

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: P556348

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-80-96-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: P556348
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-LD4-1HI-50-UNV-80-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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

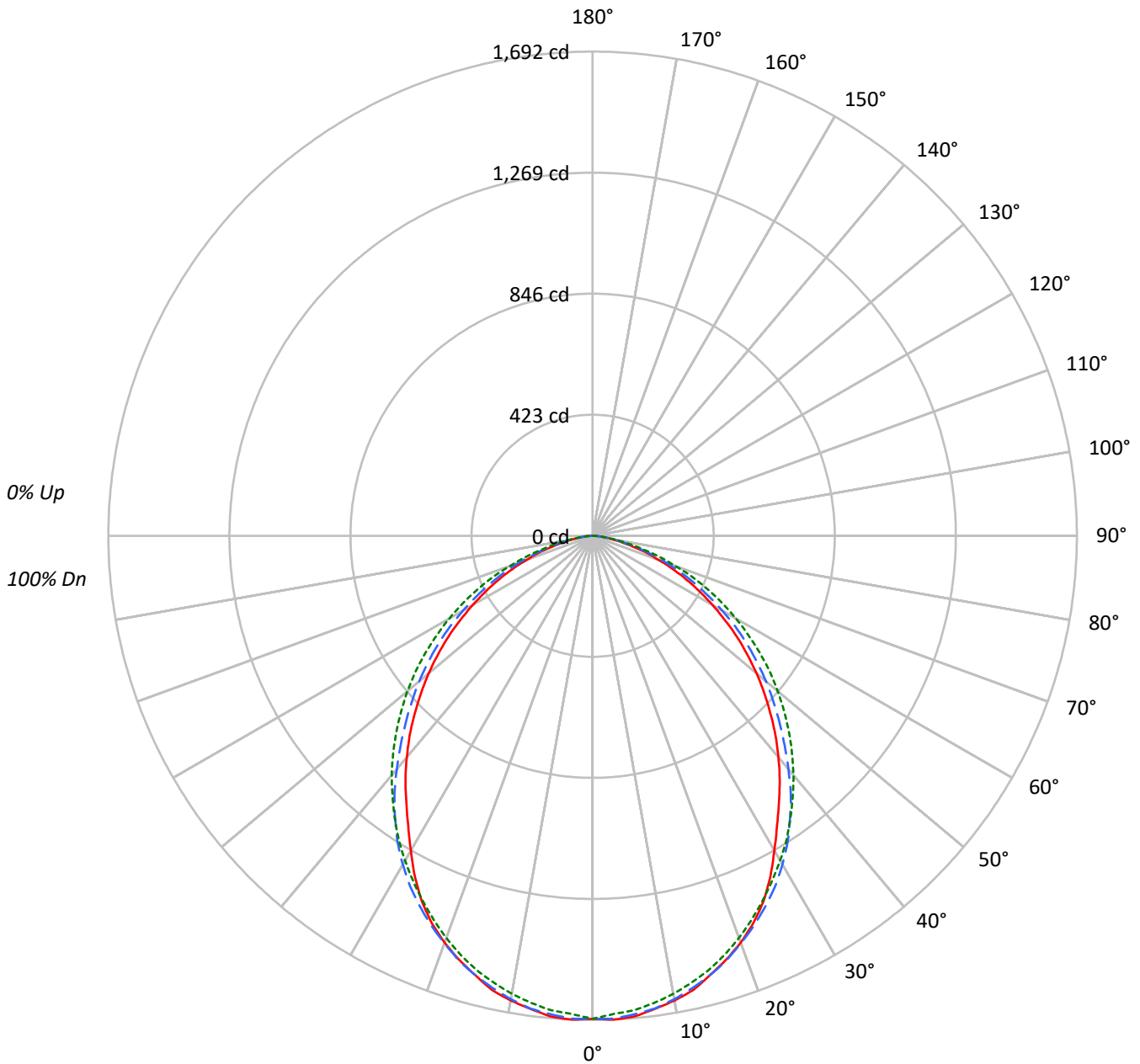
Lumens per Lamp: N/A
Luminaire Lumens: 3903.0 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): 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°	4542	4542	4542
5°	4554	4535	4497
10°	4506	4494	4442
15°	4426	4426	4376
20°	4332	4338	4282
25°	4190	4242	4174
30°	3945	4123	4072
35°	3728	3952	3958
40°	3547	3738	3836
45°	3344	3512	3692
50°	3130	3309	3535
55°	2887	3079	3344
60°	2600	2809	3110
65°	2295	2498	2828
70°	1913	2127	2403
75°	1503	1699	1881
80°	1075	1196	1327
85°	701	701	661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.9	4.1
10°-20°	446.5	11.4
20°-30°	652.4	16.7
30°-40°	740.6	19.0
40°-50°	714.9	18.3
50°-60°	589.8	15.1
60°-70°	392.7	10.1
70°-80°	175.7	4.5
80°-90°	31.4	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°	1257.8	32.2
0°-40°	1998.4	51.2
0°-60°	3303.1	84.6
0°-90°	3903.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3903.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1686	1685	1679	1670	1665	160
15°	1589	1593	1589	1582	1571	448
25°	1411	1422	1429	1418	1406	646
35°	1135	1150	1203	1209	1205	711
45°	879	894	923	965	970	678
55°	615	626	656	693	713	549
65°	360	370	392	420	444	358
75°	145	152	163	171	181	158
85°	23	23	23	21	21	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1687.9	1687.9	1687.9	1687.9	1687.9
2.5°	1692.5	1693.1	1689.2	1678.9	1672.4
5°	1686.0	1685.4	1678.9	1669.8	1664.6
7.5°	1667.2	1668.5	1666.5	1653.6	1646.4
10°	1649.0	1649.7	1644.5	1634.1	1625.7
12.5°	1625.7	1625.0	1617.9	1612.7	1599.1
15°	1588.7	1592.6	1588.7	1581.6	1570.6
17.5°	1553.1	1553.1	1555.7	1543.3	1534.9
20°	1512.9	1514.8	1514.8	1505.1	1495.4
22.5°	1466.2	1472.0	1474.0	1463.6	1451.9
25°	1411.1	1422.1	1428.6	1418.2	1405.9
27.5°	1344.3	1361.1	1380.6	1372.8	1359.2
30°	1269.7	1294.3	1326.8	1320.3	1310.5
32.5°	1199.0	1223.6	1268.4	1265.8	1260.6
35°	1134.8	1150.4	1202.9	1209.4	1204.8
37.5°	1073.9	1088.1	1137.4	1152.3	1148.4
40°	1009.7	1025.2	1064.1	1090.7	1092.0
42.5°	946.1	961.0	992.8	1031.1	1031.1
45°	878.7	893.6	922.8	964.9	970.1
47.5°	812.5	828.1	856.6	898.8	907.2
50°	747.7	761.9	790.5	831.3	844.3
52.5°	680.2	695.8	723.7	761.3	780.1
55°	615.4	625.8	656.2	692.6	712.7
57.5°	548.0	557.7	592.0	623.2	643.9
60°	483.1	495.4	522.0	553.8	577.8
62.5°	420.9	433.8	456.5	484.4	511.6
65°	360.5	370.3	392.3	420.2	444.2
67.5°	302.2	310.6	332.7	352.1	377.4
70°	243.2	254.2	270.4	289.2	305.4
72.5°	195.8	200.4	214.0	227.6	244.5
75°	144.6	152.4	163.4	171.2	180.9
77.5°	103.8	108.3	114.8	121.3	130.3
80°	69.4	71.3	77.2	78.5	85.6
82.5°	42.2	43.4	44.7	45.4	48.0
85°	22.7	22.7	22.7	21.4	21.4
87.5°	13.0	13.0	11.0	9.1	6.5
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)