

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: P557009

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-82-84-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: P557009
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-35-UNV-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

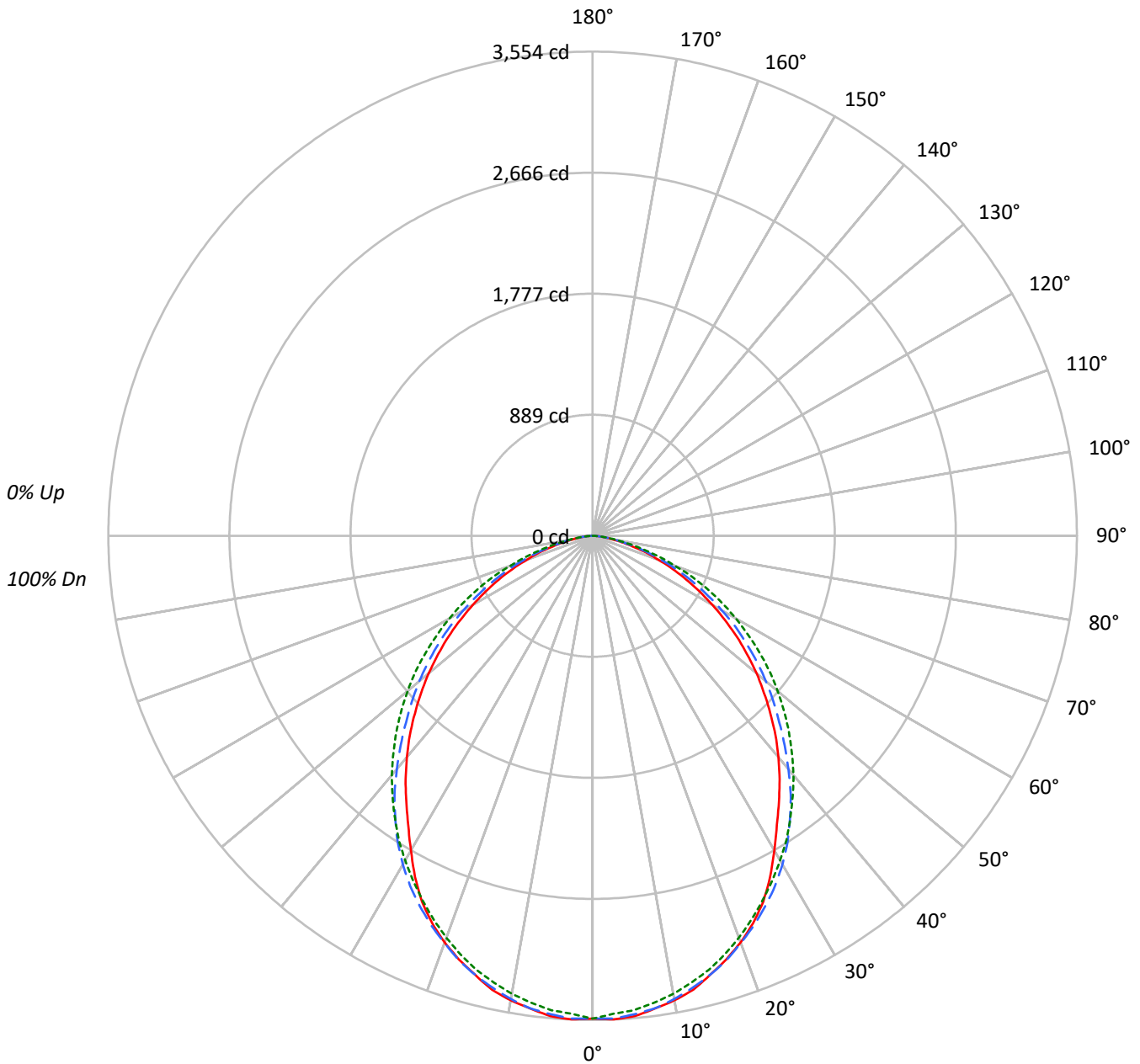
Lumens per Lamp: N/A
Luminaire Lumens: 8195.0 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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: P557009

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-82-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P557009

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-82-84-EDD

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°	9537	9537	9537
5°	9562	9522	9441
10°	9461	9435	9327
15°	9293	9293	9187
20°	9096	9108	8991
25°	8797	8906	8764
30°	8284	8656	8550
35°	7827	8297	8311
40°	7447	7849	8055
45°	7021	7373	7752
50°	6572	6948	7421
55°	6062	6465	7020
60°	5459	5899	6529
65°	4820	5245	5939
70°	4017	4467	5046
75°	3157	3567	3950
80°	2258	2510	2785
85°	1473	1473	1386



TEST NUMBER: P557009

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-82-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.7	4.1
10°-20°	937.4	11.4
20°-30°	1369.9	16.7
30°-40°	1555.0	19.0
40°-50°	1501.1	18.3
50°-60°	1238.3	15.1
60°-70°	824.6	10.1
70°-80°	369.0	4.5
80°-90°	66.0	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°	2641.0	32.2
0°-40°	4196.0	51.2
0°-60°	6935.4	84.6
0°-90°	8195.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8195.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3544	3544	3544	3544	3544	
5°	3540	3539	3525	3506	3495	335
15°	3336	3344	3336	3321	3298	940
25°	2963	2986	3000	2978	2952	1357
35°	2383	2415	2526	2539	2530	1493
45°	1845	1876	1938	2026	2037	1423
55°	1292	1314	1378	1454	1496	1153
65°	757	777	824	882	933	751
75°	304	320	343	360	380	332
85°	48	48	48	45	45	64
90°	0	0	0	0	0	



TEST NUMBER: P557009

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-82-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3544.1	3544.1	3544.1	3544.1	3544.1
2.5°	3553.7	3555.0	3546.8	3525.1	3511.4
5°	3540.0	3538.7	3525.1	3506.0	3495.1
7.5°	3500.6	3503.3	3499.2	3472.0	3457.0
10°	3462.4	3463.8	3452.9	3431.1	3413.4
12.5°	3413.4	3412.1	3397.1	3386.2	3357.6
15°	3335.8	3344.0	3335.8	3320.8	3297.7
17.5°	3260.9	3260.9	3266.4	3240.5	3222.8
20°	3176.5	3180.6	3180.6	3160.2	3139.7
22.5°	3078.5	3090.7	3094.8	3073.0	3048.5
25°	2962.7	2985.9	2999.5	2977.7	2951.8
27.5°	2822.5	2857.9	2898.7	2882.4	2853.8
30°	2665.9	2717.7	2785.7	2772.1	2751.7
32.5°	2517.5	2569.3	2663.2	2657.8	2646.9
35°	2382.7	2415.4	2525.7	2539.3	2529.8
37.5°	2254.7	2284.7	2388.2	2419.5	2411.3
40°	2119.9	2152.6	2234.3	2290.1	2292.9
42.5°	1986.5	2017.8	2084.5	2164.9	2164.9
45°	1844.9	1876.2	1937.5	2026.0	2036.9
47.5°	1706.0	1738.7	1798.6	1887.1	1904.8
50°	1569.9	1599.8	1659.7	1745.5	1772.7
52.5°	1428.3	1460.9	1519.5	1598.5	1637.9
55°	1292.1	1313.9	1377.9	1454.1	1496.3
57.5°	1150.5	1170.9	1243.1	1308.5	1352.0
60°	1014.4	1040.2	1096.1	1162.8	1213.1
62.5°	883.6	910.9	958.5	1017.1	1074.3
65°	757.0	777.4	823.7	882.3	932.7
67.5°	634.5	652.2	698.5	739.3	792.4
70°	510.6	533.7	567.8	607.3	641.3
72.5°	411.2	420.7	449.3	477.9	513.3
75°	303.6	320.0	343.1	359.5	379.9
77.5°	217.8	227.4	241.0	254.6	273.7
80°	145.7	149.8	162.0	164.7	179.7
82.5°	88.5	91.2	93.9	95.3	100.8
85°	47.7	47.7	47.7	44.9	44.9
87.5°	27.2	27.2	23.1	19.1	13.6
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)