

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: P556564

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-82-86-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: P556564
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-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

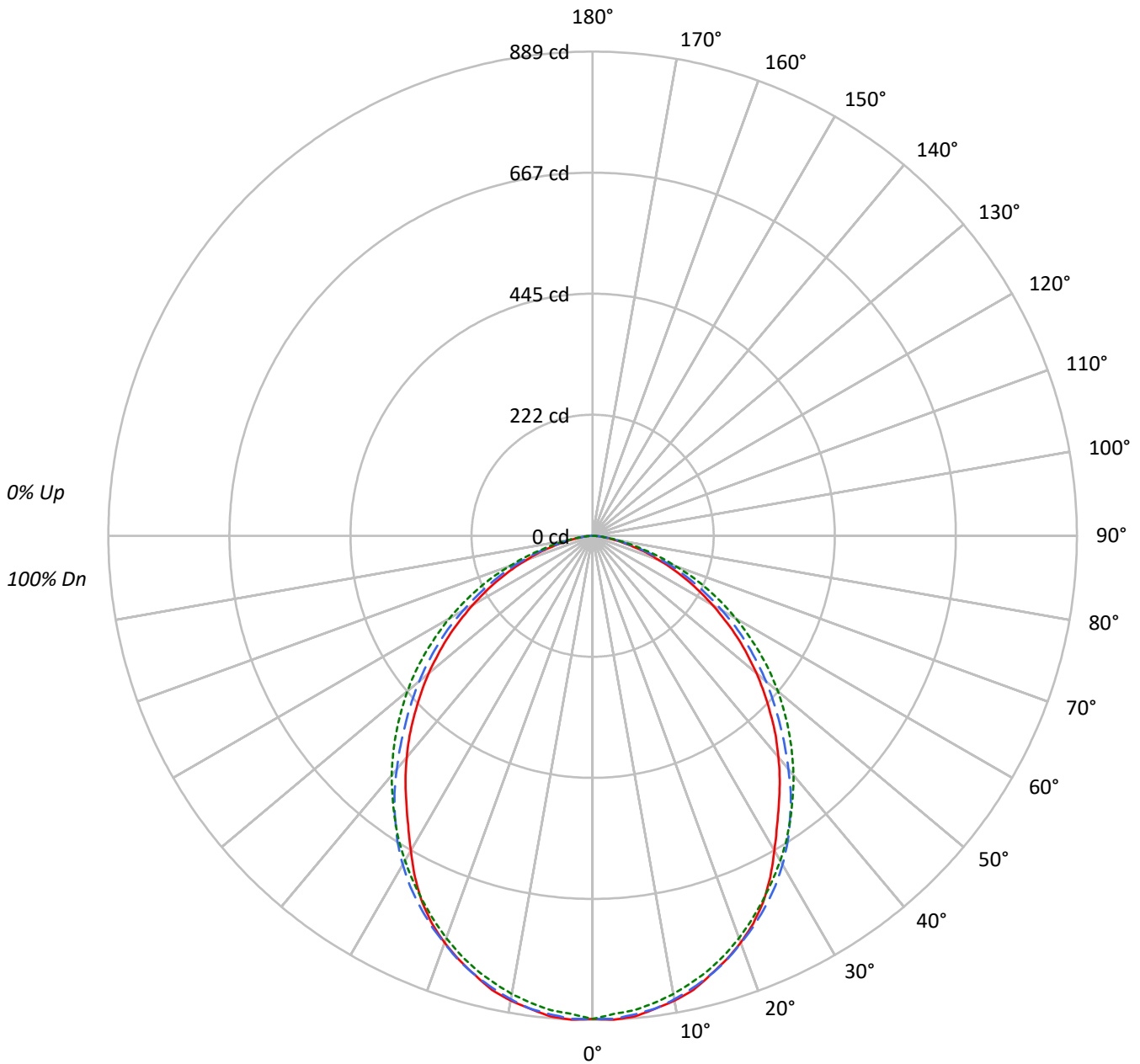
Lumens per Lamp: N/A
Luminaire Lumens: 2051.0 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556564

CATALOG NUMBER: FUSL-12-4-LD4-1LO-40-UNV-82-86-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P556564

CATALOG NUMBER: FUSL-12-4-LD4-1LO-40-UNV-82-86-EDD-90

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°	2387	2387	2387
5°	2393	2383	2363
10°	2368	2361	2334
15°	2326	2326	2299
20°	2277	2279	2250
25°	2202	2229	2194
30°	2073	2166	2140
35°	1959	2076	2080
40°	1864	1964	2016
45°	1757	1845	1940
50°	1645	1739	1858
55°	1517	1618	1757
60°	1366	1476	1634
65°	1207	1313	1486
70°	1006	1118	1263
75°	790	893	989
80°	566	629	697
85°	367	367	346



TEST NUMBER: P556564

CATALOG NUMBER: FUSL-12-4-LD4-1LO-40-UNV-82-86-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.5	4.1
10°-20°	234.6	11.4
20°-30°	342.9	16.7
30°-40°	389.2	19.0
40°-50°	375.7	18.3
50°-60°	309.9	15.1
60°-70°	206.4	10.1
70°-80°	92.4	4.5
80°-90°	16.5	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°	661.0	32.2
0°-40°	1050.1	51.2
0°-60°	1735.8	84.6
0°-90°	2051.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2051.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	886	886	882	878	875	84
15°	835	837	835	831	825	235
25°	742	747	751	745	739	340
35°	596	604	632	636	633	374
45°	462	470	485	507	510	356
55°	323	329	345	364	374	289
65°	190	195	206	221	233	188
75°	76	80	86	90	95	83
85°	12	12	12	11	11	16
90°	0	0	0	0	0	



TEST NUMBER: P556564

CATALOG NUMBER: FUSL-12-4-LD4-1LO-40-UNV-82-86-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	887.0	887.0	887.0	887.0	887.0
2.5°	889.4	889.7	887.7	882.2	878.8
5°	886.0	885.6	882.2	877.5	874.7
7.5°	876.1	876.8	875.8	868.9	865.2
10°	866.6	866.9	864.2	858.7	854.3
12.5°	854.3	854.0	850.2	847.5	840.3
15°	834.9	836.9	834.9	831.1	825.3
17.5°	816.1	816.1	817.5	811.0	806.6
20°	795.0	796.0	796.0	790.9	785.8
22.5°	770.5	773.5	774.6	769.1	763.0
25°	741.5	747.3	750.7	745.2	738.8
27.5°	706.4	715.3	725.5	721.4	714.2
30°	667.2	680.2	697.2	693.8	688.7
32.5°	630.1	643.0	666.5	665.2	662.4
35°	596.3	604.5	632.1	635.5	633.1
37.5°	564.3	571.8	597.7	605.5	603.5
40°	530.6	538.7	559.2	573.2	573.8
42.5°	497.2	505.0	521.7	541.8	541.8
45°	461.7	469.6	484.9	507.1	509.8
47.5°	427.0	435.2	450.1	472.3	476.7
50°	392.9	400.4	415.4	436.9	443.7
52.5°	357.5	365.6	380.3	400.1	409.9
55°	323.4	328.8	344.9	363.9	374.5
57.5°	287.9	293.1	311.1	327.5	338.4
60°	253.9	260.3	274.3	291.0	303.6
62.5°	221.2	228.0	239.9	254.5	268.9
65°	189.5	194.6	206.2	220.8	233.4
67.5°	158.8	163.2	174.8	185.0	198.3
70°	127.8	133.6	142.1	152.0	160.5
72.5°	102.9	105.3	112.5	119.6	128.5
75°	76.0	80.1	85.9	90.0	95.1
77.5°	54.5	56.9	60.3	63.7	68.5
80°	36.5	37.5	40.6	41.2	45.0
82.5°	22.1	22.8	23.5	23.9	25.2
85°	11.9	11.9	11.9	11.2	11.2
87.5°	6.8	6.8	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)