

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: P557784

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-82-88-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: P557784
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-LD4-3HI-35-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

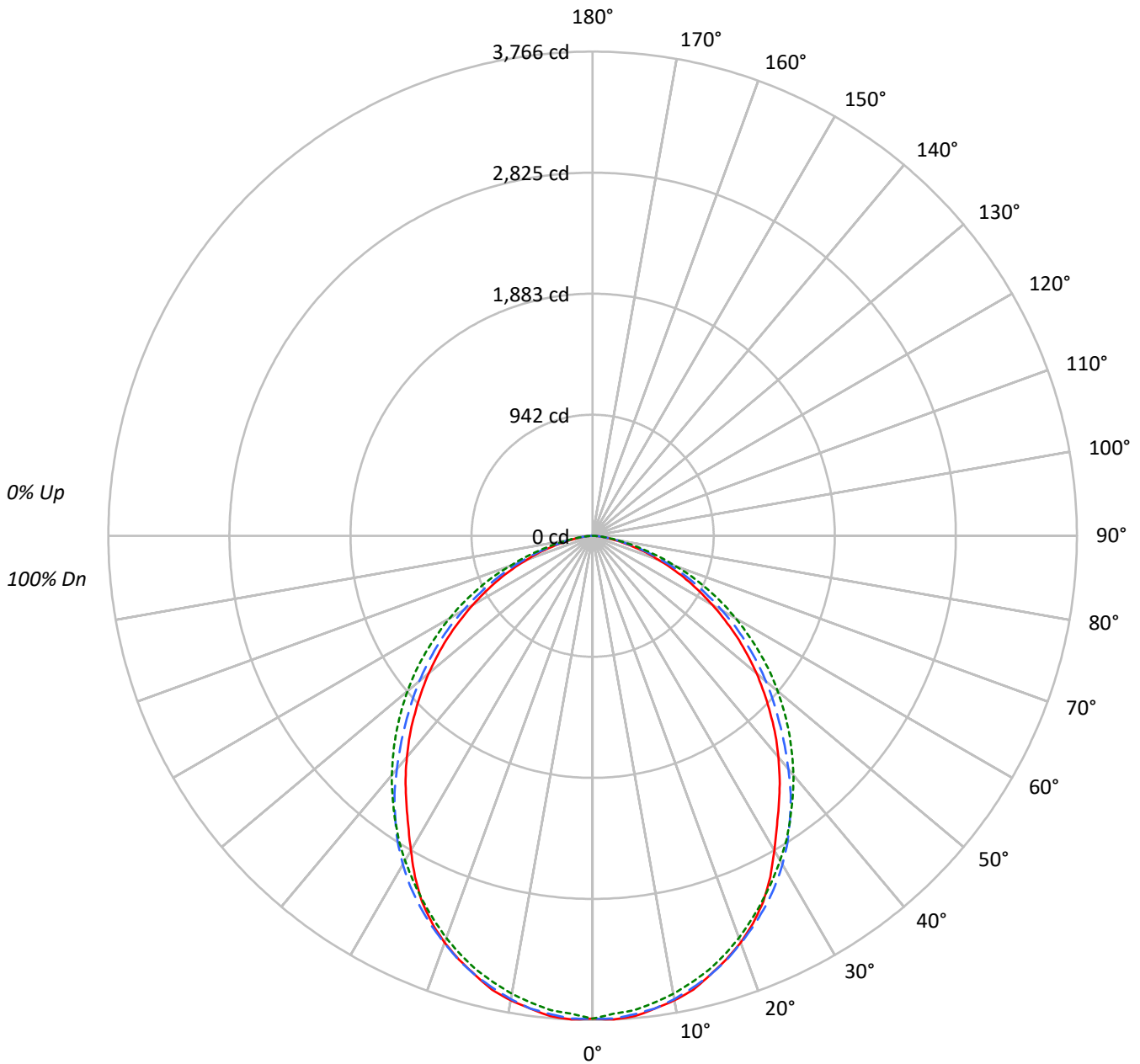
Lumens per Lamp: N/A
Luminaire Lumens: 8685.0 lumens
Efficiency: N/A
Efficacy: 67.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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

TEST NUMBER: P557784

CATALOG NUMBER: FUSL-12-4-LD4-3HI-35-UNV-82-88-EDD-90

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°	10107	10107	10107
5°	10134	10091	10006
10°	10027	9999	9885
15°	9849	9849	9736
20°	9640	9653	9529
25°	9323	9439	9288
30°	8779	9174	9061
35°	8295	8793	8807
40°	7892	8318	8536
45°	7441	7814	8215
50°	6965	7364	7865
55°	6425	6851	7440
60°	5786	6252	6920
65°	5109	5559	6294
70°	4257	4734	5347
75°	3346	3780	4186
80°	2393	2661	2952
85°	1559	1559	1470



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.6	4.1
10°-20°	993.5	11.4
20°-30°	1451.8	16.7
30°-40°	1648.0	19.0
40°-50°	1590.8	18.3
50°-60°	1312.3	15.1
60°-70°	873.9	10.1
70°-80°	391.1	4.5
80°-90°	70.0	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°	2798.9	32.2
0°-40°	4446.9	51.2
0°-60°	7350.1	84.6
0°-90°	8685.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8685.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3756	3756	3756	3756	3756	
5°	3752	3750	3736	3716	3704	355
15°	3535	3544	3535	3519	3495	997
25°	3140	3164	3179	3156	3128	1438
35°	2525	2560	2677	2691	2681	1582
45°	1955	1988	2053	2147	2159	1509
55°	1369	1392	1460	1541	1586	1222
65°	802	824	873	935	988	796
75°	322	339	364	381	403	352
85°	50	50	50	48	48	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3756.0	3756.0	3756.0	3756.0	3756.0
2.5°	3766.1	3767.6	3758.9	3735.8	3721.4
5°	3751.7	3750.3	3735.8	3715.6	3704.1
7.5°	3709.9	3712.7	3708.4	3679.6	3663.7
10°	3669.5	3670.9	3659.4	3636.3	3617.5
12.5°	3617.5	3616.1	3600.2	3588.7	3558.4
15°	3535.3	3543.9	3535.3	3519.4	3494.9
17.5°	3455.9	3455.9	3461.7	3434.3	3415.5
20°	3366.4	3370.8	3370.8	3349.1	3327.5
22.5°	3262.5	3275.5	3279.9	3256.8	3230.8
25°	3139.9	3164.4	3178.9	3155.8	3128.3
27.5°	2991.3	3028.8	3072.1	3054.8	3024.5
30°	2825.3	2880.2	2952.3	2937.9	2916.2
32.5°	2668.0	2722.9	2822.4	2816.7	2805.1
35°	2525.2	2559.8	2676.7	2691.1	2681.0
37.5°	2389.6	2421.3	2531.0	2564.1	2555.5
40°	2246.7	2281.3	2367.9	2427.1	2430.0
42.5°	2105.3	2138.5	2209.2	2294.3	2294.3
45°	1955.2	1988.4	2053.3	2147.1	2158.7
47.5°	1808.0	1842.7	1906.2	1999.9	2018.7
50°	1663.7	1695.5	1759.0	1849.9	1878.7
52.5°	1513.7	1548.3	1610.3	1694.0	1735.9
55°	1369.4	1392.5	1460.3	1541.1	1585.8
57.5°	1219.3	1241.0	1317.4	1386.7	1432.9
60°	1075.0	1102.4	1161.6	1232.3	1285.7
62.5°	936.5	965.3	1015.8	1077.9	1138.5
65°	802.3	823.9	873.0	935.0	988.4
67.5°	672.4	691.2	740.2	783.5	839.8
70°	541.1	565.6	601.7	643.6	679.6
72.5°	435.8	445.9	476.2	506.5	544.0
75°	321.8	339.1	363.6	380.9	402.6
77.5°	230.9	241.0	255.4	269.8	290.0
80°	154.4	158.7	171.7	174.6	190.5
82.5°	93.8	96.7	99.6	101.0	106.8
85°	50.5	50.5	50.5	47.6	47.6
87.5°	28.9	28.9	24.5	20.2	14.4
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)