

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: P555973

Luminaire Tested: **FUSL-12-2-LD4-3STD-35-UNV-81-86-EDD**

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: P555973  
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-12-2-LD4-3STD-35-UNV-81-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

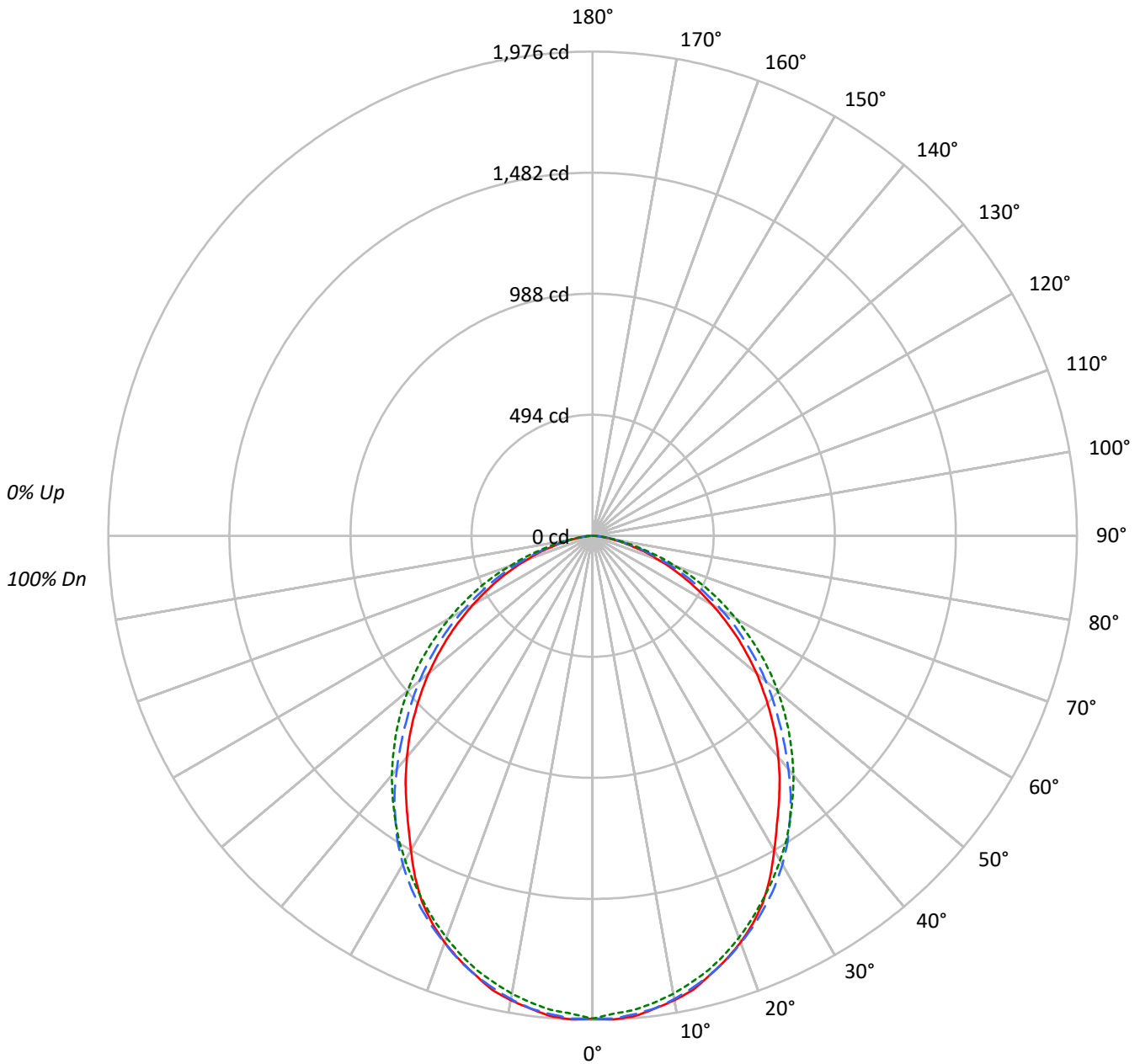
Lumens per Lamp: N/A  
Luminaire Lumens: 4556.0 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
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°	10605	10605	10605
5°	10633	10588	10498
10°	10520	10491	10371
15°	10333	10333	10215
20°	10115	10127	9997
25°	9781	9903	9745
30°	9211	9624	9507
35°	8703	9226	9240
40°	8280	8727	8956
45°	7807	8198	8619
50°	7308	7726	8252
55°	6740	7187	7806
60°	6070	6558	7259
65°	5360	5833	6603
70°	4467	4966	5610
75°	3510	3968	4392
80°	2510	2793	3096
85°	1636	1636	1544



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.5	4.1
10°-20°	521.2	11.4
20°-30°	761.6	16.7
30°-40°	864.5	19.0
40°-50°	834.5	18.3
50°-60°	688.4	15.1
60°-70°	458.4	10.1
70°-80°	205.2	4.5
80°-90°	36.7	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°	1468.3	32.2
0°-40°	2332.8	51.2
0°-60°	3855.7	84.6
0°-90°	4556.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4556.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1970	1970	1970	1970	1970	
5°	1968	1967	1960	1949	1943	186
15°	1854	1859	1854	1846	1833	523
25°	1647	1660	1668	1656	1641	754
35°	1325	1343	1404	1412	1406	830
45°	1026	1043	1077	1126	1132	791
55°	718	730	766	808	832	641
65°	421	432	458	490	518	417
75°	169	178	191	200	211	185
85°	26	26	26	25	25	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1970.4	1970.4	1970.4	1970.4	1970.4
2.5°	1975.7	1976.4	1971.9	1959.8	1952.2
5°	1968.1	1967.3	1959.8	1949.2	1943.1
7.5°	1946.1	1947.6	1945.4	1930.2	1921.9
10°	1924.9	1925.7	1919.6	1907.5	1897.7
12.5°	1897.7	1896.9	1888.6	1882.5	1866.6
15°	1854.5	1859.1	1854.5	1846.2	1833.3
17.5°	1812.9	1812.9	1815.9	1801.6	1791.7
20°	1766.0	1768.2	1768.2	1756.9	1745.5
22.5°	1711.5	1718.3	1720.6	1708.4	1694.8
25°	1647.1	1660.0	1667.6	1655.5	1641.1
27.5°	1569.2	1588.8	1611.6	1602.5	1586.6
30°	1482.1	1510.9	1548.7	1541.2	1529.8
32.5°	1399.6	1428.4	1480.6	1477.6	1471.5
35°	1324.7	1342.8	1404.2	1411.7	1406.4
37.5°	1253.5	1270.2	1327.7	1345.1	1340.6
40°	1178.6	1196.7	1242.2	1273.2	1274.7
42.5°	1104.4	1121.8	1158.9	1203.6	1203.6
45°	1025.7	1043.1	1077.1	1126.3	1132.4
47.5°	948.5	966.6	999.9	1049.1	1059.0
50°	872.8	889.4	922.7	970.4	985.6
52.5°	794.0	812.2	844.8	888.7	910.6
55°	718.3	730.5	766.0	808.4	831.9
57.5°	639.6	651.0	691.1	727.4	751.7
60°	563.9	578.3	609.3	646.4	674.4
62.5°	491.3	506.4	532.9	565.4	597.2
65°	420.9	432.2	458.0	490.5	518.5
67.5°	352.7	362.6	388.3	411.0	440.5
70°	283.9	296.7	315.6	337.6	356.5
72.5°	228.6	233.9	249.8	265.7	285.4
75°	168.8	177.9	190.8	199.8	211.2
77.5°	121.1	126.4	134.0	141.6	152.1
80°	81.0	83.3	90.1	91.6	99.9
82.5°	49.2	50.7	52.2	53.0	56.0
85°	26.5	26.5	26.5	25.0	25.0
87.5°	15.1	15.1	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)