

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: P557722

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-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: P557722
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-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

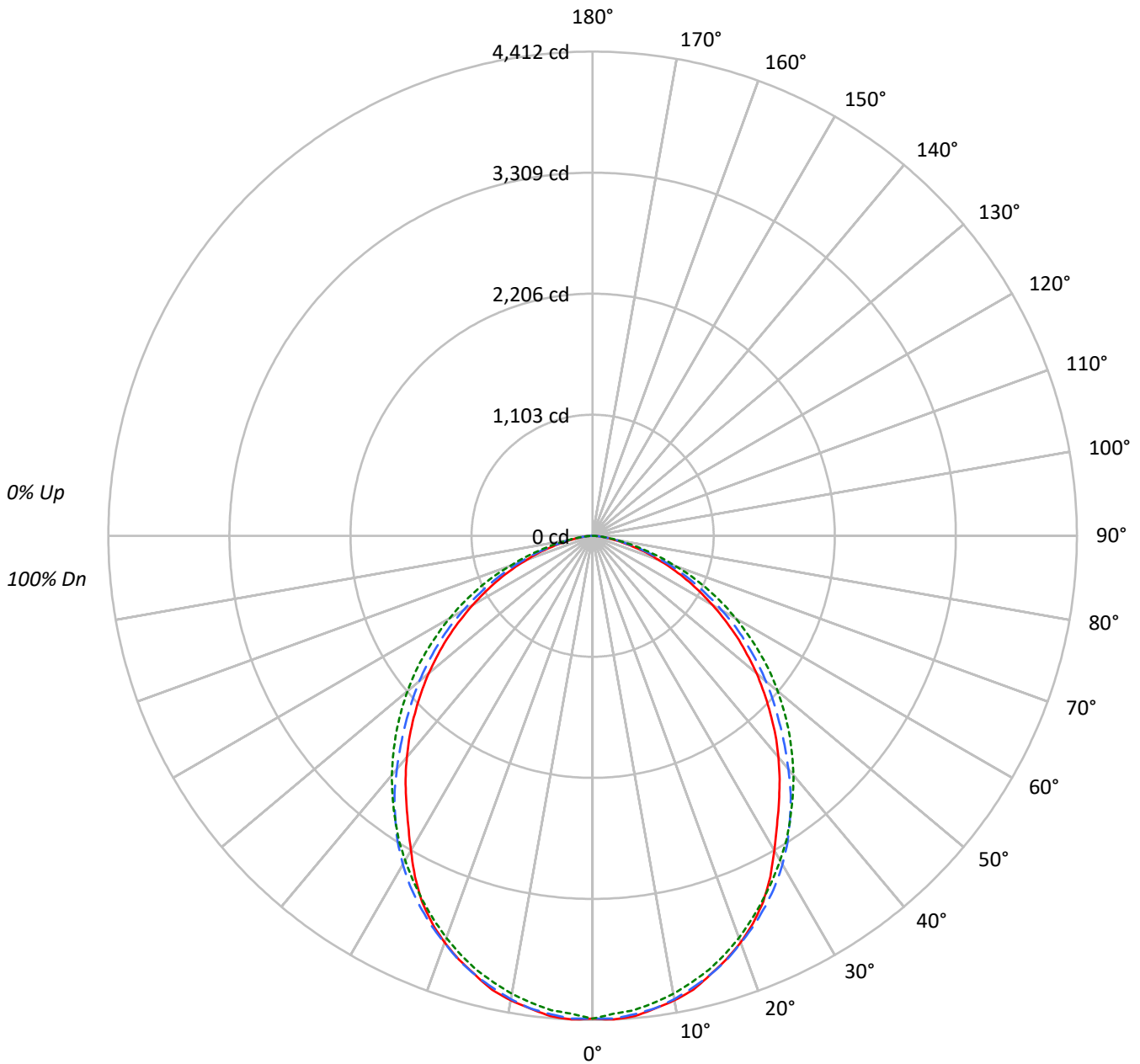
Lumens per Lamp: N/A
Luminaire Lumens: 10174.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	11840	11840	11840
5°	11872	11822	11721
10°	11746	11713	11579
15°	11538	11538	11406
20°	11293	11308	11163
25°	10921	11057	10881
30°	10284	10747	10615
35°	9718	10301	10317
40°	9245	9744	10000
45°	8716	9154	9624
50°	8159	8626	9213
55°	7526	8025	8716
60°	6777	7323	8106
65°	5984	6512	7373
70°	4987	5546	6264
75°	3919	4429	4903
80°	2803	3118	3457
85°	1828	1828	1723



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	414.3	4.1
10°-20°	1163.8	11.4
20°-30°	1700.7	16.7
30°-40°	1930.5	19.0
40°-50°	1863.6	18.3
50°-60°	1537.3	15.1
60°-70°	1023.7	10.1
70°-80°	458.1	4.5
80°-90°	82.0	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°	3278.8	32.2
0°-40°	5209.3	51.2
0°-60°	8610.2	84.6
0°-90°	10174.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10174.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4400	4400	4400	4400	4400	
5°	4395	4393	4376	4353	4339	416
15°	4141	4152	4141	4123	4094	1167
25°	3678	3707	3724	3697	3665	1684
35°	2958	2999	3136	3152	3141	1853
45°	2290	2329	2405	2515	2529	1767
55°	1604	1631	1711	1805	1858	1432
65°	940	965	1023	1095	1158	932
75°	377	397	426	446	472	412
85°	59	59	59	56	56	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4400.0	4400.0	4400.0	4400.0	4400.0
2.5°	4411.8	4413.5	4403.4	4376.3	4359.4
5°	4394.9	4393.2	4376.3	4352.7	4339.1
7.5°	4345.9	4349.3	4344.2	4310.4	4291.8
10°	4298.6	4300.3	4286.7	4259.7	4237.7
12.5°	4237.7	4236.0	4217.4	4203.9	4168.4
15°	4141.4	4151.5	4141.4	4122.8	4094.0
17.5°	4048.4	4048.4	4055.2	4023.0	4001.1
20°	3943.6	3948.7	3948.7	3923.3	3898.0
22.5°	3821.9	3837.1	3842.2	3815.1	3784.7
25°	3678.2	3706.9	3723.9	3696.8	3664.7
27.5°	3504.1	3548.1	3598.8	3578.5	3543.0
30°	3309.7	3373.9	3458.5	3441.6	3416.2
32.5°	3125.5	3189.7	3306.3	3299.6	3286.0
35°	2958.1	2998.7	3135.6	3152.5	3140.7
37.5°	2799.2	2836.4	2964.9	3003.8	2993.6
40°	2631.9	2672.5	2773.9	2843.2	2846.6
42.5°	2466.2	2505.1	2587.9	2687.7	2687.7
45°	2290.4	2329.3	2405.4	2515.2	2528.8
47.5°	2118.0	2158.6	2233.0	2342.8	2364.8
50°	1949.0	1986.2	2060.5	2167.0	2200.8
52.5°	1773.2	1813.8	1886.4	1984.5	2033.5
55°	1604.1	1631.2	1710.6	1805.3	1857.7
57.5°	1428.3	1453.7	1543.3	1624.4	1678.5
60°	1259.3	1291.4	1360.7	1443.6	1506.1
62.5°	1097.0	1130.8	1190.0	1262.7	1333.7
65°	939.8	965.2	1022.7	1095.3	1157.9
67.5°	787.7	809.7	867.2	917.9	983.8
70°	633.9	662.6	704.9	753.9	796.2
72.5°	510.5	522.3	557.8	593.3	637.3
75°	376.9	397.2	426.0	446.3	471.6
77.5°	270.5	282.3	299.2	316.1	339.8
80°	180.9	185.9	201.2	204.5	223.1
82.5°	109.9	113.3	116.6	118.3	125.1
85°	59.2	59.2	59.2	55.8	55.8
87.5°	33.8	33.8	28.7	23.7	16.9
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)