

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: P558260

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-80-86-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: P558260
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-35-UNV-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

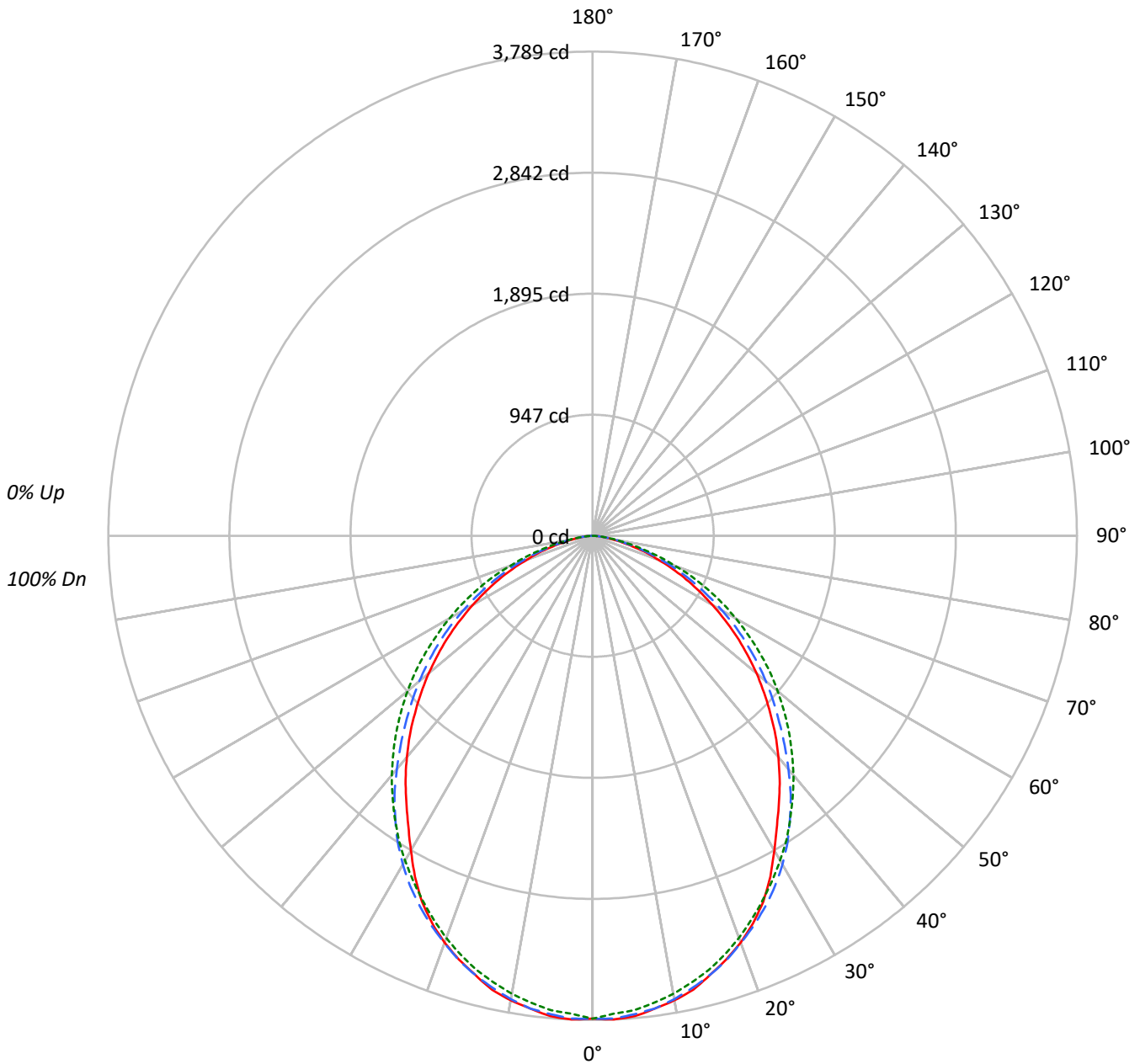
Lumens per Lamp: N/A
Luminaire Lumens: 8738.0 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10169	10169	10169
5°	10196	10153	10067
10°	10088	10060	9945
15°	9909	9909	9796
20°	9699	9712	9587
25°	9380	9496	9345
30°	8833	9230	9117
35°	8346	8847	8861
40°	7940	8369	8588
45°	7486	7862	8265
50°	7008	7409	7913
55°	6464	6893	7485
60°	5821	6290	6962
65°	5140	5592	6332
70°	4283	4763	5380
75°	3366	3803	4211
80°	2407	2678	2969
85°	1568	1568	1479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.8	4.1
10°-20°	999.5	11.4
20°-30°	1460.7	16.7
30°-40°	1658.0	19.0
40°-50°	1600.5	18.3
50°-60°	1320.4	15.1
60°-70°	879.2	10.1
70°-80°	393.5	4.5
80°-90°	70.4	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°	2816.0	32.2
0°-40°	4474.0	51.2
0°-60°	7394.9	84.6
0°-90°	8738.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8738.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3779	3779	3779	3779	3779	
5°	3775	3773	3759	3738	3727	357
15°	3557	3566	3557	3541	3516	1003
25°	3159	3184	3198	3175	3147	1447
35°	2541	2575	2693	2708	2697	1592
45°	1967	2000	2066	2160	2172	1518
55°	1378	1401	1469	1550	1596	1230
65°	807	829	878	941	994	800
75°	324	341	366	383	405	354
85°	51	51	51	48	48	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3779.0	3779.0	3779.0	3779.0	3779.0
2.5°	3789.1	3790.6	3781.9	3758.6	3744.1
5°	3774.6	3773.2	3758.6	3738.3	3726.7
7.5°	3732.5	3735.4	3731.1	3702.0	3686.0
10°	3691.9	3693.3	3681.7	3658.5	3639.6
12.5°	3639.6	3638.1	3622.2	3610.6	3580.1
15°	3556.8	3565.5	3556.8	3540.9	3516.2
17.5°	3477.0	3477.0	3482.8	3455.2	3436.3
20°	3387.0	3391.3	3391.3	3369.6	3347.8
22.5°	3282.5	3295.5	3299.9	3276.6	3250.5
25°	3159.1	3183.7	3198.3	3175.0	3147.4
27.5°	3009.5	3047.3	3090.8	3073.4	3042.9
30°	2842.6	2897.7	2970.3	2955.8	2934.0
32.5°	2684.3	2739.5	2839.7	2833.9	2822.2
35°	2540.6	2575.4	2693.0	2707.6	2697.4
37.5°	2404.1	2436.1	2546.4	2579.8	2571.1
40°	2260.4	2295.2	2382.4	2441.9	2444.8
42.5°	2118.1	2151.5	2222.7	2308.3	2308.3
45°	1967.1	2000.5	2065.9	2160.2	2171.8
47.5°	1819.1	1853.9	1917.8	2012.2	2031.0
50°	1673.9	1705.8	1769.7	1861.2	1890.2
52.5°	1522.9	1557.8	1620.2	1704.4	1746.5
55°	1377.7	1401.0	1469.2	1550.5	1595.5
57.5°	1226.7	1248.5	1325.5	1395.2	1441.6
60°	1081.6	1109.2	1168.7	1239.8	1293.5
62.5°	942.2	971.2	1022.0	1084.5	1145.4
65°	807.2	829.0	878.3	940.7	994.5
67.5°	676.5	695.4	744.8	788.3	844.9
70°	544.4	569.1	605.4	647.5	683.8
72.5°	438.4	448.6	479.1	509.6	547.3
75°	323.7	341.2	365.8	383.3	405.0
77.5°	232.3	242.4	257.0	271.5	291.8
80°	155.3	159.7	172.8	175.7	191.6
82.5°	94.4	97.3	100.2	101.6	107.4
85°	50.8	50.8	50.8	47.9	47.9
87.5°	29.0	29.0	24.7	20.3	14.5
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)