

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: P557888

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-81-84-EDD-90**

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: P557888
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-LD4-3HI-50-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

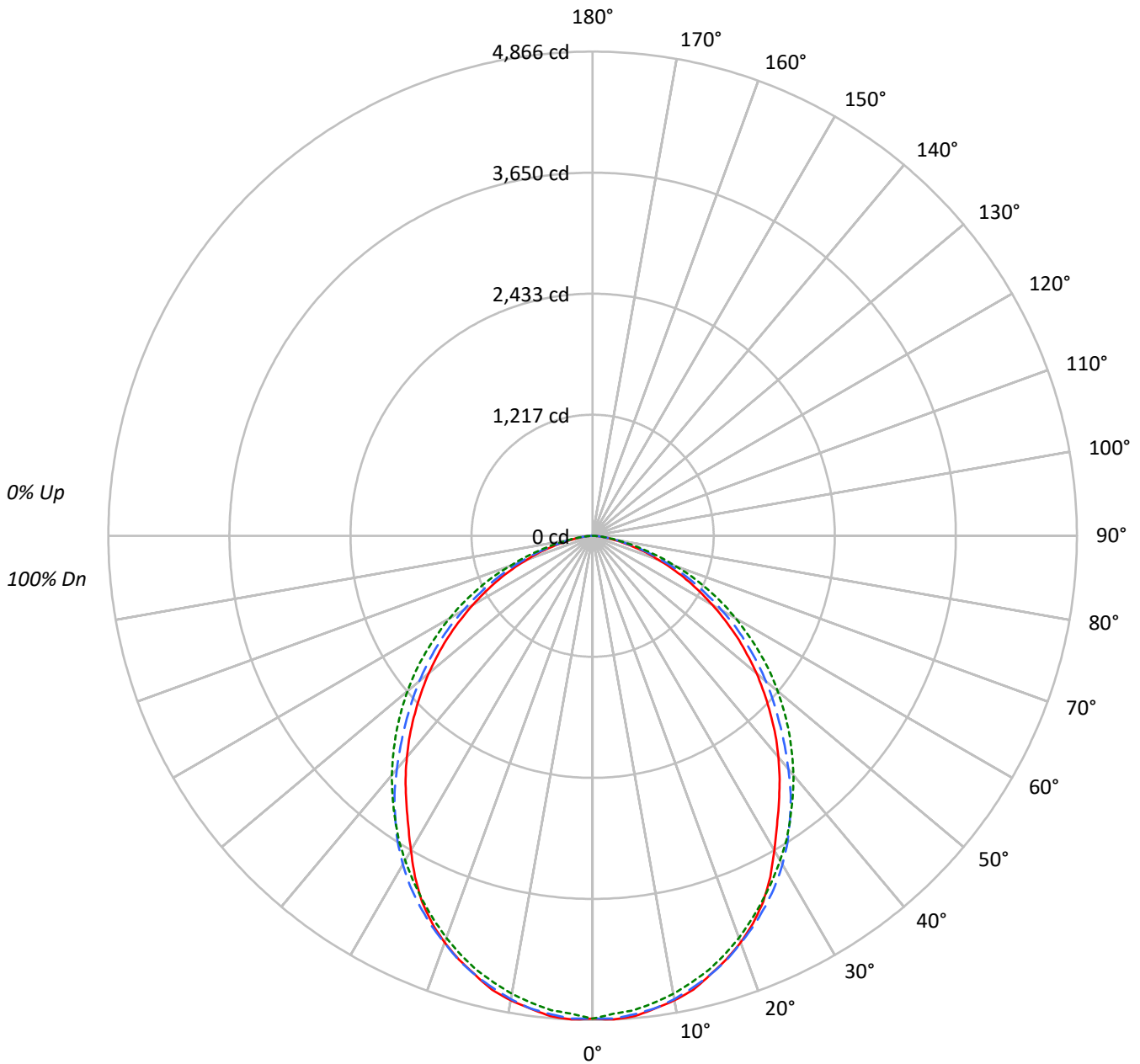
Lumens per Lamp: N/A
Luminaire Lumens: 11221.0 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	13059	13059	13059
5°	13094	13038	12927
10°	12954	12919	12771
15°	12725	12725	12579
20°	12455	12471	12311
25°	12045	12195	12001
30°	11342	11852	11708
35°	10718	11361	11379
40°	10197	10747	11029
45°	9613	10096	10614
50°	8999	9514	10162
55°	8300	8852	9613
60°	7475	8077	8940
65°	6600	7182	8132
70°	5500	6117	6909
75°	4322	4885	5408
80°	3092	3439	3814
85°	2016	2016	1899



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	456.9	4.1
10°-20°	1283.6	11.4
20°-30°	1875.7	16.7
30°-40°	2129.2	19.0
40°-50°	2055.4	18.3
50°-60°	1695.5	15.1
60°-70°	1129.1	10.1
70°-80°	505.3	4.5
80°-90°	90.4	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°	3616.2	32.2
0°-40°	5745.4	51.2
0°-60°	9496.3	84.6
0°-90°	11221.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11221.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4853	4853	4853	4853	4853	
5°	4847	4845	4827	4801	4786	459
15°	4568	4579	4568	4547	4515	1288
25°	4057	4088	4107	4077	4042	1858
35°	3262	3307	3458	3477	3464	2044
45°	2526	2569	2653	2774	2789	1949
55°	1769	1799	1887	1991	2049	1579
65°	1037	1064	1128	1208	1277	1028
75°	416	438	470	492	520	455
85°	65	65	65	62	62	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4852.8	4852.8	4852.8	4852.8	4852.8
2.5°	4865.8	4867.7	4856.5	4826.7	4808.0
5°	4847.2	4845.3	4826.7	4800.6	4785.7
7.5°	4793.1	4796.9	4791.3	4754.0	4733.5
10°	4740.9	4742.8	4727.9	4698.1	4673.8
12.5°	4673.8	4672.0	4651.4	4636.5	4597.4
15°	4567.6	4578.7	4567.6	4547.0	4515.4
17.5°	4465.0	4465.0	4472.5	4437.1	4412.8
20°	4349.4	4355.0	4355.0	4327.1	4299.1
22.5°	4215.2	4232.0	4237.6	4207.7	4174.2
25°	4056.7	4088.4	4107.1	4077.2	4041.8
27.5°	3864.7	3913.2	3969.1	3946.7	3907.6
30°	3650.3	3721.2	3814.4	3795.7	3767.8
32.5°	3447.1	3517.9	3646.6	3639.1	3624.2
35°	3262.5	3307.3	3458.3	3476.9	3463.9
37.5°	3087.3	3128.3	3270.0	3312.9	3301.7
40°	2902.7	2947.5	3059.3	3135.8	3139.5
42.5°	2720.0	2762.9	2854.3	2964.2	2964.2
45°	2526.1	2569.0	2652.9	2774.1	2789.0
47.5°	2336.0	2380.7	2462.8	2583.9	2608.2
50°	2149.5	2190.6	2272.6	2390.0	2427.3
52.5°	1955.7	2000.4	2080.6	2188.7	2242.8
55°	1769.2	1799.1	1886.7	1991.1	2048.9
57.5°	1575.3	1603.3	1702.1	1791.6	1851.3
60°	1388.9	1424.3	1500.8	1592.1	1661.1
62.5°	1209.9	1247.2	1312.5	1392.6	1470.9
65°	1036.6	1064.5	1127.9	1208.1	1277.1
67.5°	868.8	893.0	956.4	1012.3	1085.0
70°	699.1	730.8	777.4	831.5	878.1
72.5°	563.0	576.1	615.2	654.4	702.8
75°	415.7	438.1	469.8	492.2	520.1
77.5°	298.3	311.3	330.0	348.6	374.7
80°	199.5	205.1	221.9	225.6	246.1
82.5°	121.2	124.9	128.6	130.5	138.0
85°	65.3	65.3	65.3	61.5	61.5
87.5°	37.3	37.3	31.7	26.1	18.6
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)