

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: P557736

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-93-88-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: P557736
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-LD4-3HI-30-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

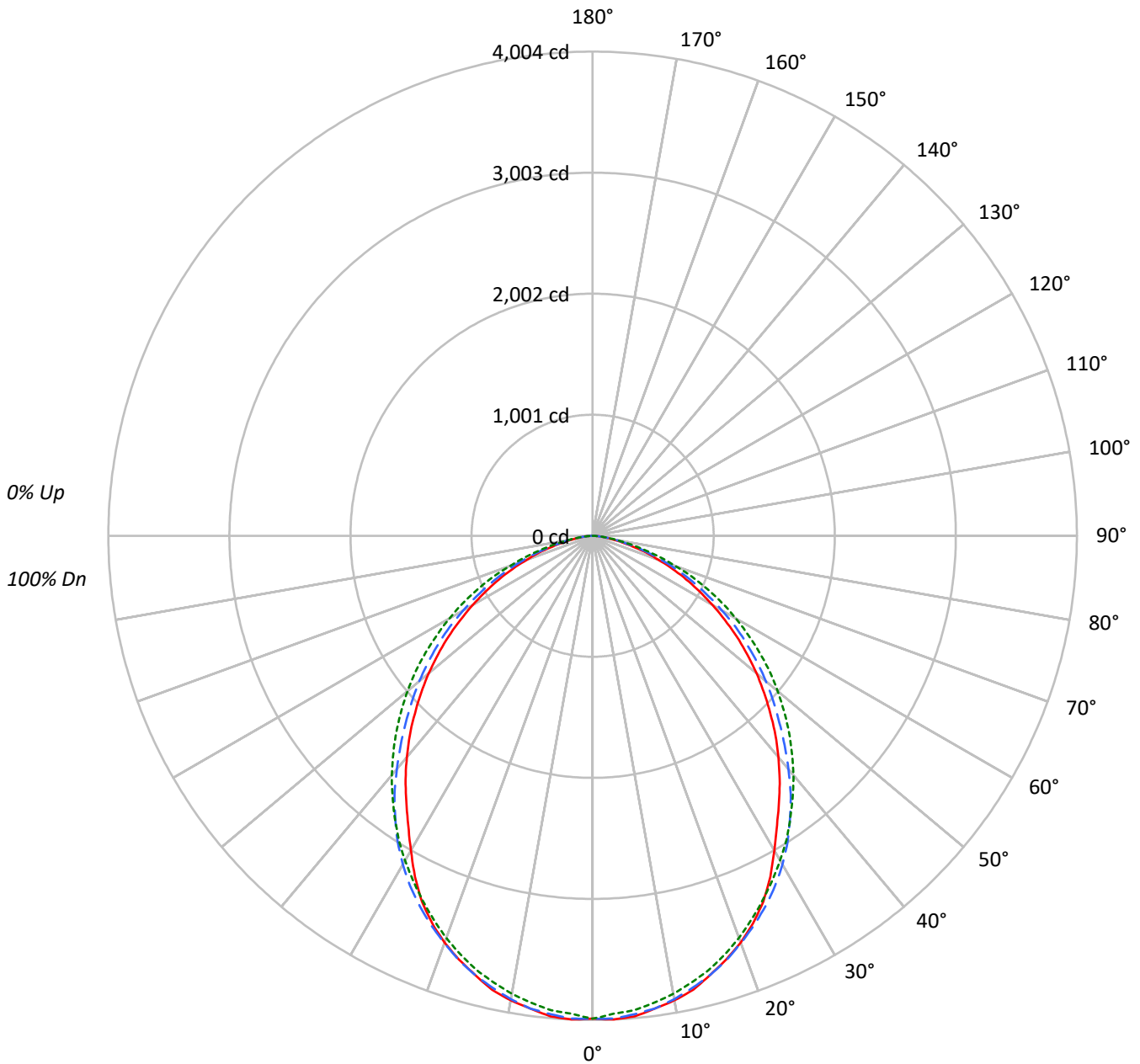
Lumens per Lamp: N/A
Luminaire Lumens: 9234.0 lumens
Efficiency: N/A
Efficacy: 71.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	10746	10746	10746
5°	10775	10729	10638
10°	10661	10631	10510
15°	10471	10471	10352
20°	10250	10263	10131
25°	9912	10035	9876
30°	9334	9753	9634
35°	8820	9349	9364
40°	8391	8844	9076
45°	7911	8308	8734
50°	7405	7829	8362
55°	6830	7284	7910
60°	6152	6647	7357
65°	5431	5910	6691
70°	4526	5034	5685
75°	3557	4020	4450
80°	2545	2830	3138
85°	1658	1658	1562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	376.0	4.1
10°-20°	1056.3	11.4
20°-30°	1543.6	16.7
30°-40°	1752.1	19.0
40°-50°	1691.4	18.3
50°-60°	1395.3	15.1
60°-70°	929.2	10.1
70°-80°	415.8	4.5
80°-90°	74.4	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°	2975.9	32.2
0°-40°	4728.0	51.2
0°-60°	7814.7	84.6
0°-90°	9234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9234.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3994	3994	3994	3994	3994	
5°	3989	3987	3972	3950	3938	378
15°	3759	3768	3759	3742	3716	1060
25°	3338	3364	3380	3355	3326	1529
35°	2685	2722	2846	2861	2850	1682
45°	2079	2114	2183	2283	2295	1604
55°	1456	1480	1553	1638	1686	1299
65°	853	876	928	994	1051	846
75°	342	360	387	405	428	374
85°	54	54	54	51	51	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3993.5	3993.5	3993.5	3993.5	3993.5
2.5°	4004.2	4005.7	3996.5	3972.0	3956.6
5°	3988.9	3987.3	3972.0	3950.5	3938.2
7.5°	3944.4	3947.4	3942.8	3912.2	3895.3
10°	3901.4	3903.0	3890.7	3866.1	3846.2
12.5°	3846.2	3844.7	3827.8	3815.5	3783.3
15°	3758.7	3767.9	3758.7	3741.9	3715.8
17.5°	3674.4	3674.4	3680.5	3651.3	3631.4
20°	3579.2	3583.8	3583.8	3560.8	3537.8
22.5°	3468.8	3482.6	3487.2	3462.6	3435.0
25°	3338.4	3364.5	3379.8	3355.2	3326.1
27.5°	3180.4	3220.2	3266.3	3247.9	3215.6
30°	3003.9	3062.2	3138.9	3123.6	3100.6
32.5°	2836.7	2895.0	3000.9	2994.7	2982.4
35°	2684.8	2721.6	2845.9	2861.2	2850.5
37.5°	2540.6	2574.4	2690.9	2726.2	2717.0
40°	2388.7	2425.5	2517.6	2580.5	2583.6
42.5°	2238.4	2273.7	2348.8	2439.3	2439.3
45°	2078.8	2114.1	2183.1	2282.9	2295.1
47.5°	1922.3	1959.1	2026.6	2126.4	2146.3
50°	1768.9	1802.7	1870.2	1966.8	1997.5
52.5°	1609.4	1646.2	1712.1	1801.1	1845.6
55°	1455.9	1480.5	1552.6	1638.5	1686.1
57.5°	1296.4	1319.4	1400.7	1474.3	1523.4
60°	1143.0	1172.1	1235.0	1310.2	1367.0
62.5°	995.7	1026.4	1080.1	1146.0	1210.5
65°	853.0	876.0	928.2	994.1	1050.9
67.5°	714.9	734.9	787.0	833.1	892.9
70°	575.3	601.4	639.8	684.2	722.6
72.5°	463.3	474.1	506.3	538.5	578.4
75°	342.1	360.5	386.6	405.0	428.0
77.5°	245.5	256.2	271.5	286.9	308.4
80°	164.2	168.8	182.6	185.6	202.5
82.5°	99.7	102.8	105.9	107.4	113.5
85°	53.7	53.7	53.7	50.6	50.6
87.5°	30.7	30.7	26.1	21.5	15.3
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)