

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: P557103

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-93-97-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: P557103
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-40-UNV-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

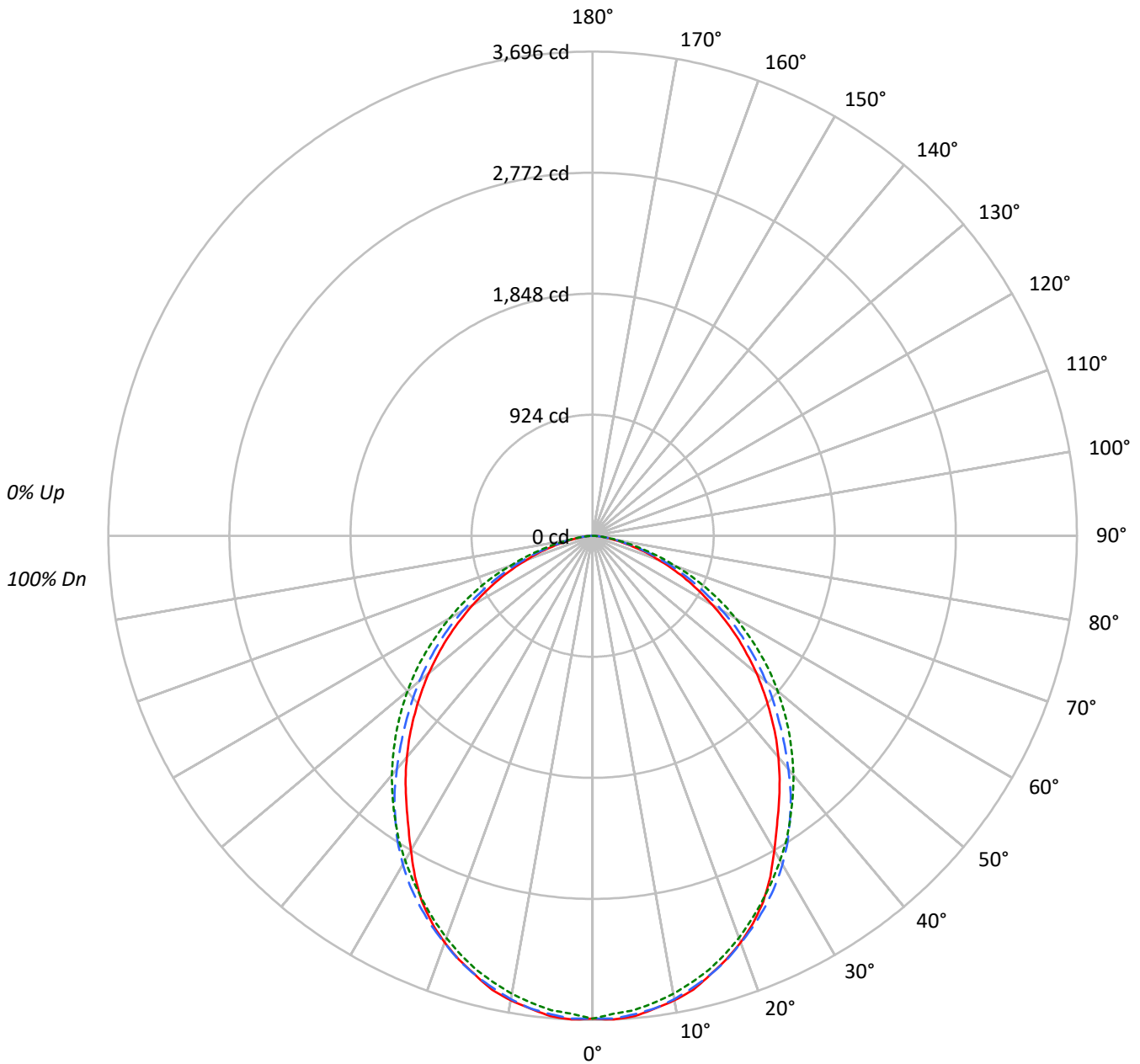
Lumens per Lamp: N/A
Luminaire Lumens: 8523.0 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P557103

CATALOG NUMBER: FUSL-12-4-LD4-2HI-40-UNV-93-97-EDD

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°	9919	9919	9919
5°	9945	9903	9819
10°	9840	9813	9700
15°	9665	9665	9555
20°	9460	9473	9351
25°	9149	9263	9115
30°	8615	9002	8892
35°	8141	8629	8643
40°	7745	8163	8377
45°	7302	7668	8062
50°	6835	7227	7719
55°	6305	6723	7301
60°	5678	6135	6790
65°	5013	5455	6176
70°	4178	4646	5248
75°	3283	3710	4108
80°	2348	2611	2896
85°	1531	1531	1442



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.0	4.1
10°-20°	974.9	11.4
20°-30°	1424.7	16.7
30°-40°	1617.2	19.0
40°-50°	1561.2	18.3
50°-60°	1287.9	15.1
60°-70°	857.6	10.1
70°-80°	383.8	4.5
80°-90°	68.7	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°	2746.7	32.2
0°-40°	4363.9	51.2
0°-60°	7213.0	84.6
0°-90°	8523.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8523.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3686	3686	3686	3686	3686	
5°	3682	3680	3666	3646	3635	348
15°	3469	3478	3469	3454	3430	978
25°	3081	3105	3120	3097	3070	1411
35°	2478	2512	2627	2641	2631	1553
45°	1919	1951	2015	2107	2118	1480
55°	1344	1366	1433	1512	1556	1199
65°	787	809	857	918	970	781
75°	316	333	357	374	395	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°	3686.0	3686.0	3686.0	3686.0	3686.0
2.5°	3695.9	3697.3	3688.8	3666.2	3652.0
5°	3681.7	3680.3	3666.2	3646.3	3635.0
7.5°	3640.7	3643.5	3639.2	3610.9	3595.4
10°	3601.0	3602.4	3591.1	3568.4	3550.0
12.5°	3550.0	3548.6	3533.0	3521.7	3492.0
15°	3469.3	3477.8	3469.3	3453.7	3429.7
17.5°	3391.4	3391.4	3397.1	3370.2	3351.8
20°	3303.6	3307.9	3307.9	3286.7	3265.4
22.5°	3201.7	3214.4	3218.7	3196.0	3170.5
25°	3081.3	3105.4	3119.6	3096.9	3070.0
27.5°	2935.5	2972.3	3014.8	2997.8	2968.0
30°	2772.6	2826.4	2897.2	2883.1	2861.8
32.5°	2618.3	2672.1	2769.8	2764.1	2752.8
35°	2478.1	2512.1	2626.8	2640.9	2631.0
37.5°	2345.0	2376.1	2483.8	2516.3	2507.8
40°	2204.8	2238.8	2323.7	2381.8	2384.6
42.5°	2066.0	2098.6	2168.0	2251.5	2251.5
45°	1918.7	1951.3	2015.0	2107.1	2118.4
47.5°	1774.3	1808.3	1870.6	1962.6	1981.1
50°	1632.7	1663.9	1726.2	1815.4	1843.7
52.5°	1485.4	1519.4	1580.3	1662.4	1703.5
55°	1343.8	1366.5	1433.0	1512.3	1556.2
57.5°	1196.6	1217.8	1292.9	1360.8	1406.1
60°	1055.0	1081.9	1139.9	1209.3	1261.7
62.5°	919.0	947.3	996.9	1057.8	1117.3
65°	787.3	808.6	856.7	917.6	970.0
67.5°	659.9	678.3	726.4	768.9	824.1
70°	531.0	555.1	590.5	631.6	667.0
72.5°	427.6	437.6	467.3	497.0	533.9
75°	315.8	332.8	356.8	373.8	395.1
77.5°	226.6	236.5	250.6	264.8	284.6
80°	151.5	155.8	168.5	171.3	186.9
82.5°	92.0	94.9	97.7	99.1	104.8
85°	49.6	49.6	49.6	46.7	46.7
87.5°	28.3	28.3	24.1	19.8	14.2
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)