

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: P556905

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-93-88-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: P556905
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-93-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

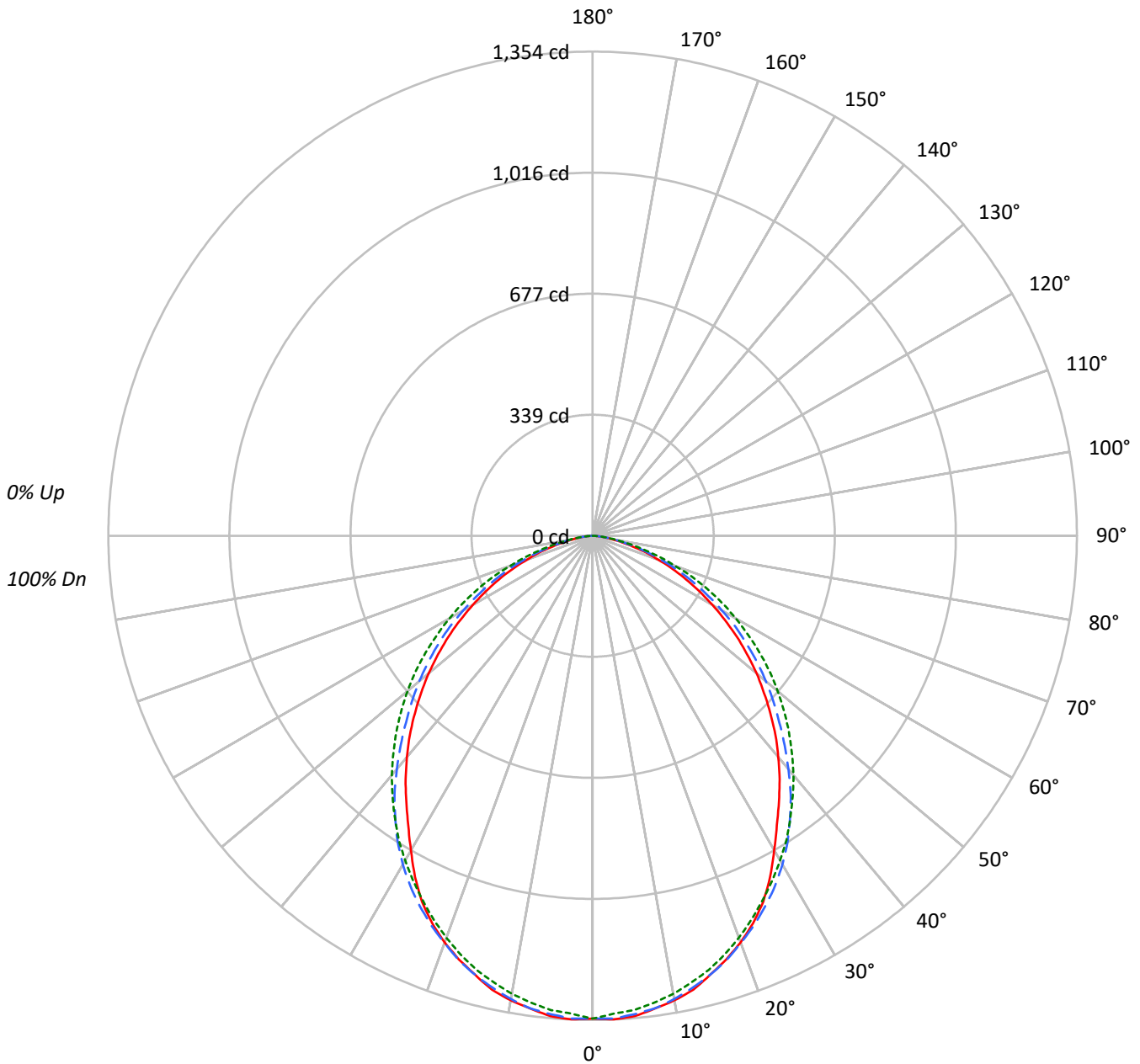
Lumens per Lamp: N/A
Luminaire Lumens: 3122.0 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3633	3633	3633
5°	3643	3628	3597
10°	3604	3594	3553
15°	3540	3540	3500
20°	3465	3470	3425
25°	3351	3393	3339
30°	3156	3298	3257
35°	2982	3161	3166
40°	2837	2990	3068
45°	2675	2809	2953
50°	2504	2647	2828
55°	2309	2463	2675
60°	2080	2248	2488
65°	1836	1998	2262
70°	1530	1702	1922
75°	1203	1359	1504
80°	860	956	1062
85°	562	562	528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.1	4.1
10°-20°	357.1	11.4
20°-30°	521.9	16.7
30°-40°	592.4	19.0
40°-50°	571.9	18.3
50°-60°	471.8	15.1
60°-70°	314.2	10.1
70°-80°	140.6	4.5
80°-90°	25.2	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°	1006.1	32.2
0°-40°	1598.5	51.2
0°-60°	2642.1	84.6
0°-90°	3122.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3122.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1350	1350	1350	1350	1350	
5°	1349	1348	1343	1336	1332	128
15°	1271	1274	1271	1265	1256	358
25°	1129	1138	1143	1134	1124	517
35°	908	920	962	967	964	569
45°	703	715	738	772	776	542
55°	492	500	525	554	570	439
65°	288	296	314	336	355	286
75°	116	122	131	137	145	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°	1350.2	1350.2	1350.2	1350.2	1350.2
2.5°	1353.8	1354.3	1351.2	1342.9	1337.7
5°	1348.6	1348.1	1342.9	1335.7	1331.5
7.5°	1333.6	1334.6	1333.1	1322.7	1317.0
10°	1319.1	1319.6	1315.4	1307.1	1300.4
12.5°	1300.4	1299.9	1294.2	1290.0	1279.1
15°	1270.8	1273.9	1270.8	1265.1	1256.3
17.5°	1242.3	1242.3	1244.4	1234.5	1227.8
20°	1210.1	1211.7	1211.7	1203.9	1196.1
22.5°	1172.8	1177.5	1179.0	1170.7	1161.4
25°	1128.7	1137.5	1142.7	1134.4	1124.5
27.5°	1075.3	1088.8	1104.3	1098.1	1087.2
30°	1015.6	1035.3	1061.3	1056.1	1048.3
32.5°	959.1	978.8	1014.6	1012.5	1008.4
35°	907.7	920.2	962.2	967.4	963.8
37.5°	859.0	870.4	909.8	921.7	918.6
40°	807.6	820.1	851.2	872.5	873.5
42.5°	756.8	768.7	794.1	824.7	824.7
45°	702.8	714.8	738.1	771.8	776.0
47.5°	649.9	662.4	685.2	718.9	725.7
50°	598.1	609.5	632.3	665.0	675.4
52.5°	544.1	556.6	578.9	609.0	624.0
55°	492.2	500.5	524.9	554.0	570.1
57.5°	438.3	446.1	473.6	498.5	515.1
60°	386.4	396.3	417.6	443.0	462.2
62.5°	336.6	347.0	365.2	387.5	409.3
65°	288.4	296.2	313.8	336.1	355.3
67.5°	241.7	248.5	266.1	281.7	301.9
70°	194.5	203.3	216.3	231.3	244.3
72.5°	156.6	160.3	171.2	182.1	195.6
75°	115.7	121.9	130.7	136.9	144.7
77.5°	83.0	86.6	91.8	97.0	104.3
80°	55.5	57.1	61.7	62.8	68.5
82.5°	33.7	34.8	35.8	36.3	38.4
85°	18.2	18.2	18.2	17.1	17.1
87.5°	10.4	10.4	8.8	7.3	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)