

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: P557146

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-82-94-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: P557146
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-50-UNV-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

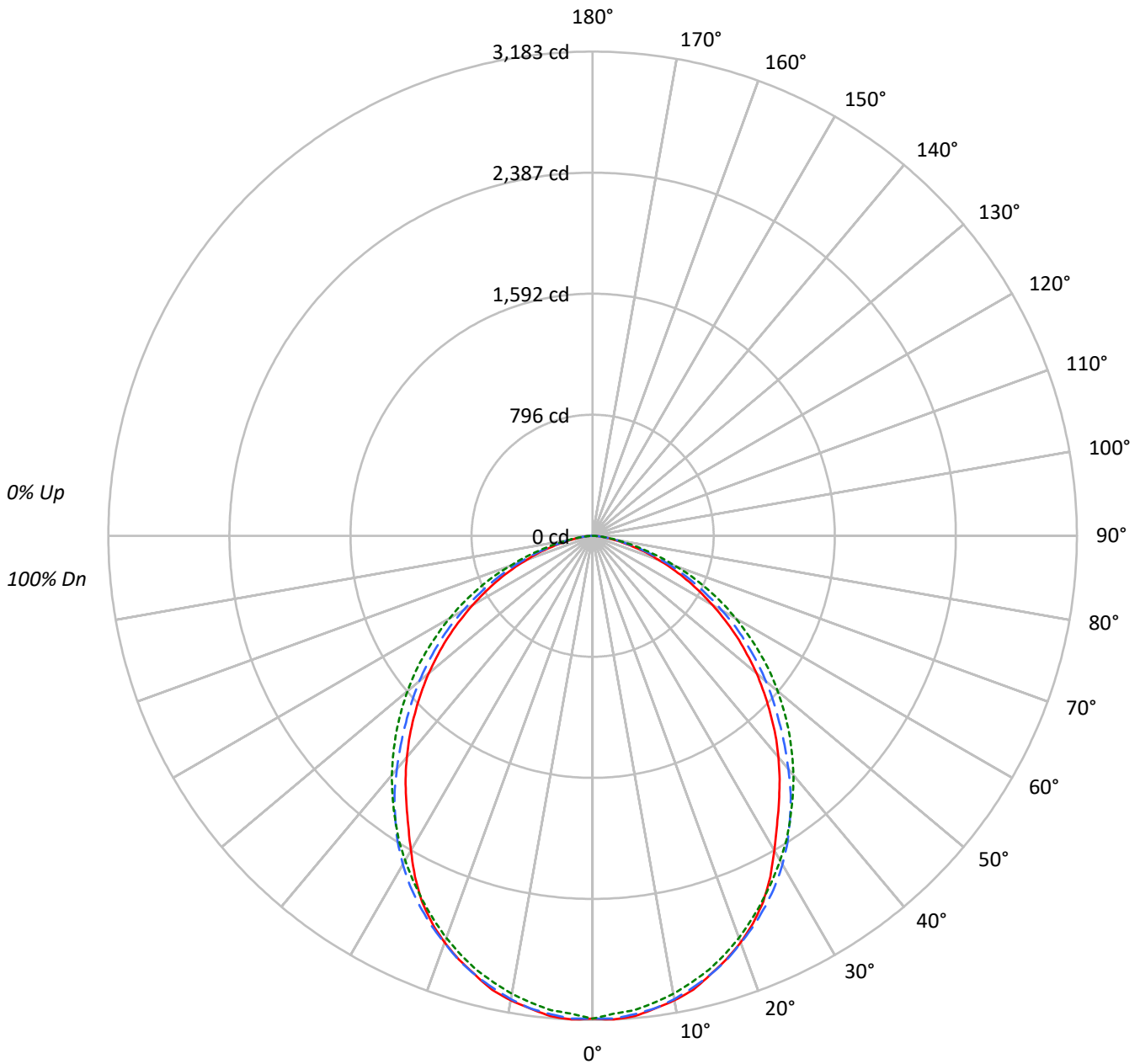
Lumens per Lamp: N/A
Luminaire Lumens: 7340.0 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	8542	8542	8542
5°	8565	8529	8456
10°	8474	8451	8354
15°	8324	8324	8228
20°	8147	8158	8053
25°	7879	7977	7850
30°	7420	7753	7658
35°	7011	7432	7443
40°	6670	7030	7214
45°	6288	6604	6943
50°	5887	6224	6647
55°	5430	5790	6288
60°	4890	5283	5848
65°	4317	4698	5319
70°	3598	4001	4519
75°	2827	3195	3537
80°	2022	2249	2495
85°	1318	1318	1241



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.9	4.1
10°-20°	839.6	11.4
20°-30°	1227.0	16.7
30°-40°	1392.7	19.0
40°-50°	1344.5	18.3
50°-60°	1109.1	15.1
60°-70°	738.6	10.1
70°-80°	330.5	4.5
80°-90°	59.1	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°	2365.5	32.2
0°-40°	3758.2	51.2
0°-60°	6211.8	84.6
0°-90°	7340.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7340.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3174	3174	3174	3174	3174	
5°	3171	3170	3157	3140	3130	300
15°	2988	2995	2988	2974	2954	842
25°	2654	2674	2687	2667	2644	1215
35°	2134	2163	2262	2274	2266	1337
45°	1652	1680	1735	1815	1824	1275
55°	1157	1177	1234	1302	1340	1033
65°	678	696	738	790	835	672
75°	272	287	307	322	340	297
85°	43	43	43	40	40	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3174.4	3174.4	3174.4	3174.4	3174.4
2.5°	3182.9	3184.1	3176.8	3157.3	3145.1
5°	3170.7	3169.5	3157.3	3140.2	3130.5
7.5°	3135.3	3137.8	3134.1	3109.7	3096.3
10°	3101.2	3102.4	3092.7	3073.1	3057.3
12.5°	3057.3	3056.1	3042.7	3032.9	3007.3
15°	2987.8	2995.1	2987.8	2974.4	2953.6
17.5°	2920.7	2920.7	2925.6	2902.4	2886.6
20°	2845.1	2848.8	2848.8	2830.5	2812.2
22.5°	2757.3	2768.3	2771.9	2752.4	2730.5
25°	2653.6	2674.4	2686.6	2667.0	2643.9
27.5°	2528.0	2559.7	2596.3	2581.7	2556.1
30°	2387.8	2434.1	2495.1	2482.9	2464.6
32.5°	2254.9	2301.2	2385.3	2380.5	2370.7
35°	2134.1	2163.4	2262.2	2274.4	2265.8
37.5°	2019.5	2046.3	2139.0	2167.1	2159.7
40°	1898.8	1928.0	2001.2	2051.2	2053.6
42.5°	1779.3	1807.3	1867.1	1939.0	1939.0
45°	1652.4	1680.5	1735.3	1814.6	1824.4
47.5°	1528.0	1557.3	1611.0	1690.2	1706.1
50°	1406.1	1432.9	1486.6	1563.4	1587.8
52.5°	1279.3	1308.5	1361.0	1431.7	1467.1
55°	1157.3	1176.8	1234.1	1302.4	1340.2
57.5°	1030.5	1048.8	1113.4	1171.9	1211.0
60°	908.5	931.7	981.7	1041.5	1086.6
62.5°	791.5	815.8	858.5	911.0	962.2
65°	678.0	696.3	737.8	790.2	835.4
67.5°	568.3	584.1	625.6	662.2	709.7
70°	457.3	478.0	508.5	543.9	574.4
72.5°	368.3	376.8	402.4	428.0	459.8
75°	271.9	286.6	307.3	321.9	340.2
77.5°	195.1	203.7	215.9	228.0	245.1
80°	130.5	134.1	145.1	147.6	161.0
82.5°	79.3	81.7	84.1	85.4	90.2
85°	42.7	42.7	42.7	40.2	40.2
87.5°	24.4	24.4	20.7	17.1	12.2
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)