

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: P558252

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-93-96-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: P558252
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-LD4-3STD-30-UNV-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

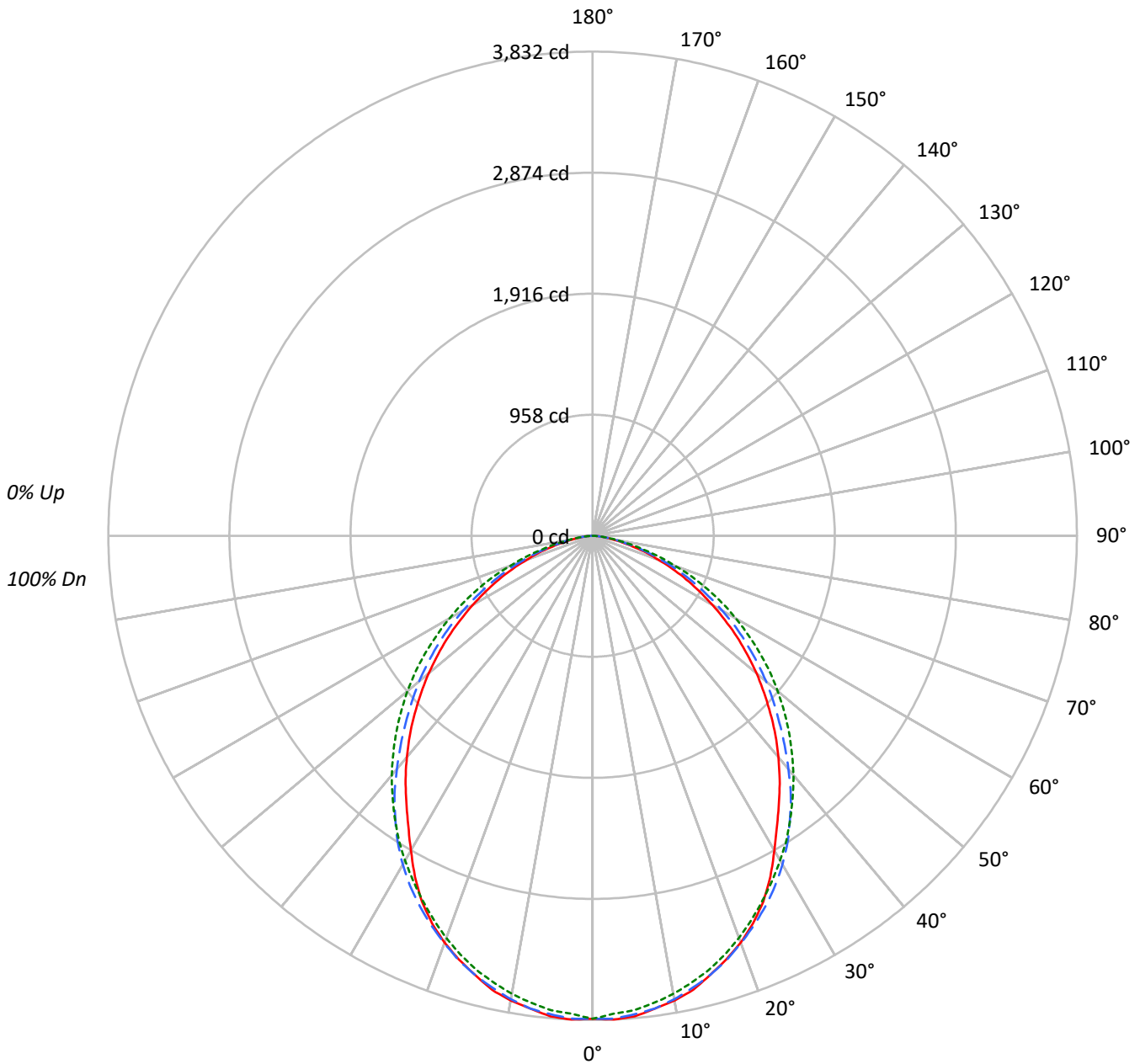
Lumens per Lamp: N/A
Luminaire Lumens: 8838.0 lumens
Efficiency: N/A
Efficacy: 88.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	10285	10285	10285
5°	10313	10269	10182
10°	10203	10175	10059
15°	10022	10022	9908
20°	9810	9823	9697
25°	9487	9605	9452
30°	8934	9335	9221
35°	8442	8948	8963
40°	8031	8464	8687
45°	7572	7952	8360
50°	7088	7494	8004
55°	6538	6972	7571
60°	5887	6362	7041
65°	5198	5657	6404
70°	4332	4818	5441
75°	3404	3847	4260
80°	2435	2707	3003
85°	1587	1587	1497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	359.9	4.1
10°-20°	1011.0	11.4
20°-30°	1477.4	16.7
30°-40°	1677.0	19.0
40°-50°	1618.9	18.3
50°-60°	1335.5	15.1
60°-70°	889.3	10.1
70°-80°	397.9	4.5
80°-90°	71.2	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°	2848.2	32.2
0°-40°	4525.2	51.2
0°-60°	7479.5	84.6
0°-90°	8838.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8838.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3822	3822	3822	3822	3822	
5°	3818	3816	3802	3781	3769	361
15°	3598	3606	3598	3581	3556	1014
25°	3195	3220	3235	3211	3184	1463
35°	2570	2605	2724	2738	2728	1610
45°	1990	2023	2090	2185	2197	1535
55°	1394	1417	1486	1568	1614	1244
65°	816	838	888	952	1006	810
75°	327	345	370	388	410	358
85°	51	51	51	48	48	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3822.2	3822.2	3822.2	3822.2	3822.2
2.5°	3832.5	3834.0	3825.1	3801.6	3787.0
5°	3817.8	3816.3	3801.6	3781.1	3769.3
7.5°	3775.2	3778.2	3773.8	3744.4	3728.2
10°	3734.1	3735.6	3723.8	3700.3	3681.2
12.5°	3681.2	3679.8	3663.6	3651.9	3621.0
15°	3597.5	3606.4	3597.5	3581.4	3556.4
17.5°	3516.8	3516.8	3522.7	3494.8	3475.7
20°	3425.7	3430.1	3430.1	3408.1	3386.1
22.5°	3320.0	3333.2	3337.6	3314.1	3287.7
25°	3195.2	3220.2	3234.9	3211.4	3183.5
27.5°	3044.0	3082.1	3126.2	3108.6	3077.7
30°	2875.1	2930.9	3004.3	2989.6	2967.6
32.5°	2715.0	2770.8	2872.2	2866.3	2854.5
35°	2569.7	2604.9	2723.9	2738.5	2728.3
37.5°	2431.6	2464.0	2575.5	2609.3	2600.5
40°	2286.3	2321.5	2409.6	2469.8	2472.8
42.5°	2142.4	2176.1	2248.1	2334.7	2334.7
45°	1989.7	2023.4	2089.5	2185.0	2196.7
47.5°	1839.9	1875.1	1939.7	2035.2	2054.3
50°	1693.0	1725.4	1790.0	1882.5	1911.8
52.5°	1540.3	1575.6	1638.7	1723.9	1766.5
55°	1393.5	1417.0	1486.0	1568.2	1613.8
57.5°	1240.8	1262.8	1340.6	1411.1	1458.1
60°	1093.9	1121.8	1182.1	1254.0	1308.3
62.5°	953.0	982.3	1033.7	1096.9	1158.6
65°	816.4	838.4	888.4	951.5	1005.8
67.5°	684.3	703.4	753.3	797.3	854.6
70°	550.6	575.6	612.3	654.9	691.6
72.5°	443.5	453.7	484.6	515.4	553.6
75°	327.4	345.1	370.0	387.7	409.7
77.5°	234.9	245.2	259.9	274.6	295.1
80°	157.1	161.5	174.7	177.7	193.8
82.5°	95.4	98.4	101.3	102.8	108.7
85°	51.4	51.4	51.4	48.5	48.5
87.5°	29.4	29.4	25.0	20.6	14.7
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)