

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: P557844

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-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: P557844
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-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

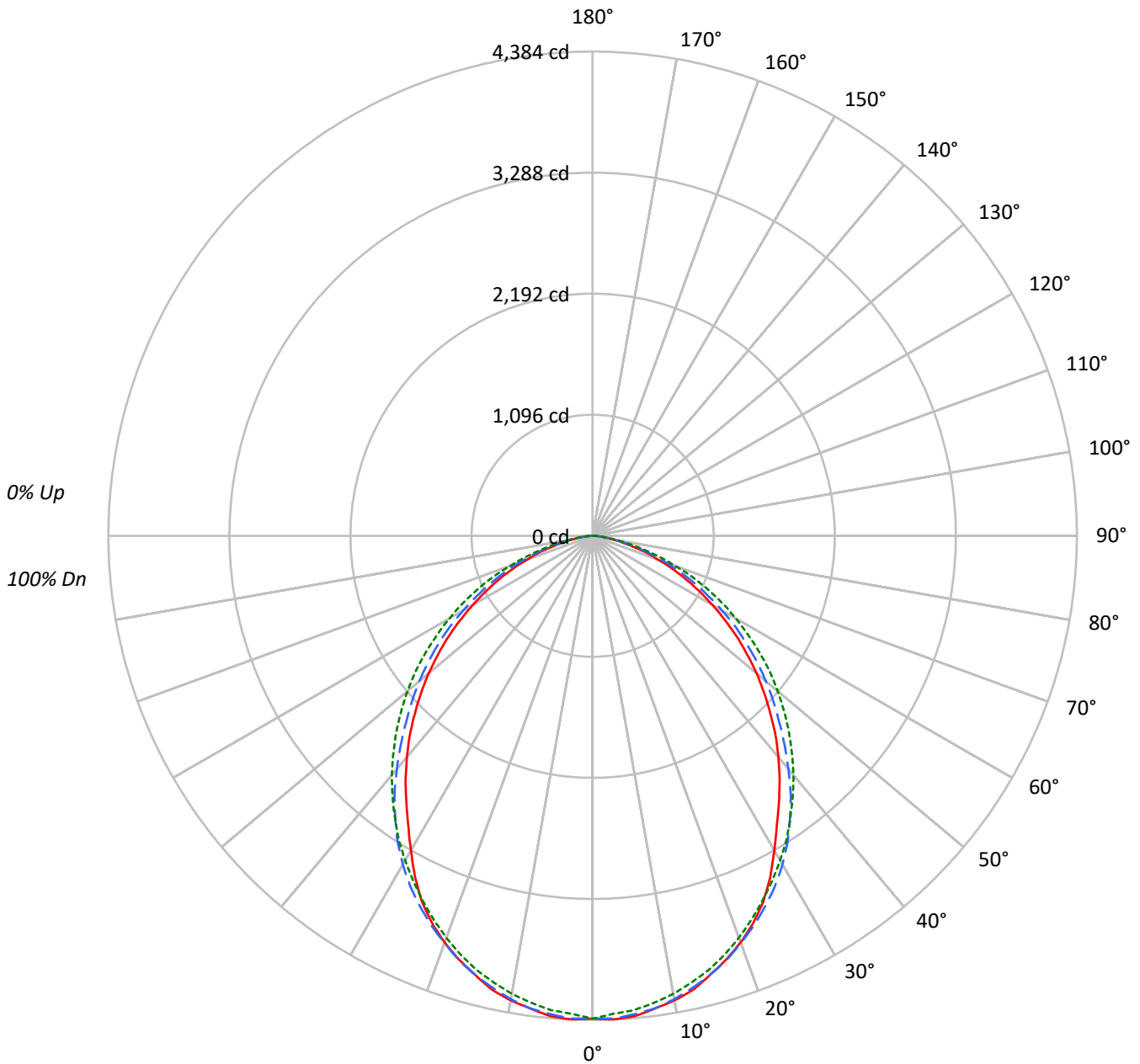
Lumens per Lamp: N/A
Luminaire Lumens: 10109.0 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	11765	11765	11765
5°	11796	11746	11646
10°	11671	11639	11505
15°	11464	11464	11333
20°	11221	11235	11091
25°	10851	10986	10812
30°	10219	10678	10547
35°	9656	10235	10251
40°	9186	9682	9936
45°	8661	9095	9562
50°	8107	8571	9155
55°	7478	7974	8660
60°	6734	7276	8054
65°	5946	6470	7326
70°	4955	5511	6224
75°	3894	4400	4872
80°	2785	3098	3436
85°	1815	1815	1711



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	411.6	4.1
10°-20°	1156.4	11.4
20°-30°	1689.8	16.7
30°-40°	1918.2	19.0
40°-50°	1851.7	18.3
50°-60°	1527.5	15.1
60°-70°	1017.2	10.1
70°-80°	455.2	4.5
80°-90°	81.4	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°	3257.8	32.2
0°-40°	5176.0	51.2
0°-60°	8555.2	84.6
0°-90°	10109.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10109.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4372	4372	4372	4372	4372	
5°	4367	4365	4348	4325	4311	413
15°	4115	4125	4115	4096	4068	1160
25°	3655	3683	3700	3673	3641	1674
35°	2939	2980	3116	3132	3121	1842
45°	2276	2314	2390	2499	2513	1756
55°	1594	1621	1700	1794	1846	1423
65°	934	959	1016	1088	1150	926
75°	374	395	423	443	469	410
85°	59	59	59	55	55	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4371.9	4371.9	4371.9	4371.9	4371.9
2.5°	4383.6	4385.3	4375.2	4348.4	4331.6
5°	4366.8	4365.2	4348.4	4324.9	4311.4
7.5°	4318.1	4321.5	4316.5	4282.9	4264.4
10°	4271.1	4272.8	4259.4	4232.5	4210.6
12.5°	4210.6	4209.0	4190.5	4177.1	4141.8
15°	4114.9	4125.0	4114.9	4096.4	4067.9
17.5°	4022.5	4022.5	4029.3	3997.3	3975.5
20°	3918.4	3923.4	3923.4	3898.2	3873.1
22.5°	3797.5	3812.6	3817.6	3790.8	3760.5
25°	3654.7	3683.3	3700.1	3673.2	3641.3
27.5°	3481.7	3525.4	3575.8	3555.6	3520.3
30°	3288.6	3352.4	3436.4	3419.6	3394.4
32.5°	3105.5	3169.3	3285.2	3278.5	3265.1
35°	2939.2	2979.5	3115.6	3132.4	3120.6
37.5°	2781.3	2818.3	2945.9	2984.6	2974.5
40°	2615.1	2655.4	2756.1	2825.0	2828.4
42.5°	2450.5	2489.1	2571.4	2670.5	2670.5
45°	2275.8	2314.4	2390.0	2499.2	2512.6
47.5°	2104.5	2144.8	2218.7	2327.9	2349.7
50°	1936.5	1973.5	2047.4	2153.2	2186.8
52.5°	1761.9	1802.2	1874.4	1971.8	2020.5
55°	1593.9	1620.8	1699.7	1793.8	1845.8
57.5°	1419.2	1444.4	1533.4	1614.1	1667.8
60°	1251.3	1283.2	1352.0	1434.3	1496.5
62.5°	1090.0	1123.6	1182.4	1254.6	1325.2
65°	933.8	959.0	1016.1	1088.4	1150.5
67.5°	782.7	804.5	861.6	912.0	977.5
70°	629.8	658.4	700.4	749.1	791.1
72.5°	507.2	519.0	554.3	589.5	633.2
75°	374.5	394.7	423.2	443.4	468.6
77.5°	268.7	280.5	297.3	314.1	337.6
80°	179.7	184.8	199.9	203.2	221.7
82.5°	109.2	112.5	115.9	117.6	124.3
85°	58.8	58.8	58.8	55.4	55.4
87.5°	33.6	33.6	28.6	23.5	16.8
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)