

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: P556488

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-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: P556488
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-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

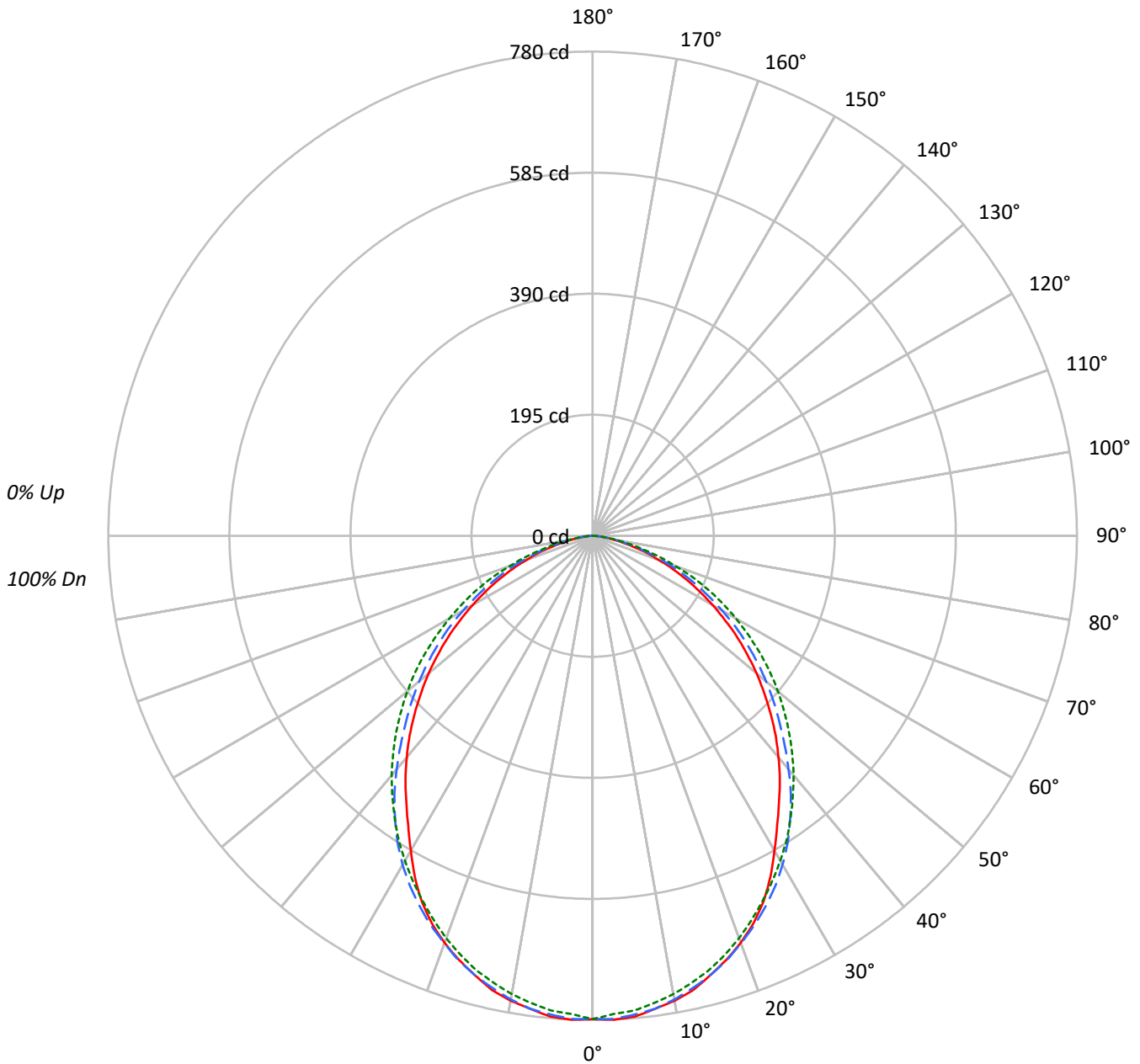
Lumens per Lamp: N/A
Luminaire Lumens: 1800.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2095	2095	2095
5°	2100	2092	2074
10°	2078	2072	2049
15°	2041	2041	2018
20°	1998	2001	1975
25°	1932	1956	1925
30°	1820	1901	1878
35°	1719	1823	1826
40°	1636	1724	1769
45°	1542	1620	1703
50°	1443	1526	1630
55°	1331	1420	1542
60°	1199	1295	1434
65°	1059	1152	1305
70°	882	981	1109
75°	693	784	867
80°	496	552	612
85°	324	324	306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	4.1
10°-20°	205.9	11.4
20°-30°	300.9	16.7
30°-40°	341.5	19.0
40°-50°	329.7	18.3
50°-60°	272.0	15.1
60°-70°	181.1	10.1
70°-80°	81.0	4.5
80°-90°	14.5	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°	580.1	32.2
0°-40°	921.6	51.2
0°-60°	1523.3	84.6
0°-90°	1800.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1800.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	778	777	774	770	768	74
15°	733	734	733	729	724	207
25°	651	656	659	654	648	298
35°	523	530	555	558	556	328
45°	405	412	426	445	447	313
55°	284	289	303	319	329	253
65°	166	171	181	194	205	165
75°	67	70	75	79	83	73
85°	10	10	10	10	10	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	778.5	778.5	778.5	778.5	778.5
2.5°	780.5	780.8	779.1	774.3	771.3
5°	777.6	777.3	774.3	770.1	767.7
7.5°	768.9	769.5	768.6	762.6	759.3
10°	760.5	760.8	758.4	753.6	749.7
12.5°	749.7	749.4	746.2	743.8	737.5
15°	732.7	734.5	732.7	729.4	724.3
17.5°	716.2	716.2	717.4	711.8	707.9
20°	697.7	698.6	698.6	694.1	689.6
22.5°	676.2	678.9	679.8	675.0	669.6
25°	650.8	655.8	658.8	654.0	648.4
27.5°	620.0	627.7	636.7	633.1	626.8
30°	585.6	596.9	611.9	608.9	604.4
32.5°	553.0	564.3	585.0	583.8	581.4
35°	523.4	530.5	554.8	557.7	555.7
37.5°	495.2	501.8	524.6	531.4	529.6
40°	465.6	472.8	490.8	503.0	503.6
42.5°	436.3	443.2	457.9	475.5	475.5
45°	405.2	412.1	425.6	445.0	447.4
47.5°	374.7	381.9	395.1	414.5	418.4
50°	344.8	351.4	364.6	383.4	389.4
52.5°	313.7	320.9	333.8	351.1	359.8
55°	283.8	288.6	302.6	319.4	328.7
57.5°	252.7	257.2	273.0	287.4	297.0
60°	222.8	228.5	240.7	255.4	266.5
62.5°	194.1	200.1	210.5	223.4	236.0
65°	166.3	170.8	180.9	193.8	204.9
67.5°	139.4	143.2	153.4	162.4	174.1
70°	112.1	117.2	124.7	133.4	140.9
72.5°	90.3	92.4	98.7	105.0	112.7
75°	66.7	70.3	75.4	79.0	83.4
77.5°	47.8	49.9	52.9	55.9	60.1
80°	32.0	32.9	35.6	36.2	39.5
82.5°	19.4	20.0	20.6	20.9	22.1
85°	10.5	10.5	10.5	9.9	9.9
87.5°	6.0	6.0	5.1	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)