

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: P557180

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-80-96-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: P557180
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-80-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND
3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

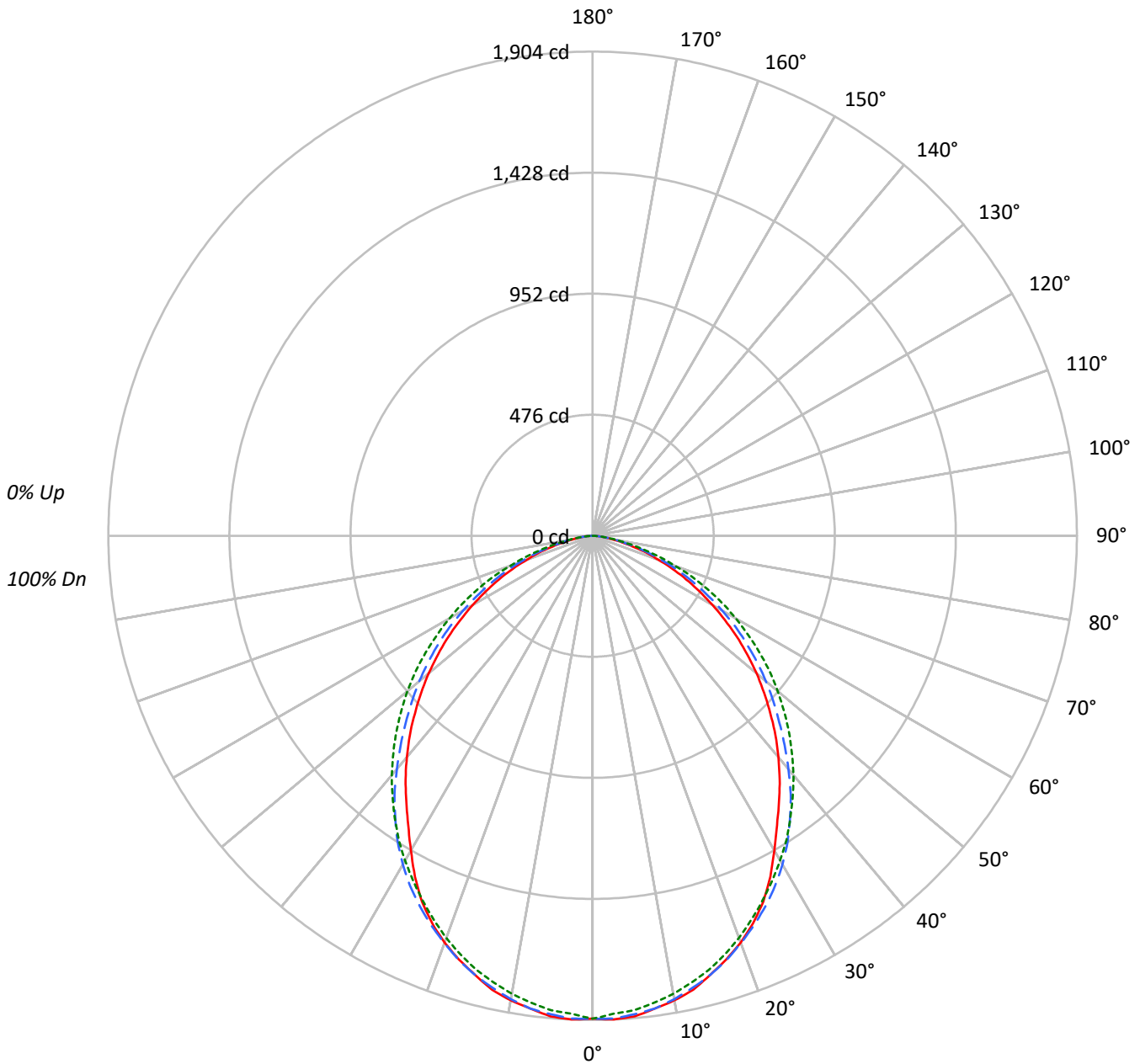
Lumens per Lamp: N/A
Luminaire Lumens: 4391.0 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (A_{in}): 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°	5110	5110	5110
5°	5124	5102	5059
10°	5069	5055	4998
15°	4980	4980	4922
20°	4874	4880	4818
25°	4714	4772	4696
30°	4438	4638	4581
35°	4194	4446	4453
40°	3990	4206	4316
45°	3762	3951	4153
50°	3522	3723	3977
55°	3248	3464	3762
60°	2925	3161	3498
65°	2583	2811	3182
70°	2153	2393	2703
75°	1692	1911	2116
80°	1210	1345	1492
85°	787	787	744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.8	4.1
10°-20°	502.3	11.4
20°-30°	734.0	16.7
30°-40°	833.2	19.0
40°-50°	804.3	18.3
50°-60°	663.5	15.1
60°-70°	441.8	10.1
70°-80°	197.7	4.5
80°-90°	35.4	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°	1415.1	32.2
0°-40°	2248.3	51.2
0°-60°	3716.1	84.6
0°-90°	4391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1899	1899	1899	1899	1899	
5°	1897	1896	1889	1879	1873	180
15°	1787	1792	1787	1779	1767	504
25°	1588	1600	1607	1596	1582	727
35°	1277	1294	1353	1361	1356	800
45°	988	1005	1038	1086	1091	763
55°	692	704	738	779	802	618
65°	406	417	441	473	500	402
75°	163	171	184	193	204	178
85°	26	26	26	24	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1899.0	1899.0	1899.0	1899.0	1899.0
2.5°	1904.1	1904.8	1900.5	1888.8	1881.5
5°	1896.8	1896.1	1888.8	1878.6	1872.7
7.5°	1875.6	1877.1	1874.9	1860.3	1852.3
10°	1855.2	1856.0	1850.1	1838.4	1829.0
12.5°	1829.0	1828.2	1820.2	1814.4	1799.0
15°	1787.4	1791.8	1787.4	1779.3	1766.9
17.5°	1747.2	1747.2	1750.2	1736.3	1726.8
20°	1702.0	1704.2	1704.2	1693.3	1682.3
22.5°	1649.5	1656.1	1658.2	1646.6	1633.4
25°	1587.5	1599.9	1607.2	1595.5	1581.6
27.5°	1512.3	1531.3	1553.2	1544.4	1529.1
30°	1428.4	1456.2	1492.6	1485.3	1474.4
32.5°	1348.9	1376.6	1427.0	1424.1	1418.2
35°	1276.7	1294.2	1353.3	1360.6	1355.5
37.5°	1208.1	1224.2	1279.6	1296.4	1292.0
40°	1135.9	1153.4	1197.2	1227.1	1228.5
42.5°	1064.4	1081.2	1116.9	1160.0	1160.0
45°	988.5	1005.3	1038.1	1085.6	1091.4
47.5°	914.1	931.6	963.7	1011.1	1020.6
50°	841.2	857.2	889.3	935.3	949.9
52.5°	765.3	782.8	814.2	856.5	877.6
55°	692.3	704.0	738.3	779.1	801.8
57.5°	616.5	627.4	666.1	701.1	724.4
60°	543.5	557.4	587.3	623.0	650.0
62.5°	473.5	488.1	513.6	545.0	575.6
65°	405.6	416.6	441.4	472.7	499.7
67.5°	340.0	349.4	374.3	396.1	424.6
70°	273.6	286.0	304.2	325.4	343.6
72.5°	220.3	225.4	240.7	256.1	275.0
75°	162.7	171.4	183.8	192.6	203.5
77.5°	116.7	121.8	129.1	136.4	146.6
80°	78.1	80.2	86.8	88.3	96.3
82.5°	47.4	48.9	50.3	51.1	54.0
85°	25.5	25.5	25.5	24.1	24.1
87.5°	14.6	14.6	12.4	10.2	7.3
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)