

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: P556501

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-82-86-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: P556501
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-35-UNV-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 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

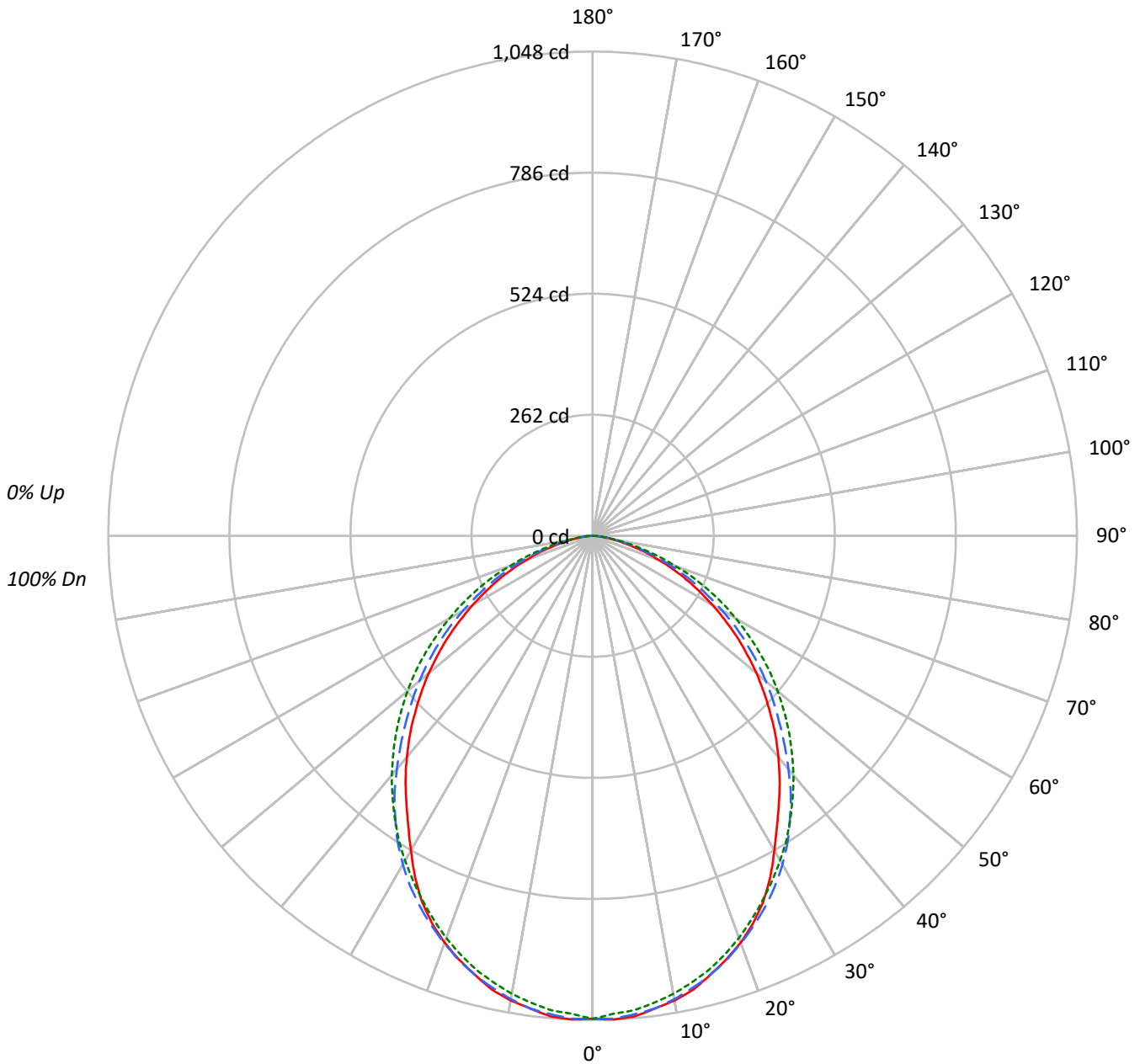
Lumens per Lamp: N/A
Luminaire Lumens: 2417.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2813	2813	2813
5°	2820	2808	2784
10°	2790	2783	2751
15°	2741	2741	2710
20°	2683	2686	2652
25°	2594	2627	2585
30°	2443	2553	2522
35°	2308	2447	2451
40°	2196	2315	2375
45°	2071	2175	2286
50°	1938	2049	2189
55°	1788	1907	2070
60°	1610	1740	1926
65°	1422	1547	1752
70°	1185	1318	1488
75°	932	1052	1164
80°	666	741	821
85°	435	435	411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.4	4.1
10°-20°	276.5	11.4
20°-30°	404.0	16.7
30°-40°	458.6	19.0
40°-50°	442.7	18.3
50°-60°	365.2	15.1
60°-70°	243.2	10.1
70°-80°	108.8	4.5
80°-90°	19.5	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°	778.9	32.2
0°-40°	1237.5	51.2
0°-60°	2045.5	84.6
0°-90°	2417.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2417.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1045	1045	1045	1045	1045	
5°	1044	1044	1040	1034	1031	99
15°	984	986	984	979	973	277
25°	874	881	885	878	871	400
35°	703	712	745	749	746	440
45°	544	553	571	598	601	420
55°	381	388	406	429	441	340
65°	223	229	243	260	275	221
75°	90	94	101	106	112	98
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1045.3	1045.3	1045.3	1045.3	1045.3
2.5°	1048.1	1048.5	1046.1	1039.7	1035.7
5°	1044.1	1043.7	1039.7	1034.0	1030.8
7.5°	1032.4	1033.2	1032.0	1024.0	1019.6
10°	1021.2	1021.6	1018.4	1012.0	1006.7
12.5°	1006.7	1006.3	1001.9	998.7	990.3
15°	983.8	986.3	983.8	979.4	972.6
17.5°	961.8	961.8	963.4	955.7	950.5
20°	936.9	938.1	938.1	932.0	926.0
22.5°	908.0	911.6	912.8	906.3	899.1
25°	873.8	880.6	884.7	878.2	870.6
27.5°	832.5	842.9	854.9	850.1	841.7
30°	786.3	801.5	821.6	817.6	811.6
32.5°	742.5	757.8	785.5	783.9	780.7
35°	702.7	712.4	744.9	748.9	746.1
37.5°	665.0	673.8	704.4	713.6	711.2
40°	625.2	634.9	659.0	675.4	676.2
42.5°	585.9	595.1	614.8	638.5	638.5
45°	544.1	553.4	571.4	597.5	600.8
47.5°	503.2	512.8	530.5	556.6	561.8
50°	463.0	471.8	489.5	514.8	522.8
52.5°	421.2	430.9	448.2	471.4	483.1
55°	381.1	387.5	406.4	428.9	441.3
57.5°	339.3	345.4	366.6	385.9	398.8
60°	299.2	306.8	323.3	342.9	357.8
62.5°	260.6	268.7	282.7	300.0	316.8
65°	223.3	229.3	243.0	260.2	275.1
67.5°	187.1	192.4	206.0	218.1	233.7
70°	150.6	157.4	167.5	179.1	189.1
72.5°	121.3	124.1	132.5	141.0	151.4
75°	89.6	94.4	101.2	106.0	112.0
77.5°	64.3	67.1	71.1	75.1	80.7
80°	43.0	44.2	47.8	48.6	53.0
82.5°	26.1	26.9	27.7	28.1	29.7
85°	14.1	14.1	14.1	13.3	13.3
87.5°	8.0	8.0	6.8	5.6	4.0
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)