

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: P558115

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-93-85-EDD**

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: P558115
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-LD4-3LO-40-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

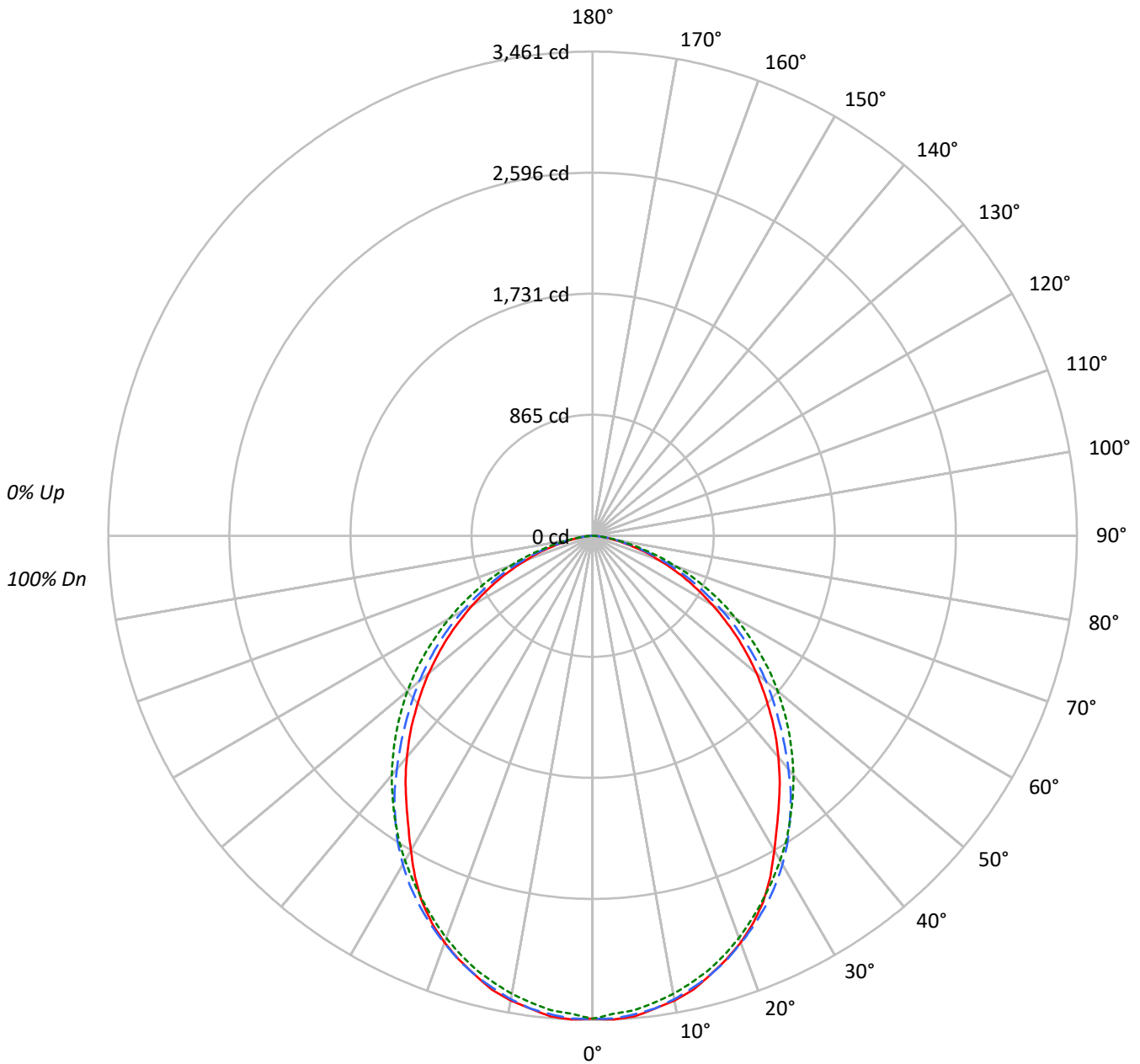
Lumens per Lamp: N/A
Luminaire Lumens: 7982.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (A_{in}): 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: P558115

CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-93-85-EDD

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°	9289	9289	9289
5°	9314	9274	9196
10°	9215	9190	9085
15°	9052	9052	8948
20°	8860	8871	8757
25°	8568	8674	8537
30°	8068	8431	8328
35°	7624	8081	8094
40°	7253	7645	7845
45°	6839	7182	7550
50°	6401	6768	7229
55°	5904	6297	6838
60°	5317	5746	6359
65°	4695	5109	5784
70°	3913	4351	4914
75°	3074	3475	3847
80°	2199	2445	2713
85°	1433	1433	1352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	325.0	4.1
10°-20°	913.1	11.4
20°-30°	1334.3	16.7
30°-40°	1514.6	19.0
40°-50°	1462.1	18.3
50°-60°	1206.1	15.1
60°-70°	803.2	10.1
70°-80°	359.4	4.5
80°-90°	64.3	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°	2572.4	32.2
0°-40°	4086.9	51.2
0°-60°	6755.1	84.6
0°-90°	7982.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7982.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3452	3452	3452	3452	3452	
5°	3448	3447	3433	3415	3404	326
15°	3249	3257	3249	3234	3212	916
25°	2886	2908	2922	2900	2875	1322
35°	2321	2353	2460	2473	2464	1454
45°	1797	1828	1887	1973	1984	1386
55°	1258	1280	1342	1416	1458	1123
65°	737	757	802	859	908	731
75°	296	312	334	350	370	323
85°	46	46	46	44	44	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3452.0	3452.0	3452.0	3452.0	3452.0
2.5°	3461.3	3462.6	3454.7	3433.4	3420.2
5°	3448.0	3446.7	3433.4	3414.9	3404.3
7.5°	3409.6	3412.2	3408.2	3381.7	3367.1
10°	3372.4	3373.8	3363.2	3341.9	3324.7
12.5°	3324.7	3323.4	3308.8	3298.2	3270.3
15°	3249.1	3257.1	3249.1	3234.5	3212.0
17.5°	3176.2	3176.2	3181.5	3156.3	3139.0
20°	3093.9	3097.9	3097.9	3078.0	3058.1
22.5°	2998.5	3010.4	3014.4	2993.2	2969.3
25°	2885.7	2908.3	2921.5	2900.3	2875.1
27.5°	2749.1	2783.6	2823.4	2807.5	2779.6
30°	2596.6	2647.0	2713.3	2700.1	2680.2
32.5°	2452.1	2502.5	2594.0	2588.7	2578.1
35°	2320.8	2352.6	2460.0	2473.3	2464.0
37.5°	2196.1	2225.3	2326.1	2356.6	2348.6
40°	2064.8	2096.7	2176.2	2230.6	2233.3
42.5°	1934.9	1965.4	2030.4	2108.6	2108.6
45°	1797.0	1827.5	1887.1	1973.3	1983.9
47.5°	1661.7	1693.5	1751.9	1838.1	1855.3
50°	1529.1	1558.2	1616.6	1700.1	1726.7
52.5°	1391.1	1423.0	1480.0	1556.9	1595.4
55°	1258.5	1279.7	1342.1	1416.3	1457.5
57.5°	1120.6	1140.5	1210.8	1274.4	1316.9
60°	988.0	1013.2	1067.6	1132.5	1181.6
62.5°	860.7	887.2	933.6	990.6	1046.3
65°	737.3	757.2	802.3	859.4	908.4
67.5°	618.0	635.2	680.3	720.1	771.8
70°	497.3	519.9	553.0	591.5	624.6
72.5°	400.5	409.8	437.6	465.5	500.0
75°	295.7	311.6	334.2	350.1	370.0
77.5°	212.2	221.5	234.7	248.0	266.6
80°	141.9	145.9	157.8	160.5	175.1
82.5°	86.2	88.9	91.5	92.8	98.1
85°	46.4	46.4	46.4	43.8	43.8
87.5°	26.5	26.5	22.5	18.6	13.3
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)