

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: P556483

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-81-85-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: P556483
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-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

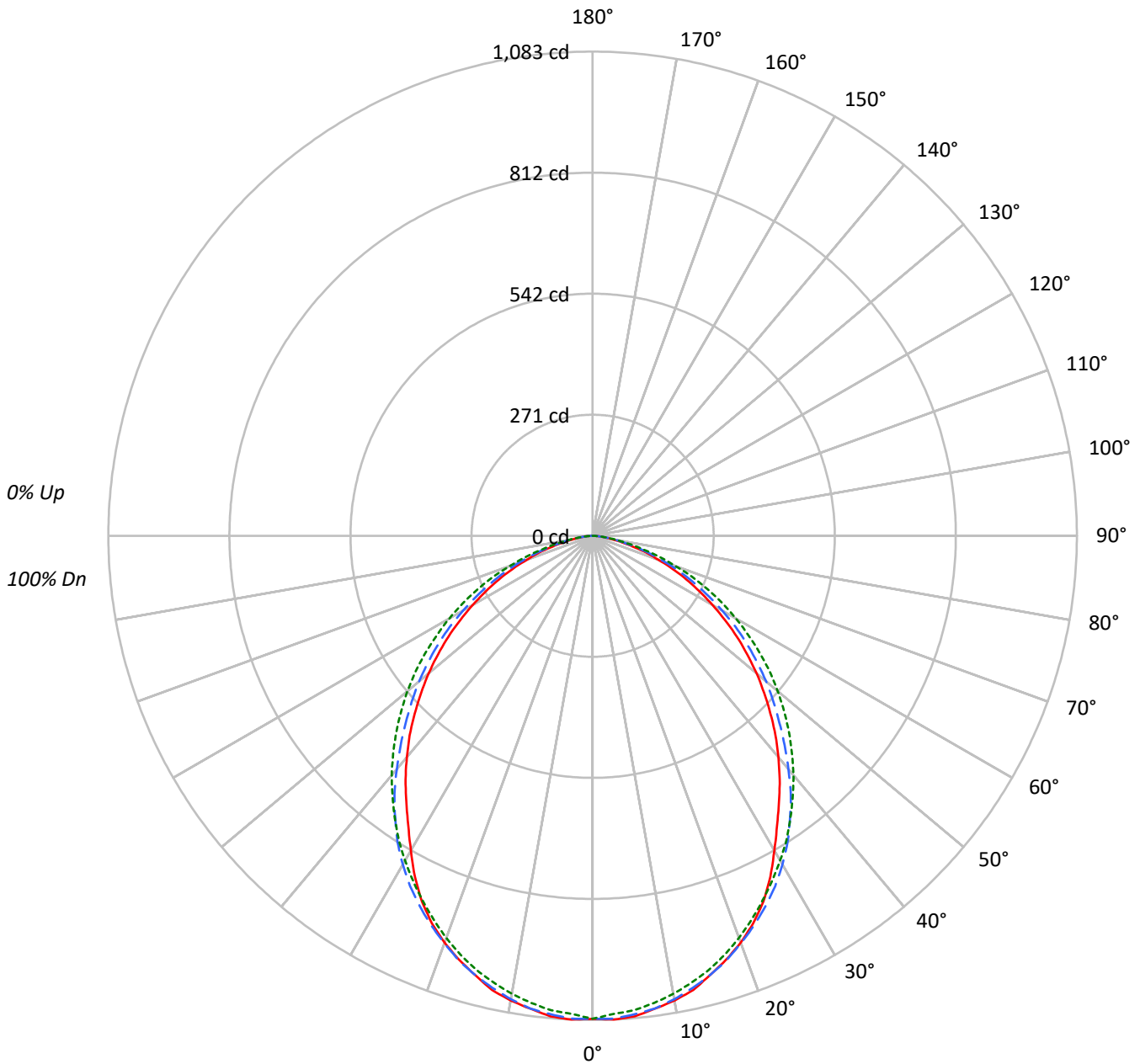
Lumens per Lamp: N/A
Luminaire Lumens: 2498.0 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2907	2907	2907
5°	2915	2903	2878
10°	2884	2876	2843
15°	2833	2833	2800
20°	2773	2776	2741
25°	2681	2715	2672
30°	2525	2638	2606
35°	2386	2529	2533
40°	2270	2393	2455
45°	2140	2248	2363
50°	2003	2118	2262
55°	1848	1970	2140
60°	1664	1798	1990
65°	1470	1599	1810
70°	1224	1362	1538
75°	963	1088	1204
80°	688	766	849
85°	448	448	423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.7	4.1
10°-20°	285.8	11.4
20°-30°	417.6	16.7
30°-40°	474.0	19.0
40°-50°	457.6	18.3
50°-60°	377.5	15.1
60°-70°	251.4	10.1
70°-80°	112.5	4.5
80°-90°	20.1	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°	805.0	32.2
0°-40°	1279.0	51.2
0°-60°	2114.1	84.6
0°-90°	2498.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2498.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1080	1080	1080	1080	1080	
5°	1079	1079	1074	1069	1065	102
15°	1017	1019	1017	1012	1005	287
25°	903	910	914	908	900	414
35°	726	736	770	774	771	455
45°	562	572	591	618	621	434
55°	394	400	420	443	456	352
65°	231	237	251	269	284	229
75°	93	98	105	110	116	101
85°	14	14	14	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1080.3	1080.3	1080.3	1080.3	1080.3
2.5°	1083.2	1083.6	1081.2	1074.5	1070.4
5°	1079.1	1078.7	1074.5	1068.7	1065.4
7.5°	1067.0	1067.9	1066.6	1058.3	1053.8
10°	1055.4	1055.8	1052.5	1045.9	1040.5
12.5°	1040.5	1040.1	1035.5	1032.2	1023.5
15°	1016.8	1019.3	1016.8	1012.3	1005.2
17.5°	994.0	994.0	995.7	987.8	982.4
20°	968.3	969.5	969.5	963.3	957.1
22.5°	938.4	942.1	943.4	936.7	929.2
25°	903.1	910.2	914.3	907.7	899.8
27.5°	860.4	871.1	883.6	878.6	869.9
30°	812.6	828.4	849.1	845.0	838.8
32.5°	767.4	783.2	811.8	810.1	806.8
35°	726.3	736.3	769.9	774.0	771.1
37.5°	687.3	696.4	728.0	737.5	735.0
40°	646.2	656.2	681.1	698.1	698.9
42.5°	605.5	615.1	635.4	659.9	659.9
45°	562.4	571.9	590.6	617.6	620.9
47.5°	520.0	530.0	548.3	575.2	580.6
50°	478.5	487.7	505.9	532.1	540.4
52.5°	435.4	445.3	463.2	487.2	499.3
55°	393.9	400.5	420.0	443.3	456.1
57.5°	350.7	356.9	378.9	398.8	412.1
60°	309.2	317.1	334.1	354.4	369.8
62.5°	269.4	277.7	292.2	310.0	327.5
65°	230.8	237.0	251.1	268.9	284.3
67.5°	193.4	198.8	212.9	225.4	241.5
70°	155.6	162.7	173.1	185.1	195.5
72.5°	125.3	128.2	137.0	145.7	156.5
75°	92.6	97.5	104.6	109.6	115.8
77.5°	66.4	69.3	73.5	77.6	83.4
80°	44.4	45.7	49.4	50.2	54.8
82.5°	27.0	27.8	28.6	29.1	30.7
85°	14.5	14.5	14.5	13.7	13.7
87.5°	8.3	8.3	7.1	5.8	4.2
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)