

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: P557770

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-81-94-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: P557770
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-35-UNV-81-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

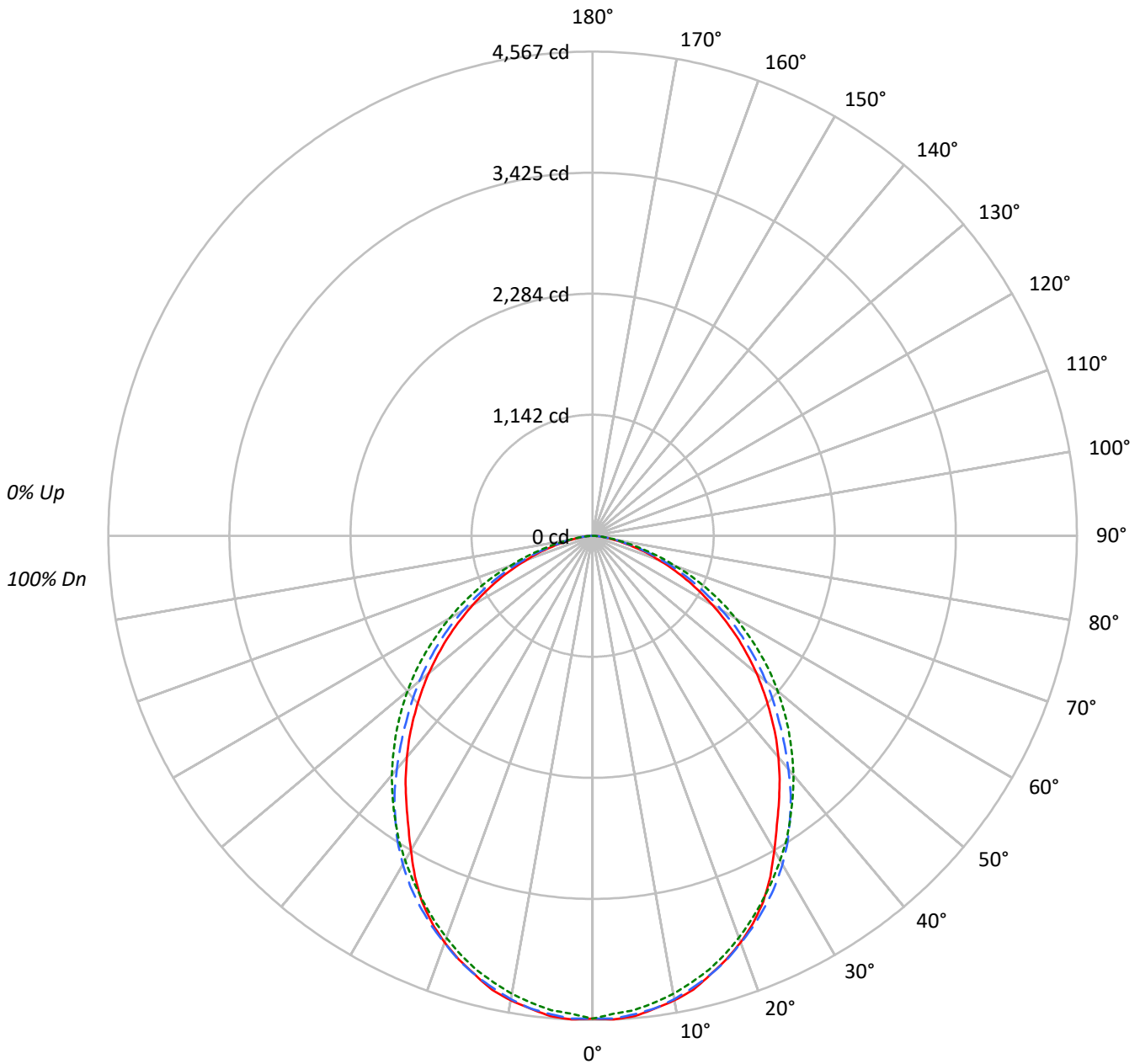
Lumens per Lamp: N/A
Luminaire Lumens: 10531.0 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12256	12256	12256
5°	12288	12236	12132
10°	12158	12125	11986
15°	11942	11942	11806
20°	11690	11704	11554
25°	11305	11445	11263
30°	10645	11123	10988
35°	10059	10662	10679
40°	9570	10086	10350
45°	9022	9475	9961
50°	8446	8929	9537
55°	7790	8307	9021
60°	7015	7580	8390
65°	6194	6740	7631
70°	5162	5740	6484
75°	4057	4584	5076
80°	2901	3226	3580
85°	1890	1890	1782



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	428.8	4.1
10°-20°	1204.6	11.4
20°-30°	1760.4	16.7
30°-40°	1998.2	19.0
40°-50°	1929.0	18.3
50°-60°	1591.3	15.1
60°-70°	1059.7	10.1
70°-80°	474.2	4.5
80°-90°	84.8	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°	3393.8	32.2
0°-40°	5392.1	51.2
0°-60°	8912.3	84.6
0°-90°	10531.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10531.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4554	4554	4554	4554	4554	
5°	4549	4547	4530	4505	4491	431
15°	4287	4297	4287	4267	4238	1208
25°	3807	3837	3854	3826	3793	1744
35°	3062	3104	3246	3263	3251	1918
45°	2371	2411	2490	2604	2618	1829
55°	1660	1688	1771	1869	1923	1482
65°	973	999	1058	1134	1198	965
75°	390	411	441	462	488	427
85°	61	61	61	58	58	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4554.4	4554.4	4554.4	4554.4	4554.4
2.5°	4566.6	4568.4	4557.9	4529.9	4512.4
5°	4549.1	4547.4	4529.9	4505.4	4491.4
7.5°	4498.4	4501.9	4496.6	4461.7	4442.4
10°	4449.4	4451.2	4437.2	4409.2	4386.4
12.5°	4386.4	4384.7	4365.4	4351.4	4314.7
15°	4286.7	4297.2	4286.7	4267.4	4237.7
17.5°	4190.5	4190.5	4197.5	4164.2	4141.5
20°	4082.0	4087.2	4087.2	4061.0	4034.7
22.5°	3956.0	3971.7	3977.0	3949.0	3917.5
25°	3807.3	3837.0	3854.5	3826.5	3793.3
27.5°	3627.1	3672.6	3725.0	3704.0	3667.3
30°	3425.8	3492.3	3579.8	3562.3	3536.1
32.5°	3235.1	3301.6	3422.4	3415.4	3401.4
35°	3061.9	3103.9	3245.6	3263.1	3250.9
37.5°	2897.5	2935.9	3068.9	3109.2	3098.7
40°	2724.2	2766.2	2871.2	2942.9	2946.4
42.5°	2552.8	2593.0	2678.7	2782.0	2782.0
45°	2370.8	2411.0	2489.8	2603.5	2617.5
47.5°	2192.3	2234.3	2311.3	2425.0	2447.8
50°	2017.4	2055.9	2132.8	2243.1	2278.1
52.5°	1835.4	1877.4	1952.6	2054.1	2104.9
55°	1660.4	1688.4	1770.7	1868.6	1922.9
57.5°	1478.5	1504.7	1597.4	1681.4	1737.4
60°	1303.5	1336.7	1408.5	1494.2	1559.0
62.5°	1135.5	1170.5	1231.8	1307.0	1380.5
65°	972.8	999.1	1058.5	1133.8	1198.5
67.5°	815.3	838.1	897.6	950.1	1018.3
70°	656.1	685.9	729.6	780.4	824.1
72.5°	528.4	540.6	577.4	614.1	659.6
75°	390.2	411.2	440.9	461.9	488.2
77.5°	279.9	292.2	309.7	327.2	351.7
80°	187.2	192.5	208.2	211.7	231.0
82.5°	113.7	117.2	120.7	122.5	129.5
85°	61.2	61.2	61.2	57.7	57.7
87.5°	35.0	35.0	29.7	24.5	17.5
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)