

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: P556550

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-81-87-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: P556550
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-40-UNV-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

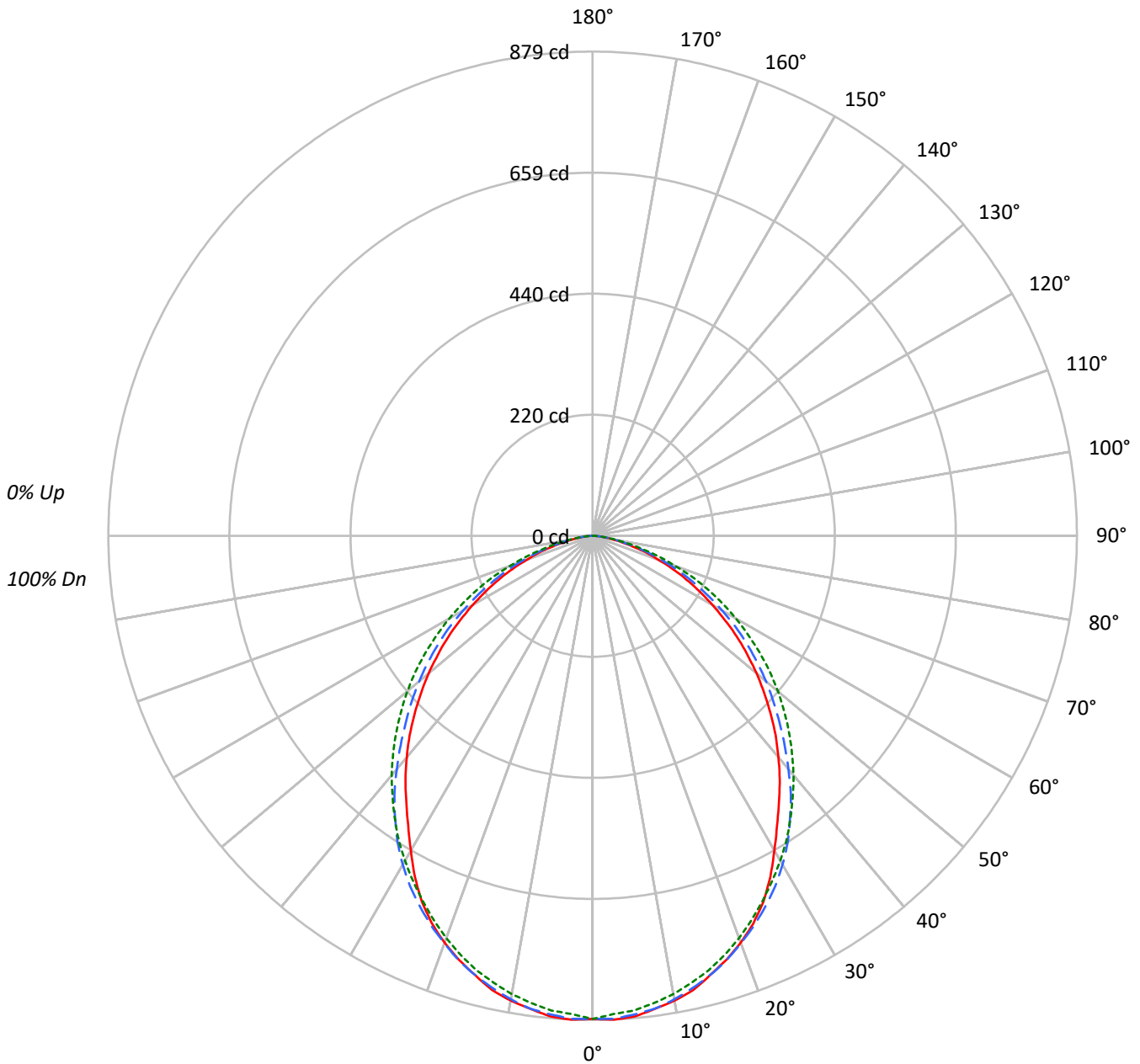
Lumens per Lamp: N/A
Luminaire Lumens: 2028.0 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2360	2360	2360
5°	2366	2356	2336
10°	2341	2335	2308
15°	2300	2300	2274
20°	2251	2254	2225
25°	2177	2204	2169
30°	2050	2142	2116
35°	1937	2053	2056
40°	1843	1942	1993
45°	1738	1825	1918
50°	1626	1719	1837
55°	1500	1600	1737
60°	1351	1460	1616
65°	1193	1298	1470
70°	995	1105	1249
75°	781	883	977
80°	559	621	690
85°	364	364	343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	4.1
10°-20°	232.0	11.4
20°-30°	339.0	16.7
30°-40°	384.8	19.0
40°-50°	371.5	18.3
50°-60°	306.4	15.1
60°-70°	204.1	10.1
70°-80°	91.3	4.5
80°-90°	16.3	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°	653.6	32.2
0°-40°	1038.4	51.2
0°-60°	1716.3	84.6
0°-90°	2028.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2028.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	876	876	872	868	865	83
15°	826	828	826	822	816	233
25°	733	739	742	737	730	336
35°	590	598	625	628	626	369
45°	457	464	480	501	504	352
55°	320	325	341	360	370	285
65°	187	192	204	218	231	186
75°	75	79	85	89	94	82
85°	12	12	12	11	11	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	877.1	877.1	877.1	877.1	877.1
2.5°	879.4	879.8	877.7	872.3	869.0
5°	876.0	875.7	872.3	867.6	864.9
7.5°	866.3	866.9	865.9	859.2	855.5
10°	856.8	857.2	854.5	849.1	844.7
12.5°	844.7	844.4	840.7	838.0	830.9
15°	825.5	827.5	825.5	821.8	816.1
17.5°	807.0	807.0	808.3	801.9	797.5
20°	786.1	787.1	787.1	782.0	777.0
22.5°	761.8	764.9	765.9	760.5	754.4
25°	733.2	738.9	742.3	736.9	730.5
27.5°	698.5	707.2	717.3	713.3	706.2
30°	659.7	672.5	689.4	686.0	681.0
32.5°	623.0	635.8	659.1	657.7	655.0
35°	589.6	597.7	625.0	628.4	626.0
37.5°	558.0	565.4	591.0	598.7	596.7
40°	524.6	532.7	552.9	566.7	567.4
42.5°	491.6	499.3	515.9	535.7	535.7
45°	456.6	464.3	479.5	501.4	504.1
47.5°	422.2	430.3	445.1	467.0	471.4
50°	388.5	395.9	410.7	432.0	438.7
52.5°	353.5	361.5	376.0	395.6	405.3
55°	319.8	325.1	341.0	359.9	370.3
57.5°	284.7	289.8	307.6	323.8	334.6
60°	251.0	257.4	271.2	287.7	300.2
62.5°	218.7	225.4	237.2	251.7	265.8
65°	187.3	192.4	203.8	218.3	230.8
67.5°	157.0	161.4	172.9	183.0	196.1
70°	126.4	132.1	140.5	150.3	158.7
72.5°	101.8	104.1	111.2	118.3	127.0
75°	75.1	79.2	84.9	89.0	94.0
77.5°	53.9	56.3	59.6	63.0	67.7
80°	36.1	37.1	40.1	40.8	44.5
82.5°	21.9	22.6	23.2	23.6	24.9
85°	11.8	11.8	11.8	11.1	11.1
87.5°	6.7	6.7	5.7	4.7	3.4
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)