

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: P558037

Luminaire Tested: **FUSL-12-4-LD4-3LO-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: P558037
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-LD4-3LO-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

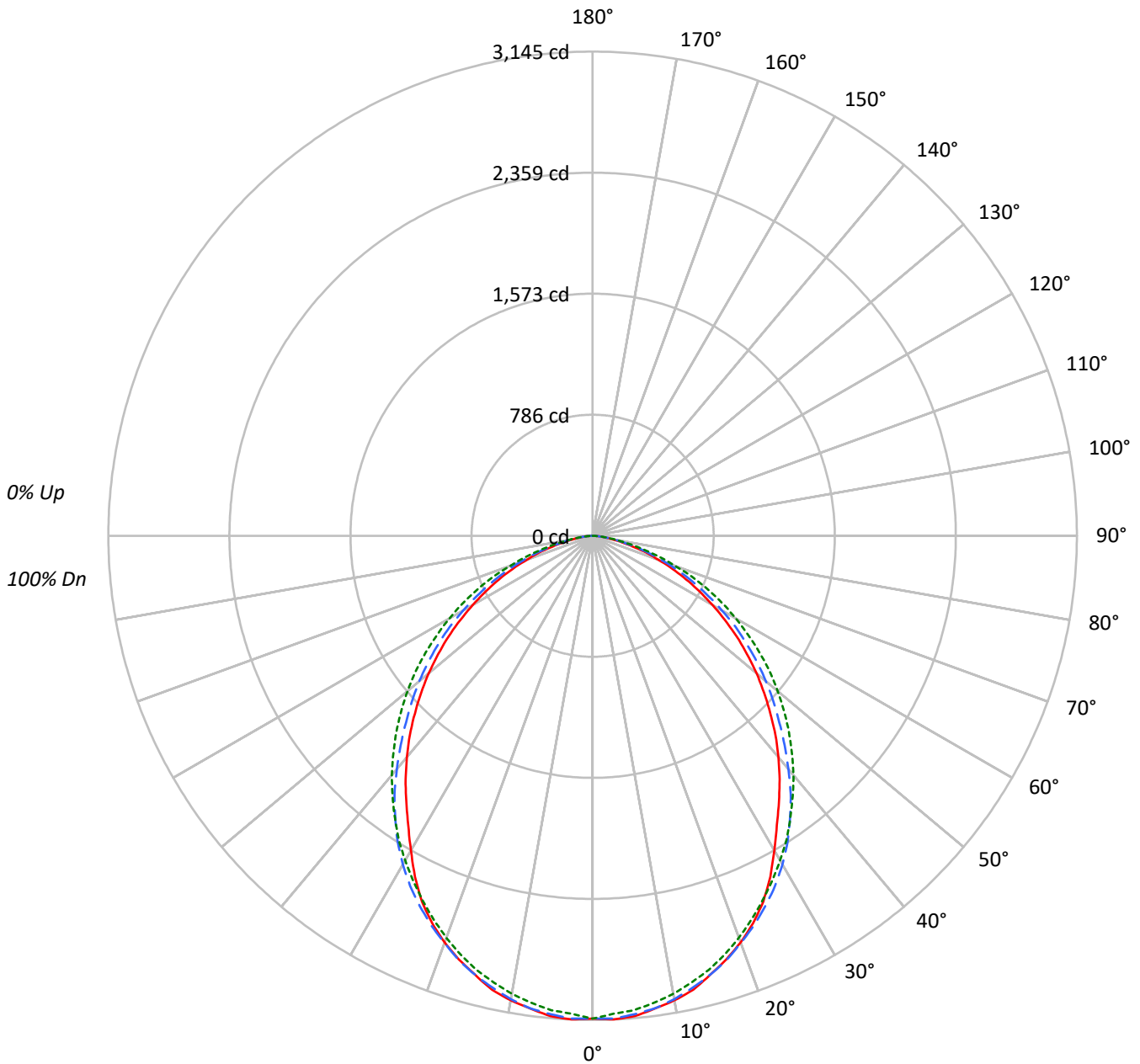
Lumens per Lamp: N/A
Luminaire Lumens: 7252.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	8440	8440	8440
5°	8462	8426	8355
10°	8372	8349	8254
15°	8224	8224	8130
20°	8050	8060	7957
25°	7785	7881	7756
30°	7331	7660	7567
35°	6927	7342	7354
40°	6590	6946	7128
45°	6213	6525	6860
50°	5816	6149	6568
55°	5364	5720	6213
60°	4831	5220	5778
65°	4266	4642	5255
70°	3555	3953	4465
75°	2794	3157	3496
80°	1998	2222	2464
85°	1303	1303	1229



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.3	4.1
10°-20°	829.6	11.4
20°-30°	1212.3	16.7
30°-40°	1376.0	19.0
40°-50°	1328.4	18.3
50°-60°	1095.8	15.1
60°-70°	729.7	10.1
70°-80°	326.5	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°	2337.1	32.2
0°-40°	3713.2	51.2
0°-60°	6137.3	84.6
0°-90°	7252.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7252.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3136	3136	3136	3136	3136	
5°	3133	3132	3119	3103	3093	297
15°	2952	2959	2952	2939	2918	832
25°	2622	2642	2654	2635	2612	1201
35°	2108	2138	2235	2247	2239	1321
45°	1633	1660	1714	1793	1802	1260
55°	1143	1163	1219	1287	1324	1021
65°	670	688	729	781	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°	3136.3	3136.3	3136.3	3136.3	3136.3
2.5°	3144.7	3145.9	3138.7	3119.4	3107.4
5°	3132.7	3131.5	3119.4	3102.6	3092.9
7.5°	3097.7	3100.2	3096.5	3072.4	3059.2
10°	3064.0	3065.2	3055.6	3036.3	3020.6
12.5°	3020.6	3019.4	3006.2	2996.5	2971.2
15°	2952.0	2959.2	2952.0	2938.7	2918.2
17.5°	2885.7	2885.7	2890.5	2867.6	2852.0
20°	2811.0	2814.6	2814.6	2796.5	2778.5
22.5°	2724.2	2735.1	2738.7	2719.4	2697.7
25°	2621.8	2642.3	2654.4	2635.1	2612.2
27.5°	2497.7	2529.0	2565.2	2550.7	2525.4
30°	2359.2	2404.9	2465.2	2453.1	2435.1
32.5°	2227.8	2273.6	2356.7	2351.9	2342.3
35°	2108.5	2137.5	2235.1	2247.1	2238.7
37.5°	1995.3	2021.8	2113.4	2141.1	2133.8
40°	1876.0	1904.9	1977.2	2026.6	2029.0
42.5°	1757.9	1785.6	1844.7	1915.8	1915.8
45°	1632.6	1660.3	1714.5	1792.9	1802.5
47.5°	1509.7	1538.6	1591.6	1670.0	1685.6
50°	1389.2	1415.7	1468.7	1544.7	1568.8
52.5°	1263.9	1292.8	1344.6	1414.5	1449.5
55°	1143.4	1162.7	1219.3	1286.8	1324.2
57.5°	1018.1	1036.2	1100.1	1157.9	1196.4
60°	897.6	920.5	969.9	1029.0	1073.5
62.5°	782.0	806.1	848.2	900.0	950.7
65°	669.9	688.0	729.0	780.8	825.3
67.5°	561.5	577.1	618.1	654.2	701.2
70°	451.8	472.3	502.4	537.4	567.5
72.5°	363.9	372.3	397.6	422.9	454.2
75°	268.7	283.1	303.6	318.1	336.2
77.5°	192.8	201.2	213.3	225.3	242.2
80°	128.9	132.5	143.4	145.8	159.0
82.5°	78.3	80.7	83.1	84.3	89.2
85°	42.2	42.2	42.2	39.8	39.8
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)