

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: P557849

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-82-88-EDD**

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: P557849
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-82-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

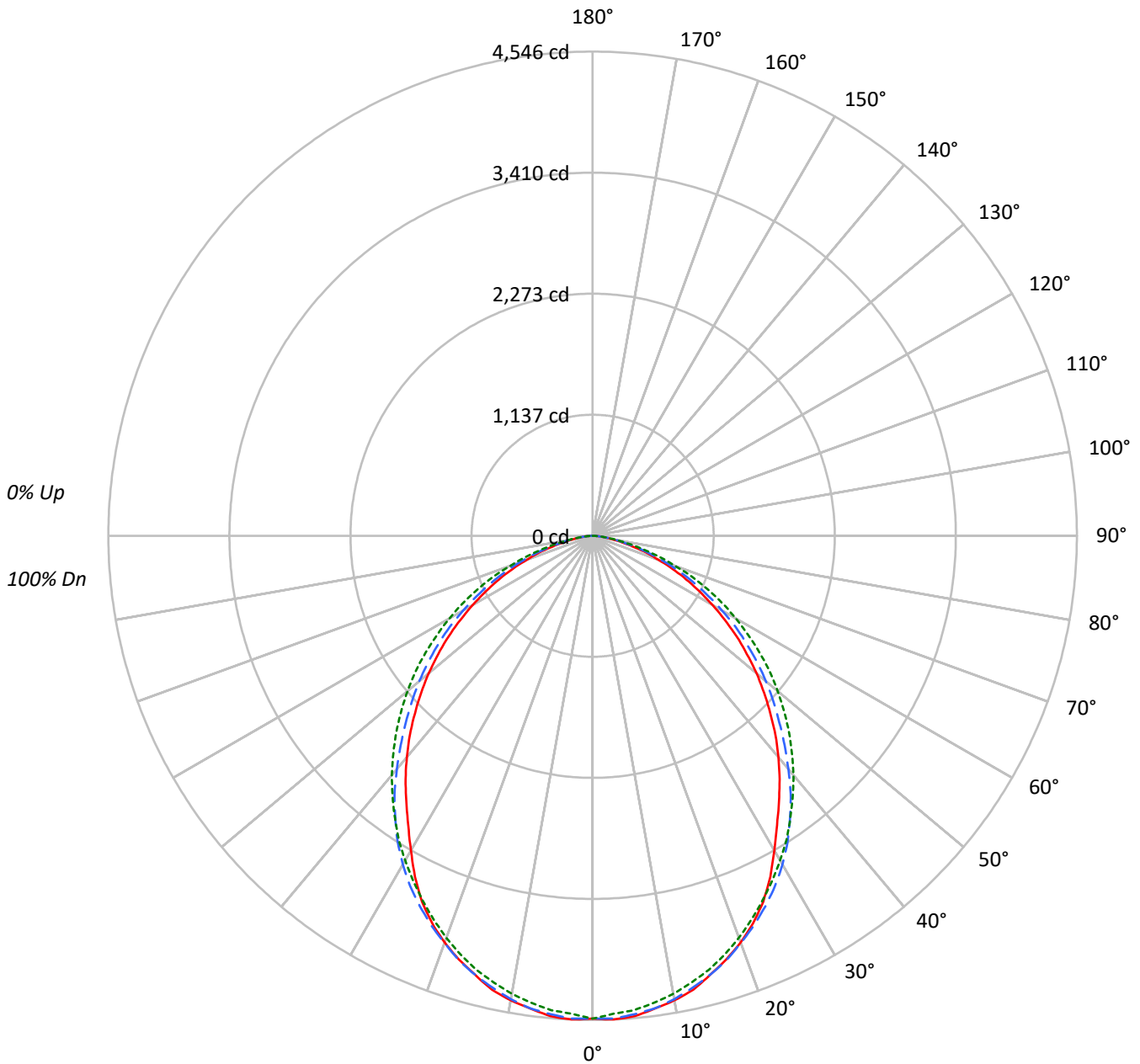
Lumens per Lamp: N/A
Luminaire Lumens: 10483.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12200	12200	12200
5°	12232	12181	12077
10°	12102	12069	11931
15°	11888	11888	11752
20°	11636	11651	11501
25°	11253	11392	11212
30°	10596	11073	10938
35°	10013	10613	10631
40°	9526	10040	10303
45°	8981	9432	9916
50°	8407	8888	9494
55°	7755	8269	8980
60°	6984	7546	8352
65°	6166	6709	7597
70°	5139	5714	6454
75°	4038	4563	5052
80°	2889	3212	3563
85°	1883	1883	1775



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.9	4.1
10°-20°	1199.2	11.4
20°-30°	1752.4	16.7
30°-40°	1989.1	19.0
40°-50°	1920.2	18.3
50°-60°	1584.0	15.1
60°-70°	1054.8	10.1
70°-80°	472.0	4.5
80°-90°	84.5	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°	3378.4	32.2
0°-40°	5367.5	51.2
0°-60°	8871.7	84.6
0°-90°	10483.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10483.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4534	4534	4534	4534	4534	
5°	4528	4527	4509	4485	4471	429
15°	4267	4278	4267	4248	4218	1203
25°	3790	3820	3837	3809	3776	1736
35°	3048	3090	3231	3248	3236	1910
45°	2360	2400	2478	2592	2606	1821
55°	1653	1681	1763	1860	1914	1475
65°	968	994	1054	1129	1193	960
75°	388	409	439	460	486	425
85°	61	61	61	58	58	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4533.6	4533.6	4533.6	4533.6	4533.6
2.5°	4545.8	4547.6	4537.1	4509.2	4491.8
5°	4528.4	4526.7	4509.2	4484.9	4470.9
7.5°	4477.9	4481.4	4476.2	4441.3	4422.2
10°	4429.1	4430.9	4416.9	4389.1	4366.4
12.5°	4366.4	4364.7	4345.5	4331.6	4295.0
15°	4267.1	4277.6	4267.1	4248.0	4218.4
17.5°	4171.4	4171.4	4178.3	4145.2	4122.6
20°	4063.4	4068.6	4068.6	4042.5	4016.3
22.5°	3938.0	3953.6	3958.9	3931.0	3899.7
25°	3789.9	3819.5	3836.9	3809.1	3776.0
27.5°	3610.5	3655.8	3708.1	3687.2	3650.6
30°	3410.2	3476.4	3563.5	3546.1	3520.0
32.5°	3220.4	3286.6	3406.8	3399.8	3385.9
35°	3048.0	3089.8	3230.8	3248.3	3236.1
37.5°	2884.2	2922.6	3054.9	3095.0	3084.5
40°	2711.8	2753.6	2858.1	2929.5	2933.0
42.5°	2541.1	2581.2	2666.5	2769.3	2769.3
45°	2360.0	2400.1	2478.4	2591.6	2605.6
47.5°	2182.3	2224.1	2300.8	2414.0	2436.6
50°	2008.2	2046.5	2123.1	2232.9	2267.7
52.5°	1827.0	1868.8	1943.7	2044.7	2095.3
55°	1652.9	1680.7	1762.6	1860.1	1914.1
57.5°	1471.7	1497.9	1590.2	1673.8	1729.5
60°	1297.6	1330.7	1402.1	1487.4	1551.8
62.5°	1130.4	1165.2	1226.2	1301.0	1374.2
65°	968.4	994.5	1053.7	1128.6	1193.1
67.5°	811.6	834.3	893.5	945.7	1013.7
70°	653.1	682.7	726.3	776.8	820.3
72.5°	526.0	538.2	574.8	611.3	656.6
75°	388.4	409.3	438.9	459.8	485.9
77.5°	278.7	290.9	308.3	325.7	350.1
80°	186.4	191.6	207.3	210.7	229.9
82.5°	113.2	116.7	120.2	121.9	128.9
85°	61.0	61.0	61.0	57.5	57.5
87.5°	34.8	34.8	29.6	24.4	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)