

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: P557261

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-81-96-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: P557261  
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-81-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

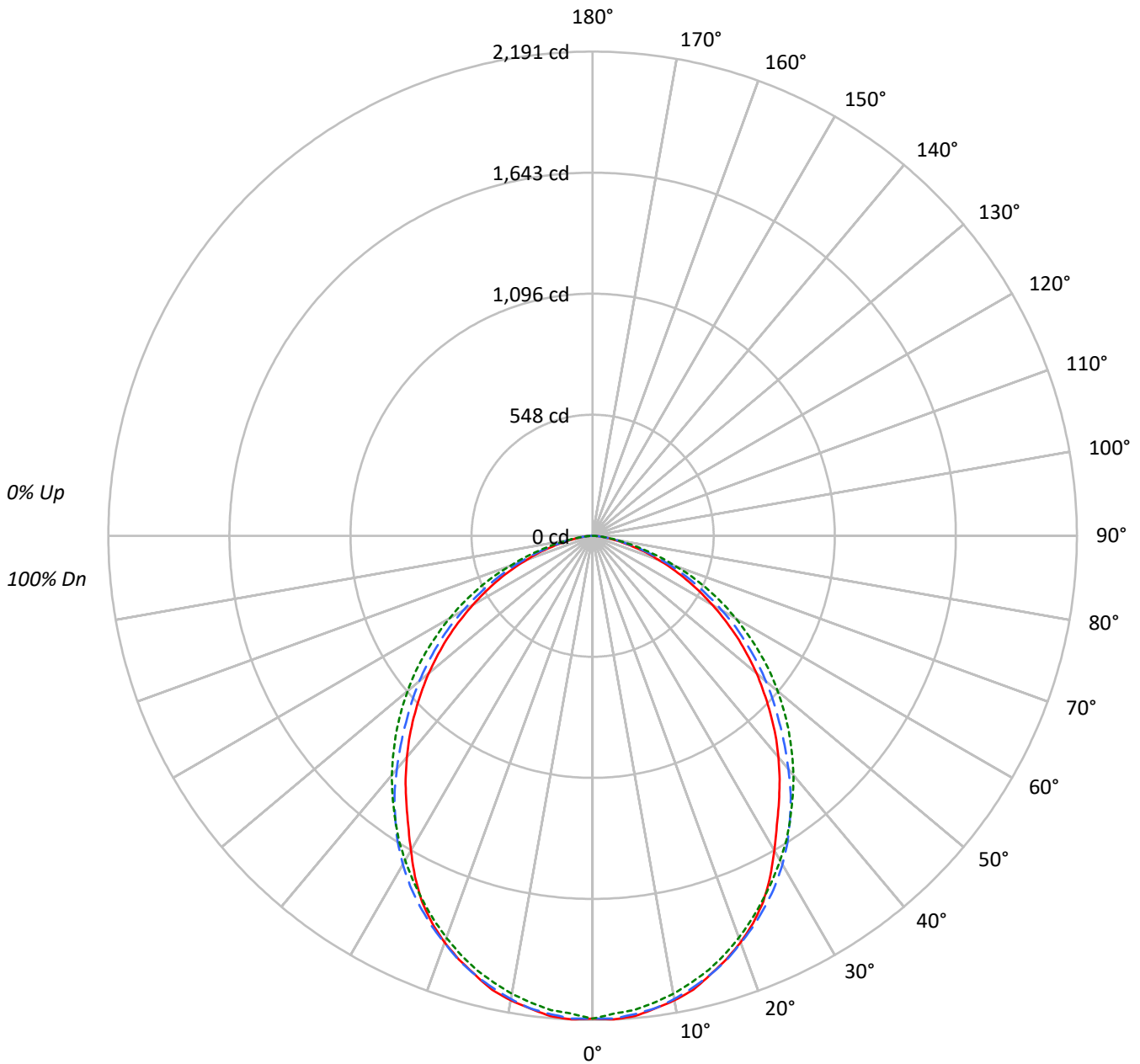
Lumens per Lamp: N/A  
Luminaire Lumens: 5052.0 lumens  
Efficiency: N/A  
Efficacy: 107.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	5880	5880	5880
5°	5895	5870	5820
10°	5833	5816	5750
15°	5729	5729	5663
20°	5608	5615	5543
25°	5423	5490	5403
30°	5107	5336	5271
35°	4825	5115	5123
40°	4591	4839	4965
45°	4328	4545	4779
50°	4052	4284	4575
55°	3737	3985	4328
60°	3365	3637	4025
65°	2972	3233	3661
70°	2477	2754	3110
75°	1946	2199	2435
80°	1392	1548	1717
85°	908	908	855



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.7	4.1
10°-20°	577.9	11.4
20°-30°	844.5	16.7
30°-40°	958.6	19.0
40°-50°	925.4	18.3
50°-60°	763.4	15.1
60°-70°	508.4	10.1
70°-80°	227.5	4.5
80°-90°	40.7	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°	1628.1	32.2
0°-40°	2586.7	51.2
0°-60°	4275.5	84.6
0°-90°	5052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5052.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2185	2185	2185	2185	2185	
5°	2182	2182	2173	2161	2155	207
15°	2056	2062	2056	2047	2033	580
25°	1826	1841	1849	1836	1820	836
35°	1469	1489	1557	1565	1560	920
45°	1137	1157	1194	1249	1256	878
55°	797	810	849	896	922	711
65°	467	479	508	544	575	463
75°	187	197	212	222	234	205
85°	29	29	29	28	28	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2184.9	2184.9	2184.9	2184.9	2184.9
2.5°	2190.7	2191.6	2186.5	2173.1	2164.7
5°	2182.3	2181.5	2173.1	2161.4	2154.6
7.5°	2158.0	2159.7	2157.2	2140.4	2131.1
10°	2134.5	2135.3	2128.6	2115.2	2104.3
12.5°	2104.3	2103.4	2094.2	2087.5	2069.9
15°	2056.4	2061.5	2056.4	2047.2	2032.9
17.5°	2010.3	2010.3	2013.6	1997.7	1986.8
20°	1958.2	1960.7	1960.7	1948.2	1935.6
22.5°	1897.8	1905.4	1907.9	1894.4	1879.3
25°	1826.5	1840.7	1849.1	1835.7	1819.7
27.5°	1740.0	1761.8	1787.0	1776.9	1759.3
30°	1643.5	1675.4	1717.3	1708.9	1696.4
32.5°	1552.0	1583.9	1641.8	1638.4	1631.7
35°	1468.9	1489.0	1557.0	1565.4	1559.5
37.5°	1390.0	1408.4	1472.2	1491.5	1486.5
40°	1306.9	1327.0	1377.4	1411.8	1413.5
42.5°	1224.6	1243.9	1285.1	1334.6	1334.6
45°	1137.3	1156.6	1194.4	1249.0	1255.7
47.5°	1051.7	1071.9	1108.8	1163.4	1174.3
50°	967.8	986.3	1023.2	1076.1	1092.8
52.5°	880.5	900.6	936.7	985.4	1009.8
55°	796.6	810.0	849.4	896.4	922.5
57.5°	709.3	721.9	766.3	806.6	833.5
60°	625.3	641.3	675.7	716.8	747.9
62.5°	544.7	561.5	590.9	627.0	662.3
65°	466.7	479.3	507.8	543.9	575.0
67.5°	391.1	402.1	430.6	455.8	488.5
70°	314.8	329.0	350.0	374.4	395.3
72.5°	253.5	259.4	277.0	294.6	316.4
75°	187.2	197.3	211.5	221.6	234.2
77.5°	134.3	140.2	148.6	157.0	168.7
80°	89.8	92.3	99.9	101.6	110.8
82.5°	54.6	56.2	57.9	58.8	62.1
85°	29.4	29.4	29.4	27.7	27.7
87.5°	16.8	16.8	14.3	11.8	8.4
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)