

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: P556523

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-93-94-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: P556523
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-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

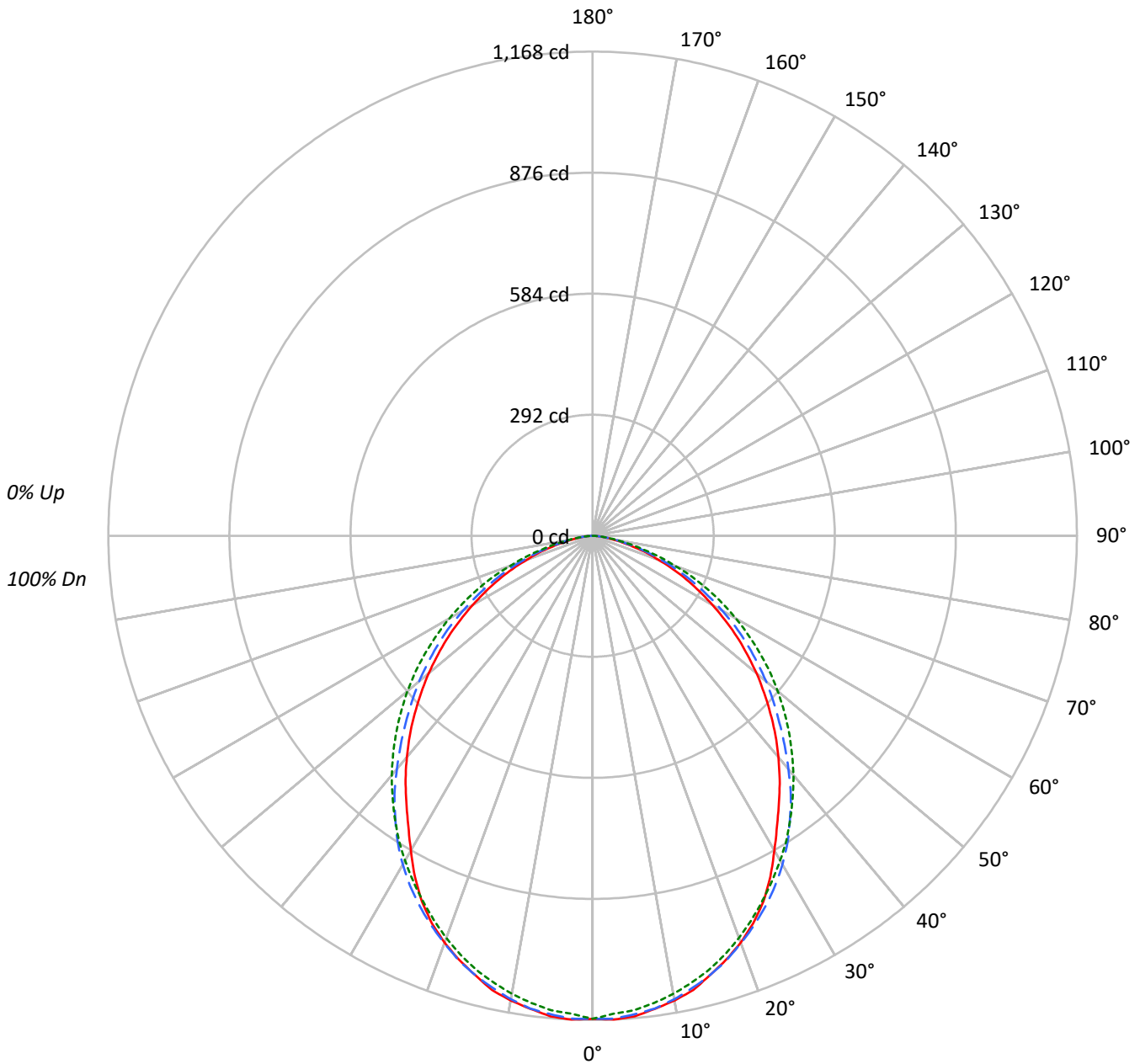
Lumens per Lamp: N/A
Luminaire Lumens: 2694.0 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3135	3135	3135
5°	3143	3130	3104
10°	3110	3102	3066
15°	3055	3055	3020
20°	2990	2994	2956
25°	2892	2928	2881
30°	2723	2846	2811
35°	2573	2728	2732
40°	2448	2580	2648
45°	2308	2424	2548
50°	2161	2284	2440
55°	1993	2125	2308
60°	1795	1939	2146
65°	1585	1724	1952
70°	1320	1468	1659
75°	1038	1173	1299
80°	742	826	916
85°	485	485	457



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.7	4.1
10°-20°	308.2	11.4
20°-30°	450.3	16.7
30°-40°	511.2	19.0
40°-50°	493.5	18.3
50°-60°	407.1	15.1
60°-70°	271.1	10.1
70°-80°	121.3	4.5
80°-90°	21.7	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°	868.2	32.2
0°-40°	1379.4	51.2
0°-60°	2279.9	84.6
0°-90°	2694.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2694.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1165	1165	1165	1165	1165	
5°	1164	1163	1159	1153	1149	110
15°	1097	1099	1097	1092	1084	309
25°	974	982	986	979	970	446
35°	783	794	830	835	832	491
45°	606	617	637	666	670	468
55°	425	432	453	478	492	379
65°	249	256	271	290	307	247
75°	100	105	113	118	125	109
85°	16	16	16	15	15	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1165.1	1165.1	1165.1	1165.1	1165.1
2.5°	1168.2	1168.7	1166.0	1158.8	1154.3
5°	1163.7	1163.3	1158.8	1152.6	1149.0
7.5°	1150.8	1151.7	1150.3	1141.4	1136.4
10°	1138.2	1138.7	1135.1	1127.9	1122.1
12.5°	1122.1	1121.7	1116.7	1113.2	1103.8
15°	1096.6	1099.3	1096.6	1091.7	1084.1
17.5°	1072.0	1072.0	1073.8	1065.3	1059.5
20°	1044.2	1045.6	1045.6	1038.9	1032.2
22.5°	1012.0	1016.0	1017.4	1010.2	1002.2
25°	974.0	981.6	986.0	978.9	970.4
27.5°	927.9	939.5	952.9	947.6	938.2
30°	876.4	893.4	915.8	911.3	904.6
32.5°	827.6	844.6	875.5	873.7	870.1
35°	783.3	794.0	830.3	834.8	831.6
37.5°	741.2	751.1	785.1	795.4	792.7
40°	696.9	707.6	734.5	752.9	753.7
42.5°	653.0	663.3	685.3	711.7	711.7
45°	606.5	616.8	636.9	666.0	669.6
47.5°	560.8	571.6	591.3	620.4	626.2
50°	516.1	525.9	545.6	573.8	582.8
52.5°	469.5	480.3	499.5	525.5	538.5
55°	424.8	431.9	453.0	478.0	491.9
57.5°	378.2	384.9	408.7	430.1	444.5
60°	333.5	342.0	360.3	382.2	398.8
62.5°	290.5	299.4	315.1	334.4	353.2
65°	248.9	255.6	270.8	290.0	306.6
67.5°	208.6	214.4	229.6	243.0	260.5
70°	167.8	175.5	186.6	199.6	210.8
72.5°	135.2	138.3	147.7	157.1	168.7
75°	99.8	105.2	112.8	118.2	124.9
77.5°	71.6	74.7	79.2	83.7	90.0
80°	47.9	49.2	53.3	54.2	59.1
82.5°	29.1	30.0	30.9	31.3	33.1
85°	15.7	15.7	15.7	14.8	14.8
87.5°	9.0	9.0	7.6	6.3	4.5
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)