

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: P556463

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-93-97-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: P556463
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-30-UNV-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

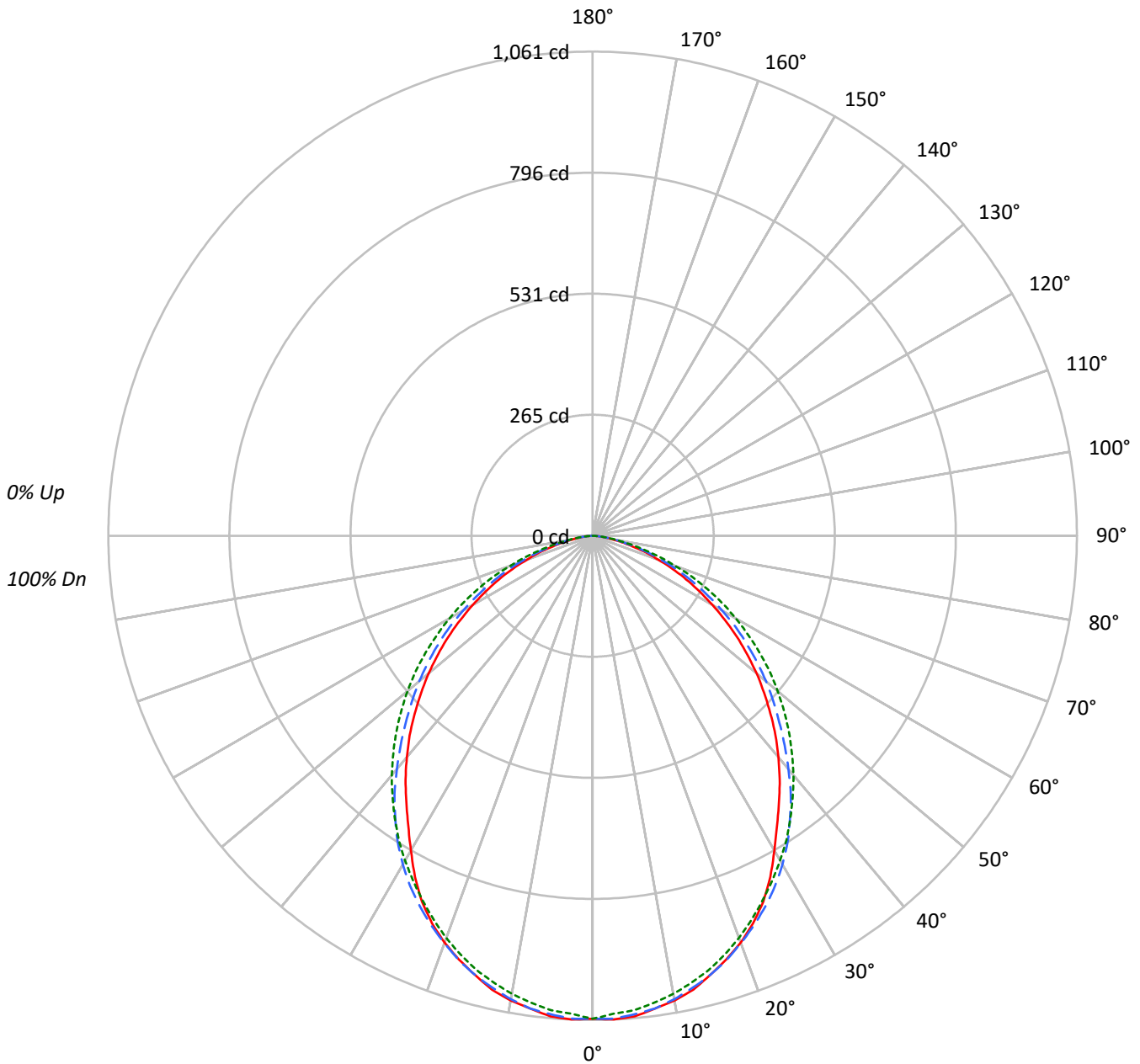
Lumens per Lamp: N/A
Luminaire Lumens: 2447.0 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (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

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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°	2848	2848	2848
5°	2855	2843	2819
10°	2825	2817	2785
15°	2775	2775	2743
20°	2716	2720	2685
25°	2627	2659	2617
30°	2473	2585	2553
35°	2337	2478	2482
40°	2224	2344	2405
45°	2097	2202	2315
50°	1963	2075	2216
55°	1810	1930	2096
60°	1630	1762	1949
65°	1439	1566	1773
70°	1200	1334	1507
75°	943	1066	1179
80°	674	750	832
85°	438	438	414



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	4.1
10°-20°	279.9	11.4
20°-30°	409.0	16.7
30°-40°	464.3	19.0
40°-50°	448.2	18.3
50°-60°	369.7	15.1
60°-70°	246.2	10.1
70°-80°	110.2	4.5
80°-90°	19.7	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°	788.6	32.2
0°-40°	1252.9	51.2
0°-60°	2070.9	84.6
0°-90°	2447.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2447.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1058	1058	1058	1058	1058	
5°	1057	1057	1053	1047	1044	100
15°	996	998	996	992	985	281
25°	885	892	896	889	881	405
35°	712	721	754	758	755	446
45°	551	560	578	605	608	425
55°	386	392	411	434	447	344
65°	226	232	246	263	278	224
75°	91	96	102	107	113	99
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1058.3	1058.3	1058.3	1058.3	1058.3
2.5°	1061.1	1061.5	1059.1	1052.6	1048.5
5°	1057.0	1056.6	1052.6	1046.9	1043.6
7.5°	1045.3	1046.1	1044.8	1036.7	1032.2
10°	1033.9	1034.3	1031.0	1024.5	1019.2
12.5°	1019.2	1018.8	1014.4	1011.1	1002.6
15°	996.1	998.5	996.1	991.6	984.7
17.5°	973.7	973.7	975.3	967.6	962.3
20°	948.5	949.7	949.7	943.6	937.5
22.5°	919.2	922.9	924.1	917.6	910.3
25°	884.7	891.6	895.6	889.1	881.4
27.5°	842.8	853.4	865.6	860.7	852.1
30°	796.0	811.5	831.8	827.7	821.6
32.5°	751.7	767.2	795.2	793.6	790.3
35°	711.5	721.2	754.2	758.2	755.4
37.5°	673.3	682.2	713.1	722.4	720.0
40°	633.0	642.8	667.2	683.8	684.6
42.5°	593.2	602.5	622.4	646.4	646.4
45°	550.9	560.2	578.5	605.0	608.2
47.5°	509.4	519.2	537.1	563.5	568.8
50°	468.8	477.7	495.6	521.2	529.3
52.5°	426.5	436.2	453.7	477.3	489.1
55°	385.8	392.3	411.4	434.2	446.8
57.5°	343.5	349.6	371.2	390.7	403.7
60°	302.9	310.6	327.3	347.2	362.2
62.5°	263.9	272.0	286.2	303.7	320.8
65°	226.0	232.1	246.0	263.4	278.5
67.5°	189.5	194.7	208.6	220.8	236.6
70°	152.5	159.4	169.5	181.3	191.5
72.5°	122.8	125.6	134.2	142.7	153.3
75°	90.7	95.5	102.5	107.3	113.4
77.5°	65.0	67.9	72.0	76.0	81.7
80°	43.5	44.7	48.4	49.2	53.7
82.5°	26.4	27.2	28.1	28.5	30.1
85°	14.2	14.2	14.2	13.4	13.4
87.5°	8.1	8.1	6.9	5.7	4.1
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)