

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: P557926

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-93-87-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: P557926
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-50-UNV-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

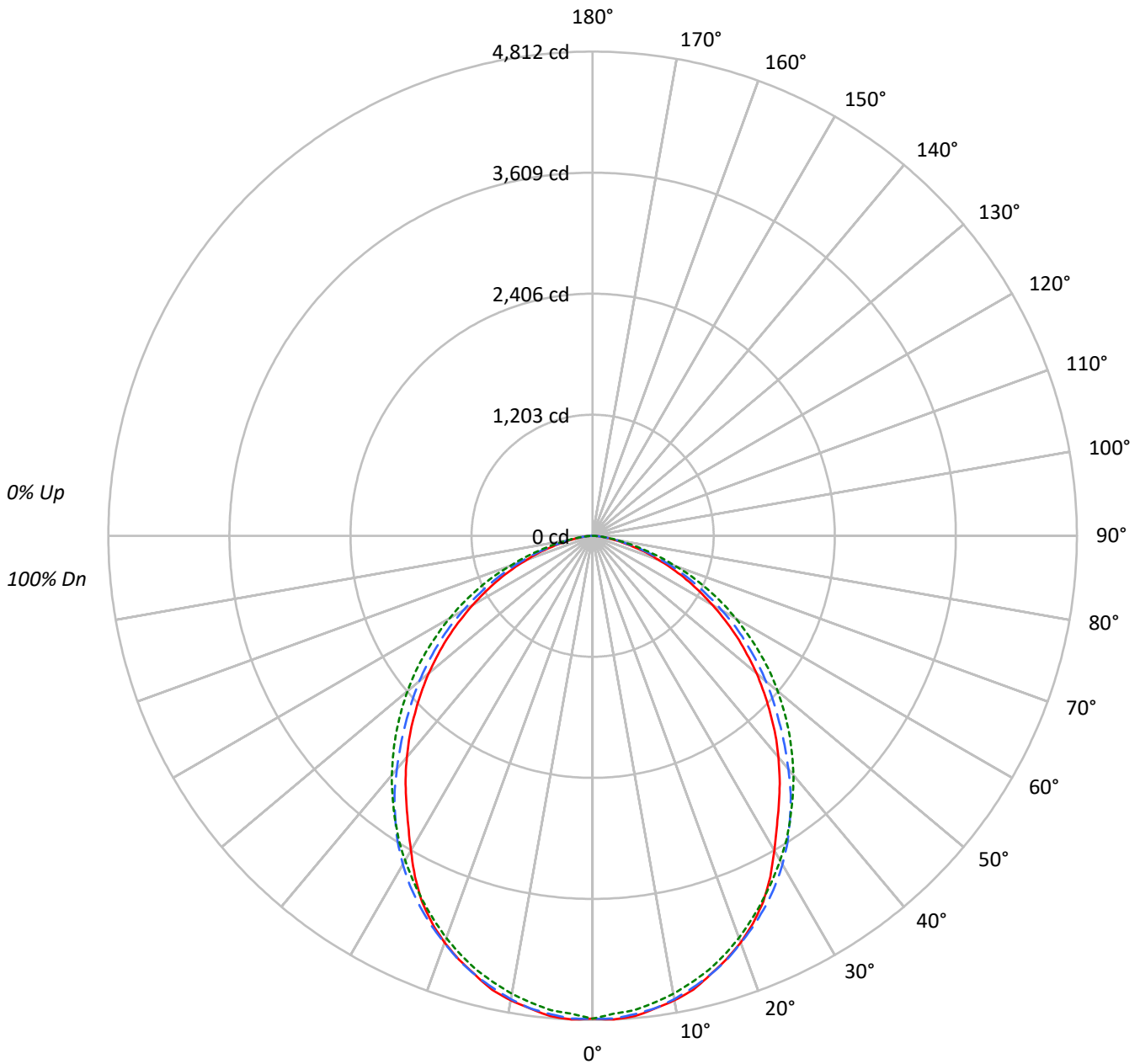
Lumens per Lamp: N/A
Luminaire Lumens: 11097.0 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12915	12915	12915
5°	12949	12894	12785
10°	12811	12776	12630
15°	12584	12584	12440
20°	12318	12334	12175
25°	11912	12060	11868
30°	11217	11721	11578
35°	10599	11235	11253
40°	10084	10628	10907
45°	9507	9984	10497
50°	8899	9409	10050
55°	8209	8754	9506
60°	7393	7988	8841
65°	6527	7102	8041
70°	5440	6049	6832
75°	4274	4831	5348
80°	3058	3400	3772
85°	1991	1991	1877



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	451.9	4.1
10°-20°	1269.4	11.4
20°-30°	1855.0	16.7
30°-40°	2105.6	19.0
40°-50°	2032.7	18.3
50°-60°	1676.8	15.1
60°-70°	1116.6	10.1
70°-80°	499.7	4.5
80°-90°	89.4	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°	3576.2	32.2
0°-40°	5681.9	51.2
0°-60°	9391.3	84.6
0°-90°	11097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11097.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4799	4799	4799	4799	4799	
5°	4794	4792	4773	4748	4733	454
15°	4517	4528	4517	4497	4466	1273
25°	4012	4043	4062	4032	3997	1837
35°	3226	3271	3420	3438	3426	2022
45°	2498	2541	2624	2743	2758	1928
55°	1750	1779	1866	1969	2026	1562
65°	1025	1053	1115	1195	1263	1016
75°	411	433	465	487	514	450
85°	64	64	64	61	61	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4799.2	4799.2	4799.2	4799.2	4799.2
2.5°	4812.1	4813.9	4802.9	4773.4	4754.9
5°	4793.6	4791.8	4773.4	4747.5	4732.8
7.5°	4740.2	4743.9	4738.3	4701.4	4681.2
10°	4688.5	4690.4	4675.6	4646.1	4622.2
12.5°	4622.2	4620.3	4600.0	4585.3	4546.6
15°	4517.1	4528.1	4517.1	4496.8	4465.5
17.5°	4415.7	4415.7	4423.0	4388.0	4364.1
20°	4301.4	4306.9	4306.9	4279.2	4251.6
22.5°	4168.6	4185.2	4190.7	4161.2	4128.1
25°	4011.9	4043.2	4061.7	4032.2	3997.2
27.5°	3822.0	3869.9	3925.2	3903.1	3864.4
30°	3610.0	3680.0	3772.2	3753.8	3726.1
32.5°	3409.0	3479.1	3606.3	3598.9	3584.2
35°	3226.5	3270.7	3420.1	3438.5	3425.6
37.5°	3053.2	3093.7	3233.9	3276.3	3265.2
40°	2870.6	2914.9	3025.5	3101.1	3104.8
42.5°	2690.0	2732.4	2822.7	2931.5	2931.5
45°	2498.2	2540.6	2623.6	2743.4	2758.2
47.5°	2310.2	2354.4	2435.5	2555.4	2579.3
50°	2125.8	2166.4	2247.5	2363.6	2400.5
52.5°	1934.0	1978.3	2057.6	2164.5	2218.0
55°	1749.7	1779.2	1865.8	1969.1	2026.2
57.5°	1557.9	1585.6	1683.3	1771.8	1830.8
60°	1373.6	1408.6	1484.2	1574.5	1642.7
62.5°	1196.6	1233.4	1298.0	1377.2	1454.7
65°	1025.1	1052.8	1115.4	1194.7	1262.9
67.5°	859.2	883.1	945.8	1001.1	1073.0
70°	691.4	722.7	768.8	822.3	868.4
72.5°	556.8	569.7	608.4	647.1	695.1
75°	411.1	433.3	464.6	486.7	514.4
77.5°	295.0	307.9	326.3	344.8	370.6
80°	197.3	202.8	219.4	223.1	243.4
82.5°	119.8	123.5	127.2	129.1	136.4
85°	64.5	64.5	64.5	60.8	60.8
87.5°	36.9	36.9	31.3	25.8	18.4
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)