

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: P557091

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-93-85-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: P557091
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-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

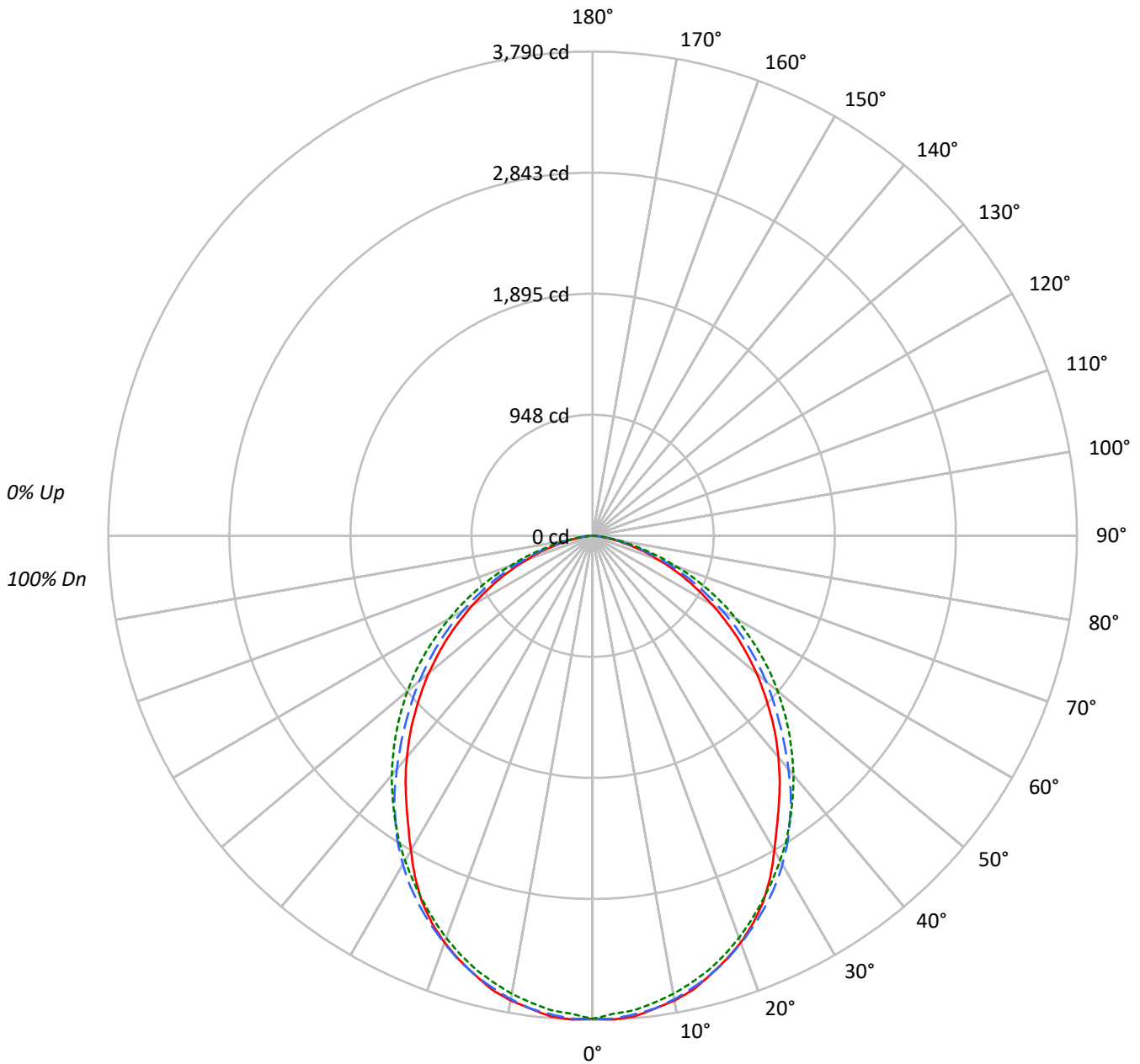
Lumens per Lamp: N/A
Luminaire Lumens: 8741.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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					
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								
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°	10173	10173	10173
5°	10200	10156	10070
10°	10091	10064	9948
15°	9913	9913	9799
20°	9702	9715	9590
25°	9383	9499	9348
30°	8836	9233	9120
35°	8349	8850	8864
40°	7943	8372	8591
45°	7489	7865	8268
50°	7010	7411	7916
55°	6466	6895	7488
60°	5823	6292	6964
65°	5142	5594	6334
70°	4285	4765	5382
75°	3368	3805	4213
80°	2408	2678	2971
85°	1568	1568	1479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.9	4.1
10°-20°	999.9	11.4
20°-30°	1461.2	16.7
30°-40°	1658.6	19.0
40°-50°	1601.1	18.3
50°-60°	1320.8	15.1
60°-70°	879.5	10.1
70°-80°	393.6	4.5
80°-90°	70.4	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°	2817.0	32.2
0°-40°	4475.6	51.2
0°-60°	7397.4	84.6
0°-90°	8741.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8741.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3780	3780	3780	3780	3780	
5°	3776	3774	3760	3740	3728	357
15°	3558	3567	3558	3542	3517	1003
25°	3160	3185	3199	3176	3148	1447
35°	2542	2576	2694	2708	2698	1592
45°	1968	2001	2067	2161	2173	1518
55°	1378	1401	1470	1551	1596	1230
65°	808	829	879	941	995	801
75°	324	341	366	383	405	354
85°	51	51	51	48	48	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3780.3	3780.3	3780.3	3780.3	3780.3
2.5°	3790.4	3791.9	3783.2	3759.9	3745.4
5°	3775.9	3774.4	3759.9	3739.6	3728.0
7.5°	3733.8	3736.7	3732.3	3703.3	3687.3
10°	3693.1	3694.6	3683.0	3659.7	3640.8
12.5°	3640.8	3639.4	3623.4	3611.8	3581.3
15°	3558.1	3566.8	3558.1	3542.1	3517.4
17.5°	3478.2	3478.2	3484.0	3456.4	3437.5
20°	3388.1	3392.5	3392.5	3370.7	3348.9
22.5°	3283.6	3296.7	3301.0	3277.8	3251.6
25°	3160.1	3184.8	3199.3	3176.1	3148.5
27.5°	3010.6	3048.3	3091.9	3074.5	3044.0
30°	2843.5	2898.7	2971.3	2956.8	2935.0
32.5°	2685.2	2740.4	2840.6	2834.8	2823.2
35°	2541.5	2576.3	2694.0	2708.5	2698.3
37.5°	2405.0	2436.9	2547.3	2580.7	2572.0
40°	2261.2	2296.0	2383.2	2442.7	2445.6
42.5°	2118.9	2152.3	2223.4	2309.1	2309.1
45°	1967.8	2001.2	2066.6	2161.0	2172.6
47.5°	1819.7	1854.5	1918.4	2012.8	2031.7
50°	1674.5	1706.4	1770.3	1861.8	1890.9
52.5°	1523.4	1558.3	1620.7	1705.0	1747.1
55°	1378.2	1401.4	1469.7	1551.0	1596.0
57.5°	1227.2	1249.0	1325.9	1395.6	1442.1
60°	1081.9	1109.5	1169.1	1240.2	1294.0
62.5°	942.5	971.6	1022.4	1084.8	1145.8
65°	807.5	829.2	878.6	941.1	994.8
67.5°	676.8	695.6	745.0	788.6	845.2
70°	544.6	569.3	605.6	647.7	684.0
72.5°	438.6	448.8	479.2	509.7	547.5
75°	323.9	341.3	366.0	383.4	405.2
77.5°	232.4	242.5	257.1	271.6	291.9
80°	155.4	159.7	172.8	175.7	191.7
82.5°	94.4	97.3	100.2	101.7	107.5
85°	50.8	50.8	50.8	47.9	47.9
87.5°	29.0	29.0	24.7	20.3	14.5
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)