

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: P556140

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-93-96-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: P556140  
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-50-UNV-93-96-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE  
AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

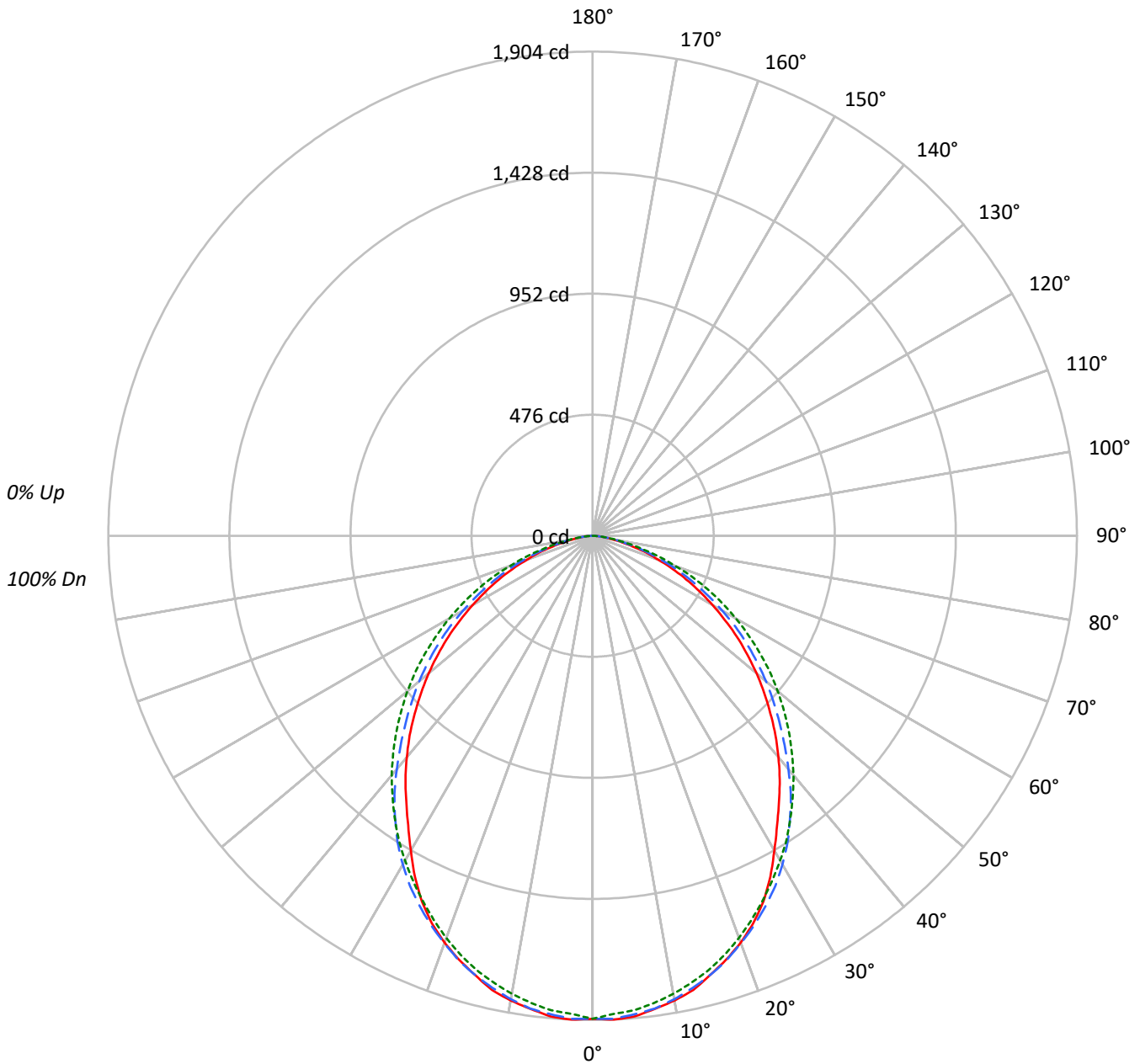
Lumens per Lamp: N/A  
Luminaire Lumens: 4392.0 lumens  
Efficiency: N/A  
Efficacy: 87.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
Input Voltage (V): NR  
Input Current (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°	10222	10222	10222
5°	10250	10206	10120
10°	10141	10113	9998
15°	9961	9961	9847
20°	9750	9763	9637
25°	9429	9546	9394
30°	8879	9278	9165
35°	8390	8893	8908
40°	7983	8413	8633
45°	7526	7904	8308
50°	7045	7448	7955
55°	6498	6929	7524
60°	5851	6323	6999
65°	5167	5622	6365
70°	4305	4788	5408
75°	3383	3824	4234
80°	2421	2690	2985
85°	1575	1575	1488



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.8	4.1
10°-20°	502.4	11.4
20°-30°	734.2	16.7
30°-40°	833.4	19.0
40°-50°	804.5	18.3
50°-60°	663.6	15.1
60°-70°	441.9	10.1
70°-80°	197.8	4.5
80°-90°	35.4	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°	1415.4	32.2
0°-40°	2248.8	51.2
0°-60°	3716.9	84.6
0°-90°	4392.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4392.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1899	1899	1899	1899	1899	
5°	1897	1896	1889	1879	1873	180
15°	1788	1792	1788	1780	1767	504
25°	1588	1600	1608	1596	1582	727
35°	1277	1294	1354	1361	1356	800
45°	989	1006	1038	1086	1092	763
55°	692	704	738	779	802	618
65°	406	417	442	473	500	402
75°	163	172	184	193	204	178
85°	26	26	26	24	24	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1899.4	1899.4	1899.4	1899.4	1899.4
2.5°	1904.5	1905.3	1900.9	1889.2	1881.9
5°	1897.2	1896.5	1889.2	1879.0	1873.2
7.5°	1876.1	1877.5	1875.3	1860.8	1852.7
10°	1855.6	1856.4	1850.5	1838.9	1829.4
12.5°	1829.4	1828.6	1820.6	1814.8	1799.5
15°	1787.8	1792.2	1787.8	1779.8	1767.3
17.5°	1747.6	1747.6	1750.6	1736.7	1727.2
20°	1702.4	1704.6	1704.6	1693.6	1682.7
22.5°	1649.9	1656.4	1658.6	1646.9	1633.8
25°	1587.8	1600.2	1607.5	1595.9	1582.0
27.5°	1512.7	1531.7	1553.5	1544.8	1529.5
30°	1428.8	1456.5	1493.0	1485.7	1474.7
32.5°	1349.2	1377.0	1427.3	1424.4	1418.5
35°	1277.0	1294.5	1353.6	1360.9	1355.8
37.5°	1208.4	1224.4	1279.9	1296.7	1292.3
40°	1136.2	1153.7	1197.4	1227.4	1228.8
42.5°	1064.6	1081.4	1117.2	1160.2	1160.2
45°	988.8	1005.5	1038.4	1085.8	1091.6
47.5°	914.3	931.8	963.9	1011.4	1020.9
50°	841.4	857.4	889.5	935.5	950.1
52.5°	765.5	783.0	814.4	856.7	877.8
55°	692.5	704.2	738.5	779.3	801.9
57.5°	616.6	627.5	666.2	701.2	724.6
60°	543.6	557.5	587.4	623.2	650.2
62.5°	473.6	488.2	513.7	545.1	575.7
65°	405.7	416.7	441.5	472.8	499.8
67.5°	340.0	349.5	374.3	396.2	424.7
70°	273.6	286.0	304.3	325.4	343.7
72.5°	220.4	225.5	240.8	256.1	275.1
75°	162.7	171.5	183.9	192.6	203.6
77.5°	116.8	121.9	129.2	136.5	146.7
80°	78.1	80.3	86.8	88.3	96.3
82.5°	47.4	48.9	50.3	51.1	54.0
85°	25.5	25.5	25.5	24.1	24.1
87.5°	14.6	14.6	12.4	10.2	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)