

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: P556852

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-80-86-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: P556852
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-50-UNV-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

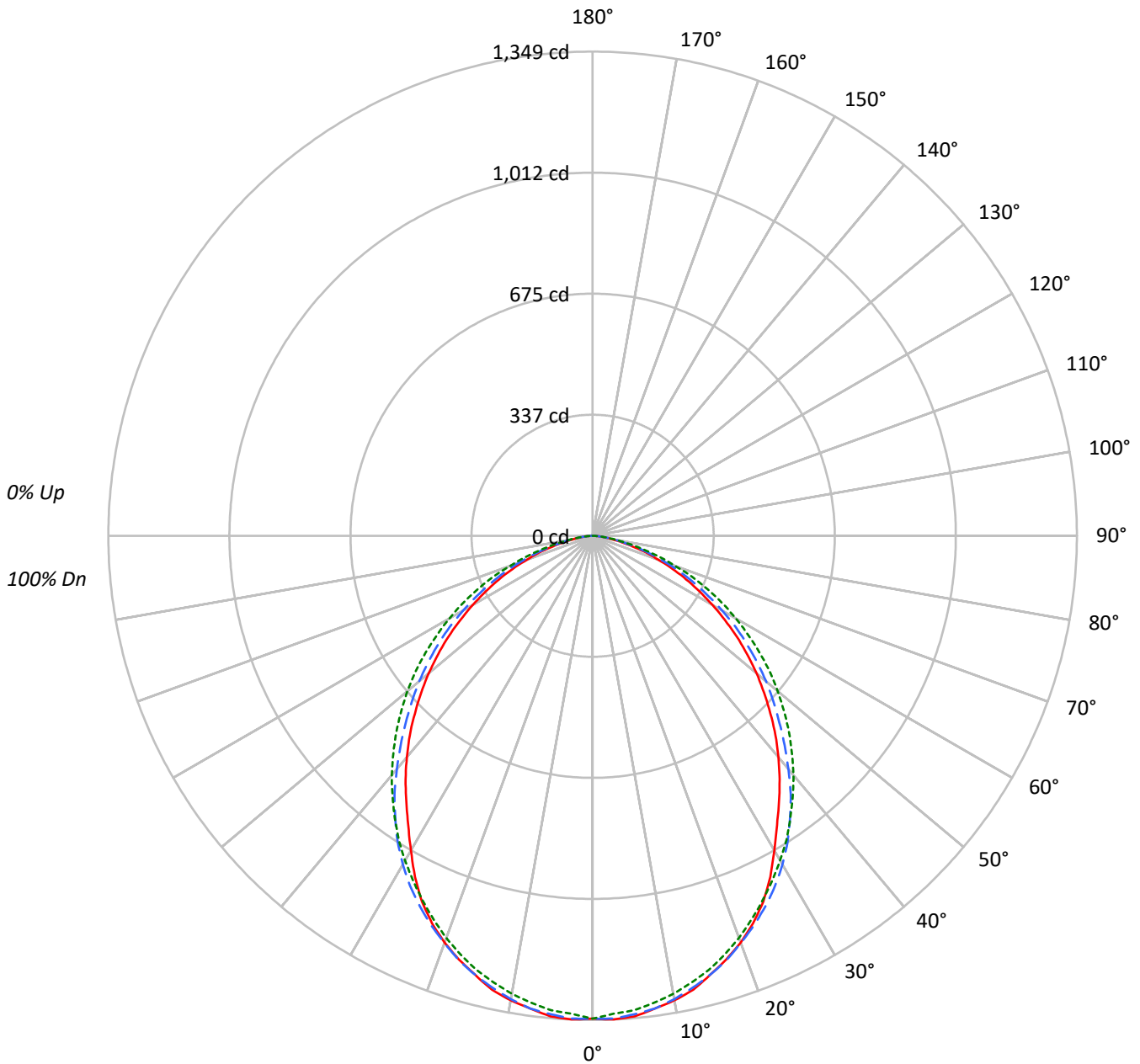
Lumens per Lamp: N/A
Luminaire Lumens: 3111.0 lumens
Efficiency: N/A
Efficacy: 93.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3620	3620	3620
5°	3630	3615	3584
10°	3592	3582	3541
15°	3528	3528	3488
20°	3453	3458	3413
25°	3339	3381	3327
30°	3145	3286	3246
35°	2971	3150	3155
40°	2827	2980	3058
45°	2665	2799	2943
50°	2495	2638	2817
55°	2301	2454	2665
60°	2073	2239	2478
65°	1830	1991	2255
70°	1525	1696	1915
75°	1199	1355	1499
80°	857	953	1057
85°	559	559	528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.7	4.1
10°-20°	355.9	11.4
20°-30°	520.0	16.7
30°-40°	590.3	19.0
40°-50°	569.8	18.3
50°-60°	470.1	15.1
60°-70°	313.0	10.1
70°-80°	140.1	4.5
80°-90°	25.1	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°	1002.6	32.2
0°-40°	1592.9	51.2
0°-60°	2632.8	84.6
0°-90°	3111.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3111.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1345	1345	1345	1345	1345	
5°	1344	1343	1338	1331	1327	127
15°	1266	1269	1266	1261	1252	357
25°	1125	1134	1139	1130	1121	515
35°	904	917	959	964	960	567
45°	700	712	736	769	773	540
55°	490	499	523	552	568	438
65°	287	295	313	335	354	285
75°	115	122	130	136	144	126
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1345.4	1345.4	1345.4	1345.4	1345.4
2.5°	1349.0	1349.6	1346.5	1338.2	1333.0
5°	1343.9	1343.4	1338.2	1331.0	1326.8
7.5°	1328.9	1329.9	1328.4	1318.0	1312.3
10°	1314.4	1314.9	1310.8	1302.5	1295.8
12.5°	1295.8	1295.3	1289.6	1285.5	1274.6
15°	1266.3	1269.4	1266.3	1260.7	1251.9
17.5°	1237.9	1237.9	1240.0	1230.2	1223.4
20°	1205.9	1207.4	1207.4	1199.7	1191.9
22.5°	1168.7	1173.3	1174.9	1166.6	1157.3
25°	1124.7	1133.5	1138.7	1130.4	1120.6
27.5°	1071.5	1084.9	1100.4	1094.2	1083.4
30°	1012.0	1031.7	1057.5	1052.4	1044.6
32.5°	955.7	975.3	1011.0	1008.9	1004.8
35°	904.5	916.9	958.8	964.0	960.4
37.5°	855.9	867.3	906.6	918.5	915.4
40°	804.8	817.2	848.2	869.4	870.4
42.5°	754.1	766.0	791.3	821.8	821.8
45°	700.4	712.3	735.5	769.1	773.2
47.5°	647.6	660.1	682.8	716.4	723.1
50°	596.0	607.3	630.1	662.6	673.0
52.5°	542.2	554.6	576.8	606.8	621.8
55°	490.5	498.8	523.1	552.0	568.0
57.5°	436.8	444.5	471.9	496.7	513.3
60°	385.1	394.9	416.1	441.4	460.5
62.5°	335.5	345.8	363.9	386.1	407.8
65°	287.4	295.1	312.7	334.9	354.1
67.5°	240.9	247.6	265.2	280.7	300.8
70°	193.8	202.6	215.5	230.5	243.4
72.5°	156.1	159.7	170.6	181.4	194.9
75°	115.3	121.5	130.3	136.5	144.2
77.5°	82.7	86.3	91.5	96.7	103.9
80°	55.3	56.9	61.5	62.5	68.2
82.5°	33.6	34.6	35.7	36.2	38.2
85°	18.1	18.1	18.1	17.1	17.1
87.5°	10.3	10.3	8.8	7.2	5.2
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)