

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: P557015

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-82-87-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: P557015
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-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

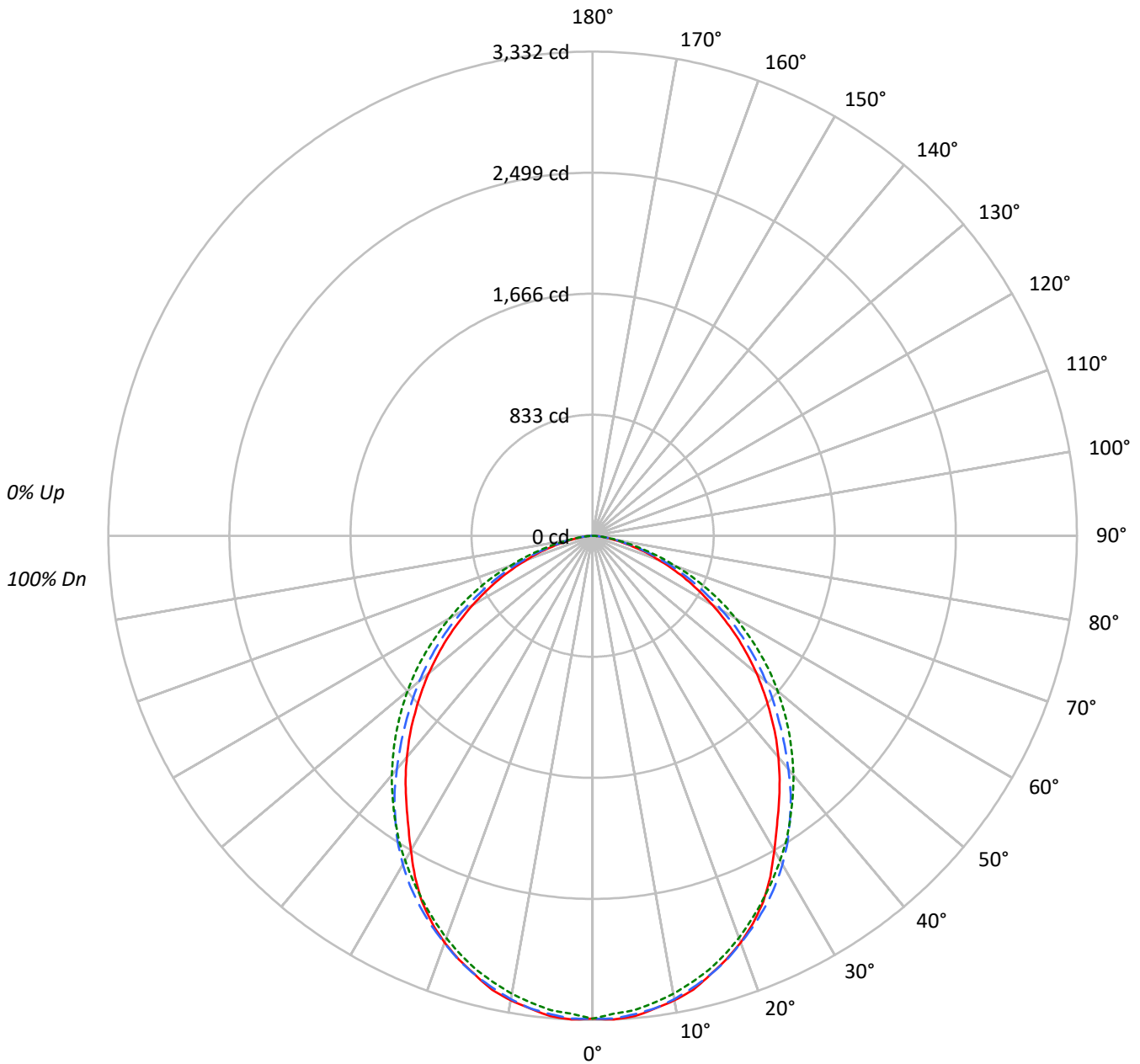
Lumens per Lamp: N/A
Luminaire Lumens: 7684.0 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P557015

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P557015

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-82-87-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°	8942	8942	8942
5°	8966	8928	8853
10°	8871	8847	8746
15°	8714	8714	8614
20°	8529	8540	8431
25°	8248	8351	8218
30°	7767	8116	8017
35°	7339	7780	7792
40°	6983	7359	7552
45°	6583	6914	7268
50°	6162	6515	6959
55°	5684	6062	6582
60°	5119	5531	6122
65°	4520	4918	5568
70°	3766	4189	4731
75°	2960	3345	3703
80°	2117	2354	2611
85°	1380	1380	1300



TEST NUMBER: P557015

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	312.9	4.1
10°-20°	879.0	11.4
20°-30°	1284.5	16.7
30°-40°	1458.0	19.0
40°-50°	1407.5	18.3
50°-60°	1161.1	15.1
60°-70°	773.2	10.1
70°-80°	346.0	4.5
80°-90°	61.9	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°	2476.3	32.2
0°-40°	3934.3	51.2
0°-60°	6502.9	84.6
0°-90°	7684.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7684.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3323	3323	3323	3323	3323	
5°	3319	3318	3305	3287	3277	314
15°	3128	3136	3128	3114	3092	882
25°	2778	2800	2812	2792	2768	1272
35°	2234	2265	2368	2381	2372	1400
45°	1730	1759	1817	1900	1910	1335
55°	1212	1232	1292	1364	1403	1081
65°	710	729	772	827	874	704
75°	285	300	322	337	356	311
85°	45	45	45	42	42	60
90°	0	0	0	0	0	



TEST NUMBER: P557015

CATALOG NUMBER: FUSL-12-4-LD4-2HI-35-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3323.1	<i>3323.1</i>	3323.1	3323.1	3323.1
2.5°	<i>3332.1</i>	<i>3333.3</i>	<i>3325.7</i>	<i>3305.3</i>	<i>3292.5</i>
5°	3319.3	<i>3318.0</i>	3305.3	3287.4	3277.2
7.5°	3282.3	<i>3284.8</i>	3281.0	3255.5	3241.4
10°	3246.5	<i>3247.8</i>	3237.6	3217.2	3200.6
12.5°	3200.6	<i>3199.3</i>	3185.3	3175.0	3148.2
15°	3127.8	<i>3135.5</i>	3127.8	3113.8	3092.1
17.5°	3057.6	<i>3057.6</i>	3062.7	3038.4	3021.8
20°	2978.4	<i>2982.3</i>	2982.3	2963.1	2944.0
22.5°	2886.5	<i>2898.0</i>	2901.8	2881.4	2858.4
25°	2778.0	<i>2799.7</i>	2812.5	2792.0	2767.8
27.5°	2646.5	<i>2679.7</i>	2718.0	2702.7	2675.9
30°	2499.7	<i>2548.2</i>	2612.0	2599.3	2580.1
32.5°	2360.5	<i>2409.0</i>	2497.1	2492.0	2481.8
35°	2234.1	<i>2264.8</i>	2368.2	2381.0	2372.0
37.5°	2114.1	<i>2142.2</i>	2239.3	2268.6	2261.0
40°	1987.8	<i>2018.4</i>	2095.0	2147.3	2149.9
42.5°	1862.6	<i>1892.0</i>	1954.6	2029.9	2029.9
45°	1729.9	<i>1759.2</i>	1816.7	1899.7	1909.9
47.5°	1599.6	<i>1630.3</i>	1686.5	1769.4	1786.0
50°	1472.0	<i>1500.1</i>	1556.2	1636.7	1662.2
52.5°	1339.2	<i>1369.9</i>	1424.7	1498.8	1535.8
55°	1211.5	<i>1232.0</i>	1292.0	1363.5	1403.0
57.5°	1078.8	<i>1097.9</i>	1165.6	1226.9	1267.7
60°	951.1	<i>975.4</i>	1027.7	1090.3	1137.5
62.5°	828.5	<i>854.1</i>	898.8	953.7	1007.3
65°	709.8	<i>729.0</i>	772.4	827.3	874.5
67.5°	594.9	<i>611.5</i>	654.9	693.2	743.0
70°	478.7	<i>500.4</i>	532.4	569.4	601.3
72.5°	385.5	<i>394.5</i>	421.3	448.1	481.3
75°	284.7	<i>300.0</i>	321.7	337.0	356.2
77.5°	204.3	<i>213.2</i>	226.0	238.7	256.6
80°	136.6	<i>140.4</i>	151.9	154.5	168.5
82.5°	83.0	<i>85.5</i>	88.1	89.4	94.5
85°	44.7	<i>44.7</i>	44.7	42.1	42.1
87.5°	25.5	<i>25.5</i>	21.7	17.9	12.8
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)