

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: P557171

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-80-85-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: P557171
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-30-UNV-80-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

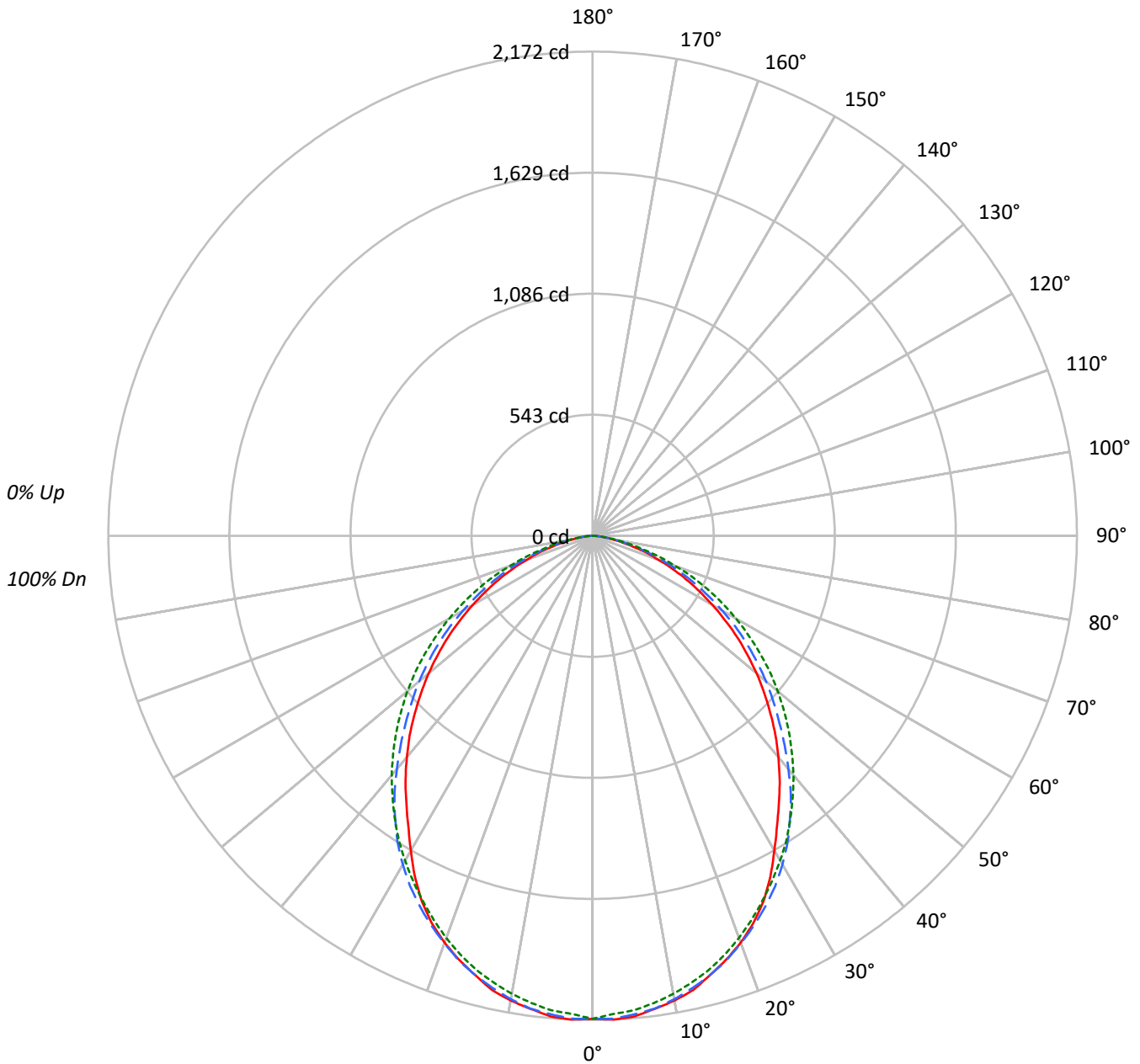
Lumens per Lamp: N/A
Luminaire Lumens: 5010.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5831	5831	5831
5°	5846	5821	5772
10°	5784	5768	5702
15°	5681	5681	5616
20°	5561	5568	5497
25°	5378	5445	5358
30°	5064	5292	5227
35°	4785	5072	5081
40°	4553	4798	4924
45°	4292	4508	4739
50°	4018	4248	4537
55°	3706	3952	4292
60°	3337	3606	3992
65°	2947	3207	3631
70°	2456	2731	3085
75°	1930	2181	2414
80°	1381	1536	1703
85°	898	898	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.0	4.1
10°-20°	573.1	11.4
20°-30°	837.5	16.7
30°-40°	950.6	19.0
40°-50°	917.7	18.3
50°-60°	757.0	15.1
60°-70°	504.1	10.1
70°-80°	225.6	4.5
80°-90°	40.4	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°	1614.6	32.2
0°-40°	2565.2	51.2
0°-60°	4239.9	84.6
0°-90°	5010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5010.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2167	2167	2167	2167	2167	
5°	2164	2163	2155	2143	2137	205
15°	2039	2044	2039	2030	2016	575
25°	1811	1825	1834	1820	1805	829
35°	1457	1477	1544	1552	1547	913
45°	1128	1147	1184	1239	1245	870
55°	790	803	842	889	915	705
65°	463	475	504	539	570	459
75°	186	196	210	220	232	203
85°	29	29	29	28	28	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2166.7	2166.7	2166.7	2166.7	2166.7
2.5°	2172.5	2173.4	2168.4	2155.0	2146.7
5°	2164.2	2163.4	2155.0	2143.4	2136.7
7.5°	2140.1	2141.7	2139.2	2122.6	2113.4
10°	2116.8	2117.6	2110.9	2097.6	2086.8
12.5°	2086.8	2086.0	2076.8	2070.1	2052.7
15°	2039.3	2044.3	2039.3	2030.2	2016.0
17.5°	1993.6	1993.6	1996.9	1981.1	1970.3
20°	1942.0	1944.4	1944.4	1932.0	1919.5
22.5°	1882.0	1889.5	1892.0	1878.7	1863.7
25°	1811.3	1825.4	1833.7	1820.4	1804.6
27.5°	1725.5	1747.2	1772.1	1762.2	1744.7
30°	1629.8	1661.4	1703.1	1694.7	1682.2
32.5°	1539.1	1570.7	1628.1	1624.8	1618.2
35°	1456.7	1476.6	1544.1	1552.4	1546.6
37.5°	1378.4	1396.7	1460.0	1479.1	1474.2
40°	1296.0	1316.0	1365.9	1400.1	1401.7
42.5°	1214.4	1233.6	1274.4	1323.5	1323.5
45°	1127.9	1147.0	1184.5	1238.6	1245.2
47.5°	1043.0	1063.0	1099.6	1153.7	1164.5
50°	959.7	978.1	1014.7	1067.1	1083.8
52.5°	873.2	893.1	928.9	977.2	1001.4
55°	789.9	803.3	842.4	889.0	914.8
57.5°	703.4	715.9	760.0	799.9	826.6
60°	620.1	635.9	670.1	710.9	741.7
62.5°	540.2	556.9	586.0	621.8	656.8
65°	462.8	475.3	503.6	539.4	570.2
67.5°	387.9	398.7	427.0	452.0	484.4
70°	312.1	326.3	347.1	371.2	392.1
72.5°	251.4	257.2	274.7	292.2	313.8
75°	185.6	195.6	209.8	219.7	232.2
77.5°	133.2	139.0	147.3	155.7	167.3
80°	89.1	91.6	99.1	100.7	109.9
82.5°	54.1	55.8	57.4	58.3	61.6
85°	29.1	29.1	29.1	27.5	27.5
87.5°	16.6	16.6	14.2	11.7	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)