

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: P556480

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-81-84-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: P556480
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-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

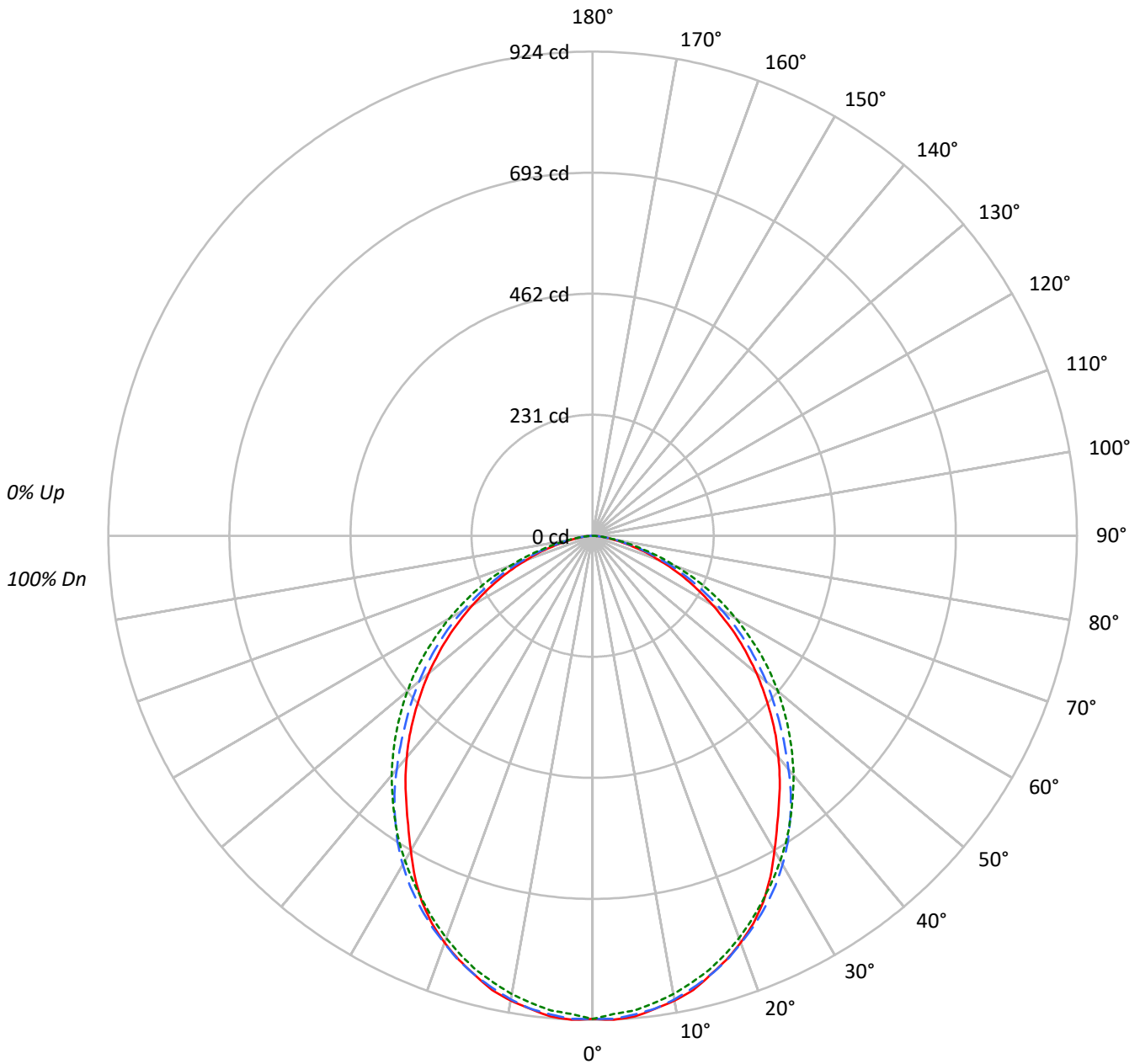
Lumens per Lamp: N/A
Luminaire Lumens: 2132.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2481	2481	2481
5°	2488	2477	2456
10°	2461	2455	2426
15°	2418	2418	2390
20°	2367	2370	2339
25°	2289	2317	2280
30°	2155	2252	2224
35°	2036	2159	2162
40°	1937	2042	2095
45°	1827	1918	2017
50°	1710	1808	1931
55°	1577	1682	1826
60°	1420	1534	1699
65°	1254	1365	1545
70°	1045	1162	1312
75°	821	928	1027
80°	587	654	725
85°	383	383	361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.8	4.1
10°-20°	243.9	11.4
20°-30°	356.4	16.7
30°-40°	404.5	19.0
40°-50°	390.5	18.3
50°-60°	322.2	15.1
60°-70°	214.5	10.1
70°-80°	96.0	4.5
80°-90°	17.2	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°	687.1	32.2
0°-40°	1091.6	51.2
0°-60°	1804.3	84.6
0°-90°	2132.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2132.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	921	921	917	912	909	87
15°	868	870	868	864	858	245
25°	771	777	780	775	768	353
35°	620	628	657	661	658	388
45°	480	488	504	527	530	370
55°	336	342	358	378	389	300
65°	197	202	214	230	243	195
75°	79	83	89	94	99	86
85°	12	12	12	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	922.0	922.0	922.0	922.0	922.0
2.5°	924.5	924.9	922.7	917.1	913.5
5°	921.0	920.6	917.1	912.1	909.3
7.5°	910.7	911.4	910.3	903.3	899.4
10°	900.8	901.1	898.3	892.6	888.0
12.5°	888.0	887.7	883.8	880.9	873.5
15°	867.8	870.0	867.8	863.9	857.9
17.5°	848.4	848.4	849.8	843.0	838.4
20°	826.4	827.5	827.5	822.1	816.8
22.5°	800.9	804.1	805.1	799.5	793.1
25°	770.8	776.8	780.3	774.7	767.9
27.5°	734.3	743.5	754.1	749.9	742.4
30°	693.6	707.0	724.7	721.2	715.9
32.5°	655.0	668.4	692.9	691.4	688.6
35°	619.9	628.4	657.1	660.6	658.1
37.5°	586.6	594.4	621.3	629.4	627.3
40°	551.5	560.0	581.3	595.8	596.5
42.5°	516.8	525.0	542.3	563.2	563.2
45°	480.0	488.1	504.1	527.1	529.9
47.5°	443.8	452.3	467.9	490.9	495.6
50°	408.4	416.2	431.8	454.1	461.2
52.5°	371.6	380.1	395.3	415.9	426.1
55°	336.2	341.8	358.5	378.3	389.3
57.5°	299.3	304.6	323.4	340.4	351.7
60°	263.9	270.6	285.1	302.5	315.6
62.5°	229.9	237.0	249.4	264.6	279.5
65°	196.9	202.3	214.3	229.5	242.6
67.5°	165.1	169.7	181.7	192.3	206.2
70°	132.8	138.9	147.7	158.0	166.8
72.5°	107.0	109.5	116.9	124.3	133.5
75°	79.0	83.2	89.3	93.5	98.8
77.5°	56.7	59.2	62.7	66.2	71.2
80°	37.9	39.0	42.2	42.9	46.8
82.5°	23.0	23.7	24.4	24.8	26.2
85°	12.4	12.4	12.4	11.7	11.7
87.5°	7.1	7.1	6.0	5.0	3.5
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)