

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: P556044

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-81-96-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: P556044
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-40-UNV-81-96-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

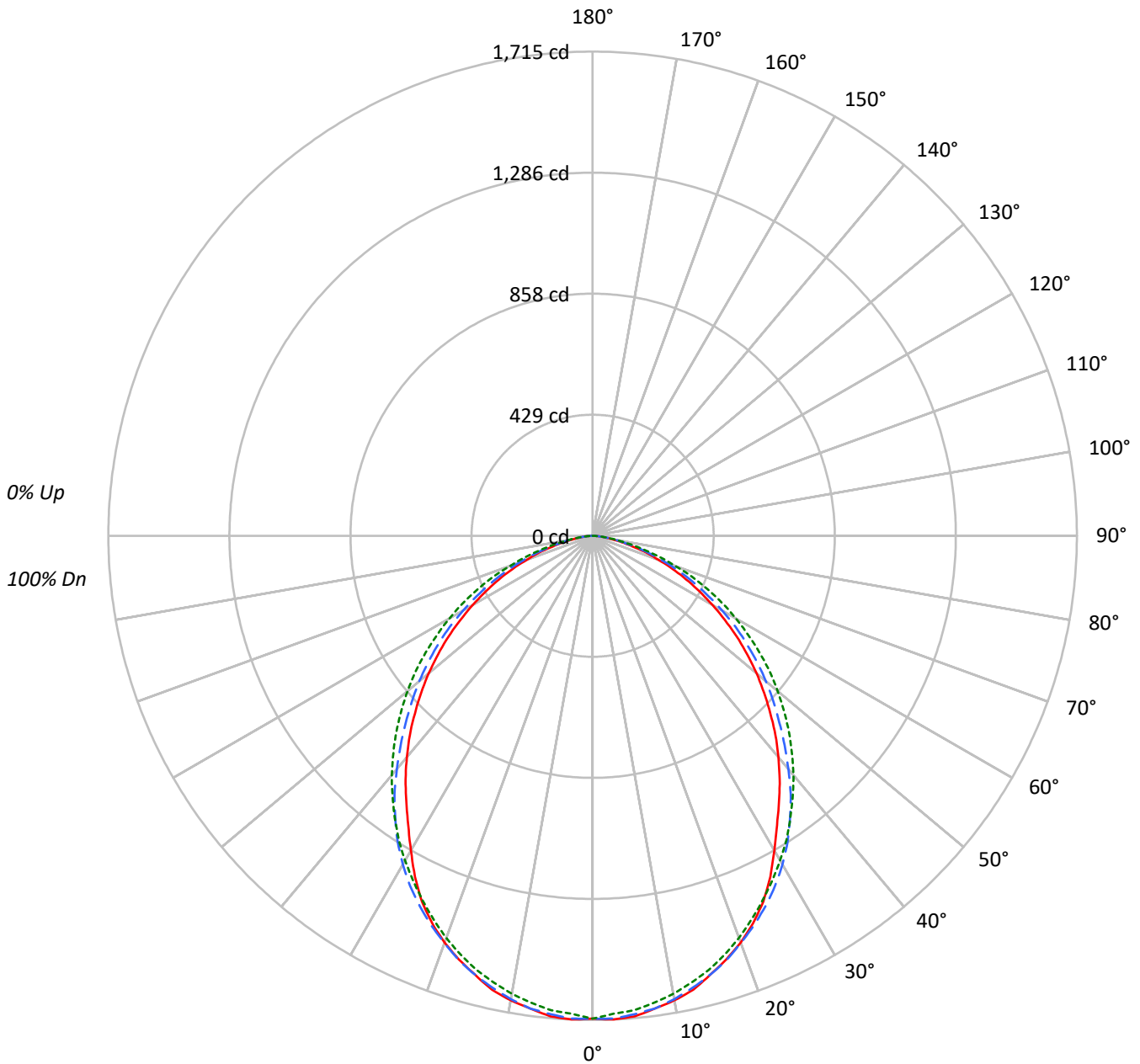
Lumens per Lamp: N/A
Luminaire Lumens: 3955.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
Input Voltage (V): NR
Input Current (A_{in}): 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°	9205	9205	9205
5°	9230	9191	9113
10°	9132	9107	9003
15°	8970	8970	8868
20°	8780	8791	8679
25°	8491	8596	8460
30°	7996	8355	8253
35°	7555	8008	8022
40°	7188	7576	7775
45°	6777	7117	7482
50°	6343	6707	7163
55°	5851	6240	6777
60°	5269	5694	6302
65°	4652	5062	5732
70°	3877	4312	4870
75°	3046	3444	3812
80°	2179	2424	2687
85°	1420	1420	1340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.0	4.1
10°-20°	452.4	11.4
20°-30°	661.1	16.7
30°-40°	750.5	19.0
40°-50°	724.4	18.3
50°-60°	597.6	15.1
60°-70°	398.0	10.1
70°-80°	178.1	4.5
80°-90°	31.9	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°	1274.6	32.2
0°-40°	2025.0	51.2
0°-60°	3347.1	84.6
0°-90°	3955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3955.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1710	1710	1710	1710	1710	
5°	1708	1708	1701	1692	1687	162
15°	1610	1614	1610	1603	1592	454
25°	1430	1441	1448	1437	1425	655
35°	1150	1166	1219	1226	1221	720
45°	890	906	935	978	983	687
55°	624	634	665	702	722	557
65°	365	375	398	426	450	362
75°	146	154	166	174	183	160
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1710.4	1710.4	1710.4	1710.4	1710.4
2.5°	1715.0	1715.7	1711.7	1701.2	1694.7
5°	1708.5	1707.8	1701.2	1692.0	1686.8
7.5°	1689.4	1690.7	1688.8	1675.6	1668.4
10°	1671.0	1671.7	1666.4	1655.9	1647.4
12.5°	1647.4	1646.7	1639.5	1634.2	1620.4
15°	1609.9	1613.8	1609.9	1602.7	1591.5
17.5°	1573.8	1573.8	1576.4	1563.9	1555.4
20°	1533.0	1535.0	1535.0	1525.1	1515.3
22.5°	1485.7	1491.6	1493.6	1483.1	1471.3
25°	1429.9	1441.0	1447.6	1437.1	1424.6
27.5°	1362.2	1379.3	1399.0	1391.1	1377.3
30°	1286.6	1311.6	1344.4	1337.9	1328.0
32.5°	1215.0	1240.0	1285.3	1282.7	1277.4
35°	1149.9	1165.7	1218.9	1225.5	1220.9
37.5°	1088.2	1102.6	1152.6	1167.7	1163.7
40°	1023.1	1038.9	1078.3	1105.2	1106.6
42.5°	958.7	973.8	1006.0	1044.8	1044.8
45°	890.4	905.5	935.1	977.8	983.0
47.5°	823.3	839.1	868.0	910.7	919.3
50°	757.6	772.1	801.0	842.4	855.5
52.5°	689.3	705.1	733.3	771.4	790.5
55°	623.6	634.1	665.0	701.8	722.2
57.5°	555.3	565.1	599.9	631.5	652.5
60°	489.5	502.0	529.0	561.2	585.5
62.5°	426.5	439.6	462.6	490.9	518.5
65°	365.3	375.2	397.5	425.8	450.1
67.5°	306.2	314.8	337.1	356.8	382.4
70°	246.4	257.6	274.0	293.1	309.5
72.5°	198.4	203.0	216.8	230.6	247.7
75°	146.5	154.4	165.6	173.5	183.3
77.5°	105.1	109.7	116.3	122.9	132.1
80°	70.3	72.3	78.2	79.5	86.7
82.5°	42.7	44.0	45.3	46.0	48.6
85°	23.0	23.0	23.0	21.7	21.7
87.5°	13.1	13.1	11.2	9.2	6.6
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)