

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: P557404

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-82-96-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: P557404
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-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEADS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

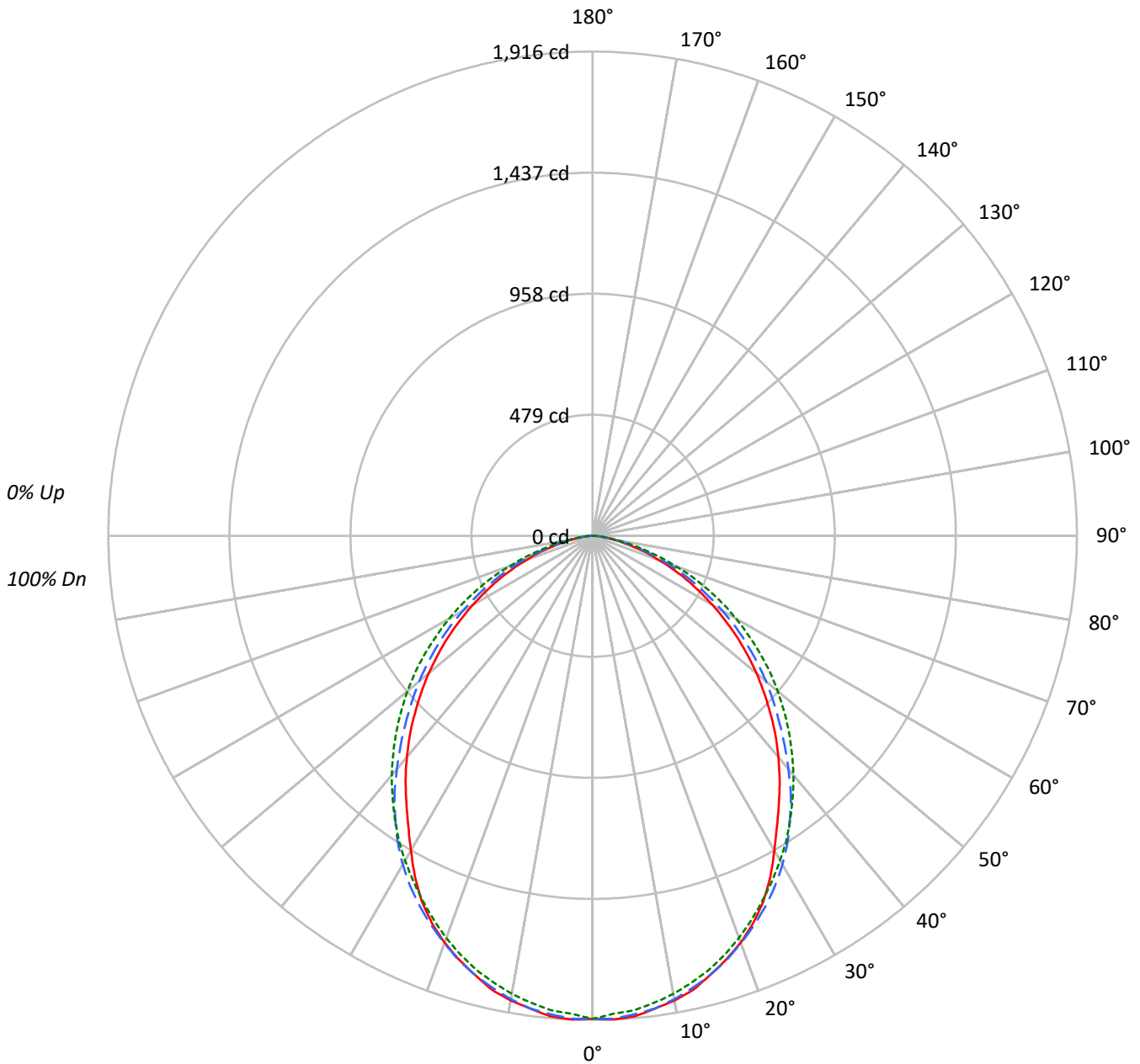
Lumens per Lamp: N/A
Luminaire Lumens: 4419.0 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5143	5143	5143
5°	5156	5135	5091
10°	5102	5088	5029
15°	5011	5011	4954
20°	4905	4911	4848
25°	4744	4802	4726
30°	4467	4668	4611
35°	4221	4474	4481
40°	4016	4232	4343
45°	3786	3976	4180
50°	3544	3747	4002
55°	3269	3486	3786
60°	2944	3181	3521
65°	2599	2828	3202
70°	2166	2409	2721
75°	1702	1923	2129
80°	1218	1354	1502
85°	794	794	747



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.9	4.1
10°-20°	505.5	11.4
20°-30°	738.7	16.7
30°-40°	838.5	19.0
40°-50°	809.4	18.3
50°-60°	667.7	15.1
60°-70°	444.7	10.1
70°-80°	199.0	4.5
80°-90°	35.6	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°	1424.1	32.2
0°-40°	2262.6	51.2
0°-60°	3739.8	84.6
0°-90°	4419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1911	1911	1911	1911	1911	
5°	1909	1908	1901	1890	1885	181
15°	1799	1803	1799	1791	1778	507
25°	1598	1610	1617	1606	1592	732
35°	1285	1302	1362	1369	1364	805
45°	995	1012	1045	1092	1098	768
55°	697	708	743	784	807	622
65°	408	419	444	476	503	405
75°	164	172	185	194	205	179
85°	26	26	26	24	24	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1911.1	1911.1	1911.1	1911.1	1911.1
2.5°	1916.2	1917.0	1912.6	1900.8	1893.5
5°	1908.9	1908.2	1900.8	1890.5	1884.7
7.5°	1887.6	1889.1	1886.9	1872.2	1864.1
10°	1867.1	1867.8	1861.9	1850.2	1840.6
12.5°	1840.6	1839.9	1831.8	1825.9	1810.5
15°	1798.8	1803.2	1798.8	1790.7	1778.2
17.5°	1758.4	1758.4	1761.3	1747.4	1737.8
20°	1712.9	1715.1	1715.1	1704.1	1693.0
22.5°	1660.0	1666.6	1668.8	1657.1	1643.9
25°	1597.6	1610.1	1617.4	1605.7	1591.7
27.5°	1522.0	1541.1	1563.1	1554.3	1538.9
30°	1437.5	1465.4	1502.2	1494.8	1483.8
32.5°	1357.5	1385.4	1436.1	1433.1	1427.3
35°	1284.8	1302.5	1361.9	1369.3	1364.1
37.5°	1215.8	1232.0	1287.8	1304.7	1300.3
40°	1143.1	1160.8	1204.8	1234.9	1236.4
42.5°	1071.2	1088.1	1124.0	1167.4	1167.4
45°	994.8	1011.7	1044.8	1092.5	1098.4
47.5°	919.9	937.6	969.9	1017.6	1027.1
50°	846.5	862.7	895.0	941.2	955.9
52.5°	770.2	787.8	819.4	861.9	883.2
55°	696.7	708.5	743.0	784.1	806.9
57.5°	620.4	631.4	670.3	705.6	729.1
60°	547.0	560.9	591.0	627.0	654.2
62.5°	476.5	491.2	516.9	548.4	579.3
65°	408.2	419.2	444.2	475.8	502.9
67.5°	342.1	351.7	376.6	398.7	427.3
70°	275.3	287.8	306.2	327.4	345.8
72.5°	221.7	226.9	242.3	257.7	276.8
75°	163.7	172.5	185.0	193.8	204.8
77.5°	117.5	122.6	130.0	137.3	147.6
80°	78.6	80.8	87.4	88.8	96.9
82.5°	47.7	49.2	50.7	51.4	54.3
85°	25.7	25.7	25.7	24.2	24.2
87.5°	14.7	14.7	12.5	10.3	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)