

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: P557258

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-81-94-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: P557258  
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-81-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

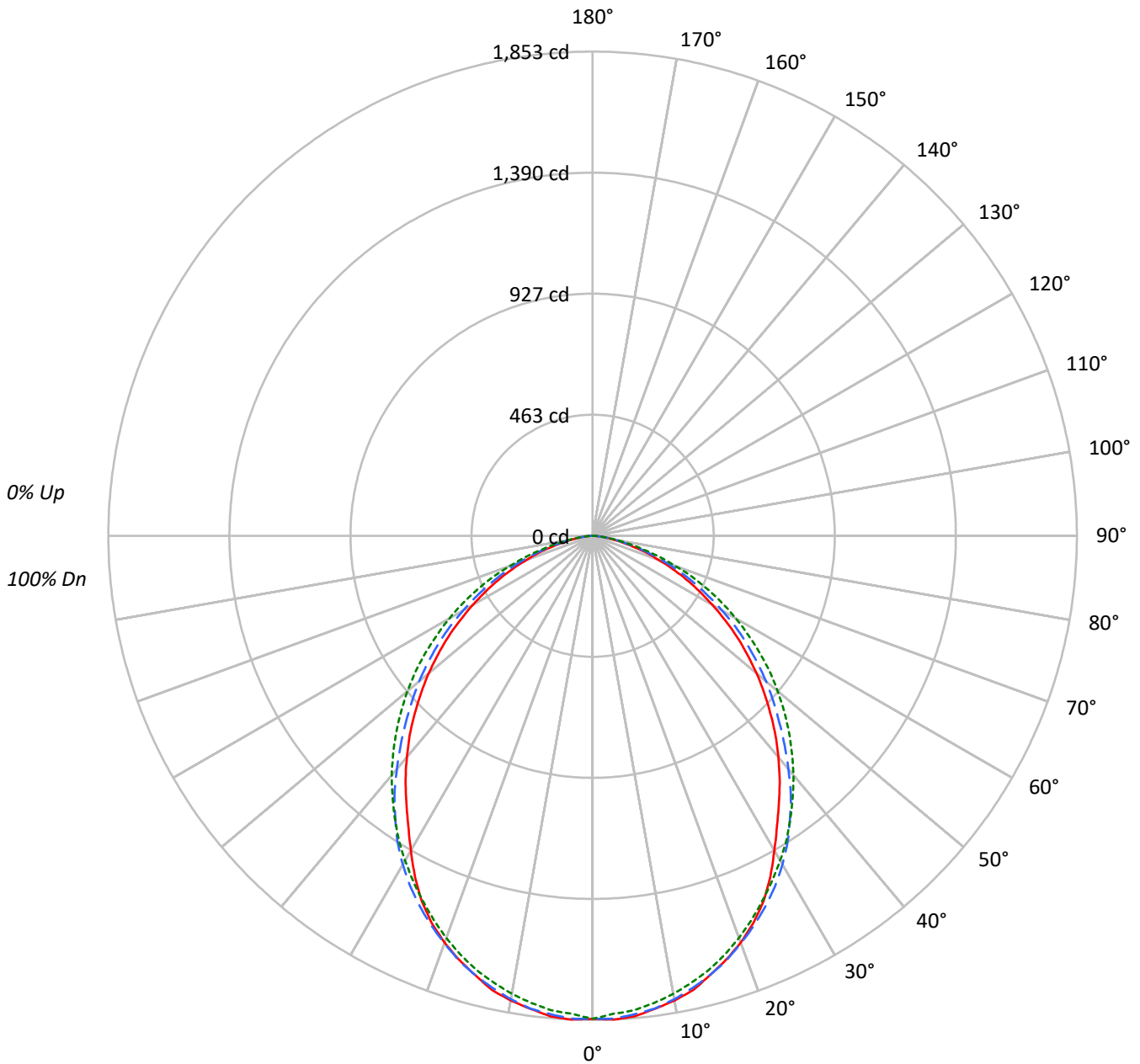
Lumens per Lamp: N/A  
Luminaire Lumens: 4274.0 lumens  
Efficiency: N/A  
Efficacy: 91.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	4974	4974	4974
5°	4987	4966	4924
10°	4934	4921	4864
15°	4847	4847	4791
20°	4744	4750	4689
25°	4588	4645	4571
30°	4320	4515	4459
35°	4082	4327	4334
40°	3884	4093	4201
45°	3662	3846	4043
50°	3427	3624	3871
55°	3162	3371	3661
60°	2847	3076	3405
65°	2514	2735	3097
70°	2095	2330	2632
75°	1647	1860	2060
80°	1178	1309	1452
85°	769	769	722



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.0	4.1
10°-20°	488.9	11.4
20°-30°	714.5	16.7
30°-40°	811.0	19.0
40°-50°	782.9	18.3
50°-60°	645.8	15.1
60°-70°	430.1	10.1
70°-80°	192.4	4.5
80°-90°	34.4	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°	1377.4	32.2
0°-40°	2188.4	51.2
0°-60°	3617.1	84.6
0°-90°	4274.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4274.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1848	1848	1848	1848	1848	
5°	1846	1846	1838	1828	1823	175
15°	1740	1744	1740	1732	1720	490
25°	1545	1557	1564	1553	1540	708
35°	1243	1260	1317	1324	1319	779
45°	962	978	1010	1057	1062	742
55°	674	685	719	758	780	601
65°	395	406	430	460	486	391
75°	158	167	179	188	198	173
85°	25	25	25	23	23	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1848.4	1848.4	1848.4	1848.4	1848.4
2.5°	1853.4	1854.1	1849.8	1838.5	1831.4
5°	1846.3	1845.6	1838.5	1828.5	1822.8
7.5°	1825.7	1827.1	1825.0	1810.8	1802.9
10°	1805.8	1806.5	1800.8	1789.5	1780.2
12.5°	1780.2	1779.5	1771.7	1766.0	1751.1
15°	1739.7	1744.0	1739.7	1731.9	1719.9
17.5°	1700.7	1700.7	1703.5	1690.0	1680.8
20°	1656.7	1658.8	1658.8	1648.1	1637.5
22.5°	1605.5	1611.9	1614.1	1602.7	1589.9
25°	1545.2	1557.3	1564.4	1553.0	1539.5
27.5°	1472.0	1490.5	1511.8	1503.3	1488.4
30°	1390.4	1417.4	1452.9	1445.8	1435.1
32.5°	1313.0	1340.0	1389.0	1386.1	1380.4
35°	1242.7	1259.7	1317.2	1324.3	1319.4
37.5°	1175.9	1191.6	1245.5	1261.9	1257.6
40°	1105.6	1122.7	1165.3	1194.4	1195.8
42.5°	1036.0	1052.4	1087.2	1129.1	1129.1
45°	962.2	978.5	1010.5	1056.6	1062.3
47.5°	889.8	906.8	938.0	984.2	993.4
50°	818.7	834.4	865.6	910.4	924.6
52.5°	744.9	761.9	792.5	833.7	854.3
55°	673.9	685.2	718.6	758.4	780.4
57.5°	600.0	610.7	648.3	682.4	705.1
60°	529.0	542.5	571.6	606.4	632.7
62.5°	460.9	475.1	499.9	530.4	560.3
65°	394.8	405.5	429.6	460.1	486.4
67.5°	330.9	340.1	364.3	385.6	413.3
70°	266.3	278.4	296.1	316.7	334.5
72.5°	214.5	219.4	234.3	249.2	267.7
75°	158.4	166.9	178.9	187.5	198.1
77.5°	113.6	118.6	125.7	132.8	142.7
80°	76.0	78.1	84.5	85.9	93.7
82.5°	46.2	47.6	49.0	49.7	52.5
85°	24.9	24.9	24.9	23.4	23.4
87.5°	14.2	14.2	12.1	9.9	7.1
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)