

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: P557300

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-80-86-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: P557300  
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-80-86-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

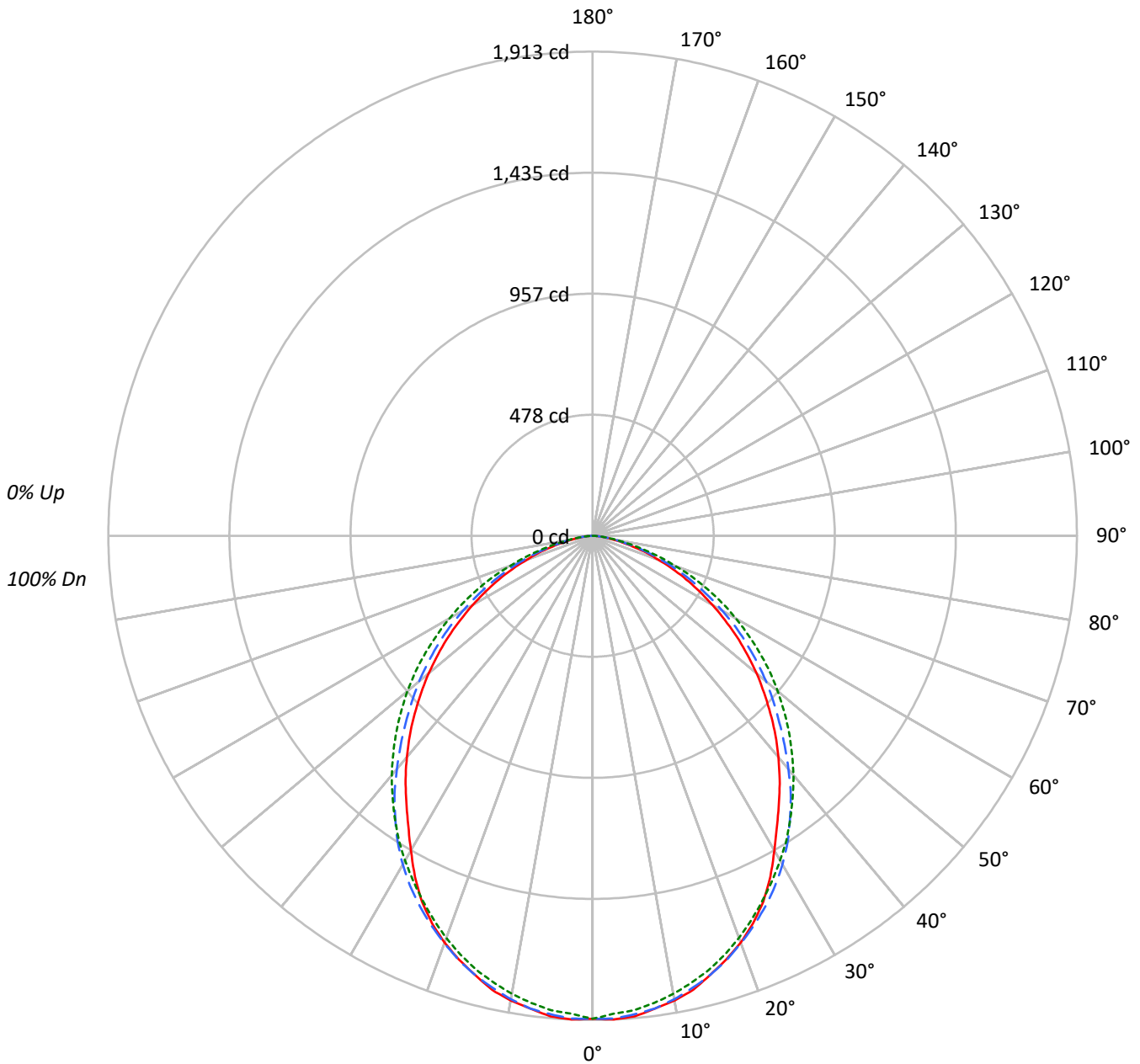
Lumens per Lamp: N/A  
Luminaire Lumens: 4412.0 lumens  
Efficiency: N/A  
Efficacy: 94.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	5135	5135	5135
5°	5148	5126	5083
10°	5094	5080	5021
15°	5003	5003	4946
20°	4897	4904	4841
25°	4736	4795	4719
30°	4460	4660	4603
35°	4214	4467	4474
40°	4009	4226	4336
45°	3780	3970	4173
50°	3538	3741	3996
55°	3263	3480	3780
60°	2939	3176	3515
65°	2595	2824	3197
70°	2163	2405	2717
75°	1700	1920	2126
80°	1215	1351	1500
85°	794	794	747



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.7	4.1
10°-20°	504.7	11.4
20°-30°	737.5	16.7
30°-40°	837.2	19.0
40°-50°	808.1	18.3
50°-60°	666.7	15.1
60°-70°	443.9	10.1
70°-80°	198.7	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°	1421.9	32.2
0°-40°	2259.0	51.2
0°-60°	3733.8	84.6
0°-90°	4412.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4412.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1908	1908	1908	1908	1908	
5°	1906	1905	1898	1888	1882	180
15°	1796	1800	1796	1788	1775	506
25°	1595	1608	1615	1603	1589	730
35°	1283	1300	1360	1367	1362	804
45°	993	1010	1043	1091	1097	766
55°	696	707	742	783	806	621
65°	408	419	444	475	502	404
75°	164	172	185	194	204	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°	1908.1	1908.1	1908.1	1908.1	1908.1
2.5°	1913.2	1913.9	1909.5	1897.8	1890.5
5°	1905.9	1905.1	1897.8	1887.6	1881.7
7.5°	1884.6	1886.1	1883.9	1869.2	1861.2
10°	1864.1	1864.8	1859.0	1847.2	1837.7
12.5°	1837.7	1837.0	1828.9	1823.0	1807.7
15°	1795.9	1800.3	1795.9	1787.9	1775.4
17.5°	1755.6	1755.6	1758.5	1744.6	1735.1
20°	1710.2	1712.4	1712.4	1701.4	1690.4
22.5°	1657.4	1664.0	1666.2	1654.4	1641.3
25°	1595.1	1607.5	1614.9	1603.1	1589.2
27.5°	1519.6	1538.6	1560.6	1551.8	1536.4
30°	1435.3	1463.1	1499.8	1492.4	1481.5
32.5°	1355.4	1383.2	1433.8	1430.9	1425.0
35°	1282.8	1300.4	1359.8	1367.1	1362.0
37.5°	1213.9	1230.0	1285.7	1302.6	1298.2
40°	1141.3	1158.9	1202.9	1233.0	1234.4
42.5°	1069.5	1086.3	1122.3	1165.5	1165.5
45°	993.3	1010.1	1043.1	1090.7	1096.6
47.5°	918.5	936.1	968.3	1016.0	1025.5
50°	845.2	861.3	893.6	939.7	954.4
52.5°	768.9	786.5	818.1	860.6	881.8
55°	695.6	707.4	741.8	782.9	805.6
57.5°	619.4	630.4	669.3	704.4	727.9
60°	546.1	560.0	590.1	626.0	653.1
62.5°	475.7	490.4	516.1	547.6	578.4
65°	407.6	418.6	443.5	475.0	502.1
67.5°	341.6	351.1	376.0	398.0	426.6
70°	274.9	287.3	305.7	326.9	345.3
72.5°	221.4	226.5	241.9	257.3	276.4
75°	163.5	172.3	184.7	193.5	204.5
77.5°	117.3	122.4	129.7	137.1	147.3
80°	78.4	80.6	87.2	88.7	96.8
82.5°	47.6	49.1	50.6	51.3	54.2
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)