

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: P557730

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-93-85-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: P557730
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-30-UNV-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

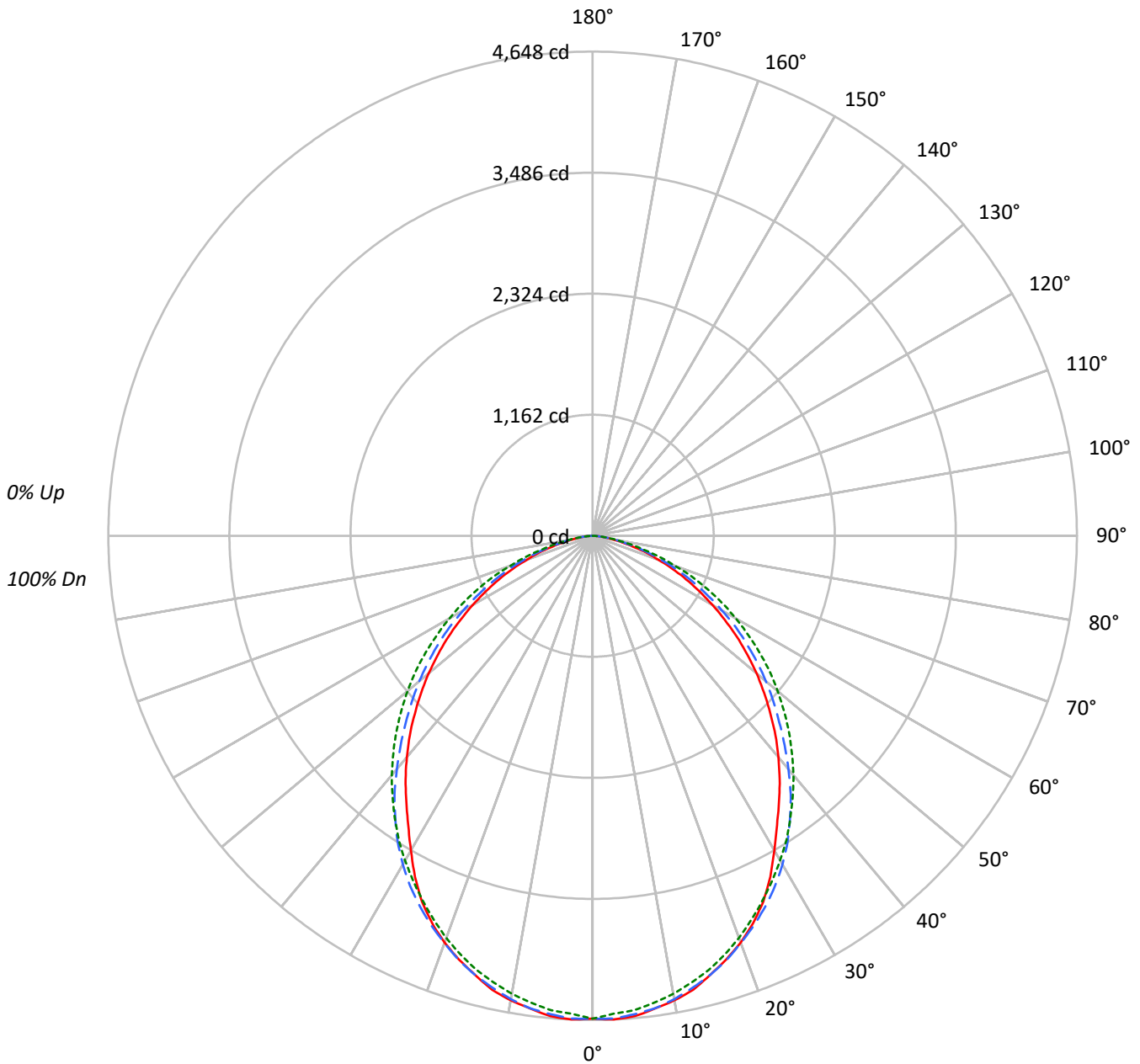
Lumens per Lamp: N/A
Luminaire Lumens: 10719.0 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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: P557730

CATALOG NUMBER: FUSL-12-4-LD4-3HI-30-UNV-93-85-EDD-90

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	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°	12475	12475	12475
5°	12508	12455	12349
10°	12375	12341	12200
15°	12155	12155	12016
20°	11898	11913	11761
25°	11506	11649	11464
30°	10835	11322	11184
35°	10238	10853	10870
40°	9741	10266	10535
45°	9183	9644	10139
50°	8596	9088	9707
55°	7929	8456	9182
60°	7141	7716	8540
65°	6305	6860	7768
70°	5254	5843	6600
75°	4129	4666	5166
80°	2954	3284	3643
85°	1924	1924	1815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	436.5	4.1
10°-20°	1226.2	11.4
20°-30°	1791.8	16.7
30°-40°	2033.9	19.0
40°-50°	1963.4	18.3
50°-60°	1619.7	15.1
60°-70°	1078.6	10.1
70°-80°	482.6	4.5
80°-90°	86.3	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°	3454.4	32.2
0°-40°	5488.3	51.2
0°-60°	9071.4	84.6
0°-90°	10719.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10719.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4636	4636	4636	4636	4636	
5°	4630	4629	4611	4586	4572	438
15°	4363	4374	4363	4344	4313	1230
25°	3875	3906	3923	3895	3861	1775
35°	3117	3159	3304	3321	3309	1953
45°	2413	2454	2534	2650	2664	1862
55°	1690	1719	1802	1902	1957	1508
65°	990	1017	1077	1154	1220	982
75°	397	418	449	470	497	434
85°	62	62	62	59	59	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4635.7	4635.7	4635.7	4635.7	4635.7
2.5°	4648.2	4649.9	4639.3	4610.8	4592.9
5°	4630.3	4628.6	4610.8	4585.8	4571.6
7.5°	4578.7	4582.3	4576.9	4541.3	4521.7
10°	4528.8	4530.6	4516.4	4487.9	4464.7
12.5°	4464.7	4462.9	4443.4	4429.1	4391.7
15°	4363.2	4373.9	4363.2	4343.6	4313.3
17.5°	4265.3	4265.3	4272.4	4238.5	4215.4
20°	4154.8	4160.2	4160.2	4133.5	4106.8
22.5°	4026.6	4042.6	4048.0	4019.5	3987.4
25°	3875.2	3905.5	3923.3	3894.8	3861.0
27.5°	3691.8	3738.1	3791.5	3770.2	3732.8
30°	3487.0	3554.7	3643.7	3625.9	3599.2
32.5°	3292.9	3360.6	3483.4	3476.3	3462.1
35°	3116.6	3159.3	3303.6	3321.4	3308.9
37.5°	2949.2	2988.4	3123.7	3164.7	3154.0
40°	2772.9	2815.6	2922.5	2995.5	2999.0
42.5°	2598.3	2639.3	2726.6	2831.6	2831.6
45°	2413.1	2454.1	2534.2	2650.0	2664.2
47.5°	2231.5	2274.2	2352.6	2468.3	2491.5
50°	2053.4	2092.6	2170.9	2283.1	2318.7
52.5°	1868.2	1910.9	1987.5	2090.8	2142.4
55°	1690.1	1718.6	1802.3	1902.0	1957.2
57.5°	1504.9	1531.6	1626.0	1711.4	1768.4
60°	1326.8	1360.6	1433.6	1520.9	1586.8
62.5°	1155.8	1191.4	1253.8	1330.3	1405.1
65°	990.2	1016.9	1077.4	1154.0	1219.9
67.5°	829.9	853.1	913.6	967.0	1036.5
70°	667.8	698.1	742.6	794.3	838.8
72.5°	537.8	550.3	587.7	625.1	671.4
75°	397.1	418.5	448.8	470.2	496.9
77.5°	284.9	297.4	315.2	333.0	358.0
80°	190.6	195.9	211.9	215.5	235.1
82.5°	115.8	119.3	122.9	124.7	131.8
85°	62.3	62.3	62.3	58.8	58.8
87.5°	35.6	35.6	30.3	24.9	17.8
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)