

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: P556552

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-81-88-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: P556552
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-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

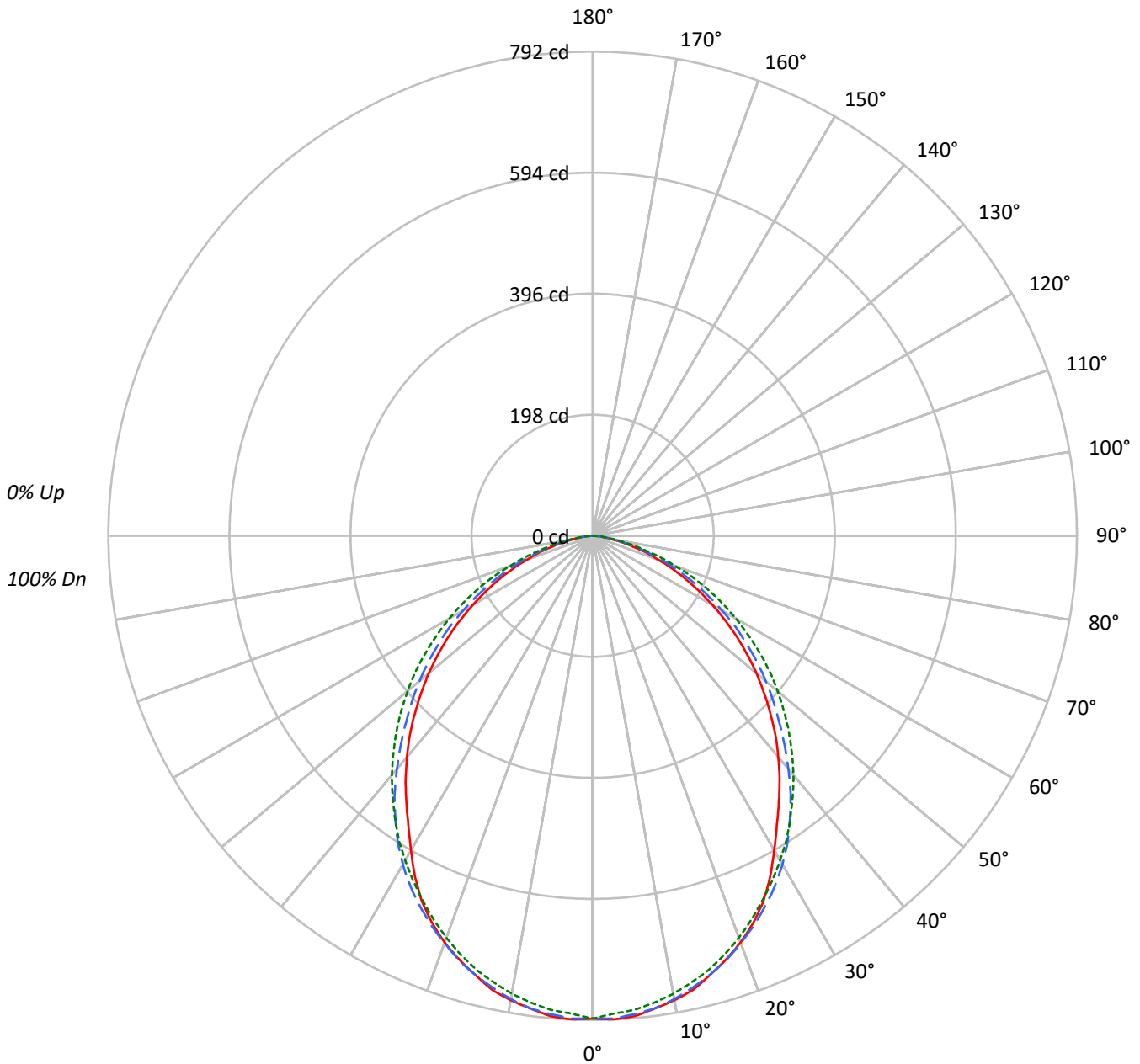
Lumens per Lamp: N/A
Luminaire Lumens: 1826.0 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2125	2125	2125
5°	2131	2122	2104
10°	2108	2102	2078
15°	2071	2071	2047
20°	2027	2029	2003
25°	1960	1984	1953
30°	1846	1929	1905
35°	1744	1849	1852
40°	1659	1749	1795
45°	1564	1643	1727
50°	1464	1548	1654
55°	1351	1440	1564
60°	1216	1314	1455
65°	1074	1168	1323
70°	895	995	1124
75°	704	795	880
80°	504	559	620
85°	327	327	309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.4	4.1
10°-20°	208.9	11.4
20°-30°	305.2	16.7
30°-40°	346.5	19.0
40°-50°	334.5	18.3
50°-60°	275.9	15.1
60°-70°	183.7	10.1
70°-80°	82.2	4.5
80°-90°	14.7	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°	588.5	32.2
0°-40°	934.9	51.2
0°-60°	1545.3	84.6
0°-90°	1826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1826.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	790	790	790	790	790	
5°	789	788	786	781	779	75
15°	743	745	743	740	735	210
25°	660	665	668	664	658	302
35°	531	538	563	566	564	333
45°	411	418	432	451	454	317
55°	288	293	307	324	333	257
65°	169	173	184	197	208	167
75°	68	71	76	80	85	74
85°	11	11	11	10	10	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	789.7	789.7	789.7	789.7	789.7
2.5°	791.8	792.1	790.3	785.5	782.4
5°	788.8	788.5	785.5	781.2	778.8
7.5°	780.0	780.6	779.7	773.6	770.3
10°	771.5	771.8	769.4	764.5	760.6
12.5°	760.6	760.3	756.9	754.5	748.1
15°	743.3	745.1	743.3	739.9	734.8
17.5°	726.6	726.6	727.8	722.0	718.1
20°	707.8	708.7	708.7	704.1	699.6
22.5°	685.9	688.7	689.6	684.7	679.3
25°	660.2	665.3	668.3	663.5	657.7
27.5°	628.9	636.8	645.9	642.3	635.9
30°	594.0	605.5	620.7	617.7	613.1
32.5°	560.9	572.5	593.4	592.2	589.8
35°	530.9	538.2	562.8	565.8	563.7
37.5°	502.4	509.1	532.1	539.1	537.3
40°	472.4	479.6	497.8	510.3	510.9
42.5°	442.6	449.6	464.5	482.4	482.4
45°	411.1	418.1	431.7	451.4	453.9
47.5°	380.1	387.4	400.8	420.5	424.4
50°	349.8	356.5	369.8	388.9	395.0
52.5°	318.2	325.5	338.6	356.2	365.0
55°	287.9	292.8	307.0	324.0	333.4
57.5°	256.4	260.9	277.0	291.5	301.3
60°	226.0	231.8	244.2	259.1	270.3
62.5°	196.9	203.0	213.6	226.6	239.4
65°	168.7	173.2	183.5	196.6	207.8
67.5°	141.4	145.3	155.6	164.7	176.6
70°	113.8	118.9	126.5	135.3	142.9
72.5°	91.6	93.7	100.1	106.5	114.4
75°	67.7	71.3	76.5	80.1	84.6
77.5°	48.5	50.7	53.7	56.7	61.0
80°	32.5	33.4	36.1	36.7	40.0
82.5°	19.7	20.3	20.9	21.2	22.5
85°	10.6	10.6	10.6	10.0	10.0
87.5°	6.1	6.1	5.2	4.2	3.0
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)