

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: P556561

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-82-84-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: P556561
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-40-UNV-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

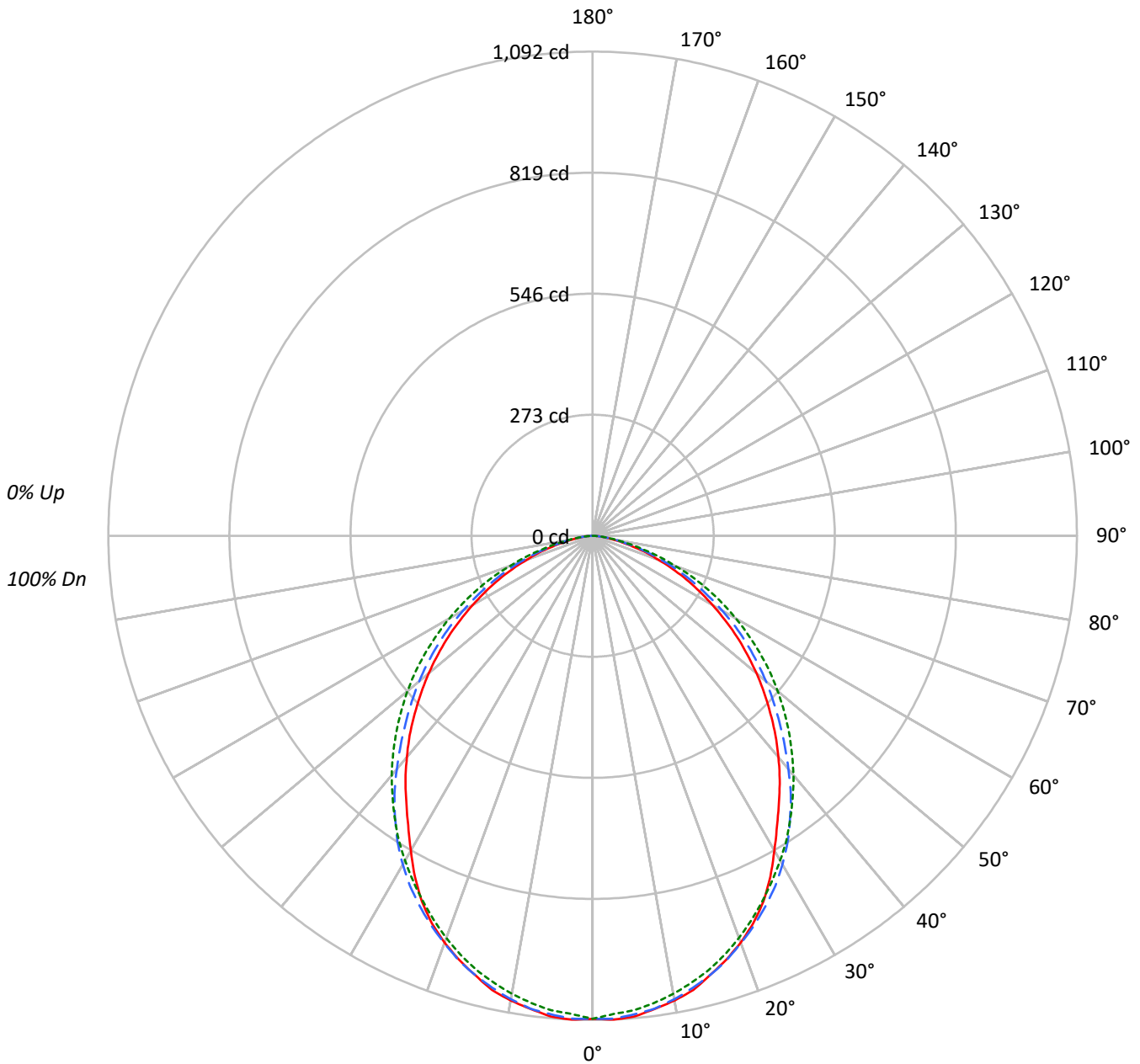
Lumens per Lamp: N/A
Luminaire Lumens: 2519.0 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2932	2932	2932
5°	2939	2927	2902
10°	2908	2900	2867
15°	2857	2857	2824
20°	2796	2800	2764
25°	2704	2738	2694
30°	2546	2661	2628
35°	2406	2551	2554
40°	2289	2413	2476
45°	2158	2267	2383
50°	2020	2136	2281
55°	1863	1987	2158
60°	1678	1813	2007
65°	1482	1612	1826
70°	1234	1373	1551
75°	970	1097	1214
80°	694	772	855
85°	451	451	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.6	4.1
10°-20°	288.2	11.4
20°-30°	421.1	16.7
30°-40°	478.0	19.0
40°-50°	461.4	18.3
50°-60°	380.6	15.1
60°-70°	253.5	10.1
70°-80°	113.4	4.5
80°-90°	20.3	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°	811.8	32.2
0°-40°	1289.8	51.2
0°-60°	2131.8	84.6
0°-90°	2519.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2519.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1089	1089	1089	1089	1089	
5°	1088	1088	1084	1078	1074	103
15°	1025	1028	1025	1021	1014	289
25°	911	918	922	915	907	417
35°	732	742	776	780	778	459
45°	567	577	596	623	626	438
55°	397	404	424	447	460	354
65°	233	239	253	271	287	231
75°	93	98	106	110	117	102
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1089.4	1089.4	1089.4	1089.4	1089.4
2.5°	1092.3	1092.8	1090.2	1083.5	1079.4
5°	1088.1	1087.7	1083.5	1077.7	1074.3
7.5°	1076.0	1076.8	1075.6	1067.2	1062.6
10°	1064.3	1064.7	1061.4	1054.7	1049.2
12.5°	1049.2	1048.8	1044.2	1040.9	1032.1
15°	1025.4	1027.9	1025.4	1020.8	1013.7
17.5°	1002.4	1002.4	1004.0	996.1	990.6
20°	976.4	977.7	977.7	971.4	965.1
22.5°	946.3	950.0	951.3	944.6	937.1
25°	910.7	917.8	922.0	915.3	907.3
27.5°	867.6	878.5	891.0	886.0	877.2
30°	819.5	835.4	856.3	852.1	845.8
32.5°	773.8	789.7	818.6	816.9	813.6
35°	732.4	742.5	776.4	780.5	777.6
37.5°	693.1	702.3	734.1	743.7	741.2
40°	651.6	661.7	686.8	703.9	704.8
42.5°	610.6	620.2	640.8	665.4	665.4
45°	567.1	576.7	595.6	622.8	626.1
47.5°	524.4	534.4	552.9	580.1	585.5
50°	482.6	491.8	510.2	536.5	544.9
52.5°	439.0	449.1	467.1	491.3	503.5
55°	397.2	403.9	423.5	447.0	460.0
57.5°	353.6	359.9	382.1	402.2	415.6
60°	311.8	319.7	336.9	357.4	372.9
62.5°	271.6	280.0	294.6	312.6	330.2
65°	232.7	239.0	253.2	271.2	286.7
67.5°	195.0	200.5	214.7	227.3	243.6
70°	156.9	164.1	174.5	186.7	197.1
72.5°	126.4	129.3	138.1	146.9	157.8
75°	93.3	98.4	105.5	110.5	116.8
77.5°	67.0	69.9	74.1	78.3	84.1
80°	44.8	46.0	49.8	50.6	55.2
82.5°	27.2	28.0	28.9	29.3	31.0
85°	14.6	14.6	14.6	13.8	13.8
87.5°	8.4	8.4	7.1	5.9	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)