

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: P556070

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-93-87-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: P556070
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-93-87-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

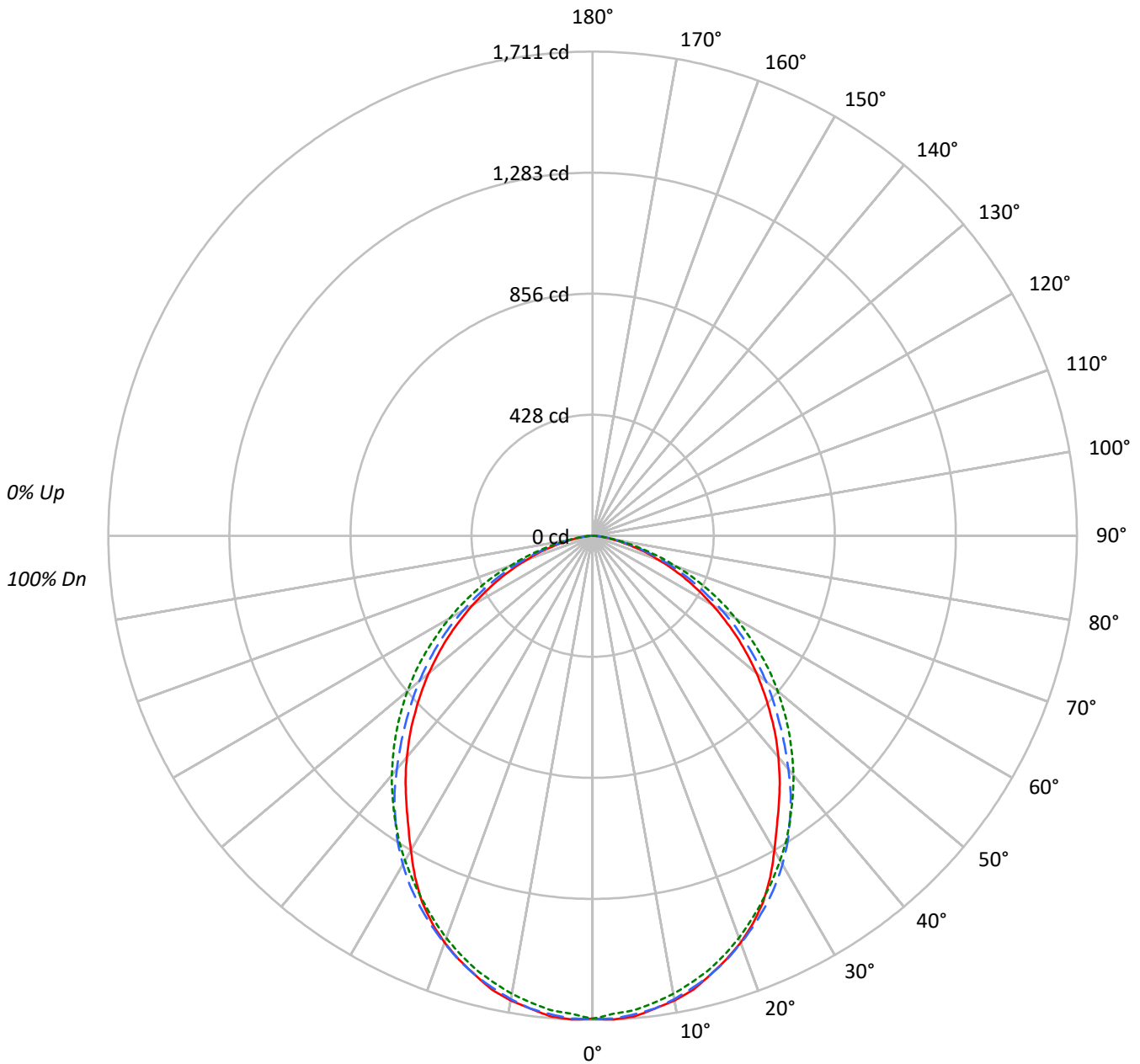
Lumens per Lamp: N/A
Luminaire Lumens: 3946.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	9184	9184	9184
5°	9209	9170	9092
10°	9111	9086	8982
15°	8949	8949	8847
20°	8760	8771	8659
25°	8472	8577	8441
30°	7978	8336	8234
35°	7538	7990	8003
40°	7172	7558	7756
45°	6761	7101	7465
50°	6329	6692	7147
55°	5838	6226	6761
60°	5257	5681	6287
65°	4642	5051	5719
70°	3869	4302	4859
75°	3040	3435	3803
80°	2173	2417	2681
85°	1414	1414	1334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	4.1
10°-20°	451.4	11.4
20°-30°	659.6	16.7
30°-40°	748.7	19.0
40°-50°	722.8	18.3
50°-60°	596.3	15.1
60°-70°	397.1	10.1
70°-80°	177.7	4.5
80°-90°	31.8	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°	1271.7	32.2
0°-40°	2020.4	51.2
0°-60°	3339.5	84.6
0°-90°	3946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3946.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1705	1704	1697	1688	1683	161
15°	1606	1610	1606	1599	1588	453
25°	1427	1438	1444	1434	1421	653
35°	1147	1163	1216	1223	1218	719
45°	888	903	933	976	981	685
55°	622	633	664	700	720	555
65°	364	374	397	425	449	361
75°	146	154	165	173	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°	1706.5	1706.5	1706.5	1706.5	1706.5
2.5°	1711.1	1711.8	1707.9	1697.4	1690.8
5°	1704.6	1703.9	1697.4	1688.2	1682.9
7.5°	1685.6	1686.9	1684.9	1671.8	1664.6
10°	1667.2	1667.9	1662.6	1652.1	1643.6
12.5°	1643.6	1642.9	1635.7	1630.5	1616.7
15°	1606.2	1610.2	1606.2	1599.0	1587.9
17.5°	1570.2	1570.2	1572.8	1560.3	1551.8
20°	1529.5	1531.5	1531.5	1521.7	1511.8
22.5°	1482.3	1488.2	1490.2	1479.7	1467.9
25°	1426.6	1437.7	1444.3	1433.8	1421.4
27.5°	1359.1	1376.1	1395.8	1387.9	1374.2
30°	1283.7	1308.6	1341.4	1334.8	1325.0
32.5°	1212.2	1237.1	1282.4	1279.7	1274.5
35°	1147.3	1163.0	1216.1	1222.7	1218.1
37.5°	1085.7	1100.1	1149.9	1165.0	1161.1
40°	1020.8	1036.5	1075.8	1102.7	1104.0
42.5°	956.5	971.6	1003.7	1042.4	1042.4
45°	888.3	903.4	932.9	975.5	980.8
47.5°	821.5	837.2	866.1	908.7	917.2
50°	755.9	770.3	799.2	840.5	853.6
52.5°	687.7	703.5	731.7	769.7	788.7
55°	622.2	632.7	663.5	700.2	720.5
57.5°	554.0	563.8	598.6	630.0	651.0
60°	488.4	500.9	527.8	559.9	584.1
62.5°	425.5	438.6	461.5	489.7	517.3
65°	364.5	374.4	396.6	424.8	449.1
67.5°	305.5	314.0	336.3	356.0	381.6
70°	245.9	257.0	273.4	292.4	308.8
72.5°	198.0	202.6	216.4	230.1	247.2
75°	146.2	154.1	165.2	173.1	182.9
77.5°	104.9	109.5	116.0	122.6	131.8
80°	70.1	72.1	78.0	79.3	86.5
82.5°	42.6	43.9	45.2	45.9	48.5
85°	22.9	22.9	22.9	21.6	21.6
87.5°	13.1	13.1	11.1	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)