

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: P558104

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-82-88-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: P558104
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-40-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

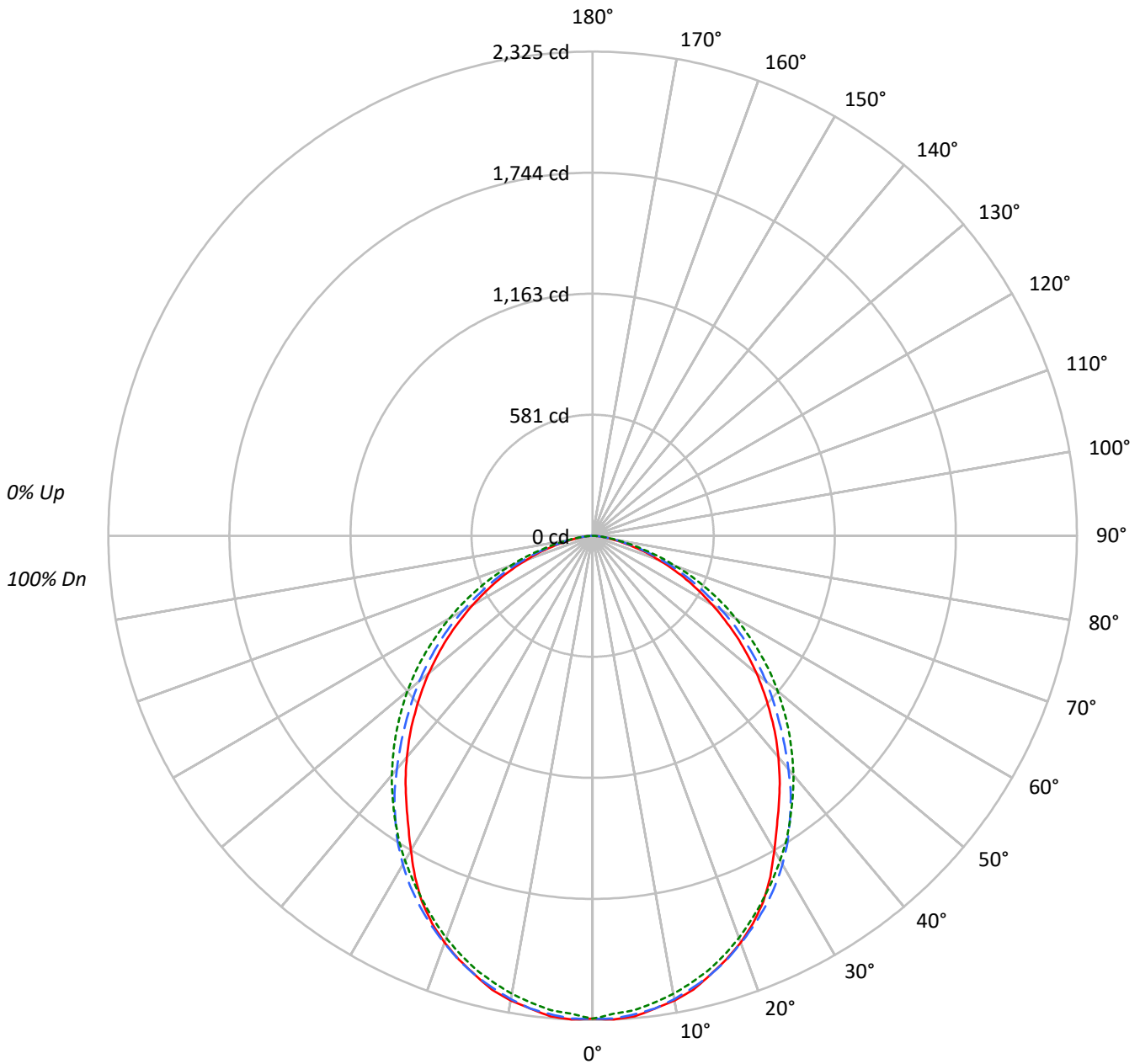
Lumens per Lamp: N/A
Luminaire Lumens: 5362.0 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6240	6240	6240
5°	6257	6230	6178
10°	6190	6173	6103
15°	6081	6081	6011
20°	5952	5960	5883
25°	5756	5827	5735
30°	5420	5664	5594
35°	5121	5429	5437
40°	4873	5135	5270
45°	4594	4824	5072
50°	4300	4546	4856
55°	3966	4230	4594
60°	3572	3859	4272
65°	3154	3432	3885
70°	2629	2923	3301
75°	2066	2334	2585
80°	1477	1643	1822
85°	963	963	908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.3	4.1
10°-20°	613.4	11.4
20°-30°	896.3	16.7
30°-40°	1017.4	19.0
40°-50°	982.2	18.3
50°-60°	810.2	15.1
60°-70°	539.5	10.1
70°-80°	241.4	4.5
80°-90°	43.2	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°	1728.0	32.2
0°-40°	2745.5	51.2
0°-60°	4537.8	84.6
0°-90°	5362.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5362.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2319	2319	2319	2319	2319	
5°	2316	2315	2306	2294	2287	219
15°	2183	2188	2183	2173	2158	615
25°	1938	1954	1963	1948	1931	888
35°	1559	1580	1653	1662	1655	977
45°	1207	1228	1268	1326	1333	931
55°	845	860	902	951	979	755
65°	495	509	539	577	610	491
75°	199	209	224	235	249	217
85°	31	31	31	29	29	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2318.9	2318.9	2318.9	2318.9	2318.9
2.5°	2325.2	2326.1	2320.7	2306.5	2297.5
5°	2316.3	2315.4	2306.5	2294.0	2286.9
7.5°	2290.4	2292.2	2289.5	2271.7	2261.9
10°	2265.5	2266.4	2259.2	2245.0	2233.4
12.5°	2233.4	2232.5	2222.7	2215.6	2196.9
15°	2182.6	2188.0	2182.6	2172.8	2157.7
17.5°	2133.6	2133.6	2137.2	2120.3	2108.7
20°	2078.4	2081.1	2081.1	2067.7	2054.3
22.5°	2014.3	2022.3	2024.9	2010.7	1994.7
25°	1938.5	1953.7	1962.6	1948.3	1931.4
27.5°	1846.8	1869.9	1896.7	1886.0	1867.3
30°	1744.3	1778.2	1822.7	1813.8	1800.4
32.5°	1647.2	1681.1	1742.5	1739.0	1731.8
35°	1559.0	1580.4	1652.6	1661.5	1655.2
37.5°	1475.3	1494.9	1562.6	1583.1	1577.7
40°	1387.1	1408.5	1461.9	1498.4	1500.2
42.5°	1299.8	1320.3	1363.9	1416.5	1416.5
45°	1207.1	1227.6	1267.7	1325.6	1332.7
47.5°	1116.3	1137.6	1176.8	1234.7	1246.3
50°	1027.2	1046.8	1086.0	1142.1	1159.9
52.5°	934.5	955.9	994.2	1045.9	1071.7
55°	845.4	859.7	901.6	951.4	979.1
57.5°	752.8	766.1	813.4	856.1	884.6
60°	663.7	680.6	717.1	760.8	793.8
62.5°	578.2	596.0	627.2	665.5	702.9
65°	495.3	508.7	539.0	577.3	610.2
67.5°	415.1	426.7	457.0	483.7	518.5
70°	334.1	349.2	371.5	397.3	419.6
72.5°	269.0	275.3	294.0	312.7	335.9
75°	198.7	209.4	224.5	235.2	248.6
77.5°	142.5	148.8	157.7	166.6	179.1
80°	95.3	98.0	106.0	107.8	117.6
82.5°	57.9	59.7	61.5	62.4	65.9
85°	31.2	31.2	31.2	29.4	29.4
87.5°	17.8	17.8	15.1	12.5	8.9
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)