

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: P557462

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-82-87-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: P557462
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-30-UNV-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

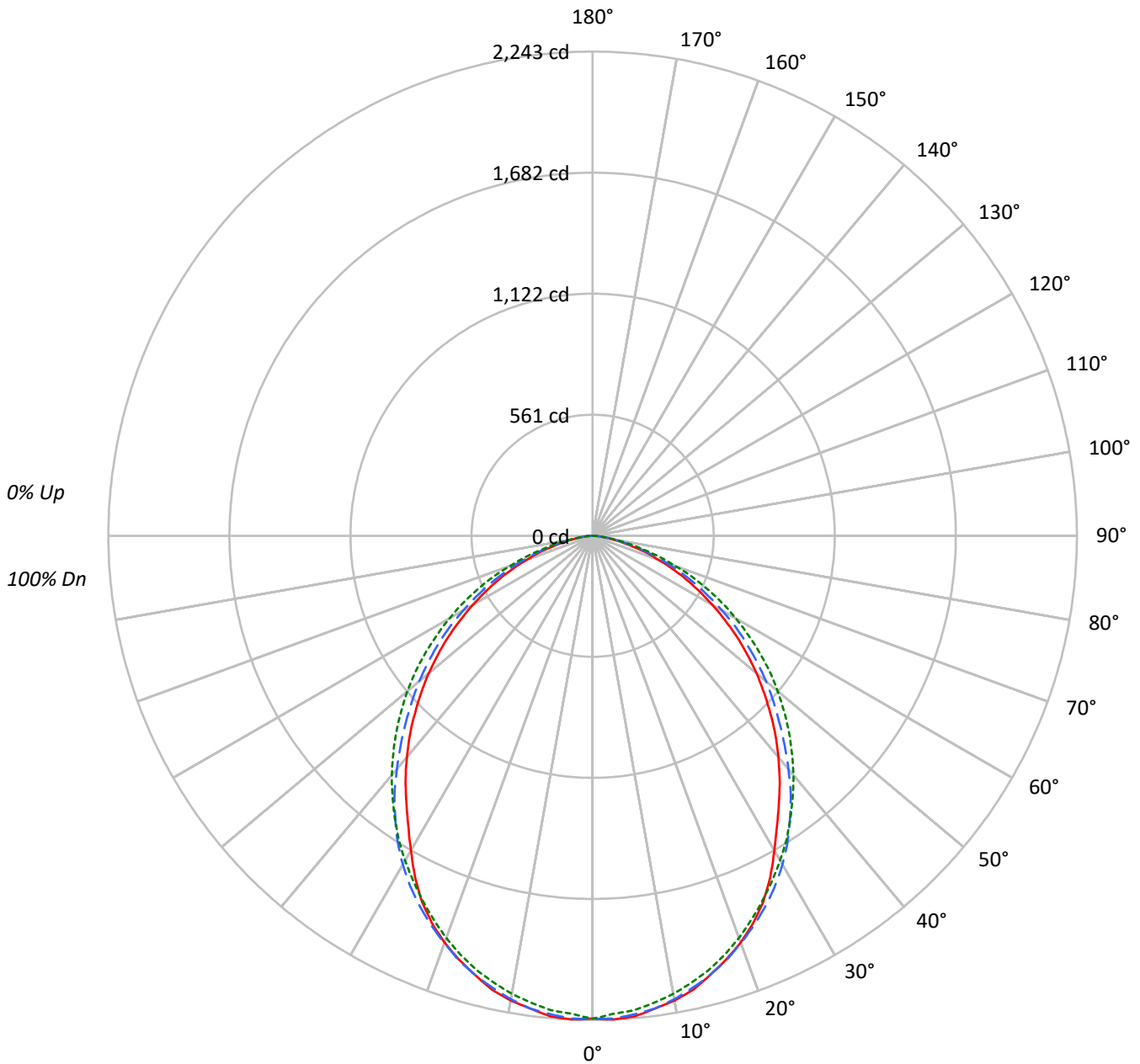
Lumens per Lamp: N/A
Luminaire Lumens: 5173.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6020	6020	6020
5°	6036	6011	5960
10°	5972	5956	5888
15°	5866	5866	5799
20°	5742	5749	5676
25°	5553	5622	5532
30°	5229	5464	5397
35°	4941	5237	5246
40°	4701	4954	5084
45°	4432	4654	4893
50°	4149	4386	4685
55°	3826	4081	4432
60°	3446	3724	4122
65°	3043	3311	3748
70°	2536	2820	3185
75°	1993	2252	2493
80°	1426	1585	1757
85°	929	929	877



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.6	4.1
10°-20°	591.7	11.4
20°-30°	864.7	16.7
30°-40°	981.6	19.0
40°-50°	947.5	18.3
50°-60°	781.7	15.1
60°-70°	520.5	10.1
70°-80°	232.9	4.5
80°-90°	41.7	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°	1667.1	32.2
0°-40°	2648.7	51.2
0°-60°	4377.9	84.6
0°-90°	5173.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5173.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2237	2237	2237	2237	2237	
5°	2235	2234	2225	2213	2206	212
15°	2106	2111	2106	2096	2082	594
25°	1870	1885	1893	1880	1863	856
35°	1504	1525	1594	1603	1597	942
45°	1165	1184	1223	1279	1286	899
55°	816	829	870	918	945	728
65°	478	491	520	557	589	474
75°	192	202	217	227	240	210
85°	30	30	30	28	28	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2237.2	2237.2	2237.2	2237.2	2237.2
2.5°	2243.2	2244.1	2238.9	2225.2	2216.6
5°	2234.6	2233.8	2225.2	2213.1	2206.2
7.5°	2209.7	2211.4	2208.8	2191.6	2182.2
10°	2185.6	2186.5	2179.6	2165.9	2154.7
12.5°	2154.7	2153.8	2144.4	2137.5	2119.4
15°	2105.7	2110.8	2105.7	2096.2	2081.6
17.5°	2058.4	2058.4	2061.9	2045.5	2034.4
20°	2005.1	2007.7	2007.7	1994.8	1981.9
22.5°	1943.3	1951.0	1953.6	1939.8	1924.3
25°	1870.2	1884.8	1893.4	1879.7	1863.3
27.5°	1781.7	1804.0	1829.8	1819.5	1801.4
30°	1682.8	1715.5	1758.5	1749.9	1737.0
32.5°	1589.2	1621.8	1681.1	1677.7	1670.8
35°	1504.1	1524.7	1594.3	1602.9	1596.9
37.5°	1423.3	1442.2	1507.5	1527.3	1522.1
40°	1338.2	1358.8	1410.4	1445.6	1447.3
42.5°	1254.0	1273.7	1315.8	1366.6	1366.6
45°	1164.6	1184.3	1223.0	1278.9	1285.8
47.5°	1076.9	1097.5	1135.4	1191.2	1202.4
50°	991.0	1009.9	1047.7	1101.8	1119.0
52.5°	901.6	922.2	959.2	1009.0	1033.9
55°	815.6	829.4	869.8	917.9	944.6
57.5°	726.2	739.1	784.7	825.9	853.4
60°	640.3	656.6	691.9	734.0	765.8
62.5°	557.8	575.0	605.1	642.0	678.1
65°	477.9	490.8	520.0	556.9	588.7
67.5°	400.5	411.7	440.9	466.7	500.2
70°	322.3	336.9	358.4	383.3	404.8
72.5°	259.6	265.6	283.6	301.7	324.0
75°	191.7	202.0	216.6	226.9	239.8
77.5°	137.5	143.5	152.1	160.7	172.8
80°	92.0	94.5	102.3	104.0	113.4
82.5°	55.9	57.6	59.3	60.2	63.6
85°	30.1	30.1	30.1	28.4	28.4
87.5°	17.2	17.2	14.6	12.0	8.6
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)