

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: P557400

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-82-88-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: P557400
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-50-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

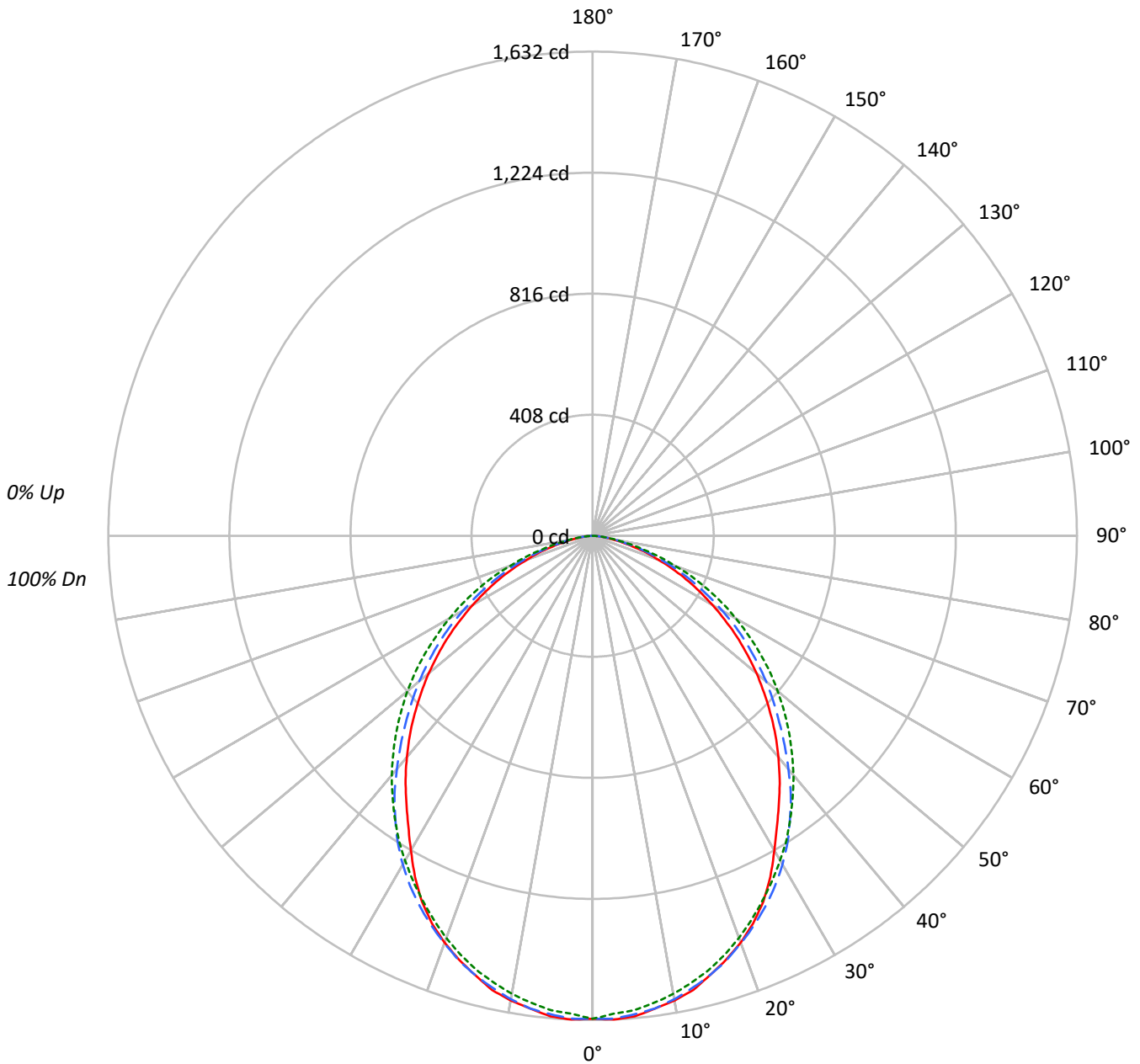
Lumens per Lamp: N/A
Luminaire Lumens: 3764.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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°	4380	4380	4380
5°	4392	4374	4336
10°	4345	4333	4284
15°	4269	4269	4220
20°	4178	4184	4130
25°	4040	4091	4026
30°	3805	3976	3927
35°	3595	3811	3817
40°	3420	3605	3699
45°	3225	3387	3561
50°	3018	3191	3409
55°	2784	2969	3225
60°	2507	2709	2999
65°	2214	2409	2728
70°	1845	2052	2317
75°	1450	1639	1814
80°	1037	1153	1278
85°	676	676	636



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.3	4.1
10°-20°	430.6	11.4
20°-30°	629.2	16.7
30°-40°	714.2	19.0
40°-50°	689.5	18.3
50°-60°	568.8	15.1
60°-70°	378.7	10.1
70°-80°	169.5	4.5
80°-90°	30.3	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°	1213.0	32.2
0°-40°	1927.2	51.2
0°-60°	3185.5	84.6
0°-90°	3764.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3764.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1628	1628	1628	1628	1628	
5°	1626	1625	1619	1610	1605	154
15°	1532	1536	1532	1525	1515	432
25°	1361	1371	1378	1368	1356	623
35°	1094	1109	1160	1166	1162	686
45°	847	862	890	930	936	654
55°	594	604	633	668	687	530
65°	348	357	378	405	428	345
75°	140	147	158	165	174	153
85°	22	22	22	21	21	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1627.8	1627.8	1627.8	1627.8	1627.8
2.5°	1632.2	1632.8	1629.1	1619.1	1612.8
5°	1626.0	1625.3	1619.1	1610.3	1605.3
7.5°	1607.8	1609.1	1607.2	1594.7	1587.8
10°	1590.3	1590.9	1585.9	1575.9	1567.8
12.5°	1567.8	1567.2	1560.3	1555.3	1542.2
15°	1532.2	1535.9	1532.2	1525.3	1514.6
17.5°	1497.8	1497.8	1500.3	1488.4	1480.2
20°	1459.0	1460.9	1460.9	1451.5	1442.1
22.5°	1414.0	1419.6	1421.5	1411.5	1400.2
25°	1360.8	1371.4	1377.7	1367.7	1355.8
27.5°	1296.4	1312.6	1331.4	1323.9	1310.8
30°	1224.5	1248.2	1279.5	1273.2	1263.9
32.5°	1156.3	1180.1	1223.2	1220.7	1215.7
35°	1094.4	1109.4	1160.1	1166.3	1161.9
37.5°	1035.6	1049.4	1096.9	1111.3	1107.5
40°	973.7	988.7	1026.2	1051.9	1053.1
42.5°	912.4	926.8	957.4	994.3	994.3
45°	847.4	861.8	889.9	930.5	935.6
47.5°	783.6	798.6	826.1	866.8	874.9
50°	721.0	734.8	762.3	801.7	814.2
52.5°	656.0	671.0	697.9	734.2	752.3
55°	593.5	603.5	632.9	667.9	687.3
57.5°	528.4	537.8	571.0	601.0	621.0
60°	465.9	477.8	503.4	534.1	557.2
62.5°	405.9	418.4	440.3	467.1	493.4
65°	347.7	357.1	378.3	405.2	428.4
67.5°	291.4	299.6	320.8	339.6	364.0
70°	234.5	245.1	260.8	278.9	294.5
72.5°	188.9	193.2	206.4	219.5	235.8
75°	139.5	147.0	157.6	165.1	174.5
77.5°	100.1	104.4	110.7	116.9	125.7
80°	66.9	68.8	74.4	75.7	82.5
82.5°	40.6	41.9	43.2	43.8	46.3
85°	21.9	21.9	21.9	20.6	20.6
87.5°	12.5	12.5	10.6	8.8	6.3
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)