

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: P556484

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-81-86-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: P556484
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-35-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

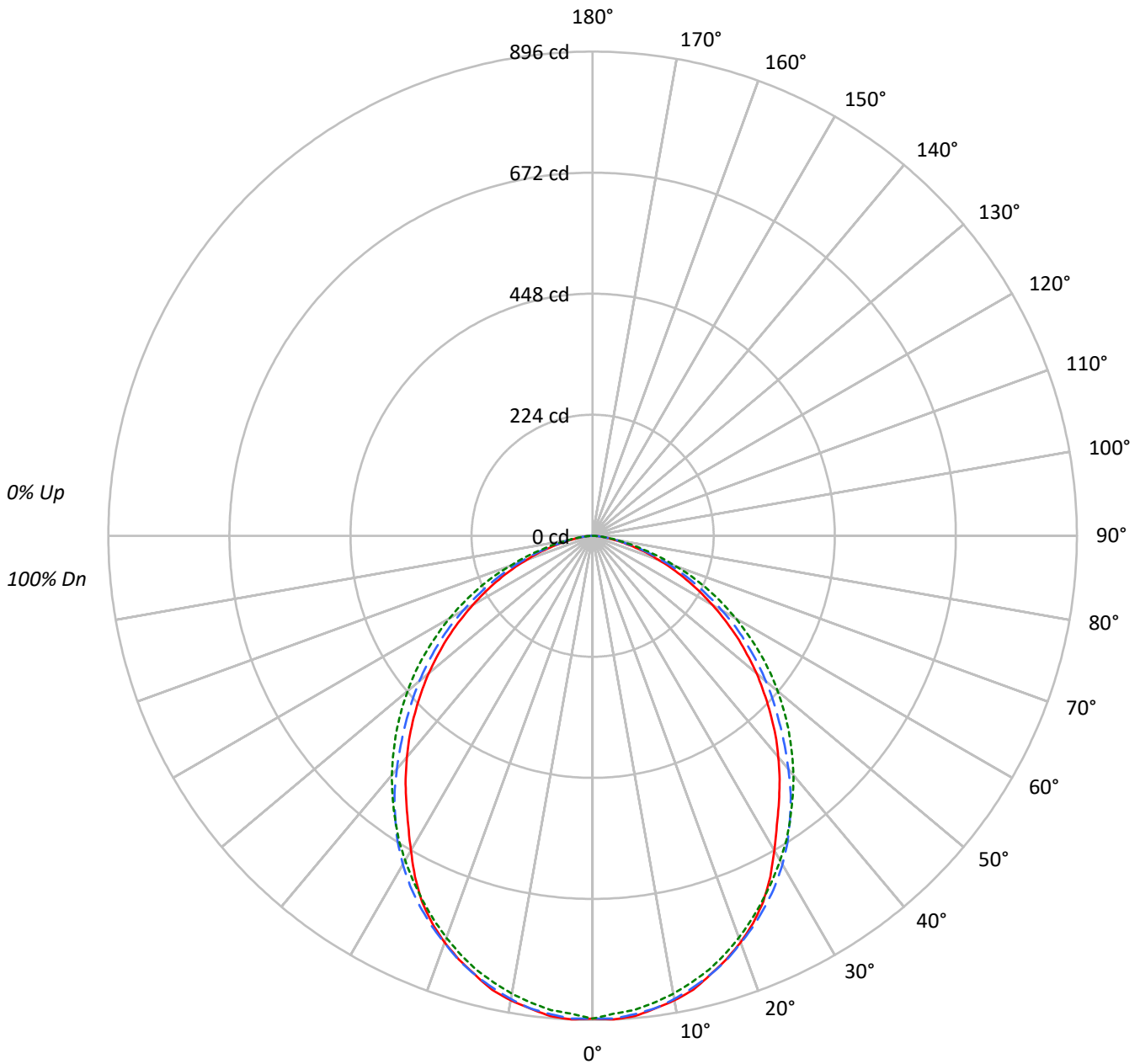
Lumens per Lamp: N/A
Luminaire Lumens: 2066.0 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2404	2404	2404
5°	2411	2401	2380
10°	2385	2379	2351
15°	2343	2343	2316
20°	2293	2296	2267
25°	2218	2245	2210
30°	2088	2182	2156
35°	1973	2092	2095
40°	1877	1979	2030
45°	1770	1859	1954
50°	1657	1752	1871
55°	1528	1630	1770
60°	1376	1487	1646
65°	1215	1323	1497
70°	1013	1126	1272
75°	795	899	996
80°	569	632	702
85°	371	371	349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.1	4.1
10°-20°	236.3	11.4
20°-30°	345.4	16.7
30°-40°	392.0	19.0
40°-50°	378.4	18.3
50°-60°	312.2	15.1
60°-70°	207.9	10.1
70°-80°	93.0	4.5
80°-90°	16.6	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°	665.8	32.2
0°-40°	1057.8	51.2
0°-60°	1748.4	84.6
0°-90°	2066.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2066.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	894	894	894	894	894	
5°	892	892	889	884	881	84
15°	841	843	841	837	831	237
25°	747	753	756	751	744	342
35°	601	609	637	640	638	376
45°	465	473	488	511	514	359
55°	326	331	347	367	377	291
65°	191	196	208	222	235	189
75°	76	81	86	91	96	84
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°	893.5	893.5	893.5	893.5	893.5
2.5°	895.9	896.2	894.2	888.7	885.3
5°	892.5	892.1	888.7	883.9	881.1
7.5°	882.5	883.2	882.2	875.3	871.5
10°	872.9	873.2	870.5	865.0	860.5
12.5°	860.5	860.2	856.4	853.7	846.5
15°	841.0	843.0	841.0	837.2	831.4
17.5°	822.1	822.1	823.5	816.9	812.5
20°	800.8	801.8	801.8	796.7	791.5
22.5°	776.1	779.2	780.2	774.7	768.5
25°	746.9	752.8	756.2	750.7	744.2
27.5°	711.6	720.5	730.8	726.7	719.5
30°	672.1	685.1	702.3	698.9	693.7
32.5°	634.7	647.7	671.4	670.0	667.3
35°	600.7	608.9	636.7	640.2	637.8
37.5°	568.4	576.0	602.1	610.0	607.9
40°	534.4	542.7	563.3	577.4	578.0
42.5°	500.8	508.7	525.5	545.8	545.8
45°	465.1	473.0	488.5	510.8	513.5
47.5°	430.1	438.3	453.4	475.8	480.2
50°	395.8	403.3	418.4	440.1	446.9
52.5°	360.1	368.3	383.1	403.0	412.9
55°	325.7	331.2	347.4	366.6	377.2
57.5°	290.1	295.2	313.4	329.9	340.9
60°	255.7	262.2	276.3	293.1	305.8
62.5°	222.8	229.6	241.7	256.4	270.8
65°	190.8	196.0	207.7	222.4	235.1
67.5°	160.0	164.4	176.1	186.4	199.8
70°	128.7	134.6	143.1	153.1	161.7
72.5°	103.7	106.1	113.3	120.5	129.4
75°	76.5	80.7	86.5	90.6	95.8
77.5°	54.9	57.3	60.8	64.2	69.0
80°	36.7	37.8	40.8	41.5	45.3
82.5°	22.3	23.0	23.7	24.0	25.4
85°	12.0	12.0	12.0	11.3	11.3
87.5°	6.9	6.9	5.8	4.8	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)