

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: P556583

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-93-87-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: P556583
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-LD4-1LO-40-UNV-93-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

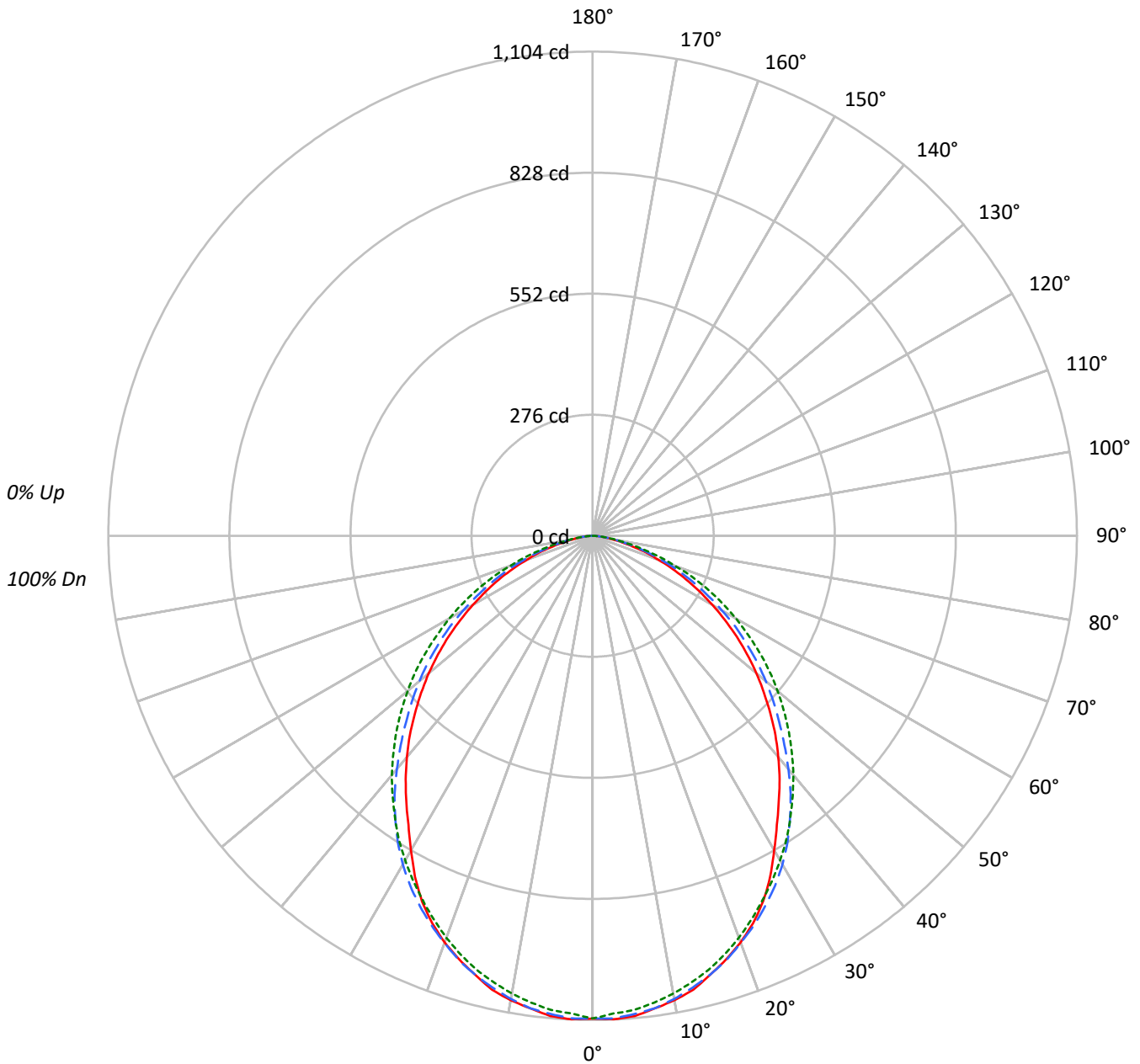
Lumens per Lamp: N/A
Luminaire Lumens: 2545.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2962	2962	2962
5°	2970	2957	2932
10°	2938	2930	2897
15°	2886	2886	2853
20°	2825	2828	2792
25°	2732	2766	2722
30°	2573	2688	2655
35°	2431	2577	2581
40°	2313	2438	2501
45°	2180	2290	2407
50°	2041	2158	2305
55°	1883	2008	2180
60°	1695	1832	2027
65°	1497	1629	1844
70°	1248	1387	1567
75°	980	1108	1227
80°	700	779	865
85°	457	457	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.6	4.1
10°-20°	291.1	11.4
20°-30°	425.4	16.7
30°-40°	482.9	19.0
40°-50°	466.2	18.3
50°-60°	384.6	15.1
60°-70°	256.1	10.1
70°-80°	114.6	4.5
80°-90°	20.5	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°	820.2	32.2
0°-40°	1303.1	51.2
0°-60°	2153.8	84.6
0°-90°	2545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2545.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1101	1101	1101	1101	1101	
5°	1099	1099	1095	1089	1085	104
15°	1036	1038	1036	1031	1024	292
25°	920	927	932	925	917	421
35°	740	750	784	789	786	464
45°	573	583	602	629	633	442
55°	401	408	428	452	465	358
65°	235	241	256	274	290	233
75°	94	99	107	112	118	103
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1100.6	1100.6	1100.6	1100.6	1100.6
2.5°	1103.6	1104.0	1101.5	1094.7	1090.5
5°	1099.4	1099.0	1094.7	1088.8	1085.4
7.5°	1087.1	1088.0	1086.7	1078.2	1073.6
10°	1075.3	1075.7	1072.3	1065.6	1060.1
12.5°	1060.1	1059.6	1055.0	1051.6	1042.7
15°	1036.0	1038.5	1036.0	1031.3	1024.1
17.5°	1012.7	1012.7	1014.4	1006.4	1000.9
20°	986.5	987.7	987.7	981.4	975.1
22.5°	956.0	959.8	961.1	954.3	946.7
25°	920.1	927.3	931.5	924.7	916.7
27.5°	876.5	887.5	900.2	895.1	886.3
30°	827.9	844.0	865.1	860.9	854.6
32.5°	781.8	797.9	827.1	825.4	822.0
35°	740.0	750.1	784.4	788.6	785.6
37.5°	700.2	709.5	741.7	751.4	748.8
40°	658.4	668.5	693.9	711.2	712.1
42.5°	616.9	626.6	647.4	672.3	672.3
45°	572.9	582.7	601.7	629.2	632.6
47.5°	529.8	540.0	558.6	586.1	591.6
50°	487.5	496.8	515.4	542.1	550.5
52.5°	443.6	453.7	471.9	496.4	508.7
55°	401.3	408.0	427.9	451.6	464.7
57.5°	357.3	363.6	386.1	406.3	419.9
60°	315.0	323.0	340.4	361.1	376.7
62.5°	274.4	282.9	297.7	315.9	333.6
65°	235.1	241.4	255.8	274.0	289.6
67.5°	197.0	202.5	216.9	229.6	246.1
70°	158.6	165.8	176.3	188.6	199.2
72.5°	127.7	130.7	139.5	148.4	159.4
75°	94.3	99.4	106.6	111.6	118.0
77.5°	67.7	70.6	74.8	79.1	85.0
80°	45.2	46.5	50.3	51.2	55.8
82.5°	27.5	28.3	29.2	29.6	31.3
85°	14.8	14.8	14.8	14.0	14.0
87.5°	8.5	8.5	7.2	5.9	4.2
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)