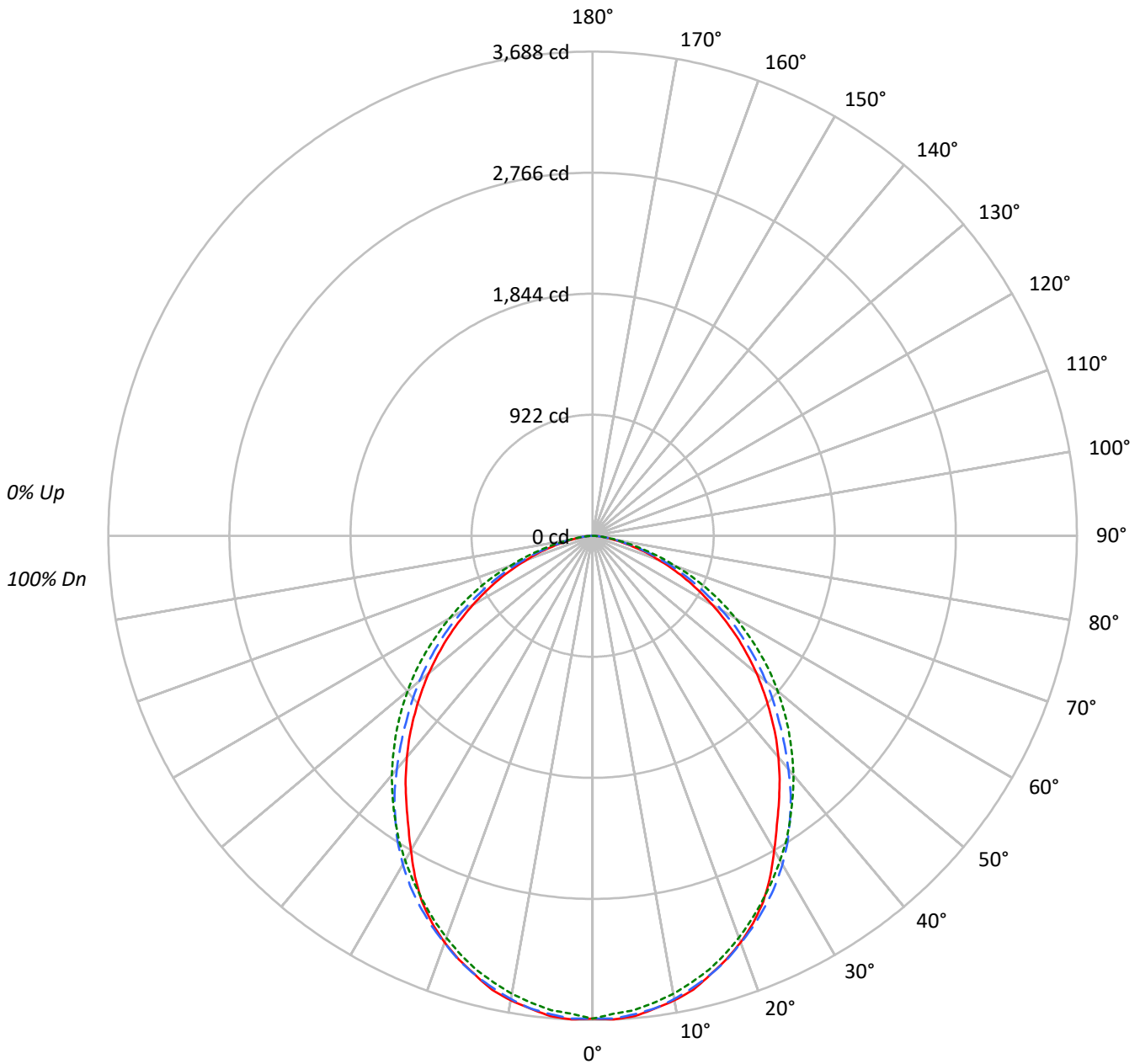
Lumens per Lamp: N/A
Luminaire Lumens: 8504.0 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9897	9897	9897
5°	9923	9881	9797
10°	9818	9791	9679
15°	9644	9644	9533
20°	9440	9452	9330
25°	9129	9242	9095
30°	8596	8983	8873
35°	8123	8610	8624
40°	7728	8145	8358
45°	7286	7651	8044
50°	6820	7210	7701
55°	6290	6708	7285
60°	5665	6121	6775
65°	5002	5443	6162
70°	4168	4636	5236
75°	3276	3701	4099
80°	2343	2605	2890
85°	1528	1528	1439



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.3	4.1
10°-20°	972.8	11.4
20°-30°	1421.5	16.7
30°-40°	1613.6	19.0
40°-50°	1557.7	18.3
50°-60°	1285.0	15.1
60°-70°	855.7	10.1
70°-80°	382.9	4.5
80°-90°	68.5	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°	2740.6	32.2
0°-40°	4354.2	51.2
0°-60°	7196.9	84.6
0°-90°	8504.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8504.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3678	3678	3678	3678	3678	
5°	3674	3672	3658	3638	3627	348
15°	3462	3470	3462	3446	3422	976
25°	3074	3098	3113	3090	3063	1408
35°	2473	2506	2621	2635	2625	1549
45°	1914	1947	2010	2102	2114	1477
55°	1341	1363	1430	1509	1553	1197
65°	786	807	855	916	968	779
75°	315	332	356	373	394	345
85°	50	50	50	47	47	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3677.8	3677.8	3677.8	3677.8	3677.8
2.5°	3687.7	3689.1	3680.6	3658.0	3643.9
5°	3673.5	3672.1	3658.0	3638.2	3626.9
7.5°	3632.5	3635.4	3631.1	3602.9	3587.3
10°	3593.0	3594.4	3583.1	3560.5	3542.1
12.5°	3542.1	3540.7	3525.2	3513.9	3484.2
15°	3461.6	3470.1	3461.6	3446.0	3422.0
17.5°	3383.9	3383.9	3389.5	3362.7	3344.3
20°	3296.3	3300.5	3300.5	3279.3	3258.1
22.5°	3194.6	3207.3	3211.5	3188.9	3163.5
25°	3074.5	3098.5	3112.6	3090.0	3063.2
27.5°	2928.9	2965.7	3008.0	2991.1	2961.4
30°	2766.4	2820.1	2890.8	2876.7	2855.5
32.5°	2612.4	2666.1	2763.6	2758.0	2746.7
35°	2472.6	2506.5	2620.9	2635.0	2625.2
37.5°	2339.8	2370.8	2478.2	2510.7	2502.2
40°	2199.9	2233.8	2318.6	2376.5	2379.3
42.5°	2061.4	2093.9	2163.1	2246.5	2246.5
45°	1914.5	1947.0	2010.5	2102.4	2113.7
47.5°	1770.4	1804.3	1866.4	1958.3	1976.6
50°	1629.1	1660.1	1722.3	1811.3	1839.6
52.5°	1482.1	1516.0	1576.8	1658.7	1699.7
55°	1340.8	1363.4	1429.8	1509.0	1552.8
57.5°	1193.9	1215.1	1290.0	1357.8	1403.0
60°	1052.6	1079.5	1137.4	1206.6	1258.9
62.5°	917.0	945.2	994.7	1055.4	1114.8
65°	785.6	806.8	854.8	915.6	967.8
67.5°	658.4	676.8	724.8	767.2	822.3
70°	529.8	553.9	589.2	630.2	665.5
72.5°	426.7	436.6	466.3	495.9	532.7
75°	315.1	332.0	356.0	373.0	394.2
77.5°	226.1	236.0	250.1	264.2	284.0
80°	151.2	155.4	168.1	171.0	186.5
82.5°	91.8	94.7	97.5	98.9	104.6
85°	49.5	49.5	49.5	46.6	46.6
87.5°	28.3	28.3	24.0	19.8	14.1
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)