

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: P556741

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-86-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: P556741
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-35-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

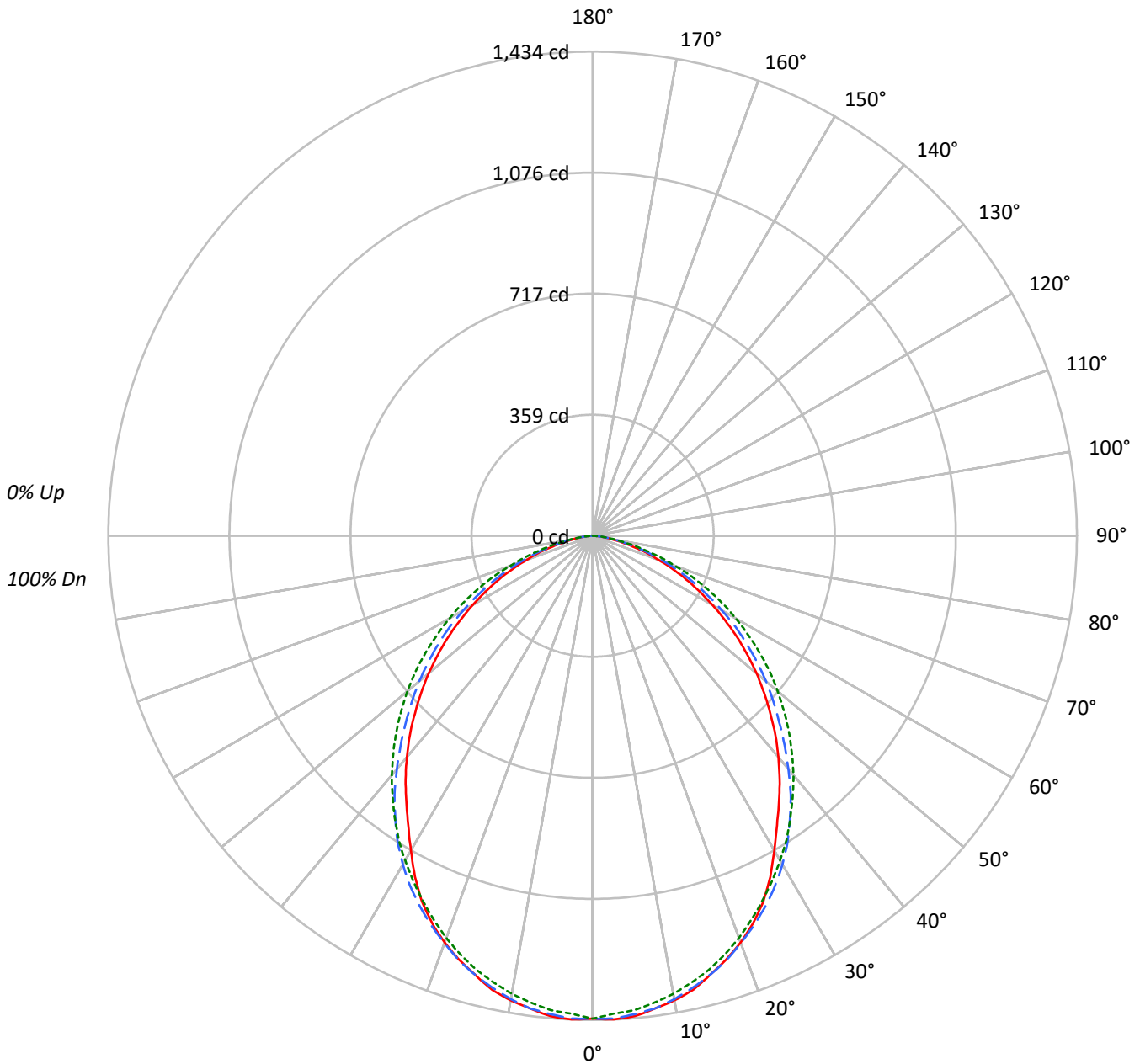
Lumens per Lamp: N/A
Luminaire Lumens: 3307.0 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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°	3849	3849	3849
5°	3859	3843	3810
10°	3818	3807	3764
15°	3750	3750	3707
20°	3671	3676	3628
25°	3550	3594	3537
30°	3343	3493	3450
35°	3159	3348	3354
40°	3005	3167	3250
45°	2833	2976	3128
50°	2652	2804	2995
55°	2446	2609	2833
60°	2203	2380	2635
65°	1945	2117	2397
70°	1621	1803	2036
75°	1274	1440	1594
80°	911	1013	1124
85°	593	593	559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.7	4.1
10°-20°	378.3	11.4
20°-30°	552.8	16.7
30°-40°	627.5	19.0
40°-50°	605.8	18.3
50°-60°	499.7	15.1
60°-70°	332.8	10.1
70°-80°	148.9	4.5
80°-90°	26.6	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°	1065.8	32.2
0°-40°	1693.3	51.2
0°-60°	2798.7	84.6
0°-90°	3307.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3307.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1430	1430	1430	1430	1430	
5°	1428	1428	1422	1415	1410	135
15°	1346	1349	1346	1340	1331	379
25°	1196	1205	1210	1202	1191	548
35°	962	975	1019	1025	1021	602
45°	744	757	782	818	822	574
55°	521	530	556	587	604	465
65°	306	314	332	356	376	303
75°	122	129	138	145	153	134
85°	19	19	19	18	18	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1430.2	1430.2	1430.2	1430.2	1430.2
2.5°	1434.0	1434.6	1431.3	1422.5	1417.0
5°	1428.5	1428.0	1422.5	1414.8	1410.4
7.5°	1412.6	1413.7	1412.1	1401.1	1395.0
10°	1397.2	1397.8	1393.4	1384.6	1377.4
12.5°	1377.4	1376.9	1370.9	1366.5	1354.9
15°	1346.1	1349.4	1346.1	1340.1	1330.7
17.5°	1315.9	1315.9	1318.1	1307.7	1300.5
20°	1281.8	1283.5	1283.5	1275.3	1267.0
22.5°	1242.3	1247.2	1248.9	1240.1	1230.2
25°	1195.6	1204.9	1210.4	1201.6	1191.2
27.5°	1139.0	1153.3	1169.8	1163.2	1151.6
30°	1075.8	1096.7	1124.2	1118.7	1110.4
32.5°	1015.9	1036.8	1074.7	1072.5	1068.1
35°	961.5	974.7	1019.2	1024.7	1020.9
37.5°	909.9	922.0	963.7	976.4	973.1
40°	855.5	868.7	901.6	924.2	925.3
42.5°	801.6	814.3	841.2	873.6	873.6
45°	744.5	757.1	781.9	817.6	822.0
47.5°	688.4	701.6	725.8	761.5	768.7
50°	633.5	645.6	669.8	704.4	715.4
52.5°	576.4	589.5	613.2	645.0	661.0
55°	521.4	530.2	556.0	586.8	603.8
57.5°	464.3	472.5	501.6	528.0	545.6
60°	409.3	419.8	442.3	469.2	489.6
62.5°	356.6	367.6	386.8	410.4	433.5
65°	305.5	313.7	332.4	356.0	376.4
67.5°	256.0	263.2	281.9	298.3	319.8
70°	206.0	215.4	229.1	245.1	258.8
72.5°	165.9	169.8	181.3	192.9	207.1
75°	122.5	129.1	138.5	145.1	153.3
77.5°	87.9	91.8	97.3	102.7	110.4
80°	58.8	60.4	65.4	66.5	72.5
82.5°	35.7	36.8	37.9	38.5	40.7
85°	19.2	19.2	19.2	18.1	18.1
87.5°	11.0	11.0	9.3	7.7	5.5
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)