

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: P557680

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-80-84-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: P557680
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-80-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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

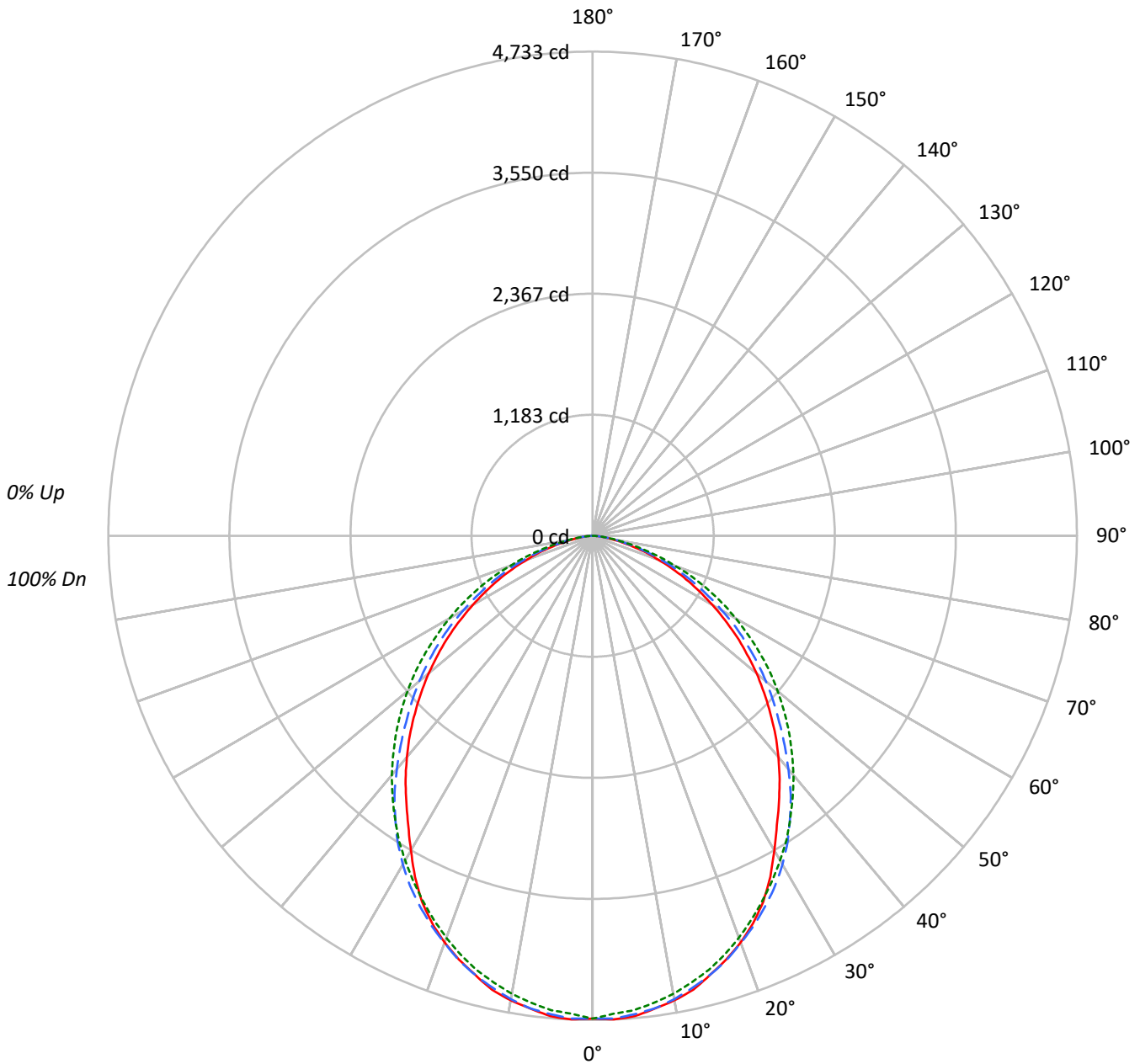
Lumens per Lamp: N/A
Luminaire Lumens: 10914.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12701	12701	12701
5°	12735	12681	12574
10°	12600	12565	12422
15°	12377	12377	12235
20°	12115	12130	11974
25°	11715	11861	11672
30°	11032	11528	11387
35°	10425	11050	11068
40°	9918	10453	10727
45°	9350	9820	10324
50°	8753	9254	9884
55°	8073	8610	9349
60°	7270	7856	8696
65°	6420	6985	7909
70°	5350	5949	6720
75°	4205	4751	5260
80°	3006	3344	3710
85°	1961	1961	1846



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	444.4	4.1
10°-20°	1248.5	11.4
20°-30°	1824.4	16.7
30°-40°	2070.9	19.0
40°-50°	1999.1	18.3
50°-60°	1649.1	15.1
60°-70°	1098.2	10.1
70°-80°	491.4	4.5
80°-90°	87.9	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°	3517.3	32.2
0°-40°	5588.2	51.2
0°-60°	9236.4	84.6
0°-90°	10914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4720	4720	4720	4720	4720	
5°	4715	4713	4695	4669	4655	446
15°	4443	4454	4443	4423	4392	1252
25°	3946	3977	3995	3966	3931	1807
35°	3173	3217	3364	3382	3369	1988
45°	2457	2499	2580	2698	2713	1896
55°	1721	1750	1835	1937	1993	1536
65°	1008	1035	1097	1175	1242	1000
75°	404	426	457	479	506	442
85°	64	64	64	60	60	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4720.0	4720.0	4720.0	4720.0	4720.0
2.5°	4732.7	4734.5	4723.6	4694.6	4676.5
5°	4714.6	4712.8	4694.6	4669.3	4654.7
7.5°	4662.0	4665.6	4660.2	4623.9	4604.0
10°	4611.2	4613.0	4598.5	4569.5	4545.9
12.5°	4545.9	4544.1	4524.2	4509.7	4471.6
15°	4442.6	4453.5	4442.6	4422.6	4391.8
17.5°	4342.9	4342.9	4350.1	4315.7	4292.1
20°	4230.4	4235.9	4235.9	4208.7	4181.5
22.5°	4099.9	4116.2	4121.6	4092.6	4060.0
25°	3945.7	3976.6	3994.7	3965.7	3931.2
27.5°	3759.0	3806.1	3860.5	3838.8	3800.7
30°	3550.4	3619.3	3710.0	3691.9	3664.7
32.5°	3352.8	3421.7	3546.8	3539.6	3525.1
35°	3173.3	3216.8	3363.7	3381.8	3369.1
37.5°	3002.8	3042.7	3180.5	3222.2	3211.4
40°	2823.3	2866.8	2975.6	3050.0	3053.6
42.5°	2645.6	2687.3	2776.2	2883.1	2883.1
45°	2457.0	2498.7	2580.3	2698.2	2712.7
47.5°	2272.1	2315.6	2395.4	2513.2	2536.8
50°	2090.7	2130.6	2210.4	2324.7	2360.9
52.5°	1902.2	1945.7	2023.6	2128.8	2181.4
55°	1720.8	1749.8	1835.1	1936.6	1992.8
57.5°	1532.2	1559.4	1655.5	1742.6	1800.6
60°	1350.9	1385.4	1459.7	1548.6	1615.7
62.5°	1176.8	1213.1	1276.6	1354.5	1430.7
65°	1008.2	1035.4	1097.0	1175.0	1242.1
67.5°	845.0	868.6	930.2	984.6	1055.3
70°	680.0	710.8	756.1	808.7	854.1
72.5°	547.6	560.3	598.4	636.5	683.6
75°	404.4	426.1	457.0	478.7	505.9
77.5°	290.1	302.8	321.0	339.1	364.5
80°	194.0	199.5	215.8	219.4	239.4
82.5°	117.9	121.5	125.1	126.9	134.2
85°	63.5	63.5	63.5	59.8	59.8
87.5°	36.3	36.3	30.8	25.4	18.1
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)