

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: P556012

Luminaire Tested: **FUSL-12-2-LD4-3STD-35-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: P556012
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-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
3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

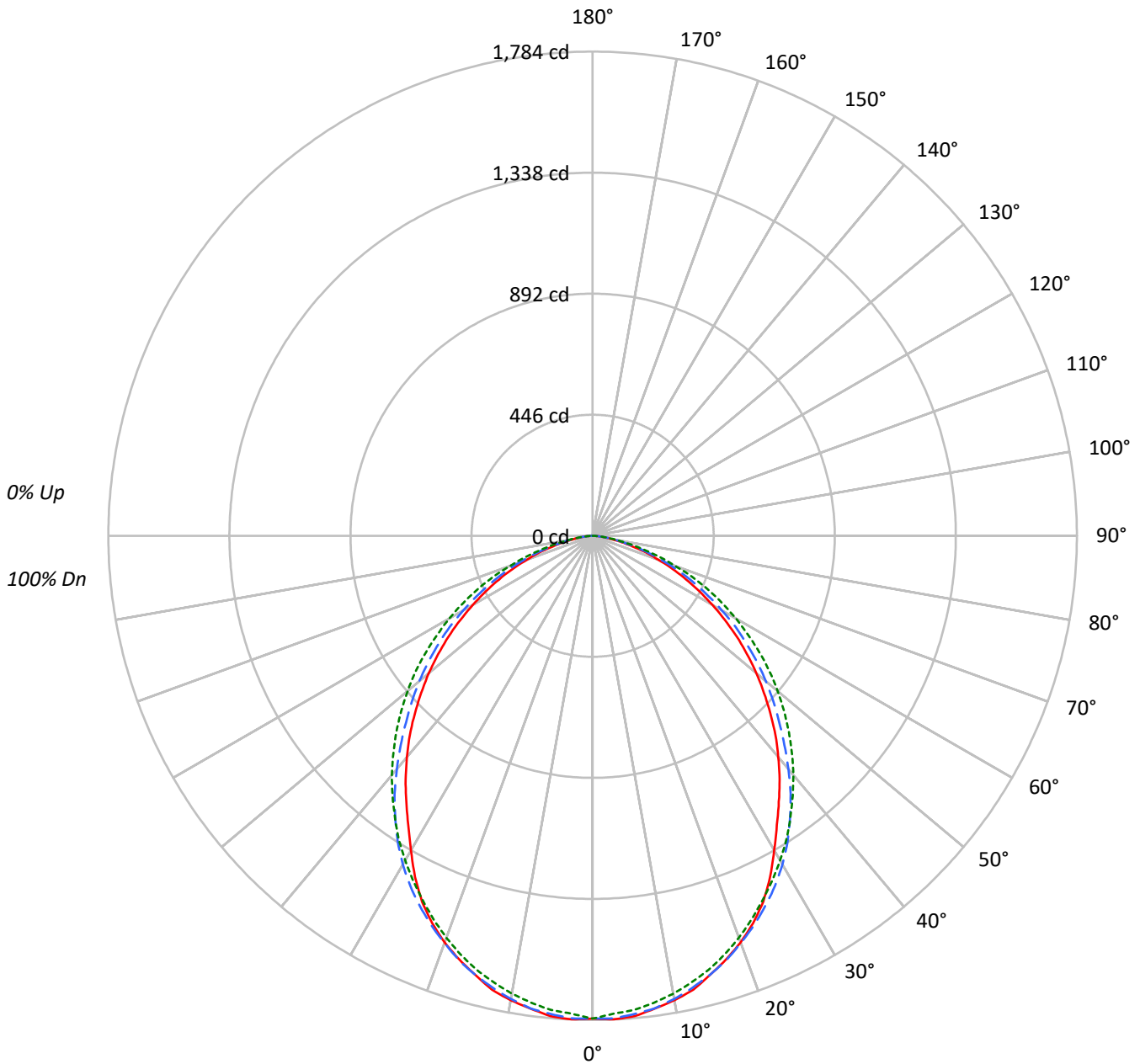
Lumens per Lamp: N/A
Luminaire Lumens: 4113.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	9573	9573	9573
5°	9599	9558	9477
10°	9497	9471	9363
15°	9328	9328	9222
20°	9131	9143	9025
25°	8830	8940	8798
30°	8315	8689	8583
35°	7857	8328	8342
40°	7475	7879	8085
45°	7047	7401	7781
50°	6597	6975	7449
55°	6085	6489	7047
60°	5480	5921	6554
65°	4838	5265	5961
70°	4033	4485	5065
75°	3169	3581	3965
80°	2266	2520	2796
85°	1476	1476	1396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.5	4.1
10°-20°	470.5	11.4
20°-30°	687.5	16.7
30°-40°	780.4	19.0
40°-50°	753.4	18.3
50°-60°	621.5	15.1
60°-70°	413.9	10.1
70°-80°	185.2	4.5
80°-90°	33.1	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°	1325.5	32.2
0°-40°	2105.9	51.2
0°-60°	3480.8	84.6
0°-90°	4113.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4113.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1779	1779	1779	1779	1779	
5°	1777	1776	1769	1760	1754	168
15°	1674	1678	1674	1667	1655	472
25°	1487	1499	1505	1494	1482	681
35°	1196	1212	1268	1274	1270	749
45°	926	942	972	1017	1022	714
55°	648	659	692	730	751	579
65°	380	390	413	443	468	377
75°	152	161	172	180	191	167
85°	24	24	24	23	23	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1778.8	1778.8	1778.8	1778.8	1778.8
2.5°	1783.5	1784.2	1780.1	1769.2	1762.4
5°	1776.7	1776.0	1769.2	1759.6	1754.2
7.5°	1756.9	1758.3	1756.2	1742.5	1735.0
10°	1737.8	1738.4	1733.0	1722.0	1713.2
12.5°	1713.2	1712.5	1705.0	1699.5	1685.1
15°	1674.2	1678.3	1674.2	1666.7	1655.1
17.5°	1636.6	1636.6	1639.4	1626.4	1617.5
20°	1594.3	1596.3	1596.3	1586.1	1575.8
22.5°	1545.1	1551.2	1553.3	1542.3	1530.0
25°	1487.0	1498.6	1505.4	1494.5	1481.5
27.5°	1416.6	1434.4	1454.9	1446.7	1432.3
30°	1338.0	1364.0	1398.1	1391.3	1381.1
32.5°	1263.5	1289.5	1336.6	1333.9	1328.4
35°	1195.9	1212.3	1267.6	1274.5	1269.7
37.5°	1131.6	1146.7	1198.6	1214.3	1210.2
40°	1064.0	1080.4	1121.4	1149.4	1150.8
42.5°	997.0	1012.7	1046.2	1086.5	1086.5
45°	925.9	941.7	972.4	1016.8	1022.3
47.5°	856.2	872.6	902.7	947.1	956.0
50°	787.9	802.9	833.0	876.1	889.7
52.5°	716.8	733.2	762.6	802.3	822.1
55°	648.5	659.4	691.6	729.8	751.0
57.5°	577.4	587.7	623.9	656.7	678.6
60°	509.1	522.1	550.1	583.6	608.9
62.5°	443.5	457.2	481.1	510.5	539.2
65°	379.9	390.2	413.4	442.8	468.1
67.5°	318.4	327.3	350.6	371.1	397.7
70°	256.3	267.9	285.0	304.8	321.9
72.5°	206.4	211.2	225.5	239.9	257.6
75°	152.4	160.6	172.2	180.4	190.7
77.5°	109.3	114.1	121.0	127.8	137.4
80°	73.1	75.2	81.3	82.7	90.2
82.5°	44.4	45.8	47.2	47.8	50.6
85°	23.9	23.9	23.9	22.6	22.6
87.5°	13.7	13.7	11.6	9.6	6.8
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)