

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: P557792

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-93-84-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: P557792
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-35-UNV-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

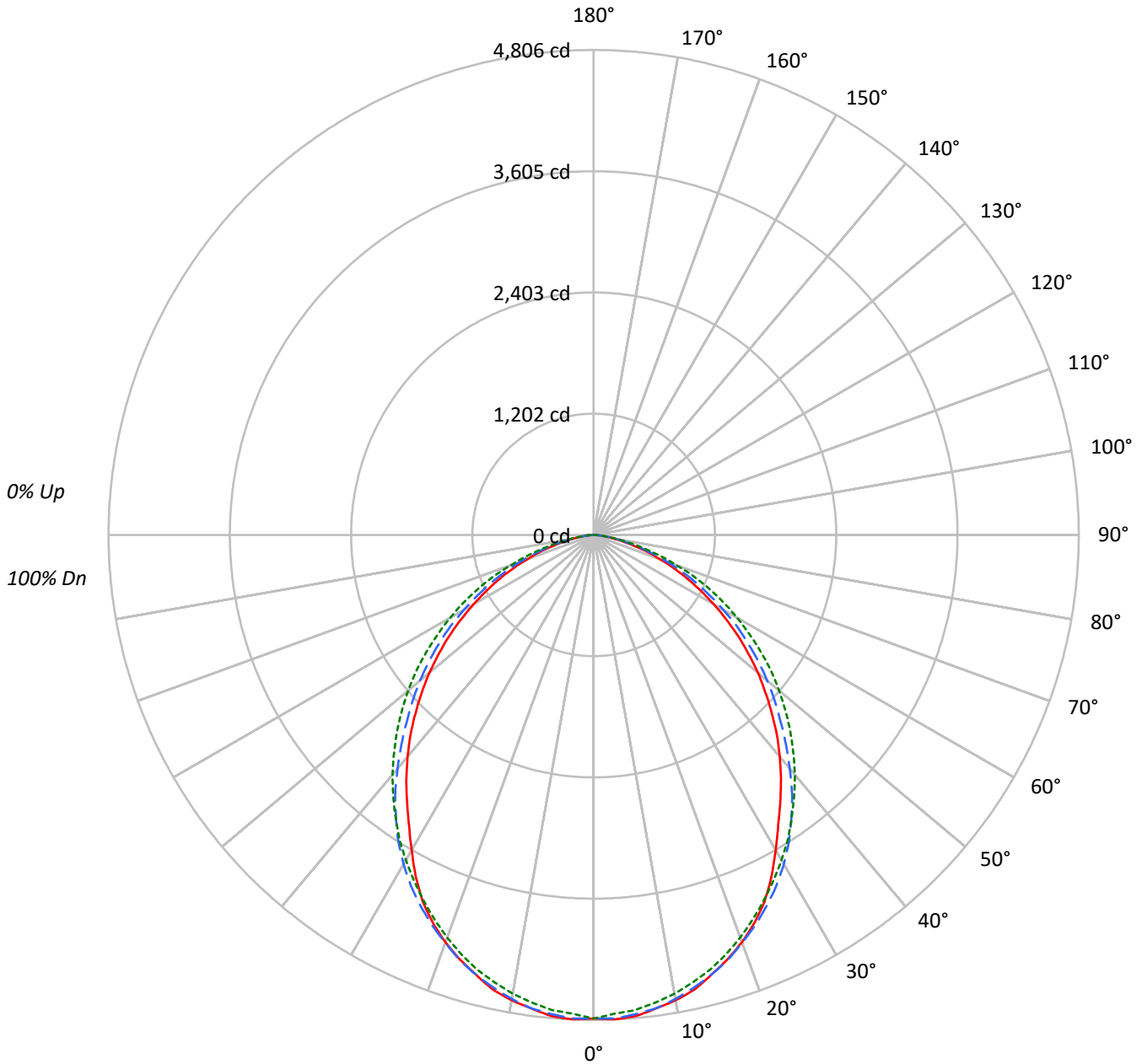
Lumens per Lamp: N/A
Luminaire Lumens: 11082.0 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12897	12897	12897
5°	12931	12877	12767
10°	12794	12759	12613
15°	12567	12567	12423
20°	12301	12317	12159
25°	11896	12044	11852
30°	11202	11705	11562
35°	10585	11220	11238
40°	10071	10614	10892
45°	9494	9971	10483
50°	8887	9396	10036
55°	8198	8742	9493
60°	7382	7977	8829
65°	6518	7093	8031
70°	5433	6041	6823
75°	4269	4824	5341
80°	3053	3395	3766
85°	1988	1988	1877



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	451.2	4.1
10°-20°	1267.7	11.4
20°-30°	1852.5	16.7
30°-40°	2102.8	19.0
40°-50°	2029.9	18.3
50°-60°	1674.5	15.1
60°-70°	1115.1	10.1
70°-80°	499.0	4.5
80°-90°	89.3	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°	3571.4	32.2
0°-40°	5674.2	51.2
0°-60°	9378.6	84.6
0°-90°	11082.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11082.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4793	4793	4793	4793	4793	
5°	4787	4785	4767	4741	4726	453
15°	4511	4522	4511	4491	4459	1272
25°	4006	4038	4056	4027	3992	1835
35°	3222	3266	3416	3434	3421	2019
45°	2495	2537	2620	2740	2754	1925
55°	1747	1777	1863	1966	2024	1560
65°	1024	1051	1114	1193	1261	1015
75°	411	433	464	486	514	449
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°	4792.7	4792.7	4792.7	4792.7	4792.7
2.5°	4805.6	4807.4	4796.4	4766.9	4748.5
5°	4787.2	4785.3	4766.9	4741.1	4726.4
7.5°	4733.8	4737.4	4731.9	4695.1	4674.8
10°	4682.2	4684.0	4669.3	4639.9	4615.9
12.5°	4615.9	4614.1	4593.8	4579.1	4540.4
15°	4511.0	4522.0	4511.0	4490.7	4459.4
17.5°	4409.7	4409.7	4417.1	4382.1	4358.2
20°	4295.6	4301.1	4301.1	4273.5	4245.8
22.5°	4163.0	4179.6	4185.1	4155.6	4122.5
25°	4006.5	4037.8	4056.2	4026.7	3991.8
27.5°	3816.8	3864.7	3919.9	3897.8	3859.2
30°	3605.1	3675.1	3767.1	3748.7	3721.1
32.5°	3404.4	3474.4	3601.4	3594.0	3579.3
35°	3222.1	3266.3	3415.5	3433.9	3421.0
37.5°	3049.0	3089.6	3229.5	3271.8	3260.8
40°	2866.8	2911.0	3021.4	3096.9	3100.6
42.5°	2686.3	2728.7	2818.9	2927.5	2927.5
45°	2494.8	2537.2	2620.0	2739.7	2754.5
47.5°	2307.0	2351.2	2432.2	2551.9	2575.9
50°	2122.9	2163.4	2244.4	2360.4	2397.3
52.5°	1931.4	1975.6	2054.8	2161.6	2215.0
55°	1747.3	1776.8	1863.3	1966.4	2023.5
57.5°	1555.8	1583.4	1681.0	1769.4	1828.3
60°	1371.7	1406.7	1482.2	1572.4	1640.5
62.5°	1194.9	1231.8	1296.2	1375.4	1452.7
65°	1023.7	1051.3	1113.9	1193.1	1261.2
67.5°	858.0	881.9	944.5	999.8	1071.6
70°	690.5	721.8	767.8	821.2	867.2
72.5°	556.0	568.9	607.6	646.3	694.1
75°	410.6	432.7	464.0	486.1	513.7
77.5°	294.6	307.5	325.9	344.3	370.1
80°	197.0	202.5	219.1	222.8	243.0
82.5°	119.7	123.4	127.0	128.9	136.2
85°	64.4	64.4	64.4	60.8	60.8
87.5°	36.8	36.8	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)