

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: P557058

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-81-85-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: P557058
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-40-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

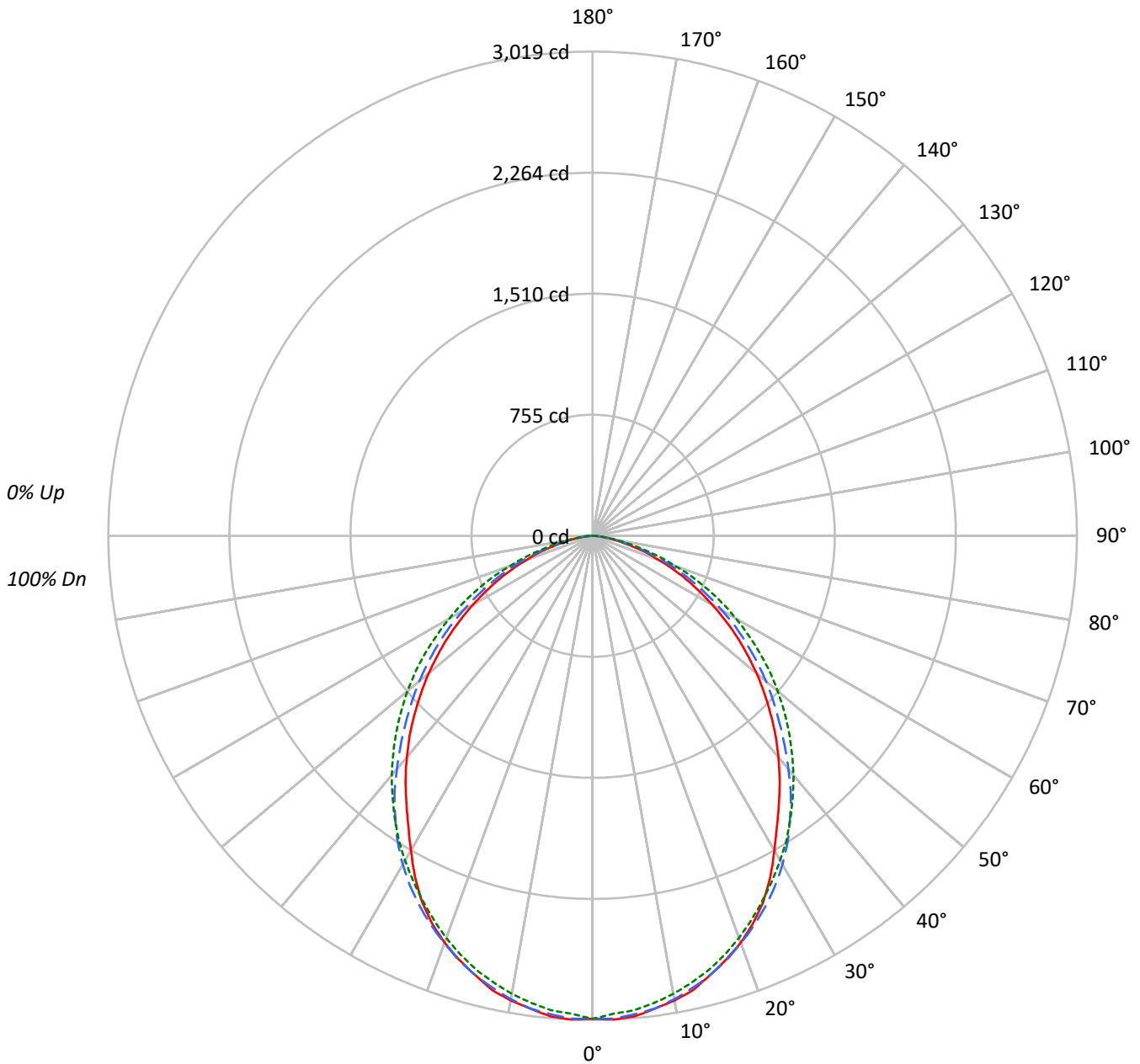
Lumens per Lamp: N/A
Luminaire Lumens: 6963.0 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8103	8103	8103
5°	8125	8091	8022
10°	8039	8017	7925
15°	7896	7896	7806
20°	7729	7739	7639
25°	7474	7567	7447
30°	7038	7355	7265
35°	6651	7050	7061
40°	6327	6669	6844
45°	5966	6265	6586
50°	5584	5904	6306
55°	5151	5492	5965
60°	4639	5012	5548
65°	4096	4457	5046
70°	3413	3795	4287
75°	2682	3031	3356
80°	1918	2134	2366
85°	1250	1250	1179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.5	4.1
10°-20°	796.5	11.4
20°-30°	1164.0	16.7
30°-40°	1321.2	19.0
40°-50°	1275.4	18.3
50°-60°	1052.1	15.1
60°-70°	700.6	10.1
70°-80°	313.5	4.5
80°-90°	56.1	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°	2244.0	32.2
0°-40°	3565.2	51.2
0°-60°	5892.7	84.6
0°-90°	6963.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6963.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3011	3011	3011	3011	3011	
5°	3008	3007	2995	2979	2970	285
15°	2834	2841	2834	2822	2802	799
25°	2517	2537	2549	2530	2508	1153
35°	2024	2052	2146	2158	2150	1268
45°	1568	1594	1646	1721	1731	1209
55°	1098	1116	1171	1236	1271	980
65°	643	661	700	750	792	638
75°	258	272	292	305	323	282
85°	40	40	40	38	38	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3011.3	3011.3	3011.3	3011.3	3011.3
2.5°	3019.4	3020.6	3013.6	2995.1	2983.6
5°	3007.8	3006.7	2995.1	2978.9	2969.7
7.5°	2974.3	2976.6	2973.1	2950.0	2937.3
10°	2941.9	2943.1	2933.8	2915.3	2900.3
12.5°	2900.3	2899.1	2886.4	2877.1	2852.8
15°	2834.3	2841.3	2834.3	2821.6	2801.9
17.5°	2770.7	2770.7	2775.3	2753.3	2738.3
20°	2699.0	2702.4	2702.4	2685.1	2667.7
22.5°	2615.7	2626.1	2629.6	2611.0	2590.2
25°	2517.3	2537.0	2548.6	2530.1	2508.1
27.5°	2398.2	2428.3	2463.0	2449.1	2424.8
30°	2265.1	2309.1	2366.9	2355.4	2338.0
32.5°	2139.0	2183.0	2262.8	2258.2	2248.9
35°	2024.5	2052.3	2146.0	2157.6	2149.5
37.5°	1915.8	1941.2	2029.1	2055.7	2048.8
40°	1801.2	1829.0	1898.4	1945.8	1948.2
42.5°	1687.9	1714.5	1771.2	1839.4	1839.4
45°	1567.6	1594.2	1646.2	1721.4	1730.7
47.5°	1449.6	1477.3	1528.2	1603.4	1618.5
50°	1333.9	1359.3	1410.2	1483.1	1506.2
52.5°	1213.6	1241.3	1291.1	1358.2	1391.7
55°	1097.9	1116.4	1170.7	1235.5	1271.4
57.5°	977.6	994.9	1056.2	1111.7	1148.8
60°	861.9	883.8	931.3	988.0	1030.8
62.5°	750.8	773.9	814.4	864.2	912.8
65°	643.2	660.6	699.9	749.6	792.5
67.5°	539.1	554.1	593.5	628.2	673.3
70°	433.8	453.5	482.4	516.0	544.9
72.5°	349.4	357.5	381.8	406.1	436.1
75°	258.0	271.9	291.5	305.4	322.8
77.5°	185.1	193.2	204.8	216.3	232.5
80°	123.8	127.3	137.7	140.0	152.7
82.5°	75.2	77.5	79.8	81.0	85.6
85°	40.5	40.5	40.5	38.2	38.2
87.5°	23.1	23.1	19.7	16.2	11.6
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)