

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: P556610

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-81-85-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: P556610
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-LD4-1LO-50-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

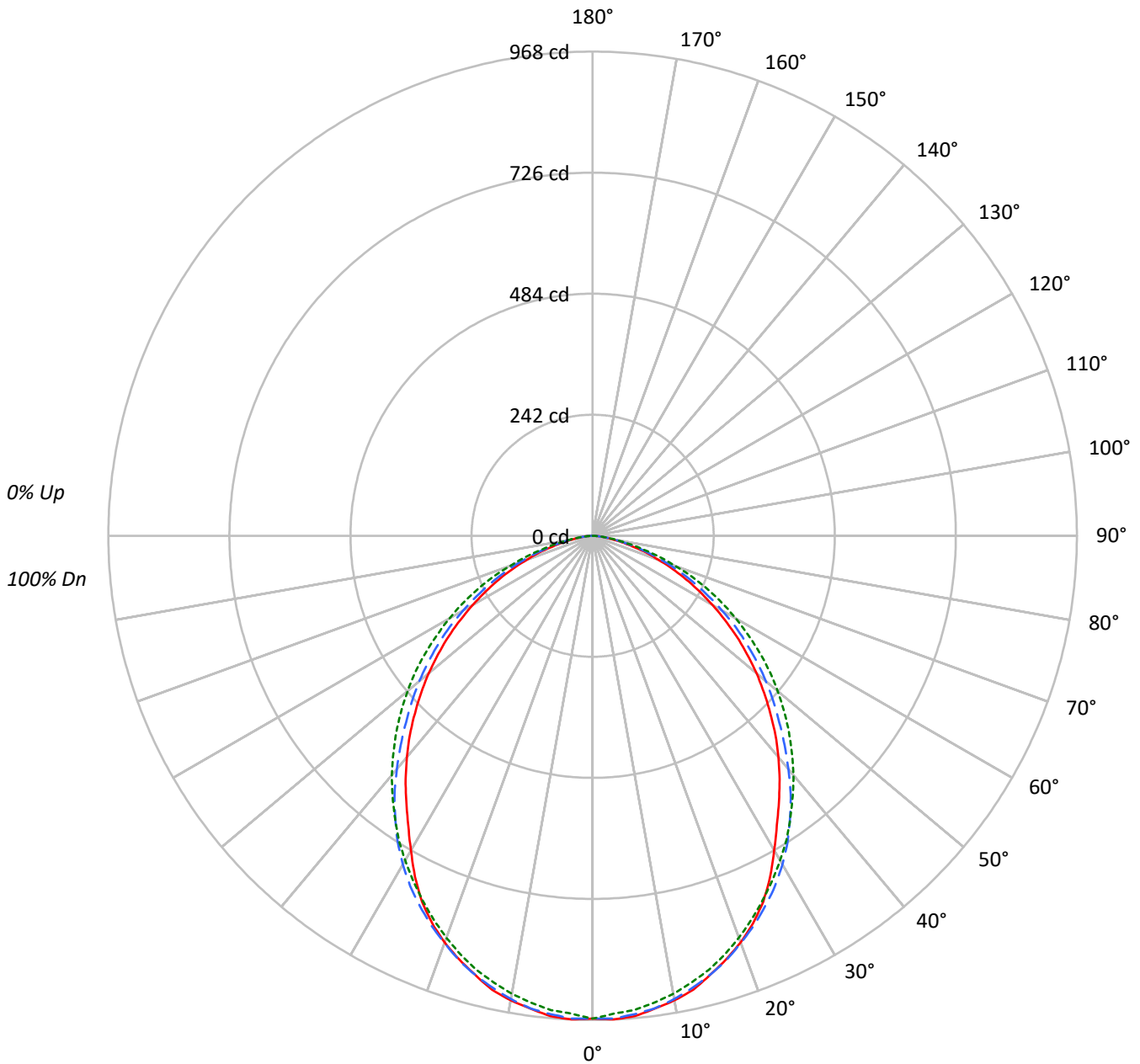
Lumens per Lamp: N/A
Luminaire Lumens: 2232.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2598	2598	2598
5°	2605	2593	2571
10°	2577	2570	2540
15°	2531	2531	2502
20°	2478	2481	2449
25°	2396	2426	2387
30°	2256	2357	2329
35°	2132	2260	2263
40°	2028	2138	2194
45°	1912	2008	2111
50°	1790	1892	2021
55°	1651	1761	1912
60°	1487	1607	1778
65°	1313	1429	1617
70°	1094	1216	1375
75°	860	972	1076
80°	615	683	759
85°	401	401	377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.9	4.1
10°-20°	255.3	11.4
20°-30°	373.1	16.7
30°-40°	423.5	19.0
40°-50°	408.8	18.3
50°-60°	337.3	15.1
60°-70°	224.6	10.1
70°-80°	100.5	4.5
80°-90°	18.0	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°	719.3	32.2
0°-40°	1142.8	51.2
0°-60°	1888.9	84.6
0°-90°	2232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2232.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	964	964	960	955	952	91
15°	908	911	908	904	898	256
25°	807	813	817	811	804	370
35°	649	658	688	692	689	407
45°	502	511	528	552	555	388
55°	352	358	375	396	408	314
65°	206	212	224	240	254	204
75°	83	87	94	98	104	90
85°	13	13	13	12	12	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	965.3	965.3	965.3	965.3	965.3
2.5°	967.9	968.2	966.0	960.1	956.4
5°	964.2	963.8	960.1	954.9	951.9
7.5°	953.4	954.2	953.0	945.6	941.5
10°	943.0	943.4	940.4	934.5	929.7
12.5°	929.7	929.3	925.2	922.3	914.5
15°	908.5	910.8	908.5	904.5	898.2
17.5°	888.1	888.1	889.6	882.6	877.8
20°	865.2	866.3	866.3	860.7	855.1
22.5°	838.5	841.8	842.9	837.0	830.3
25°	806.9	813.2	816.9	811.0	804.0
27.5°	768.7	778.4	789.5	785.1	777.3
30°	726.1	740.2	758.7	755.0	749.5
32.5°	685.7	699.8	725.4	723.9	720.9
35°	649.0	657.9	687.9	691.6	689.0
37.5°	614.1	622.3	650.4	659.0	656.7
40°	577.4	586.3	608.5	623.7	624.5
42.5°	541.0	549.6	567.7	589.6	589.6
45°	502.5	511.0	527.7	551.8	554.8
47.5°	464.7	473.6	489.9	514.0	518.8
50°	427.6	435.7	452.0	475.4	482.8
52.5°	389.0	397.9	413.9	435.4	446.1
55°	351.9	357.9	375.3	396.1	407.5
57.5°	313.4	318.9	338.6	356.4	368.2
60°	276.3	283.3	298.5	316.7	330.4
62.5°	240.7	248.1	261.1	277.0	292.6
65°	206.2	211.7	224.4	240.3	254.0
67.5°	172.8	177.6	190.2	201.4	215.8
70°	139.1	145.4	154.6	165.4	174.7
72.5°	112.0	114.6	122.4	130.2	139.8
75°	82.7	87.1	93.5	97.9	103.5
77.5°	59.3	61.9	65.6	69.3	74.5
80°	39.7	40.8	44.1	44.9	49.0
82.5°	24.1	24.8	25.6	26.0	27.4
85°	13.0	13.0	13.0	12.2	12.2
87.5°	7.4	7.4	6.3	5.2	3.7
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)