

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: P557696

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-81-84-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: P557696
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-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

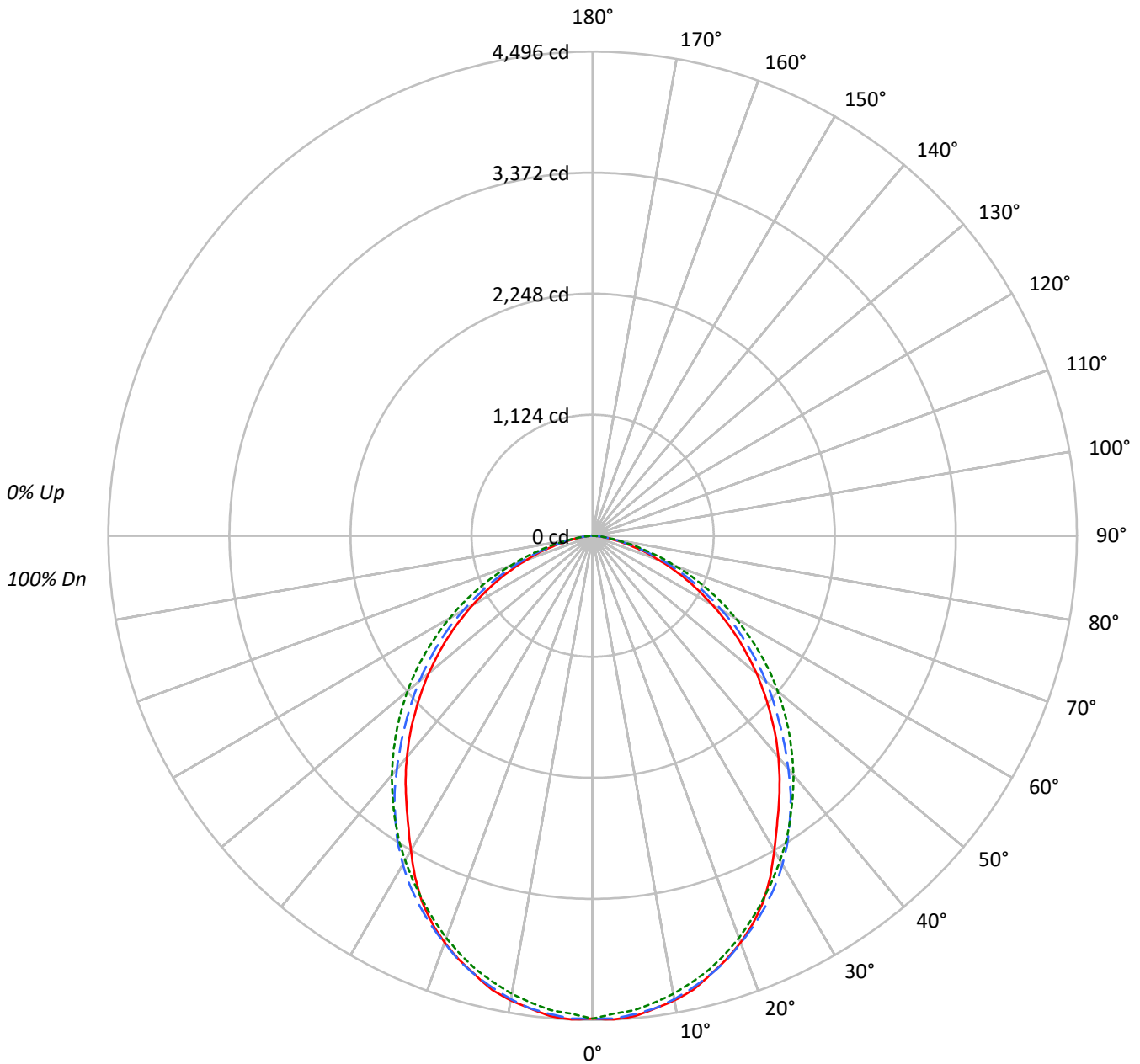
Lumens per Lamp: N/A
Luminaire Lumens: 10368.0 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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°	12066	12066	12066
5°	12098	12047	11945
10°	11970	11937	11800
15°	11757	11757	11623
20°	11509	11523	11375
25°	11129	11268	11089
30°	10480	10951	10817
35°	9903	10497	10514
40°	9422	9930	10190
45°	8883	9328	9807
50°	8315	8791	9389
55°	7669	8179	8882
60°	6907	7463	8260
65°	6099	6636	7514
70°	5083	5652	6383
75°	3994	4513	4997
80°	2856	3177	3524
85°	1862	1862	1754



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	422.2	4.1
10°-20°	1186.0	11.4
20°-30°	1733.1	16.7
30°-40°	1967.3	19.0
40°-50°	1899.1	18.3
50°-60°	1566.6	15.1
60°-70°	1043.3	10.1
70°-80°	466.8	4.5
80°-90°	83.5	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°	3341.3	32.2
0°-40°	5308.6	51.2
0°-60°	8774.4	84.6
0°-90°	10368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10368.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4484	4484	4484	4484	4484	
5°	4479	4477	4460	4436	4422	424
15°	4220	4231	4220	4201	4172	1190
25°	3748	3778	3795	3767	3735	1717
35°	3014	3056	3195	3213	3201	1889
45°	2334	2374	2451	2563	2577	1801
55°	1635	1662	1743	1840	1893	1459
65°	958	984	1042	1116	1180	950
75°	384	405	434	455	481	420
85°	60	60	60	57	57	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4483.9	4483.9	4483.9	4483.9	4483.9
2.5°	4496.0	4497.7	4487.3	4459.8	4442.6
5°	4478.7	4477.0	4459.8	4435.7	4421.9
7.5°	4428.8	4432.2	4427.0	4392.6	4373.6
10°	4380.5	4382.3	4368.5	4340.9	4318.5
12.5°	4318.5	4316.8	4297.9	4284.1	4247.9
15°	4220.3	4230.7	4220.3	4201.4	4172.1
17.5°	4125.6	4125.6	4132.5	4099.8	4077.4
20°	4018.8	4024.0	4024.0	3998.1	3972.3
22.5°	3894.8	3910.3	3915.4	3887.9	3856.9
25°	3748.3	3777.6	3794.9	3767.3	3734.6
27.5°	3570.9	3615.7	3667.4	3646.7	3610.5
30°	3372.8	3438.3	3524.4	3507.2	3481.3
32.5°	3185.1	3250.5	3369.4	3362.5	3348.7
35°	3014.5	3055.9	3195.4	3212.6	3200.6
37.5°	2852.6	2890.5	3021.4	3061.0	3050.7
40°	2682.1	2723.4	2826.8	2897.4	2900.8
42.5°	2513.3	2552.9	2637.3	2738.9	2738.9
45°	2334.1	2373.7	2451.2	2563.2	2577.0
47.5°	2158.4	2199.7	2275.5	2387.5	2409.9
50°	1986.1	2024.0	2099.8	2208.4	2242.8
52.5°	1807.0	1848.3	1922.4	2022.3	2072.3
55°	1634.7	1662.3	1743.3	1839.7	1893.1
57.5°	1455.6	1481.4	1572.7	1655.4	1710.5
60°	1283.3	1316.1	1386.7	1471.1	1534.8
62.5°	1118.0	1152.4	1212.7	1286.8	1359.1
65°	957.8	983.6	1042.2	1116.2	1180.0
67.5°	802.7	825.1	883.7	935.4	1002.5
70°	646.0	675.3	718.3	768.3	811.3
72.5°	520.2	532.3	568.5	604.6	649.4
75°	384.1	404.8	434.1	454.8	480.6
77.5°	275.6	287.7	304.9	322.1	346.2
80°	184.3	189.5	205.0	208.4	227.4
82.5°	112.0	115.4	118.9	120.6	127.5
85°	60.3	60.3	60.3	56.8	56.8
87.5°	34.5	34.5	29.3	24.1	17.2
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)