

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: P557572

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-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: P557572
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-LD4-2STD-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

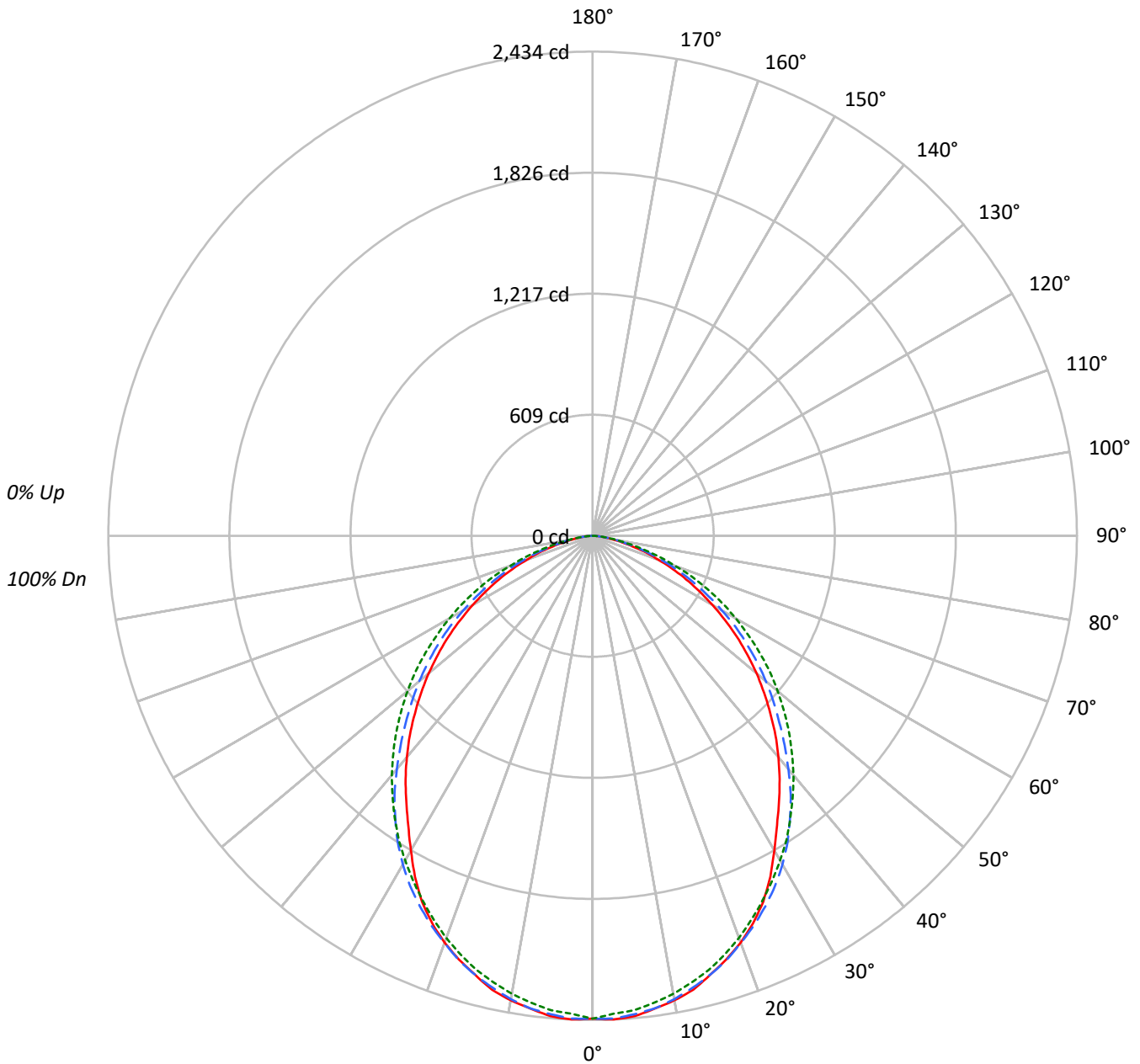
Lumens per Lamp: N/A
Luminaire Lumens: 5613.0 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6532	6532	6532
5°	6550	6522	6467
10°	6480	6462	6389
15°	6365	6365	6293
20°	6231	6239	6158
25°	6025	6100	6003
30°	5674	5929	5856
35°	5361	5683	5692
40°	5101	5376	5517
45°	4809	5050	5309
50°	4502	4759	5083
55°	4152	4428	4808
60°	3739	4040	4472
65°	3301	3592	4067
70°	2751	3060	3456
75°	2163	2443	2705
80°	1547	1720	1908
85°	1007	1007	951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.6	4.1
10°-20°	642.1	11.4
20°-30°	938.3	16.7
30°-40°	1065.1	19.0
40°-50°	1028.1	18.3
50°-60°	848.1	15.1
60°-70°	564.8	10.1
70°-80°	252.7	4.5
80°-90°	45.2	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°	1808.9	32.2
0°-40°	2874.0	51.2
0°-60°	4750.2	84.6
0°-90°	5613.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5613.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2428	2428	2428	2428	2428	
5°	2425	2424	2414	2401	2394	229
15°	2285	2290	2285	2274	2259	644
25°	2029	2045	2054	2040	2022	929
35°	1632	1654	1730	1739	1733	1023
45°	1264	1285	1327	1388	1395	975
55°	885	900	944	996	1025	790
65°	518	532	564	604	639	514
75°	208	219	235	246	260	227
85°	33	33	33	31	31	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2427.5	2427.5	2427.5	2427.5	2427.5
2.5°	2434.0	2434.9	2429.3	2414.4	2405.1
5°	2424.7	2423.7	2414.4	2401.4	2393.9
7.5°	2397.6	2399.5	2396.7	2378.1	2367.8
10°	2371.5	2372.5	2365.0	2350.1	2338.0
12.5°	2338.0	2337.0	2326.8	2319.3	2299.7
15°	2284.8	2290.4	2284.8	2274.5	2258.7
17.5°	2233.5	2233.5	2237.2	2219.5	2207.4
20°	2175.7	2178.5	2178.5	2164.5	2150.5
22.5°	2108.5	2116.9	2119.7	2104.8	2088.0
25°	2029.3	2045.1	2054.4	2039.5	2021.8
27.5°	1933.2	1957.5	1985.4	1974.2	1954.7
30°	1826.0	1861.4	1908.0	1898.7	1884.7
32.5°	1724.3	1759.8	1824.1	1820.4	1812.9
35°	1632.0	1654.4	1729.9	1739.2	1732.7
37.5°	1544.3	1564.9	1635.7	1657.2	1651.6
40°	1452.0	1474.4	1530.3	1568.6	1570.4
42.5°	1360.6	1382.1	1427.8	1482.8	1482.8
45°	1263.6	1285.1	1327.0	1387.7	1395.1
47.5°	1168.5	1190.9	1231.9	1292.5	1304.7
50°	1075.3	1095.8	1136.8	1195.6	1214.2
52.5°	978.3	1000.6	1040.7	1094.8	1121.9
55°	885.0	899.9	943.8	996.0	1024.9
57.5°	788.0	802.0	851.4	896.2	926.0
60°	694.8	712.5	750.7	796.4	830.9
62.5°	605.2	623.9	656.5	696.6	735.8
65°	518.5	532.5	564.2	604.3	638.8
67.5°	434.6	446.7	478.4	506.4	542.8
70°	349.7	365.6	388.9	415.9	439.2
72.5°	281.6	288.2	307.7	327.3	351.6
75°	208.0	219.2	235.0	246.2	260.2
77.5°	149.2	155.7	165.1	174.4	187.4
80°	99.8	102.6	111.0	112.8	123.1
82.5°	60.6	62.5	64.3	65.3	69.0
85°	32.6	32.6	32.6	30.8	30.8
87.5°	18.7	18.7	15.9	13.1	9.3
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)