

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: P556948

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-82-86-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: P556948
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-30-UNV-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

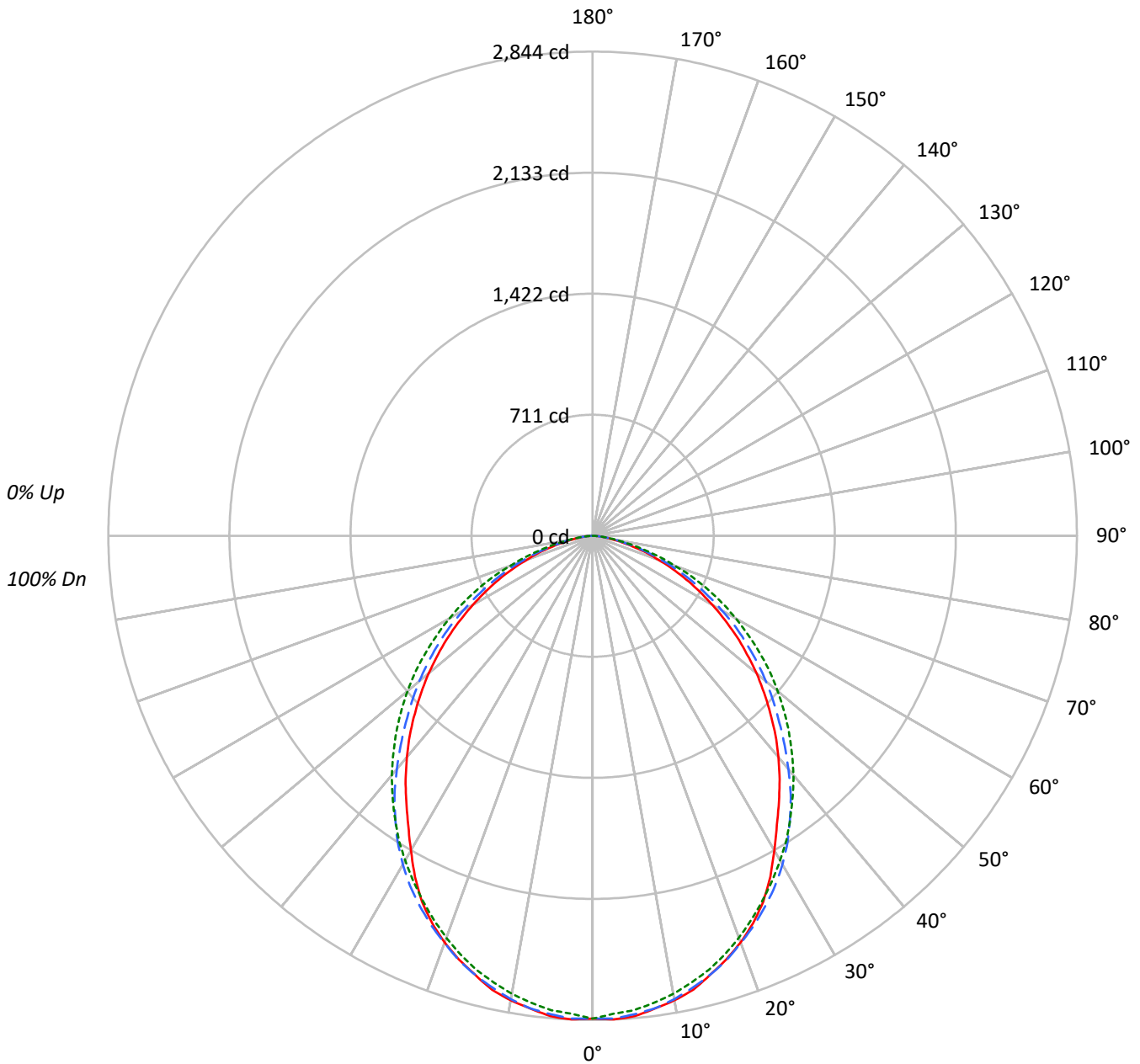
Lumens per Lamp: N/A
Luminaire Lumens: 6558.0 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				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	100	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86	86	86	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73	73	73	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63	63	63	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54	54	54	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47	47	47	47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42	42	42	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37	37	37	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34	34	34	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30	30	30	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28	28	28	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7632	7632	7632
5°	7652	7620	7555
10°	7571	7550	7464
15°	7437	7437	7352
20°	7279	7289	7195
25°	7040	7127	7014
30°	6629	6927	6842
35°	6264	6640	6650
40°	5960	6281	6445
45°	5619	5901	6203
50°	5259	5560	5939
55°	4851	5173	5618
60°	4369	4721	5225
65°	3857	4197	4753
70°	3215	3575	4038
75°	2527	2855	3161
80°	1807	2010	2228
85°	1176	1176	1112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.0	4.1
10°-20°	750.2	11.4
20°-30°	1096.2	16.7
30°-40°	1244.4	19.0
40°-50°	1201.2	18.3
50°-60°	990.9	15.1
60°-70°	659.9	10.1
70°-80°	295.3	4.5
80°-90°	52.8	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°	2113.5	32.2
0°-40°	3357.8	51.2
0°-60°	5550.0	84.6
0°-90°	6558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6558.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2836	2836	2836	2836	2836	
5°	2833	2832	2821	2806	2797	268
15°	2670	2676	2670	2658	2639	753
25°	2371	2389	2400	2383	2362	1086
35°	1907	1933	2021	2032	2024	1195
45°	1476	1501	1550	1621	1630	1139
55°	1034	1051	1103	1164	1197	923
65°	606	622	659	706	746	601
75°	243	256	275	288	304	266
85°	38	38	38	36	36	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2836.2	2836.2	2836.2	2836.2	2836.2
2.5°	2843.8	2844.9	2838.3	2820.9	2810.0
5°	2832.9	2831.8	2820.9	2805.7	2796.9
7.5°	2801.3	2803.5	2800.2	2778.4	2766.4
10°	2770.8	2771.9	2763.2	2745.7	2731.6
12.5°	2731.6	2730.5	2718.5	2709.8	2686.9
15°	2669.5	2676.0	2669.5	2657.5	2639.0
17.5°	2609.5	2609.5	2613.9	2593.2	2579.0
20°	2542.0	2545.2	2545.2	2528.9	2512.6
22.5°	2463.5	2473.3	2476.6	2459.2	2439.6
25°	2370.9	2389.4	2400.3	2382.9	2362.2
27.5°	2258.7	2287.0	2319.7	2306.6	2283.8
30°	2133.4	2174.8	2229.3	2218.4	2202.0
32.5°	2014.6	2056.0	2131.2	2126.9	2118.1
35°	1906.8	1932.9	2021.2	2032.1	2024.4
37.5°	1804.3	1828.3	1911.1	1936.2	1929.6
40°	1696.5	1722.6	1788.0	1832.7	1834.8
42.5°	1589.7	1614.8	1668.1	1732.4	1732.4
45°	1476.4	1501.4	1550.5	1621.3	1630.0
47.5°	1365.2	1391.4	1439.3	1510.2	1524.3
50°	1256.3	1280.3	1328.2	1396.8	1418.6
52.5°	1143.0	1169.1	1216.0	1279.2	1310.8
55°	1034.0	1051.4	1102.7	1163.7	1197.4
57.5°	920.7	937.0	994.8	1047.1	1081.9
60°	811.7	832.4	877.1	930.5	970.8
62.5°	707.1	728.9	767.1	813.9	859.7
65°	605.8	622.1	659.2	706.0	746.4
67.5°	507.7	521.9	559.0	591.6	634.1
70°	408.6	427.1	454.4	486.0	513.2
72.5°	329.1	336.7	359.6	382.4	410.8
75°	243.0	256.1	274.6	287.6	304.0
77.5°	174.3	182.0	192.9	203.8	219.0
80°	116.6	119.9	129.7	131.8	143.8
82.5°	70.8	73.0	75.2	76.3	80.6
85°	38.1	38.1	38.1	36.0	36.0
87.5°	21.8	21.8	18.5	15.3	10.9
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)