

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: P557286

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-87-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: P557286
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-35-UNV-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

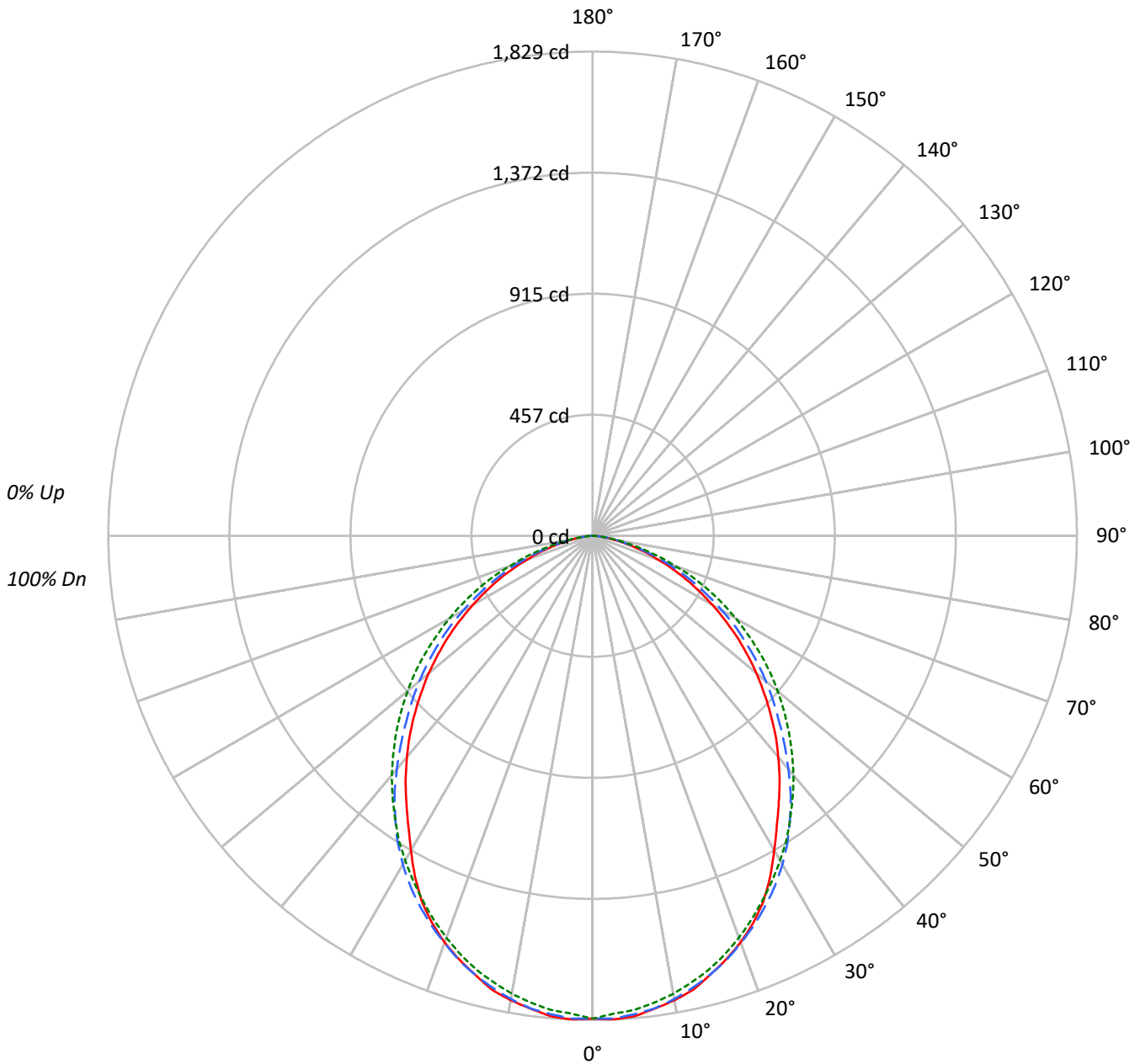
Lumens per Lamp: N/A
Luminaire Lumens: 4217.0 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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°	4908	4908	4908
5°	4921	4900	4858
10°	4868	4855	4800
15°	4782	4782	4727
20°	4681	4687	4627
25°	4527	4583	4510
30°	4263	4454	4400
35°	4028	4270	4277
40°	3832	4039	4145
45°	3613	3794	3989
50°	3382	3576	3819
55°	3119	3326	3613
60°	2809	3035	3360
65°	2481	2699	3056
70°	2067	2299	2596
75°	1624	1836	2033
80°	1162	1292	1433
85°	756	756	713



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.7	4.1
10°-20°	482.4	11.4
20°-30°	704.9	16.7
30°-40°	800.2	19.0
40°-50°	772.4	18.3
50°-60°	637.2	15.1
60°-70°	424.3	10.1
70°-80°	189.9	4.5
80°-90°	34.0	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°	1359.0	32.2
0°-40°	2159.2	51.2
0°-60°	3568.8	84.6
0°-90°	4217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4217.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1824	1824	1824	1824	1824	
5°	1822	1821	1814	1804	1798	172
15°	1716	1721	1716	1709	1697	484
25°	1525	1536	1544	1532	1519	698
35°	1226	1243	1300	1307	1302	768
45°	949	966	997	1042	1048	732
55°	665	676	709	748	770	593
65°	390	400	424	454	480	386
75°	156	165	177	185	196	171
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1823.7	1823.7	1823.7	1823.7	1823.7
2.5°	1828.6	1829.3	1825.1	1813.9	1806.9
5°	1821.6	1820.9	1813.9	1804.1	1798.5
7.5°	1801.3	1802.7	1800.6	1786.6	1778.9
10°	1781.7	1782.4	1776.8	1765.6	1756.5
12.5°	1756.5	1755.8	1748.1	1742.5	1727.8
15°	1716.5	1720.8	1716.5	1708.8	1696.9
17.5°	1678.0	1678.0	1680.8	1667.5	1658.4
20°	1634.6	1636.7	1636.7	1626.2	1615.7
22.5°	1584.1	1590.4	1592.5	1581.3	1568.7
25°	1524.6	1536.5	1543.5	1532.3	1519.0
27.5°	1452.4	1470.6	1491.6	1483.2	1468.5
30°	1371.8	1398.5	1433.5	1426.5	1416.0
32.5°	1295.5	1322.1	1370.4	1367.6	1362.0
35°	1226.1	1242.9	1299.7	1306.7	1301.8
37.5°	1160.2	1175.7	1228.9	1245.0	1240.8
40°	1090.9	1107.7	1149.7	1178.5	1179.9
42.5°	1022.2	1038.3	1072.7	1114.0	1114.0
45°	949.4	965.5	997.0	1042.5	1048.1
47.5°	877.9	894.7	925.5	971.1	980.2
50°	807.8	823.2	854.1	898.2	912.2
52.5°	735.0	751.8	781.9	822.5	842.9
55°	664.9	676.1	709.0	748.3	770.0
57.5°	592.0	602.5	639.7	673.3	695.7
60°	522.0	535.3	564.0	598.3	624.3
62.5°	454.7	468.7	493.2	523.4	552.8
65°	389.6	400.1	423.9	454.0	479.9
67.5°	326.5	335.6	359.4	380.4	407.8
70°	262.7	274.6	292.2	312.5	330.0
72.5°	211.6	216.5	231.2	245.9	264.1
75°	156.2	164.6	176.6	185.0	195.5
77.5°	112.1	117.0	124.0	131.0	140.8
80°	75.0	77.1	83.4	84.8	92.5
82.5°	45.5	46.9	48.3	49.0	51.8
85°	24.5	24.5	24.5	23.1	23.1
87.5°	14.0	14.0	11.9	9.8	7.0
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)