

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: P557212

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-82-96-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: P557212
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-LD4-2LO-30-UNV-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

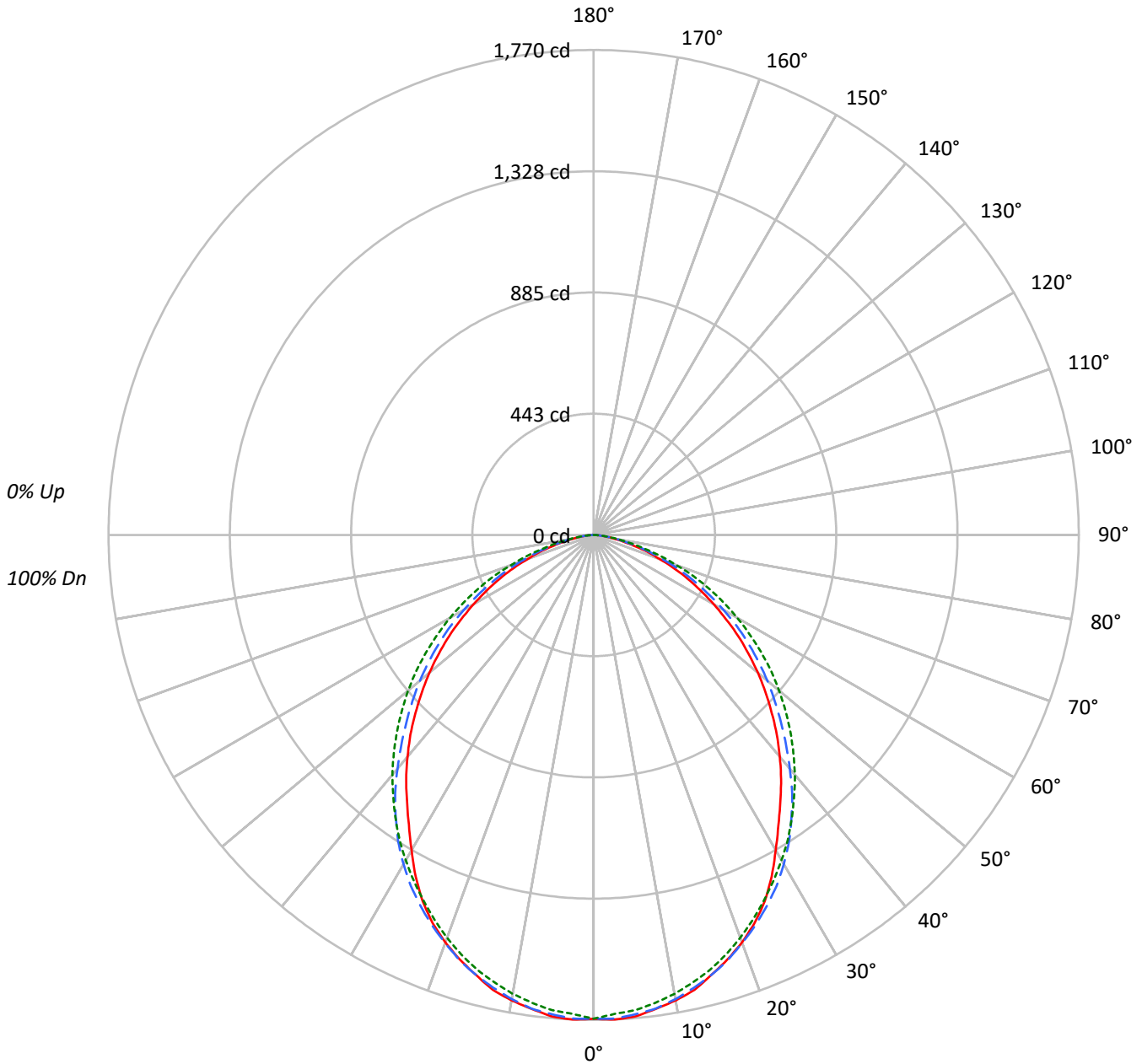
Lumens per Lamp: N/A
Luminaire Lumens: 4083.0 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	4752	4752	4752
5°	4764	4744	4704
10°	4714	4701	4647
15°	4630	4630	4577
20°	4532	4538	4480
25°	4383	4437	4367
30°	4127	4313	4260
35°	3900	4134	4141
40°	3710	3910	4013
45°	3498	3674	3862
50°	3275	3462	3697
55°	3020	3221	3498
60°	2720	2939	3253
65°	2402	2613	2959
70°	2002	2226	2514
75°	1573	1777	1968
80°	1125	1251	1387
85°	732	732	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.3	4.1
10°-20°	467.1	11.4
20°-30°	682.5	16.7
30°-40°	774.7	19.0
40°-50°	747.9	18.3
50°-60°	617.0	15.1
60°-70°	410.8	10.1
70°-80°	183.9	4.5
80°-90°	32.9	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°	1315.8	32.2
0°-40°	2090.6	51.2
0°-60°	3455.4	84.6
0°-90°	4083.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4083.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1766	1766	1766	1766	1766	
5°	1764	1763	1756	1747	1741	167
15°	1662	1666	1662	1654	1643	469
25°	1476	1488	1494	1484	1471	676
35°	1187	1203	1258	1265	1260	744
45°	919	935	965	1009	1015	709
55°	644	655	686	724	746	575
65°	377	387	410	440	465	374
75°	151	159	171	179	189	165
85°	24	24	24	22	22	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1765.8	1765.8	1765.8	1765.8	1765.8
2.5°	1770.5	1771.2	1767.1	1756.3	1749.5
5°	1763.8	1763.1	1756.3	1746.8	1741.4
7.5°	1744.1	1745.4	1743.4	1729.8	1722.4
10°	1725.1	1725.8	1720.3	1709.5	1700.7
12.5°	1700.7	1700.0	1692.5	1687.1	1672.9
15°	1662.0	1666.1	1662.0	1654.5	1643.0
17.5°	1624.7	1624.7	1627.4	1614.5	1605.7
20°	1582.6	1584.7	1584.7	1574.5	1564.3
22.5°	1533.8	1539.9	1541.9	1531.1	1518.9
25°	1476.1	1487.7	1494.4	1483.6	1470.7
27.5°	1406.3	1423.9	1444.2	1436.1	1421.9
30°	1328.2	1354.0	1387.9	1381.2	1371.0
32.5°	1254.3	1280.1	1326.9	1324.2	1318.7
35°	1187.1	1203.4	1258.4	1265.2	1260.4
37.5°	1123.4	1138.3	1189.9	1205.5	1201.4
40°	1056.2	1072.5	1113.2	1141.0	1142.4
42.5°	989.7	1005.3	1038.6	1078.6	1078.6
45°	919.2	934.8	965.3	1009.4	1014.8
47.5°	850.0	866.3	896.1	940.2	949.0
50°	782.2	797.1	826.9	869.7	883.2
52.5°	711.6	727.9	757.1	796.4	816.1
55°	643.8	654.6	686.5	724.5	745.5
57.5°	573.2	583.4	619.4	651.9	673.6
60°	505.4	518.3	546.1	579.3	604.4
62.5°	440.3	453.8	477.6	506.7	535.2
65°	377.2	387.3	410.4	439.6	464.7
67.5°	316.1	324.9	348.0	368.4	394.8
70°	254.4	265.9	282.9	302.6	319.5
72.5°	204.9	209.6	223.9	238.1	255.7
75°	151.3	159.4	170.9	179.1	189.3
77.5°	108.5	113.3	120.1	126.9	136.4
80°	72.6	74.6	80.7	82.1	89.5
82.5°	44.1	45.5	46.8	47.5	50.2
85°	23.7	23.7	23.7	22.4	22.4
87.5°	13.6	13.6	11.5	9.5	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)