

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: P556823

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-82-87-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: P556823
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-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

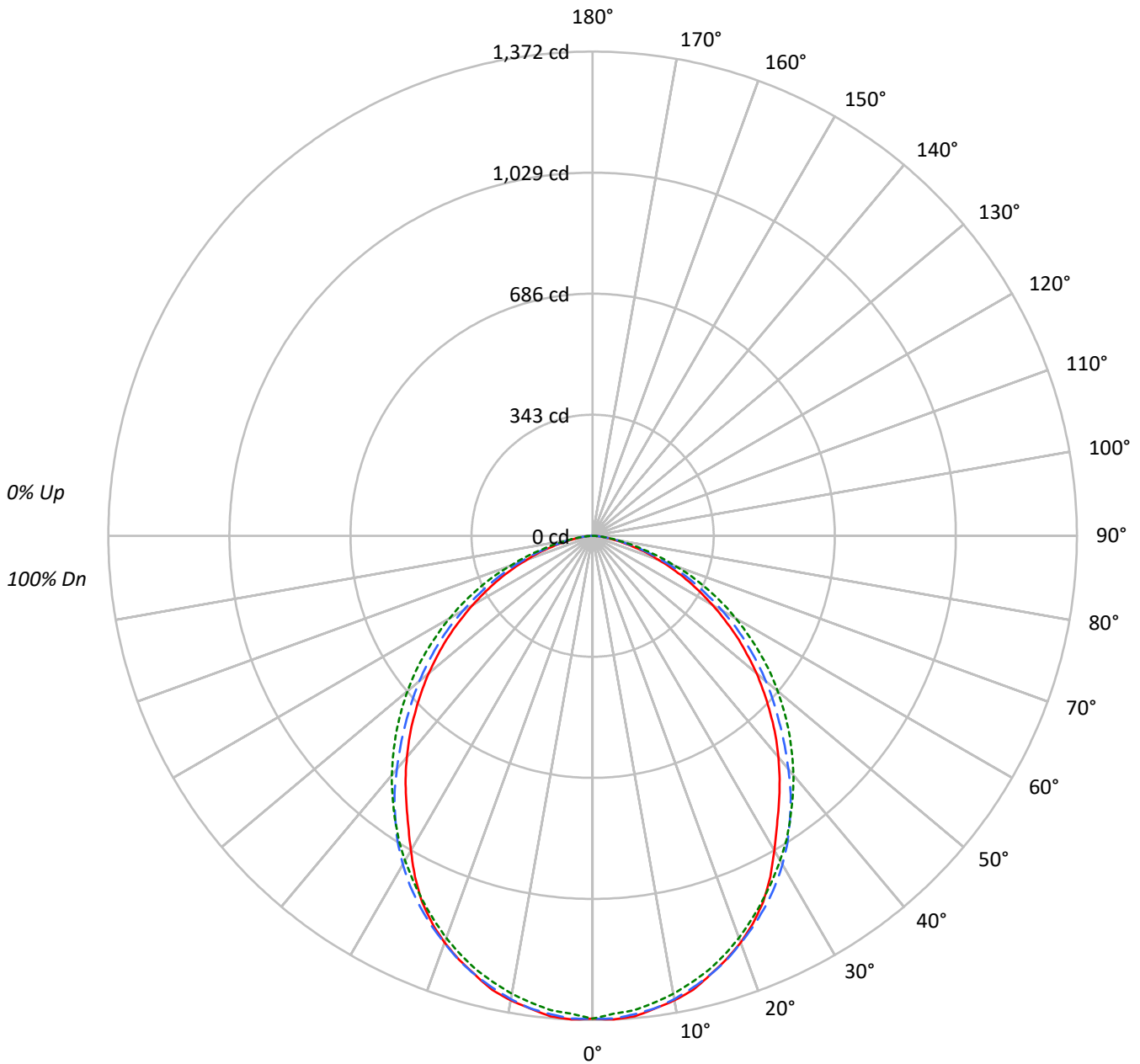
Lumens per Lamp: N/A
Luminaire Lumens: 3164.0 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3682	3682	3682
5°	3692	3676	3645
10°	3653	3643	3601
15°	3588	3588	3547
20°	3512	3517	3471
25°	3396	3439	3384
30°	3198	3342	3301
35°	3022	3203	3209
40°	2875	3030	3110
45°	2711	2847	2993
50°	2537	2683	2865
55°	2341	2496	2710
60°	2108	2278	2521
65°	1861	2025	2293
70°	1551	1725	1948
75°	1219	1378	1525
80°	871	970	1075
85°	568	568	534



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.8	4.1
10°-20°	361.9	11.4
20°-30°	528.9	16.7
30°-40°	600.4	19.0
40°-50°	579.5	18.3
50°-60°	478.1	15.1
60°-70°	318.4	10.1
70°-80°	142.5	4.5
80°-90°	25.5	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°	1019.7	32.2
0°-40°	1620.0	51.2
0°-60°	2677.7	84.6
0°-90°	3164.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3164.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1368	1368	1368	1368	1368	
5°	1367	1366	1361	1354	1349	129
15°	1288	1291	1288	1282	1273	363
25°	1144	1153	1158	1150	1140	524
35°	920	933	975	980	977	576
45°	712	724	748	782	786	550
55°	499	507	532	561	578	445
65°	292	300	318	341	360	290
75°	117	124	132	139	147	128
85°	18	18	18	17	17	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1368.3	1368.3	1368.3	1368.3	1368.3
2.5°	1372.0	1372.6	1369.4	1361.0	1355.7
5°	1366.8	1366.2	1361.0	1353.6	1349.4
7.5°	1351.5	1352.6	1351.0	1340.5	1334.7
10°	1336.8	1337.3	1333.1	1324.7	1317.9
12.5°	1317.9	1317.4	1311.6	1307.4	1296.3
15°	1287.9	1291.1	1287.9	1282.1	1273.2
17.5°	1259.0	1259.0	1261.1	1251.1	1244.3
20°	1226.4	1228.0	1228.0	1220.1	1212.2
22.5°	1188.6	1193.3	1194.9	1186.5	1177.0
25°	1143.9	1152.8	1158.1	1149.7	1139.7
27.5°	1089.7	1103.4	1119.2	1112.9	1101.8
30°	1029.3	1049.3	1075.5	1070.3	1062.4
32.5°	972.0	992.0	1028.2	1026.1	1021.9
35°	919.9	932.6	975.1	980.4	976.7
37.5°	870.5	882.1	922.0	934.1	931.0
40°	818.5	831.1	862.6	884.2	885.2
42.5°	767.0	779.1	804.8	835.8	835.8
45°	712.3	724.4	748.0	782.2	786.4
47.5°	658.7	671.3	694.4	728.6	735.4
50°	606.1	617.7	640.8	673.9	684.4
52.5°	551.4	564.1	586.7	617.1	632.4
55°	498.9	507.3	532.0	561.4	577.7
57.5°	444.2	452.1	479.9	505.2	522.0
60°	391.6	401.6	423.2	448.9	468.4
62.5°	341.2	351.7	370.1	392.7	414.8
65°	292.3	300.2	318.0	340.6	360.1
67.5°	245.0	251.8	269.7	285.4	305.9
70°	197.1	206.1	219.2	234.5	247.6
72.5°	158.8	162.4	173.5	184.5	198.2
75°	117.2	123.5	132.5	138.8	146.7
77.5°	84.1	87.8	93.0	98.3	105.7
80°	56.2	57.8	62.6	63.6	69.4
82.5°	34.2	35.2	36.3	36.8	38.9
85°	18.4	18.4	18.4	17.3	17.3
87.5°	10.5	10.5	8.9	7.4	5.3
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)