

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: P556471

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-80-87-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: P556471
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-80-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

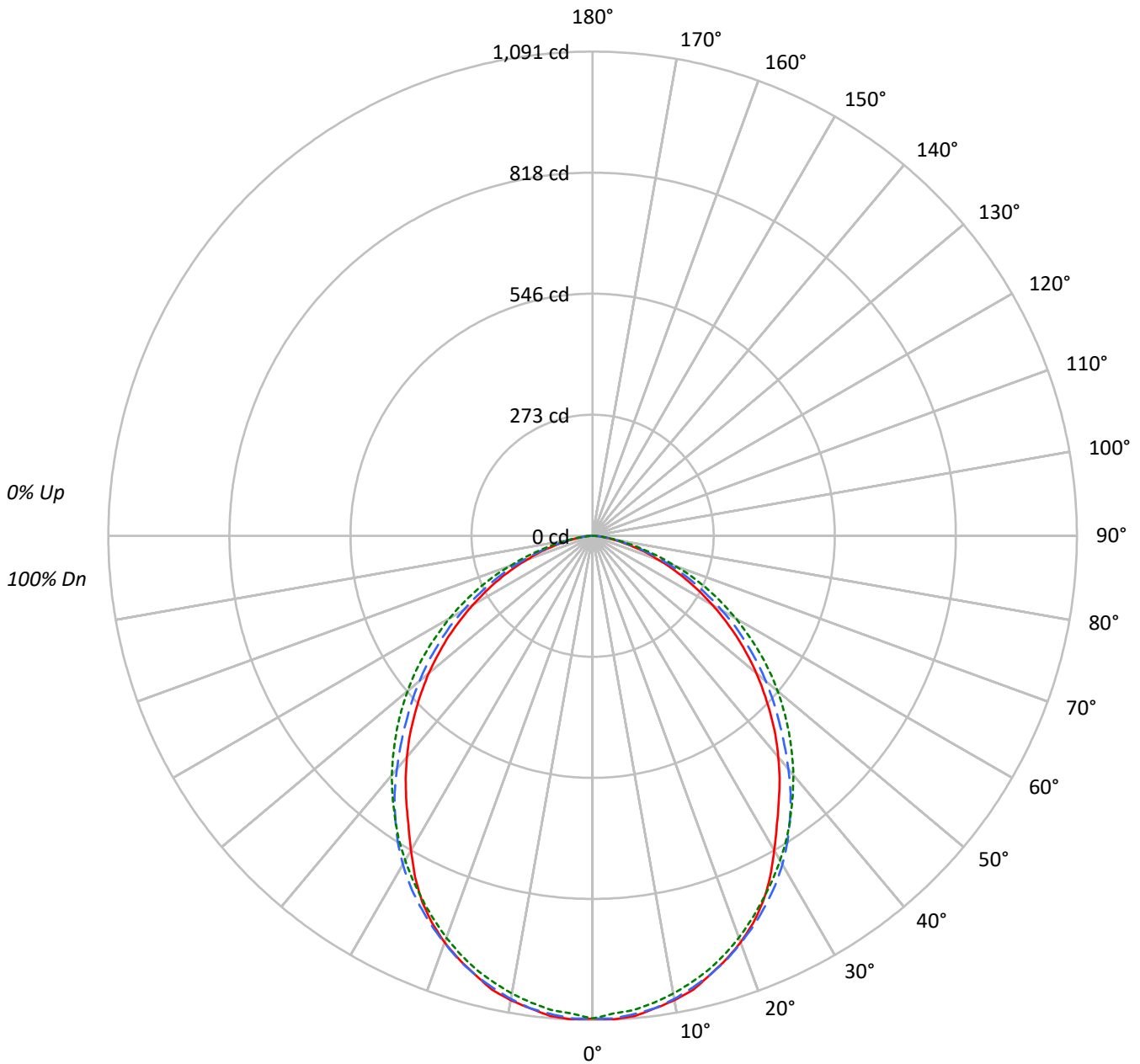
Lumens per Lamp: N/A
Luminaire Lumens: 2515.0 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2927	2927	2927
5°	2935	2922	2897
10°	2904	2896	2863
15°	2852	2852	2819
20°	2792	2795	2759
25°	2700	2733	2690
30°	2542	2656	2624
35°	2402	2546	2551
40°	2285	2409	2472
45°	2155	2263	2379
50°	2017	2133	2277
55°	1860	1984	2154
60°	1675	1810	2004
65°	1479	1610	1822
70°	1233	1371	1548
75°	969	1095	1212
80°	693	770	855
85°	451	451	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	4.1
10°-20°	287.7	11.4
20°-30°	420.4	16.7
30°-40°	477.2	19.0
40°-50°	460.7	18.3
50°-60°	380.0	15.1
60°-70°	253.1	10.1
70°-80°	113.3	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°	810.5	32.2
0°-40°	1287.7	51.2
0°-60°	2128.4	84.6
0°-90°	2515.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2515.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1088	1088	1088	1088	1088	
5°	1086	1086	1082	1076	1073	103
15°	1024	1026	1024	1019	1012	289
25°	909	916	920	914	906	416
35°	731	741	775	779	776	458
45°	566	576	595	622	625	437
55°	396	403	423	446	459	354
65°	232	239	253	271	286	230
75°	93	98	105	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°	1087.7	1087.7	1087.7	1087.7	1087.7
2.5°	1090.6	1091.0	1088.5	1081.8	1077.6
5°	1086.4	1086.0	1081.8	1076.0	1072.6
7.5°	1074.3	1075.1	1073.9	1065.5	1060.9
10°	1062.6	1063.0	1059.7	1053.0	1047.6
12.5°	1047.6	1047.1	1042.5	1039.2	1030.4
15°	1023.7	1026.2	1023.7	1019.1	1012.0
17.5°	1000.8	1000.8	1002.4	994.5	989.1
20°	974.9	976.1	976.1	969.8	963.6
22.5°	944.8	948.5	949.8	943.1	935.6
25°	909.2	916.4	920.5	913.8	905.9
27.5°	866.2	877.1	889.6	884.6	875.8
30°	818.2	834.0	854.9	850.7	844.5
32.5°	772.6	788.5	817.3	815.6	812.3
35°	731.2	741.3	775.1	779.3	776.4
37.5°	692.0	701.2	732.9	742.5	740.0
40°	650.6	660.6	685.7	702.8	703.7
42.5°	609.6	619.3	639.7	664.4	664.4
45°	566.2	575.8	594.6	621.8	625.1
47.5°	523.6	533.6	552.0	579.1	584.6
50°	481.8	491.0	509.4	535.7	544.0
52.5°	438.3	448.4	466.3	490.6	502.7
55°	396.5	403.2	422.9	446.3	459.2
57.5°	353.1	359.4	381.5	401.6	414.9
60°	311.3	319.2	336.4	356.8	372.3
62.5°	271.2	279.5	294.2	312.1	329.7
65°	232.3	238.6	252.8	270.8	286.2
67.5°	194.7	200.2	214.4	226.9	243.2
70°	156.7	163.8	174.2	186.4	196.8
72.5°	126.2	129.1	137.9	146.7	157.5
75°	93.2	98.2	105.3	110.3	116.6
77.5°	66.9	69.8	74.0	78.1	84.0
80°	44.7	46.0	49.7	50.6	55.2
82.5°	27.2	28.0	28.8	29.2	30.9
85°	14.6	14.6	14.6	13.8	13.8
87.5°	8.4	8.4	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)