

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: P557013

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-82-86-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: P557013
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-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

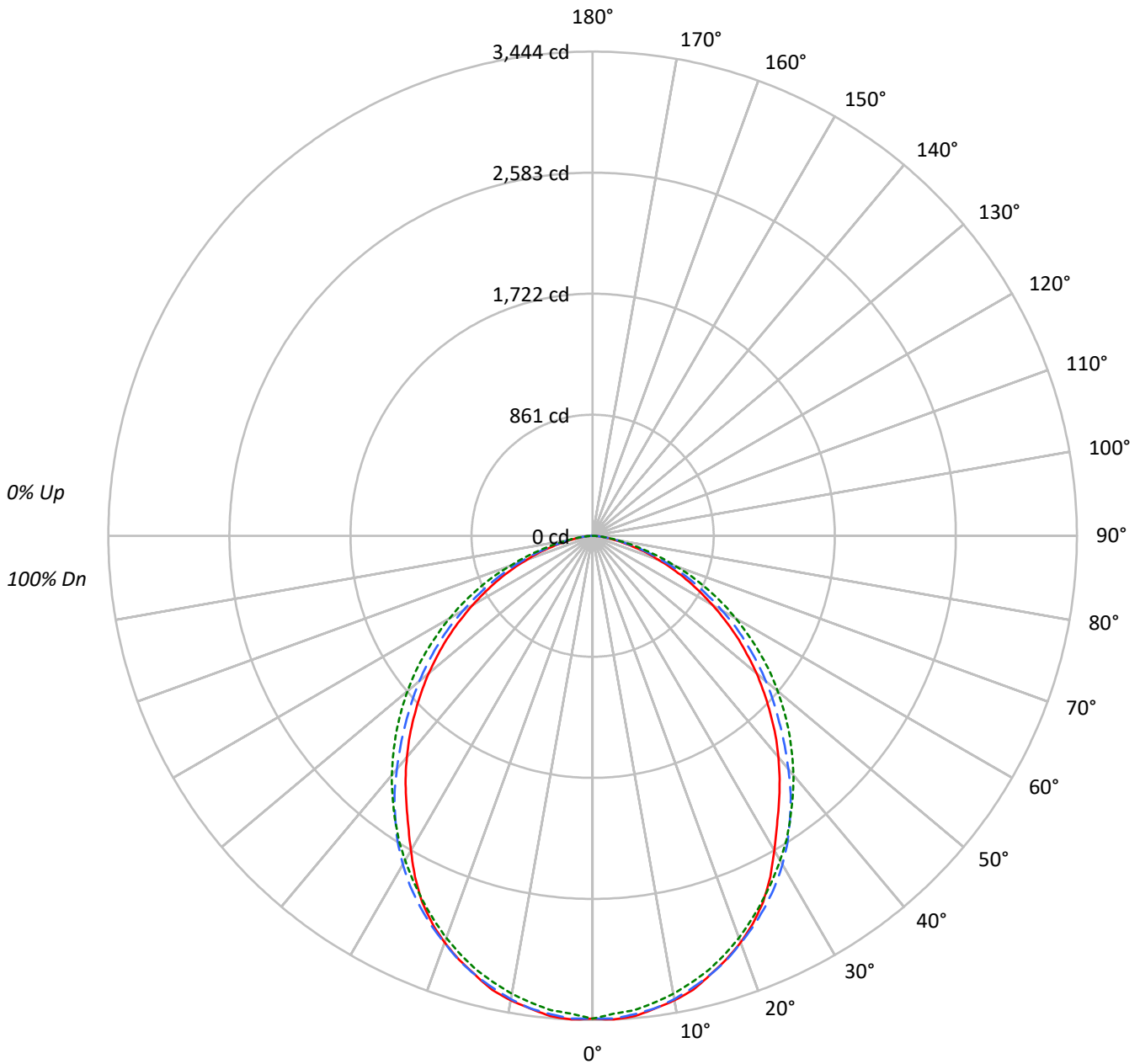
Lumens per Lamp: N/A
Luminaire Lumens: 7942.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	9243	9243	9243
5°	9267	9228	9150
10°	9169	9144	9039
15°	9006	9006	8903
20°	8816	8827	8714
25°	8525	8631	8494
30°	8028	8389	8286
35°	7586	8041	8054
40°	7217	7606	7806
45°	6804	7146	7512
50°	6369	6734	7192
55°	5875	6265	6804
60°	5290	5717	6328
65°	4672	5083	5755
70°	3893	4329	4890
75°	3060	3457	3827
80°	2188	2433	2700
85°	1426	1426	1343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	323.4	4.1
10°-20°	908.5	11.4
20°-30°	1327.6	16.7
30°-40°	1507.0	19.0
40°-50°	1454.7	18.3
50°-60°	1200.1	15.1
60°-70°	799.1	10.1
70°-80°	357.6	4.5
80°-90°	64.0	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°	2559.5	32.2
0°-40°	4066.4	51.2
0°-60°	6721.3	84.6
0°-90°	7942.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7942.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3435	3435	3435	3435	3435	
5°	3431	3429	3416	3398	3387	325
15°	3233	3241	3233	3218	3196	911
25°	2871	2894	2907	2886	2861	1315
35°	2309	2341	2448	2461	2452	1447
45°	1788	1818	1878	1963	1974	1380
55°	1252	1273	1335	1409	1450	1118
65°	734	753	798	855	904	727
75°	294	310	332	348	368	322
85°	46	46	46	44	44	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3434.7	3434.7	3434.7	3434.7	3434.7
2.5°	3443.9	3445.3	3437.3	3416.2	3403.0
5°	3430.8	3429.4	3416.2	3397.8	3387.2
7.5°	3392.5	3395.1	3391.2	3364.8	3350.3
10°	3355.5	3356.9	3346.3	3325.2	3308.0
12.5°	3308.0	3306.7	3292.2	3281.6	3253.9
15°	3232.8	3240.7	3232.8	3218.3	3195.9
17.5°	3160.2	3160.2	3165.5	3140.5	3123.3
20°	3078.4	3082.4	3082.4	3062.6	3042.8
22.5°	2983.4	2995.3	2999.3	2978.2	2954.4
25°	2871.3	2893.7	2906.9	2885.8	2860.7
27.5°	2735.4	2769.7	2809.3	2793.4	2765.7
30°	2583.6	2633.8	2699.7	2686.5	2666.7
32.5°	2439.8	2489.9	2581.0	2575.7	2565.1
35°	2309.2	2340.8	2447.7	2460.9	2451.7
37.5°	2185.1	2214.2	2314.4	2344.8	2336.9
40°	2054.5	2086.2	2165.3	2219.4	2222.1
42.5°	1925.2	1955.5	2020.2	2098.0	2098.0
45°	1787.9	1818.3	1877.7	1963.4	1974.0
47.5°	1653.4	1685.0	1743.1	1828.9	1846.0
50°	1521.4	1550.4	1608.5	1691.6	1718.0
52.5°	1384.2	1415.8	1472.6	1549.1	1587.4
55°	1252.2	1273.3	1335.4	1409.2	1450.2
57.5°	1115.0	1134.8	1204.7	1268.1	1310.3
60°	983.0	1008.1	1062.2	1126.9	1175.7
62.5°	856.4	882.8	928.9	985.7	1041.1
65°	733.7	753.4	798.3	855.0	903.9
67.5°	614.9	632.0	676.9	716.5	768.0
70°	494.8	517.3	550.2	588.5	621.5
72.5°	398.5	407.7	435.4	463.2	497.5
75°	294.3	310.1	332.5	348.4	368.1
77.5°	211.1	220.4	233.6	246.8	265.2
80°	141.2	145.1	157.0	159.7	174.2
82.5°	85.8	88.4	91.0	92.4	97.6
85°	46.2	46.2	46.2	43.5	43.5
87.5°	26.4	26.4	22.4	18.5	13.2
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)