

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: P558088

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-81-88-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: P558088
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-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 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

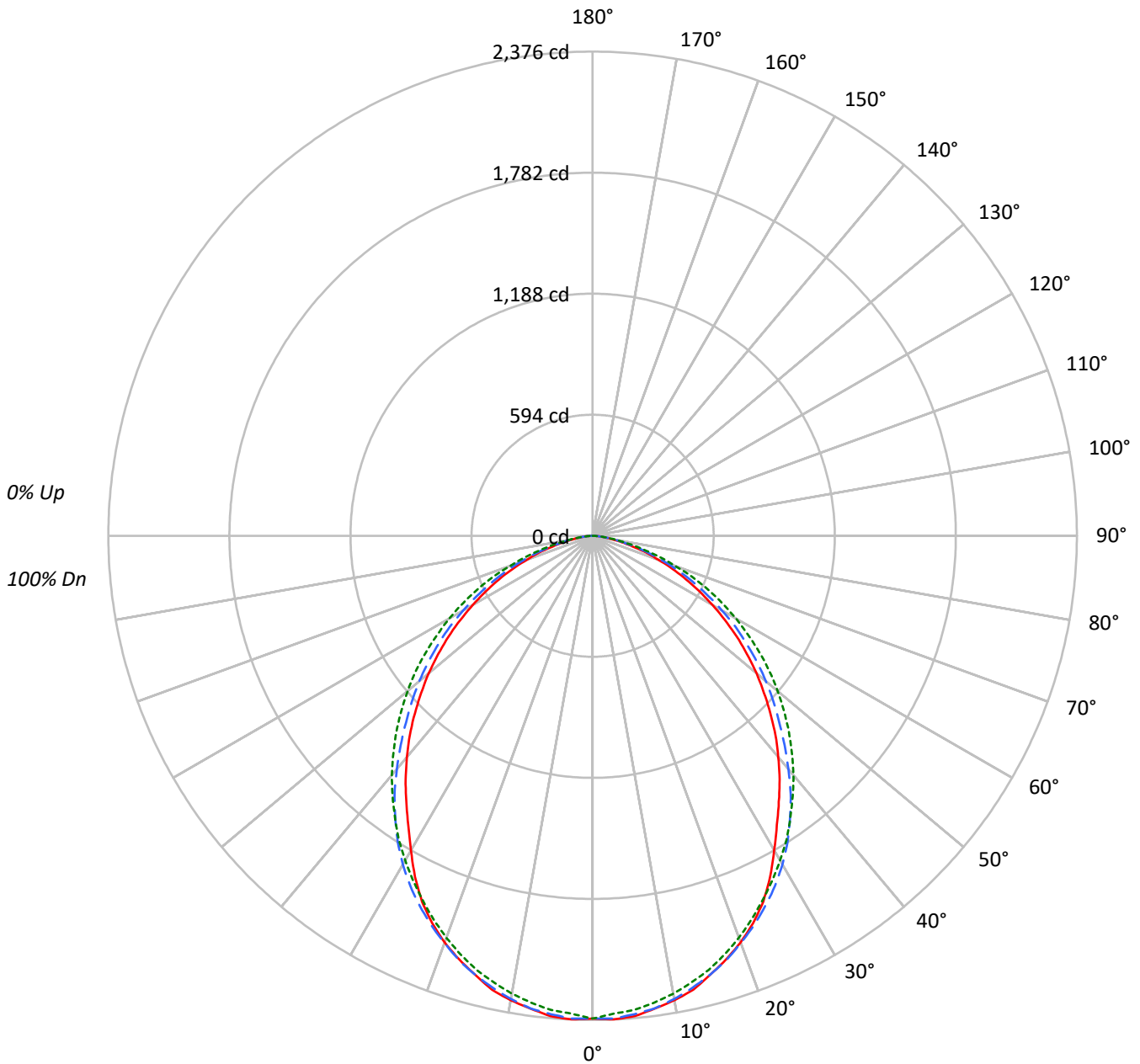
Lumens per Lamp: N/A
Luminaire Lumens: 5478.0 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6375	6375	6375
5°	6392	6365	6311
10°	6324	6307	6235
15°	6212	6212	6141
20°	6081	6088	6010
25°	5880	5953	5859
30°	5537	5786	5716
35°	5232	5546	5555
40°	4978	5246	5384
45°	4693	4929	5182
50°	4393	4645	4961
55°	4052	4321	4693
60°	3650	3943	4364
65°	3222	3506	3969
70°	2685	2986	3373
75°	2111	2385	2640
80°	1509	1678	1861
85°	985	985	926



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.1	4.1
10°-20°	626.6	11.4
20°-30°	915.7	16.7
30°-40°	1039.4	19.0
40°-50°	1003.4	18.3
50°-60°	827.7	15.1
60°-70°	551.2	10.1
70°-80°	246.7	4.5
80°-90°	44.1	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°	1765.4	32.2
0°-40°	2804.8	51.2
0°-60°	4636.0	84.6
0°-90°	5478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5478.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2369	2369	2369	2369	2369	
5°	2366	2366	2356	2344	2336	224
15°	2230	2235	2230	2220	2204	629
25°	1980	1996	2005	1990	1973	907
35°	1593	1615	1688	1697	1691	998
45°	1233	1254	1295	1354	1362	952
55°	864	878	921	972	1000	771
65°	506	520	551	590	623	502
75°	203	214	229	240	254	222
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2369.1	2369.1	2369.1	2369.1	2369.1
2.5°	2375.5	2376.4	2370.9	2356.4	2347.3
5°	2366.4	2365.5	2356.4	2343.6	2336.3
7.5°	2340.0	2341.8	2339.1	2320.9	2310.8
10°	2314.5	2315.4	2308.1	2293.6	2281.7
12.5°	2281.7	2280.8	2270.8	2263.5	2244.4
15°	2229.8	2235.3	2229.8	2219.8	2204.4
17.5°	2179.8	2179.8	2183.4	2166.1	2154.3
20°	2123.4	2126.1	2126.1	2112.4	2098.8
22.5°	2057.8	2066.0	2068.7	2054.2	2037.8
25°	1980.5	1995.9	2005.0	1990.5	1973.2
27.5°	1886.7	1910.4	1937.7	1926.8	1907.7
30°	1782.1	1816.6	1862.1	1853.0	1839.4
32.5°	1682.8	1717.4	1780.2	1776.6	1769.3
35°	1592.7	1614.6	1688.3	1697.4	1691.0
37.5°	1507.2	1527.2	1596.4	1617.3	1611.9
40°	1417.1	1438.9	1493.5	1530.9	1532.7
42.5°	1327.9	1348.8	1393.4	1447.1	1447.1
45°	1233.2	1254.2	1295.1	1354.3	1361.6
47.5°	1140.4	1162.2	1202.3	1261.5	1273.3
50°	1049.4	1069.4	1109.5	1166.8	1185.0
52.5°	954.7	976.6	1015.7	1068.5	1094.9
55°	863.7	878.3	921.1	972.0	1000.2
57.5°	769.1	782.7	831.0	874.6	903.8
60°	678.1	695.3	732.7	777.3	810.9
62.5°	590.7	608.9	640.7	679.9	718.1
65°	506.0	519.7	550.6	589.8	623.4
67.5°	424.1	436.0	466.9	494.2	529.7
70°	341.3	356.8	379.5	405.9	428.7
72.5°	274.9	281.2	300.3	319.5	343.1
75°	203.0	213.9	229.4	240.3	253.9
77.5°	145.6	152.0	161.1	170.2	182.9
80°	97.4	100.1	108.3	110.1	120.1
82.5°	59.2	61.0	62.8	63.7	67.4
85°	31.9	31.9	31.9	30.0	30.0
87.5°	18.2	18.2	15.5	12.7	9.1
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)