

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: P557397

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-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: P557397
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-LD4-2LO-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

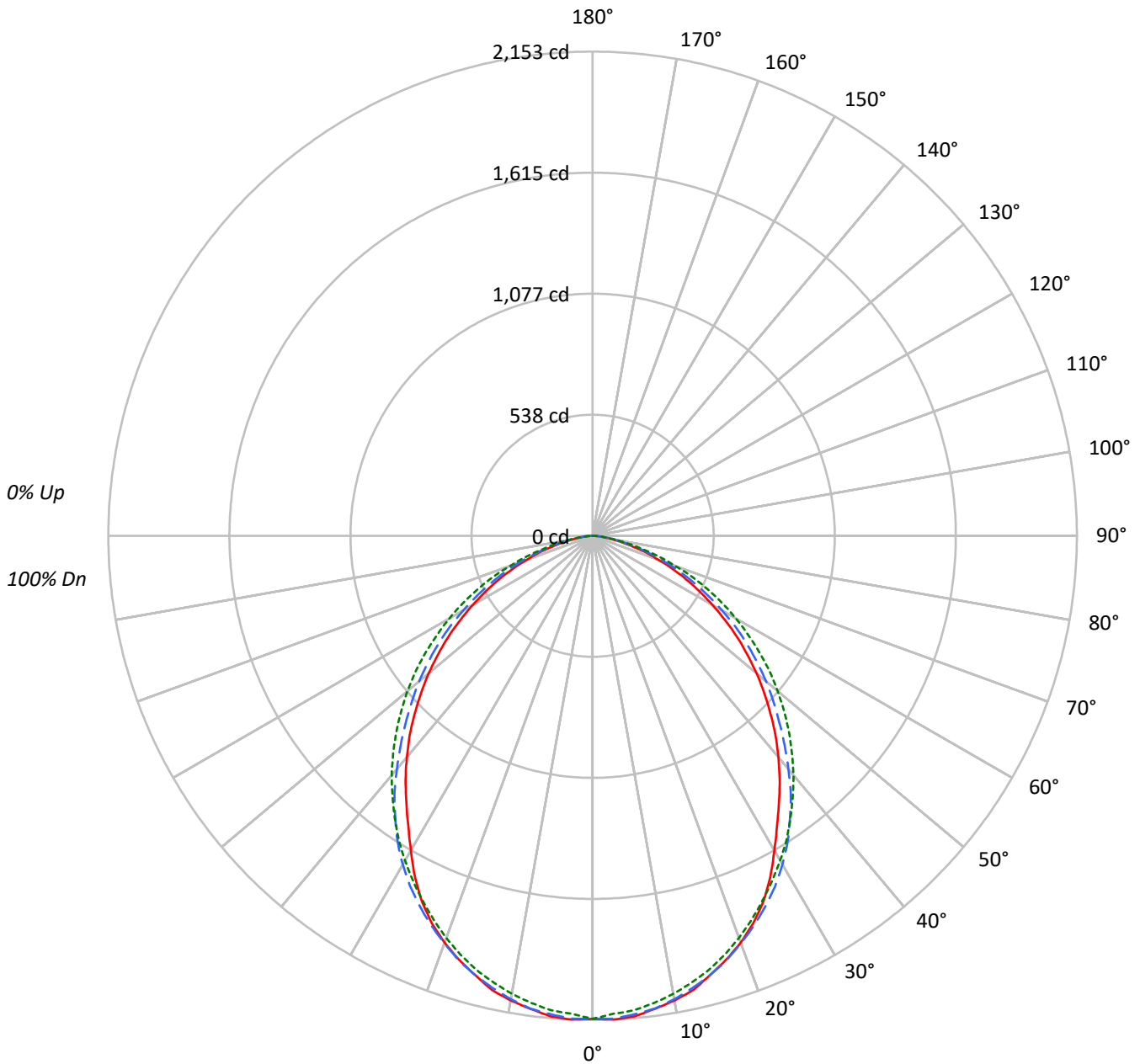
Lumens per Lamp: N/A
Luminaire Lumens: 4966.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	5779	5779	5779
5°	5795	5770	5721
10°	5733	5717	5652
15°	5631	5631	5567
20°	5512	5519	5448
25°	5331	5397	5311
30°	5020	5245	5181
35°	4743	5028	5036
40°	4513	4756	4881
45°	4255	4468	4697
50°	3983	4211	4497
55°	3674	3917	4254
60°	3308	3575	3956
65°	2921	3179	3599
70°	2434	2707	3057
75°	1913	2162	2393
80°	1368	1522	1688
85°	892	892	840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.2	4.1
10°-20°	568.1	11.4
20°-30°	830.1	16.7
30°-40°	942.3	19.0
40°-50°	909.6	18.3
50°-60°	750.4	15.1
60°-70°	499.7	10.1
70°-80°	223.6	4.5
80°-90°	40.0	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°	1600.4	32.2
0°-40°	2542.7	51.2
0°-60°	4202.7	84.6
0°-90°	4966.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4966.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2148	2148	2148	2148	2148	
5°	2145	2144	2136	2125	2118	203
15°	2021	2026	2021	2012	1998	570
25°	1795	1809	1818	1804	1789	822
35°	1444	1464	1530	1539	1533	905
45°	1118	1137	1174	1228	1234	863
55°	783	796	835	881	907	699
65°	459	471	499	535	565	455
75°	184	194	208	218	230	201
85°	29	29	29	27	27	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2147.7	2147.7	2147.7	2147.7	2147.7
2.5°	2153.4	2154.3	2149.3	2136.1	2127.9
5°	2145.2	2144.4	2136.1	2124.6	2118.0
7.5°	2121.3	2122.9	2120.4	2103.9	2094.9
10°	2098.2	2099.0	2092.4	2079.2	2068.5
12.5°	2068.5	2067.6	2058.6	2052.0	2034.6
15°	2021.4	2026.4	2021.4	2012.4	1998.3
17.5°	1976.1	1976.1	1979.4	1963.7	1952.9
20°	1924.9	1927.4	1927.4	1915.0	1902.6
22.5°	1865.5	1872.9	1875.4	1862.2	1847.3
25°	1795.4	1809.4	1817.6	1804.4	1788.8
27.5°	1710.4	1731.8	1756.6	1746.7	1729.4
30°	1615.5	1646.8	1688.1	1679.8	1667.5
32.5°	1525.6	1556.9	1613.8	1610.5	1603.9
35°	1443.9	1463.7	1530.5	1538.8	1533.0
37.5°	1366.3	1384.5	1447.2	1466.2	1461.2
40°	1284.6	1304.4	1353.9	1387.8	1389.4
42.5°	1203.8	1222.8	1263.2	1311.9	1311.9
45°	1118.0	1137.0	1174.1	1227.7	1234.3
47.5°	1033.8	1053.6	1089.9	1143.6	1154.3
50°	951.3	969.5	1005.8	1057.7	1074.2
52.5°	865.5	885.3	920.8	968.6	992.6
55°	783.0	796.2	835.0	881.2	906.8
57.5°	697.2	709.6	753.3	792.9	819.3
60°	614.7	630.4	664.2	704.6	735.1
62.5°	535.5	552.0	580.9	616.3	651.0
65°	458.7	471.1	499.2	534.6	565.2
67.5°	384.5	395.2	423.3	448.0	480.2
70°	309.4	323.4	344.1	368.0	388.6
72.5°	249.2	254.9	272.3	289.6	311.1
75°	184.0	193.9	207.9	217.8	230.2
77.5°	132.0	137.8	146.0	154.3	165.8
80°	88.3	90.8	98.2	99.8	108.9
82.5°	53.6	55.3	56.9	57.8	61.1
85°	28.9	28.9	28.9	27.2	27.2
87.5°	16.5	16.5	14.0	11.6	8.3
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)