

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: P557699

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-81-85-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: P557699
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-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

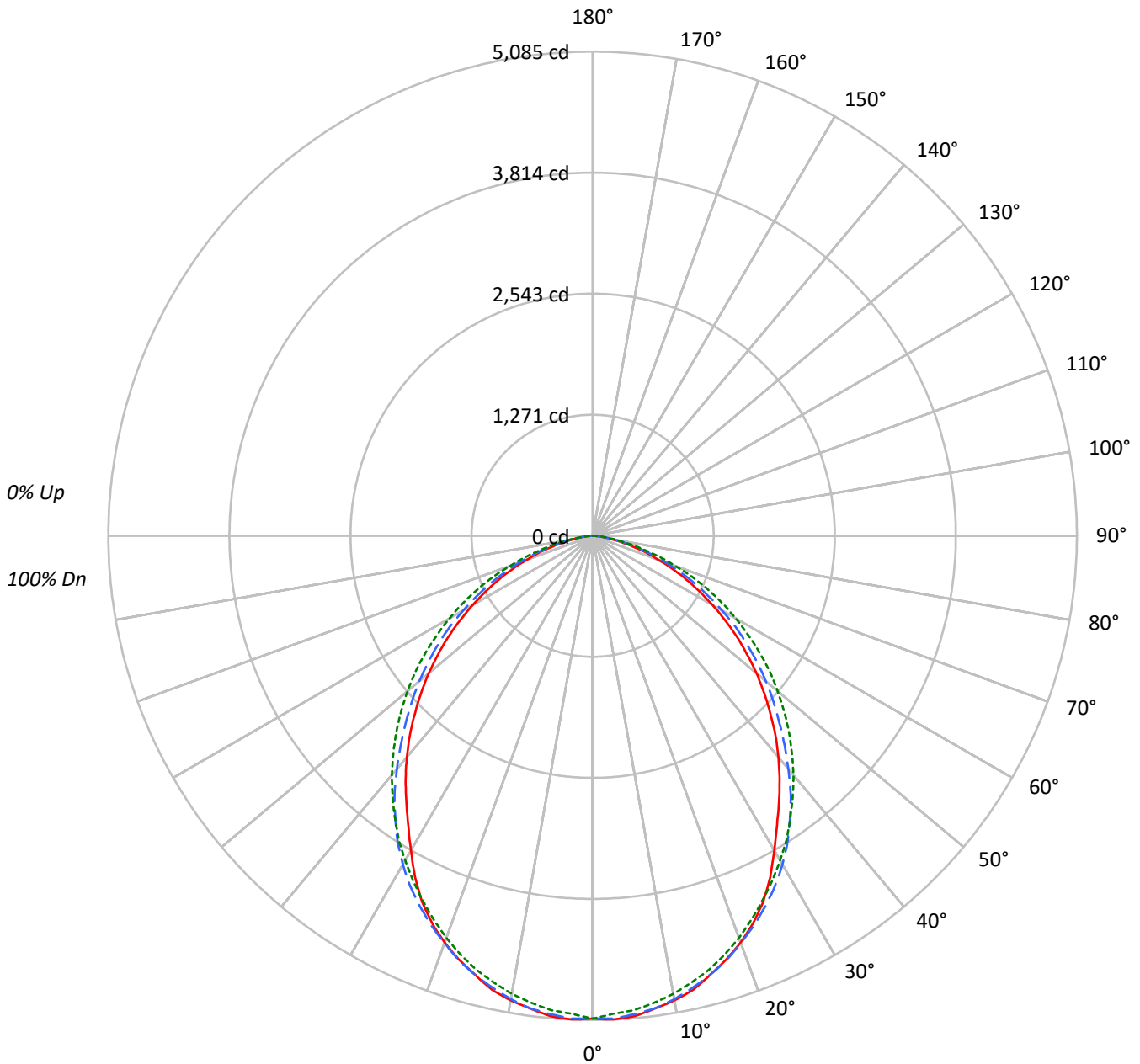
Lumens per Lamp: N/A
Luminaire Lumens: 11726.0 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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°	13646	13646	13646
5°	13683	13625	13509
10°	13538	13500	13346
15°	13297	13297	13146
20°	13016	13033	12865
25°	12587	12743	12541
30°	11853	12386	12234
35°	11200	11872	11891
40°	10656	11230	11525
45°	10046	10550	11091
50°	9404	9942	10619
55°	8674	9250	10045
60°	7811	8441	9343
65°	6897	7505	8497
70°	5748	6392	7220
75°	4518	5104	5652
80°	3231	3592	3986
85°	2106	2106	1985



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	477.5	4.1
10°-20°	1341.3	11.4
20°-30°	1960.1	16.7
30°-40°	2225.0	19.0
40°-50°	2147.9	18.3
50°-60°	1771.8	15.1
60°-70°	1179.9	10.1
70°-80°	528.0	4.5
80°-90°	94.5	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°	3778.9	32.2
0°-40°	6003.9	51.2
0°-60°	9923.6	84.6
0°-90°	11726.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11726.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5071	5071	5071	5071	5071	
5°	5065	5063	5044	5017	5001	479
15°	4773	4785	4773	4752	4719	1346
25°	4239	4272	4292	4261	4224	1941
35°	3409	3456	3614	3633	3620	2136
45°	2640	2685	2772	2899	2914	2037
55°	1849	1880	1972	2081	2141	1650
65°	1083	1112	1179	1262	1334	1074
75°	434	458	491	514	544	475
85°	68	68	68	64	64	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5071.2	5071.2	5071.2	5071.2	5071.2
2.5°	5084.8	5086.8	5075.1	5043.9	5024.4
5°	5065.3	5063.4	5043.9	5016.6	5001.1
7.5°	5008.8	5012.7	5006.9	4967.9	4946.5
10°	4954.3	4956.2	4940.7	4909.5	4884.2
12.5°	4884.2	4882.2	4860.8	4845.2	4804.3
15°	4773.1	4784.8	4773.1	4751.7	4718.6
17.5°	4666.0	4666.0	4673.8	4636.7	4611.4
20°	4545.2	4551.0	4551.0	4521.8	4492.6
22.5°	4404.9	4422.4	4428.3	4397.1	4362.0
25°	4239.3	4272.4	4291.9	4260.7	4223.7
27.5°	4038.6	4089.3	4147.7	4124.4	4083.4
30°	3814.6	3888.6	3986.0	3966.6	3937.3
32.5°	3602.2	3676.3	3810.7	3802.9	3787.3
35°	3409.4	3456.1	3613.9	3633.4	3619.8
37.5°	3226.2	3269.1	3417.2	3462.0	3450.3
40°	3033.4	3080.1	3197.0	3276.9	3280.8
42.5°	2842.4	2887.2	2982.7	3097.7	3097.7
45°	2639.8	2684.6	2772.3	2898.9	2914.5
47.5°	2441.1	2487.9	2573.6	2700.2	2725.5
50°	2246.3	2289.1	2374.9	2497.6	2536.6
52.5°	2043.7	2090.4	2174.2	2287.2	2343.7
55°	1848.9	1880.0	1971.6	2080.7	2141.1
57.5°	1646.2	1675.5	1778.7	1872.2	1934.6
60°	1451.4	1488.4	1568.3	1663.8	1735.9
62.5°	1264.4	1303.4	1371.5	1455.3	1537.1
65°	1083.2	1112.4	1178.7	1262.4	1334.5
67.5°	907.9	933.2	999.4	1057.9	1133.9
70°	730.6	763.7	812.4	868.9	917.6
72.5°	588.4	602.0	642.9	683.8	734.5
75°	434.5	457.8	490.9	514.3	543.6
77.5°	311.7	325.4	344.8	364.3	391.6
80°	208.5	214.3	231.8	235.7	257.2
82.5°	126.6	130.5	134.4	136.4	144.2
85°	68.2	68.2	68.2	64.3	64.3
87.5°	39.0	39.0	33.1	27.3	19.5
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)