

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: P557378

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-81-85-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: P557378
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-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

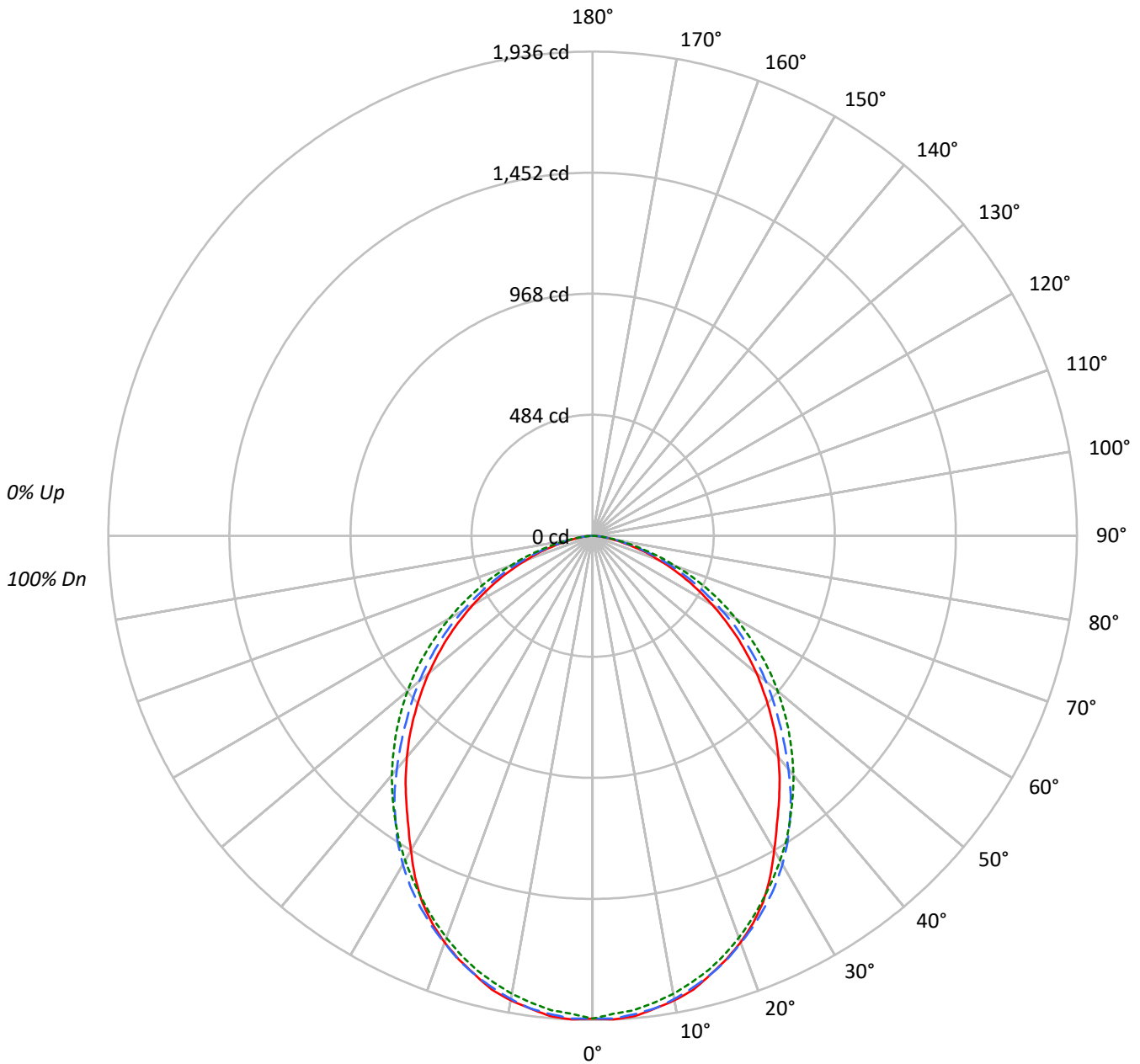
Lumens per Lamp: N/A
Luminaire Lumens: 4464.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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°	5195	5195	5195
5°	5209	5187	5143
10°	5154	5140	5081
15°	5062	5062	5004
20°	4955	4961	4898
25°	4792	4851	4774
30°	4512	4715	4657
35°	4264	4520	4527
40°	4057	4275	4388
45°	3825	4016	4222
50°	3580	3785	4043
55°	3302	3521	3824
60°	2974	3213	3556
65°	2626	2857	3235
70°	2188	2434	2748
75°	1720	1943	2151
80°	1230	1368	1517
85°	803	803	756



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.8	4.1
10°-20°	510.6	11.4
20°-30°	746.2	16.7
30°-40°	847.0	19.0
40°-50°	817.7	18.3
50°-60°	674.5	15.1
60°-70°	449.2	10.1
70°-80°	201.0	4.5
80°-90°	36.0	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°	1438.6	32.2
0°-40°	2285.6	51.2
0°-60°	3777.8	84.6
0°-90°	4464.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4464.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1931	1931	1931	1931	1931	
5°	1928	1928	1920	1910	1904	183
15°	1817	1822	1817	1809	1796	512
25°	1614	1626	1634	1622	1608	739
35°	1298	1316	1376	1383	1378	813
45°	1005	1022	1055	1104	1110	775
55°	704	716	751	792	815	628
65°	412	424	449	481	508	409
75°	165	174	187	196	207	181
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°	1930.6	1930.6	1930.6	1930.6	1930.6
2.5°	1935.8	1936.5	1932.0	1920.2	1912.8
5°	1928.3	1927.6	1920.2	1909.8	1903.9
7.5°	1906.8	1908.3	1906.1	1891.3	1883.1
10°	1886.1	1886.8	1880.9	1869.0	1859.4
12.5°	1859.4	1858.6	1850.5	1844.5	1829.0
15°	1817.1	1821.5	1817.1	1808.9	1796.3
17.5°	1776.3	1776.3	1779.3	1765.2	1755.5
20°	1730.3	1732.5	1732.5	1721.4	1710.3
22.5°	1676.9	1683.6	1685.8	1673.9	1660.6
25°	1613.9	1626.5	1633.9	1622.0	1607.9
27.5°	1537.5	1556.8	1579.0	1570.1	1554.5
30°	1452.2	1480.4	1517.5	1510.0	1498.9
32.5°	1371.3	1399.5	1450.7	1447.7	1441.8
35°	1297.9	1315.7	1375.8	1383.2	1378.0
37.5°	1228.2	1244.5	1300.9	1317.9	1313.5
40°	1154.8	1172.6	1217.1	1247.5	1249.0
42.5°	1082.1	1099.2	1135.5	1179.3	1179.3
45°	1005.0	1022.0	1055.4	1103.6	1109.5
47.5°	929.3	947.1	979.7	1028.0	1037.6
50°	855.1	871.5	904.1	950.8	965.7
52.5°	778.0	795.8	827.7	870.7	892.2
55°	703.8	715.7	750.6	792.1	815.1
57.5°	626.7	637.8	677.1	712.7	736.5
60°	552.5	566.6	597.0	633.4	660.8
62.5°	481.3	496.2	522.1	554.0	585.2
65°	412.4	423.5	448.7	480.6	508.0
67.5°	345.6	355.3	380.5	402.7	431.7
70°	278.1	290.7	309.3	330.8	349.3
72.5°	224.0	229.2	244.8	260.3	279.6
75°	165.4	174.3	186.9	195.8	206.9
77.5°	118.7	123.9	131.3	138.7	149.1
80°	79.4	81.6	88.3	89.7	97.9
82.5°	48.2	49.7	51.2	51.9	54.9
85°	26.0	26.0	26.0	24.5	24.5
87.5°	14.8	14.8	12.6	10.4	7.4
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)