

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: P556613

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-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: P556613
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

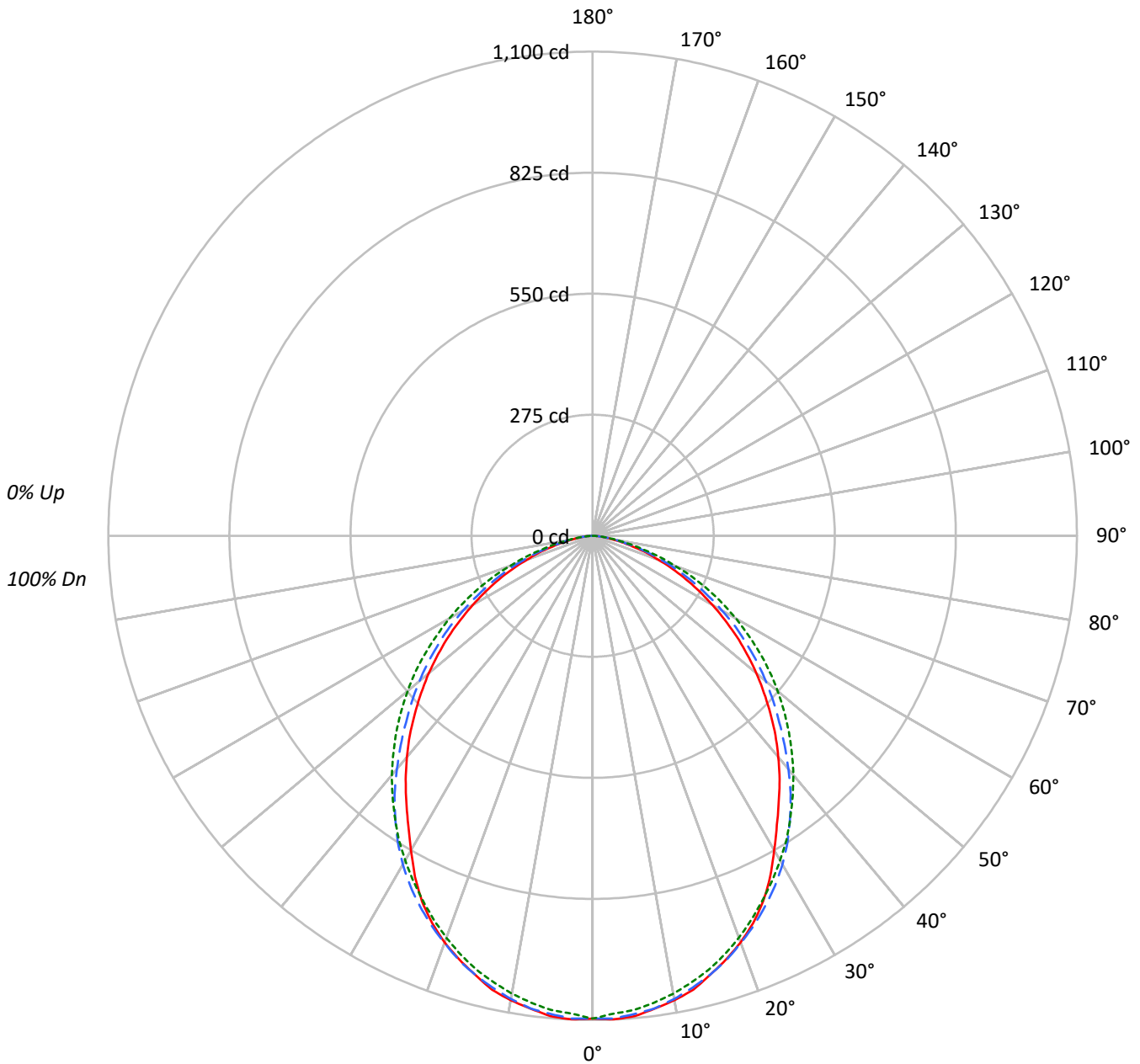
Lumens per Lamp: N/A
Luminaire Lumens: 2536.0 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2951	2951	2951
5°	2959	2947	2922
10°	2928	2920	2886
15°	2876	2876	2843
20°	2815	2819	2782
25°	2722	2756	2712
30°	2564	2679	2646
35°	2422	2568	2572
40°	2304	2429	2492
45°	2173	2282	2399
50°	2034	2150	2297
55°	1876	2000	2173
60°	1689	1826	2020
65°	1492	1623	1838
70°	1243	1382	1562
75°	977	1104	1223
80°	699	776	862
85°	454	454	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.3	4.1
10°-20°	290.1	11.4
20°-30°	423.9	16.7
30°-40°	481.2	19.0
40°-50°	464.5	18.3
50°-60°	383.2	15.1
60°-70°	255.2	10.1
70°-80°	114.2	4.5
80°-90°	20.4	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°	817.3	32.2
0°-40°	1298.5	51.2
0°-60°	2146.2	84.6
0°-90°	2536.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2536.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1096	1095	1091	1085	1082	104
15°	1032	1035	1032	1028	1020	291
25°	917	924	928	922	914	420
35°	737	748	782	786	783	462
45°	571	581	600	627	630	440
55°	400	407	426	450	463	357
65°	234	241	255	273	289	232
75°	94	99	106	111	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°	1096.8	1096.8	1096.8	1096.8	1096.8
2.5°	1099.7	1100.1	1097.6	1090.9	1086.6
5°	1095.5	1095.1	1090.9	1085.0	1081.6
7.5°	1083.3	1084.1	1082.9	1074.4	1069.8
10°	1071.5	1071.9	1068.5	1061.8	1056.3
12.5°	1056.3	1055.9	1051.2	1047.9	1039.0
15°	1032.3	1034.8	1032.3	1027.7	1020.5
17.5°	1009.1	1009.1	1010.8	1002.8	997.3
20°	983.0	984.3	984.3	977.9	971.6
22.5°	952.7	956.4	957.7	951.0	943.4
25°	916.8	924.0	928.2	921.5	913.5
27.5°	873.4	884.4	897.0	892.0	883.1
30°	825.0	841.0	862.1	857.9	851.5
32.5°	779.1	795.1	824.1	822.5	819.1
35°	737.3	747.5	781.6	785.8	782.9
37.5°	697.7	707.0	739.0	748.7	746.2
40°	656.0	666.1	691.4	708.7	709.5
42.5°	614.7	624.4	645.1	669.9	669.9
45°	570.9	580.6	599.6	627.0	630.3
47.5°	527.9	538.1	556.6	584.0	589.5
50°	485.8	495.1	513.6	540.2	548.6
52.5°	442.0	452.1	470.2	494.7	506.9
55°	399.9	406.6	426.4	450.0	463.1
57.5°	356.0	362.4	384.7	404.9	418.4
60°	313.9	321.9	339.2	359.8	375.4
62.5°	273.5	281.9	296.6	314.7	332.4
65°	234.3	240.6	254.9	273.0	288.6
67.5°	196.3	201.8	216.1	228.8	245.2
70°	158.0	165.2	175.7	187.9	198.5
72.5°	127.2	130.2	139.0	147.9	158.8
75°	94.0	99.0	106.2	111.2	117.6
77.5°	67.4	70.4	74.6	78.8	84.7
80°	45.1	46.3	50.1	51.0	55.6
82.5°	27.4	28.2	29.1	29.5	31.2
85°	14.7	14.7	14.7	13.9	13.9
87.5°	8.4	8.4	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)