

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: P557850

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-82-94-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: P557850
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-40-UNV-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

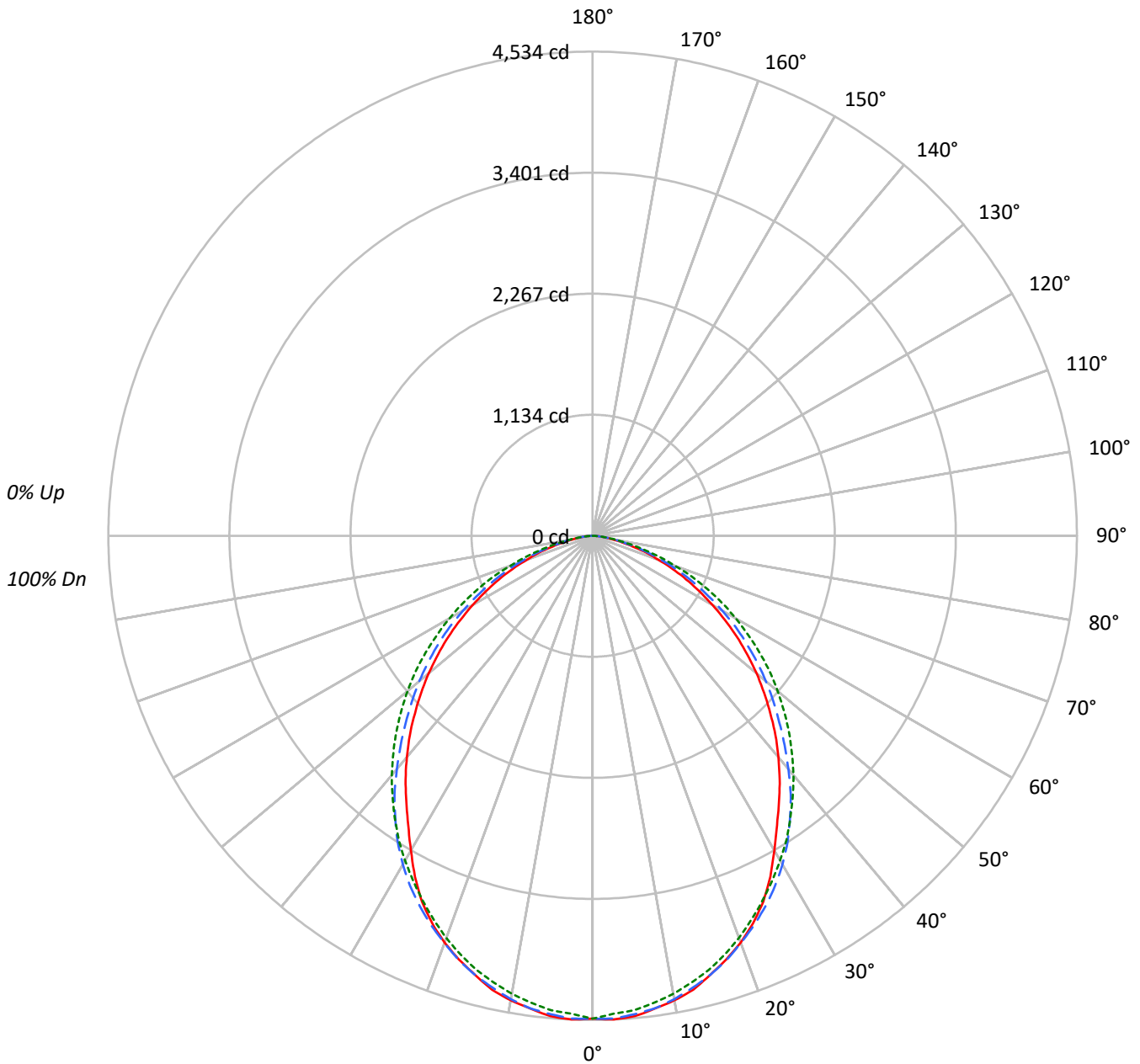
Lumens per Lamp: N/A
Luminaire Lumens: 10456.0 lumens
Efficiency: N/A
Efficacy: 80.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12168	12168	12168
5°	12201	12149	12046
10°	12071	12038	11901
15°	11857	11857	11722
20°	11606	11621	11472
25°	11224	11363	11183
30°	10569	11044	10909
35°	9987	10586	10603
40°	9501	10014	10277
45°	8958	9407	9890
50°	8385	8866	9469
55°	7735	8248	8957
60°	6965	7527	8331
65°	6150	6692	7577
70°	5126	5700	6438
75°	4028	4552	5039
80°	2881	3203	3553
85°	1877	1877	1769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	425.8	4.1
10°-20°	1196.1	11.4
20°-30°	1747.9	16.7
30°-40°	1984.0	19.0
40°-50°	1915.3	18.3
50°-60°	1579.9	15.1
60°-70°	1052.1	10.1
70°-80°	470.8	4.5
80°-90°	84.2	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°	3369.7	32.2
0°-40°	5353.7	51.2
0°-60°	8848.9	84.6
0°-90°	10456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10456.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4522	4522	4522	4522	4522	
5°	4517	4515	4498	4473	4459	428
15°	4256	4267	4256	4237	4208	1200
25°	3780	3810	3827	3799	3766	1731
35°	3040	3082	3222	3240	3228	1905
45°	2354	2394	2472	2585	2599	1816
55°	1649	1676	1758	1855	1909	1471
65°	966	992	1051	1126	1190	958
75°	387	408	438	459	485	424
85°	61	61	61	57	57	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4521.9	4521.9	4521.9	4521.9	4521.9
2.5°	4534.1	4535.8	4525.4	4497.6	4480.3
5°	4516.7	4515.0	4497.6	4473.3	4459.4
7.5°	4466.4	4469.8	4464.6	4429.9	4410.8
10°	4417.7	4419.5	4405.6	4377.8	4355.2
12.5°	4355.2	4353.4	4334.3	4320.4	4284.0
15°	4256.2	4266.6	4256.2	4237.0	4207.5
17.5°	4160.6	4160.6	4167.6	4134.6	4112.0
20°	4052.9	4058.1	4058.1	4032.1	4006.0
22.5°	3927.8	3943.5	3948.7	3920.9	3889.6
25°	3780.2	3809.7	3827.1	3799.3	3766.3
27.5°	3601.2	3646.4	3698.5	3677.7	3641.2
30°	3401.5	3467.5	3554.3	3537.0	3510.9
32.5°	3212.1	3278.1	3398.0	3391.0	3377.1
35°	3040.1	3081.8	3222.5	3239.9	3227.7
37.5°	2876.8	2915.0	3047.1	3087.0	3076.6
40°	2704.8	2746.5	2850.8	2922.0	2925.5
42.5°	2534.6	2574.5	2659.7	2762.2	2762.2
45°	2353.9	2393.9	2472.0	2585.0	2598.9
47.5°	2176.7	2218.4	2294.9	2407.8	2430.4
50°	2003.0	2041.2	2117.7	2227.1	2261.8
52.5°	1822.3	1864.0	1938.7	2039.5	2089.9
55°	1648.6	1676.4	1758.1	1855.3	1909.2
57.5°	1467.9	1494.0	1586.1	1669.5	1725.0
60°	1294.2	1327.2	1398.5	1483.6	1547.9
62.5°	1127.4	1162.2	1223.0	1297.7	1370.7
65°	965.9	991.9	1051.0	1125.7	1190.0
67.5°	809.5	832.1	891.2	943.3	1011.1
70°	651.5	681.0	724.4	774.8	818.2
72.5°	524.6	536.8	573.3	609.8	654.9
75°	387.4	408.2	437.8	458.6	484.7
77.5°	278.0	290.1	307.5	324.9	349.2
80°	185.9	191.1	206.7	210.2	229.3
82.5°	112.9	116.4	119.9	121.6	128.6
85°	60.8	60.8	60.8	57.3	57.3
87.5°	34.7	34.7	29.5	24.3	17.4
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)