

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: P557124

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-81-86-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: P557124
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-LD4-2HI-50-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

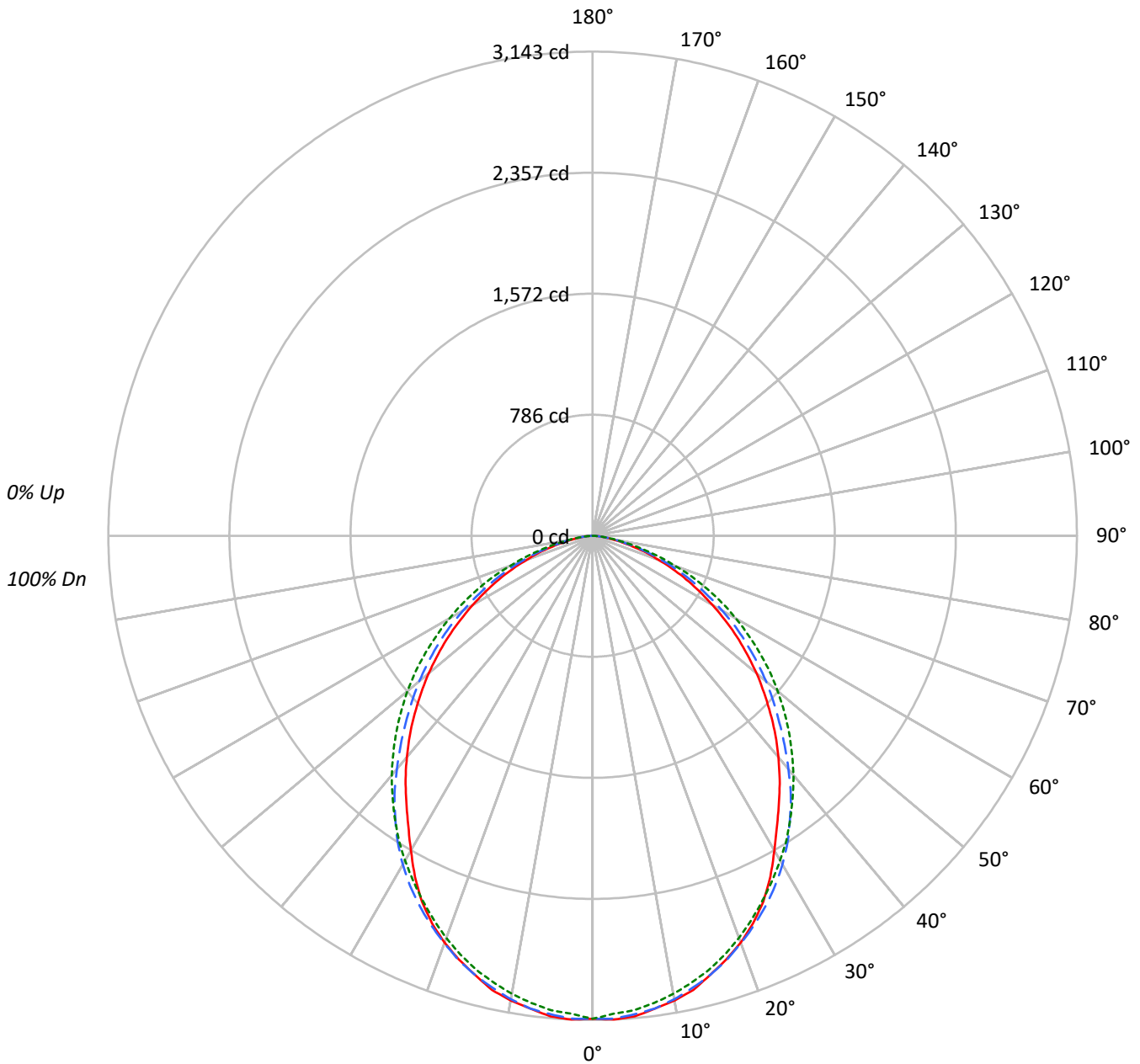
Lumens per Lamp: N/A
Luminaire Lumens: 7249.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	8436	8436	8436
5°	8459	8423	8351
10°	8369	8346	8250
15°	8220	8220	8126
20°	8046	8057	7953
25°	7781	7878	7753
30°	7328	7657	7563
35°	6924	7339	7351
40°	6587	6943	7125
45°	6210	6522	6857
50°	5814	6146	6565
55°	5362	5718	6210
60°	4829	5218	5775
65°	4264	4640	5253
70°	3553	3951	4463
75°	2793	3156	3493
80°	1998	2221	2464
85°	1303	1303	1226



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.2	4.1
10°-20°	829.2	11.4
20°-30°	1211.8	16.7
30°-40°	1375.5	19.0
40°-50°	1327.8	18.3
50°-60°	1095.3	15.1
60°-70°	729.4	10.1
70°-80°	326.4	4.5
80°-90°	58.4	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°	2336.1	32.2
0°-40°	3711.6	51.2
0°-60°	6134.8	84.6
0°-90°	7249.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7249.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3135	3135	3135	3135	3135	
5°	3131	3130	3118	3101	3092	296
15°	2951	2958	2951	2938	2917	832
25°	2621	2641	2653	2634	2611	1200
35°	2108	2137	2234	2246	2238	1321
45°	1632	1660	1714	1792	1802	1259
55°	1143	1162	1219	1286	1324	1020
65°	670	688	729	780	825	664
75°	269	283	304	318	336	294
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3135.0	3135.0	3135.0	3135.0	3135.0
2.5°	3143.4	3144.6	3137.4	3118.1	3106.1
5°	3131.4	3130.2	3118.1	3101.3	3091.6
7.5°	3096.5	3098.9	3095.3	3071.2	3057.9
10°	3062.7	3063.9	3054.3	3035.0	3019.4
12.5°	3019.4	3018.2	3004.9	2995.3	2970.0
15°	2950.7	2958.0	2950.7	2937.5	2917.0
17.5°	2884.5	2884.5	2889.3	2866.4	2850.8
20°	2809.8	2813.4	2813.4	2795.4	2777.3
22.5°	2723.1	2733.9	2737.6	2718.3	2696.6
25°	2620.7	2641.2	2653.3	2634.0	2611.1
27.5°	2496.7	2528.0	2564.1	2549.7	2524.4
30°	2358.2	2403.9	2464.2	2452.1	2434.1
32.5°	2226.9	2272.7	2355.8	2351.0	2341.3
35°	2107.7	2136.6	2234.1	2246.2	2237.7
37.5°	1994.5	2021.0	2112.5	2140.2	2133.0
40°	1875.2	1904.1	1976.4	2025.8	2028.2
42.5°	1757.2	1784.9	1843.9	1915.0	1915.0
45°	1631.9	1659.6	1713.8	1792.1	1801.8
47.5°	1509.1	1538.0	1591.0	1669.3	1684.9
50°	1388.7	1415.1	1468.1	1544.0	1568.1
52.5°	1263.4	1292.3	1344.1	1413.9	1448.9
55°	1143.0	1162.2	1218.8	1286.3	1323.6
57.5°	1017.7	1035.8	1099.6	1157.4	1196.0
60°	897.3	920.1	969.5	1028.5	1073.1
62.5°	781.6	805.7	847.9	899.7	950.3
65°	669.6	687.7	728.7	780.4	825.0
67.5°	561.2	576.9	617.8	654.0	701.0
70°	451.6	472.1	502.2	537.2	567.3
72.5°	363.7	372.2	397.4	422.7	454.1
75°	268.6	283.0	303.5	318.0	336.0
77.5°	192.7	201.1	213.2	225.2	242.1
80°	128.9	132.5	143.3	145.7	159.0
82.5°	78.3	80.7	83.1	84.3	89.1
85°	42.2	42.2	42.2	39.7	39.7
87.5°	24.1	24.1	20.5	16.9	12.0
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)