

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: P557354

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-93-94-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: P557354
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-40-UNV-93-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

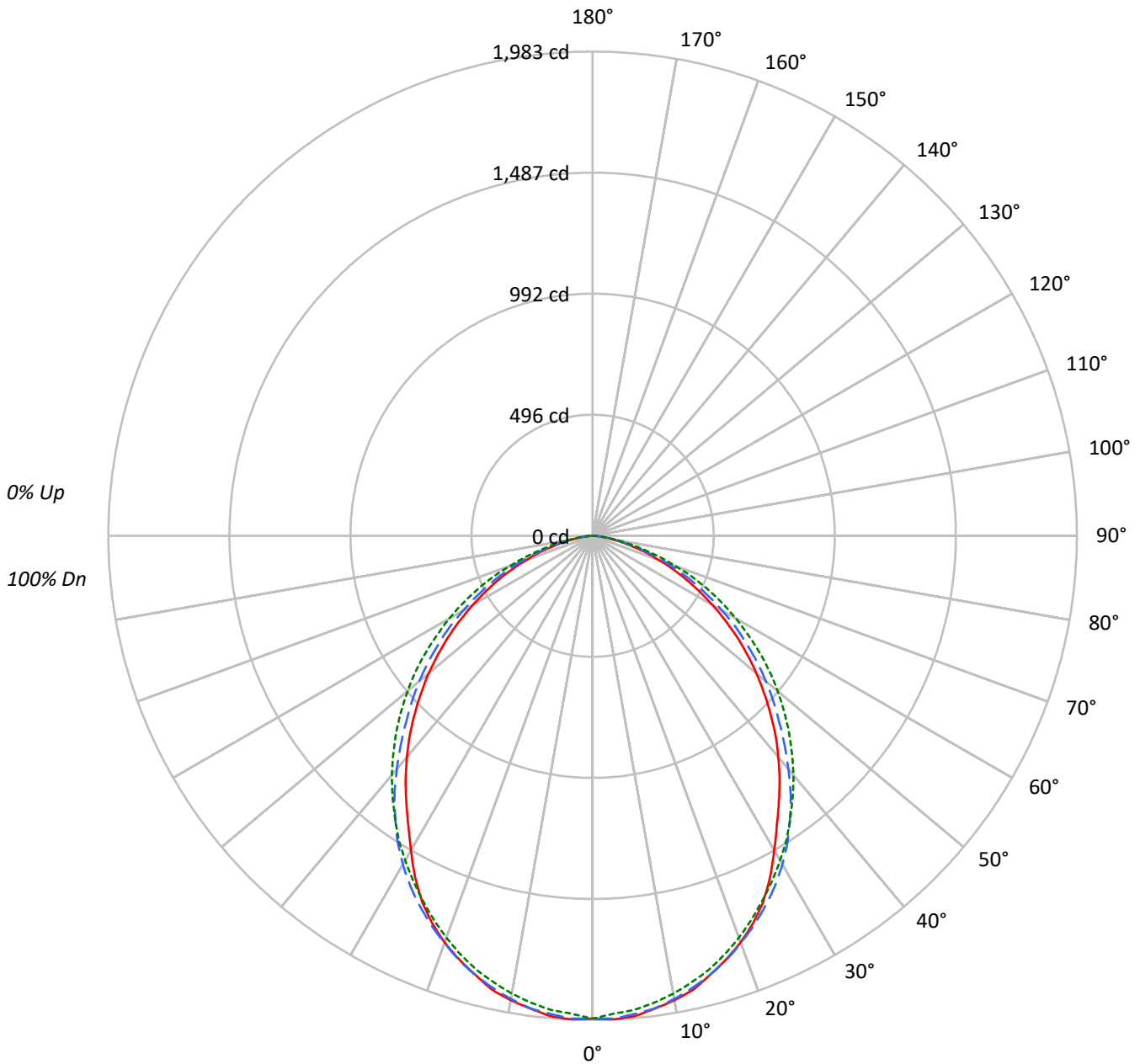
Lumens per Lamp: N/A
Luminaire Lumens: 4572.0 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5321	5321	5321
5°	5335	5312	5267
10°	5278	5264	5203
15°	5185	5185	5126
20°	5075	5082	5016
25°	4908	4969	4890
30°	4621	4829	4770
35°	4367	4629	4637
40°	4155	4379	4494
45°	3917	4113	4325
50°	3666	3877	4140
55°	3382	3606	3917
60°	3046	3291	3643
65°	2689	2926	3313
70°	2242	2493	2815
75°	1761	1990	2203
80°	1260	1401	1554
85°	821	821	775



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.2	4.1
10°-20°	523.0	11.4
20°-30°	764.3	16.7
30°-40°	867.5	19.0
40°-50°	837.5	18.3
50°-60°	690.8	15.1
60°-70°	460.1	10.1
70°-80°	205.9	4.5
80°-90°	36.8	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°	1473.4	32.2
0°-40°	2341.0	51.2
0°-60°	3869.3	84.6
0°-90°	4572.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4572.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1977	1977	1977	1977	1977	
5°	1975	1974	1967	1956	1950	187
15°	1861	1866	1861	1853	1840	525
25°	1653	1666	1673	1661	1647	757
35°	1329	1348	1409	1417	1411	833
45°	1029	1047	1081	1130	1136	794
55°	721	733	769	811	835	643
65°	422	434	460	492	520	419
75°	169	178	191	200	212	185
85°	27	27	27	25	25	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1977.3	1977.3	1977.3	1977.3	1977.3
2.5°	1982.6	1983.3	1978.8	1966.6	1959.0
5°	1975.0	1974.2	1966.6	1956.0	1949.9
7.5°	1953.0	1954.5	1952.2	1937.0	1928.7
10°	1931.7	1932.5	1926.4	1914.2	1904.3
12.5°	1904.3	1903.6	1895.2	1889.2	1873.2
15°	1861.1	1865.6	1861.1	1852.7	1839.8
17.5°	1819.3	1819.3	1822.3	1807.9	1798.0
20°	1772.2	1774.5	1774.5	1763.1	1751.7
22.5°	1717.5	1724.3	1726.6	1714.4	1700.8
25°	1652.9	1665.8	1673.4	1661.3	1646.8
27.5°	1574.7	1594.4	1617.2	1608.1	1592.1
30°	1487.3	1516.2	1554.2	1546.6	1535.2
32.5°	1404.5	1433.4	1485.8	1482.8	1476.7
35°	1329.3	1347.6	1409.1	1416.7	1411.4
37.5°	1257.9	1274.6	1332.4	1349.8	1345.3
40°	1182.7	1200.9	1246.5	1277.7	1279.2
42.5°	1108.3	1125.7	1163.0	1207.8	1207.8
45°	1029.3	1046.7	1080.9	1130.3	1136.4
47.5°	951.8	970.0	1003.4	1052.8	1062.7
50°	875.8	892.5	926.0	973.8	989.0
52.5°	796.8	815.1	847.7	891.8	913.8
55°	720.9	733.0	768.7	811.3	834.8
57.5°	641.9	653.3	693.5	730.0	754.3
60°	565.9	580.3	611.5	648.7	676.8
62.5°	493.0	508.2	534.8	567.4	599.3
65°	422.3	433.7	459.6	492.2	520.3
67.5°	354.0	363.9	389.7	412.5	442.1
70°	284.9	297.8	316.8	338.8	357.8
72.5°	229.4	234.7	250.7	266.6	286.4
75°	169.4	178.5	191.4	200.5	211.9
77.5°	121.5	126.9	134.5	142.0	152.7
80°	81.3	83.6	90.4	91.9	100.3
82.5°	49.4	50.9	52.4	53.2	56.2
85°	26.6	26.6	26.6	25.1	25.1
87.5°	15.2	15.2	12.9	10.6	7.6
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)