

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: P556786

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-80-85-EDD-90**

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: P556786
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-LD4-1STD-40-UNV-80-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

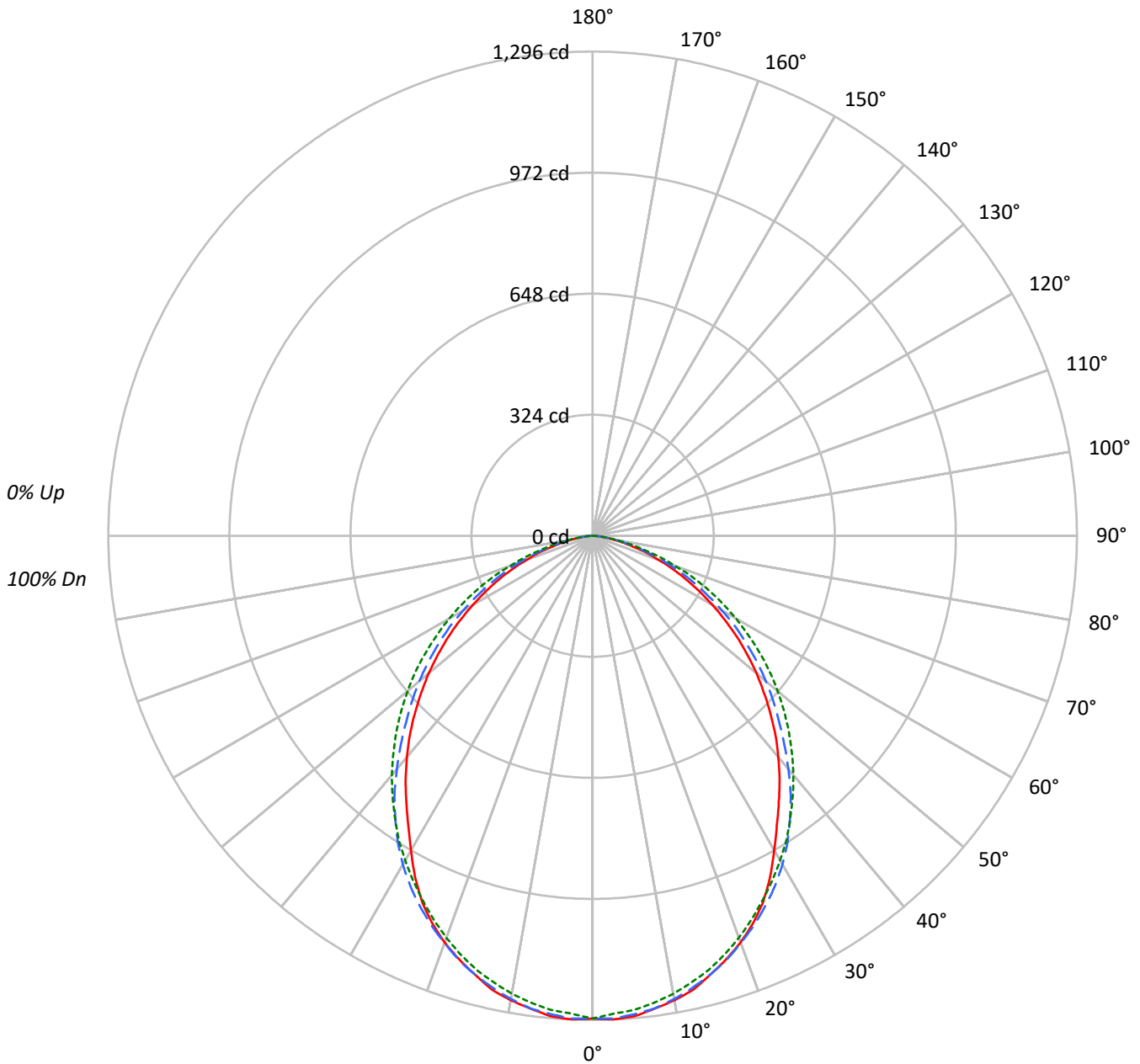
Lumens per Lamp: N/A
Luminaire Lumens: 2988.0 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3477	3477	3477
5°	3487	3472	3442
10°	3449	3440	3401
15°	3388	3388	3350
20°	3317	3321	3278
25°	3208	3247	3196
30°	3020	3156	3118
35°	2854	3025	3030
40°	2715	2862	2937
45°	2560	2688	2826
50°	2396	2534	2706
55°	2210	2357	2560
60°	1990	2151	2380
65°	1757	1912	2166
70°	1465	1629	1840
75°	1151	1301	1440
80°	823	916	1015
85°	537	537	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.7	4.1
10°-20°	341.8	11.4
20°-30°	499.5	16.7
30°-40°	567.0	19.0
40°-50°	547.3	18.3
50°-60°	451.5	15.1
60°-70°	300.7	10.1
70°-80°	134.5	4.5
80°-90°	24.1	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°	962.9	32.2
0°-40°	1529.9	51.2
0°-60°	2528.7	84.6
0°-90°	2988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2988.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1292	1292	1292	1292	1292	
5°	1291	1290	1285	1278	1274	122
15°	1216	1219	1216	1211	1202	343
25°	1080	1089	1094	1086	1076	495
35°	869	881	921	926	922	544
45°	673	684	706	739	743	519
55°	471	479	502	530	546	420
65°	276	284	300	322	340	274
75°	111	117	125	131	138	121
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1292.2	1292.2	1292.2	1292.2	1292.2
2.5°	1295.7	1296.2	1293.2	1285.3	1280.3
5°	1290.7	1290.2	1285.3	1278.3	1274.4
7.5°	1276.3	1277.3	1275.9	1265.9	1260.5
10°	1262.4	1262.9	1259.0	1251.0	1244.6
12.5°	1244.6	1244.1	1238.6	1234.6	1224.2
15°	1216.3	1219.3	1216.3	1210.8	1202.4
17.5°	1189.0	1189.0	1191.0	1181.5	1175.1
20°	1158.2	1159.7	1159.7	1152.2	1144.8
22.5°	1122.5	1126.9	1128.4	1120.5	1111.5
25°	1080.3	1088.7	1093.7	1085.7	1076.3
27.5°	1029.1	1042.0	1056.9	1051.0	1040.5
30°	972.0	990.9	1015.7	1010.8	1003.3
32.5°	917.9	936.8	971.0	969.1	965.1
35°	868.8	880.7	920.9	925.9	922.4
37.5°	822.1	833.0	870.8	882.2	879.2
40°	773.0	784.9	814.7	835.0	836.0
42.5°	724.3	735.7	760.0	789.3	789.3
45°	672.7	684.1	706.4	738.7	742.7
47.5°	622.0	634.0	655.8	688.1	694.5
50°	572.4	583.3	605.2	636.4	646.4
52.5°	520.8	532.7	554.0	582.8	597.2
55°	471.1	479.1	502.4	530.2	545.6
57.5°	419.5	426.9	453.2	477.1	493.0
60°	369.8	379.3	399.6	424.0	442.3
62.5°	322.2	332.1	349.5	370.8	391.7
65°	276.0	283.5	300.3	321.7	340.1
67.5°	231.3	237.8	254.7	269.6	288.9
70°	186.2	194.6	207.0	221.4	233.8
72.5°	149.9	153.4	163.8	174.3	187.2
75°	110.7	116.7	125.1	131.1	138.5
77.5°	79.4	82.9	87.9	92.8	99.8
80°	53.1	54.6	59.1	60.1	65.5
82.5°	32.3	33.3	34.3	34.8	36.7
85°	17.4	17.4	17.4	16.4	16.4
87.5°	9.9	9.9	8.4	7.0	5.0
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)