

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: P557206

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-82-87-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: P557206
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-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

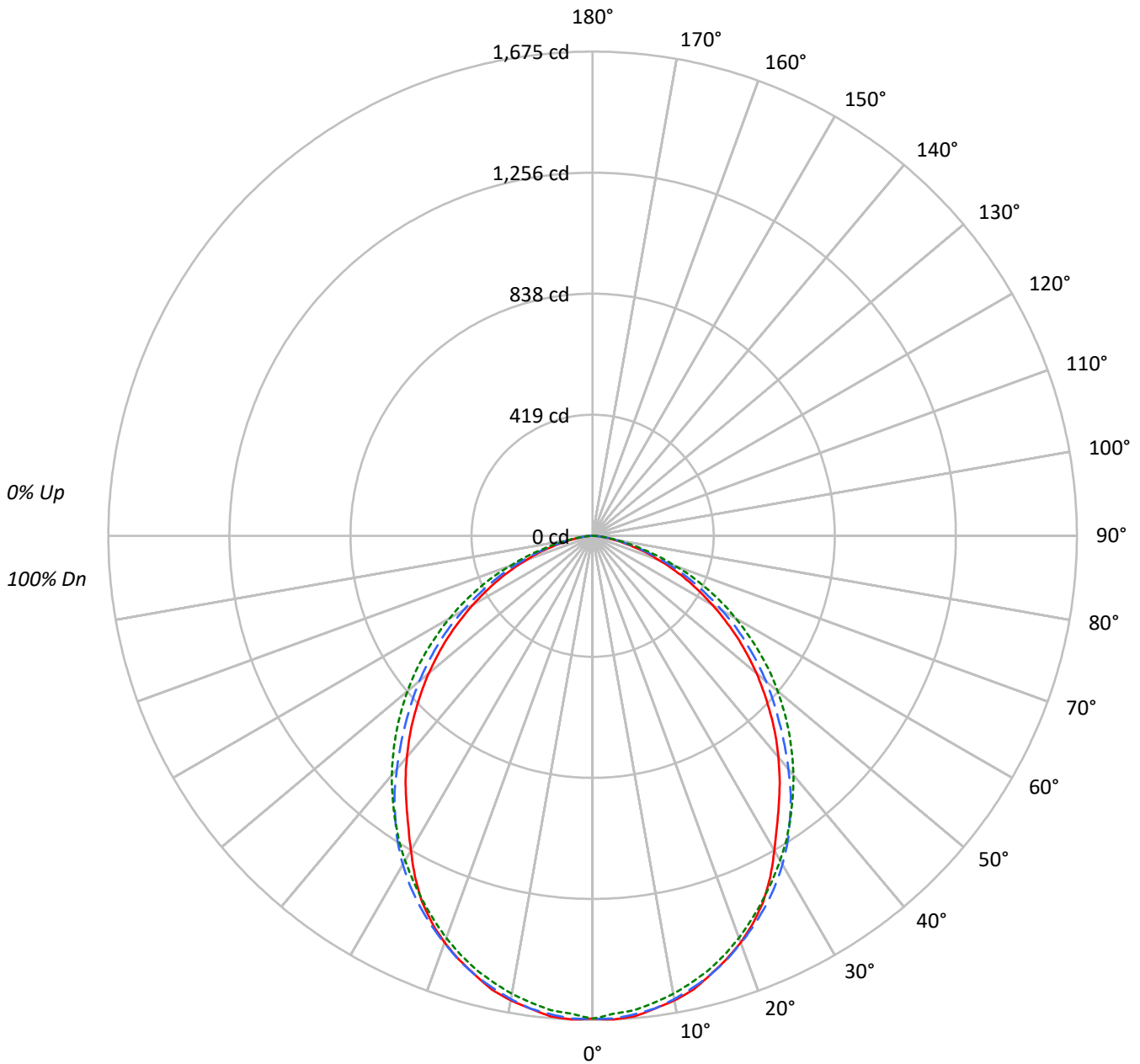
Lumens per Lamp: N/A
Luminaire Lumens: 3863.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4496	4496	4496
5°	4508	4489	4450
10°	4460	4447	4397
15°	4381	4381	4331
20°	4288	4294	4238
25°	4147	4198	4132
30°	3905	4080	4030
35°	3690	3911	3917
40°	3510	3700	3797
45°	3310	3476	3654
50°	3098	3275	3498
55°	2858	3047	3309
60°	2574	2781	3078
65°	2272	2472	2799
70°	1894	2105	2378
75°	1488	1681	1862
80°	1065	1184	1313
85°	695	695	655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.3	4.1
10°-20°	441.9	11.4
20°-30°	645.7	16.7
30°-40°	733.0	19.0
40°-50°	707.6	18.3
50°-60°	583.7	15.1
60°-70°	388.7	10.1
70°-80°	173.9	4.5
80°-90°	31.1	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°	1244.9	32.2
0°-40°	1977.9	51.2
0°-60°	3269.2	84.6
0°-90°	3863.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3863.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1671	1671	1671	1671	1671	
5°	1669	1668	1662	1653	1648	158
15°	1572	1576	1572	1565	1554	443
25°	1397	1408	1414	1404	1392	640
35°	1123	1139	1191	1197	1192	704
45°	870	884	913	955	960	671
55°	609	619	650	686	705	544
65°	357	366	388	416	440	354
75°	143	151	162	169	179	156
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1670.6	1670.6	1670.6	1670.6	1670.6
2.5°	1675.1	1675.8	1671.9	1661.7	1655.2
5°	1668.7	1668.1	1661.7	1652.7	1647.5
7.5°	1650.1	1651.4	1649.5	1636.6	1629.6
10°	1632.1	1632.8	1627.6	1617.4	1609.0
12.5°	1609.0	1608.4	1601.3	1596.2	1582.7
15°	1572.4	1576.3	1572.4	1565.4	1554.5
17.5°	1537.1	1537.1	1539.7	1527.5	1519.2
20°	1497.4	1499.3	1499.3	1489.7	1480.0
22.5°	1451.1	1456.9	1458.8	1448.6	1437.0
25°	1396.6	1407.5	1413.9	1403.7	1391.5
27.5°	1330.5	1347.2	1366.4	1358.7	1345.2
30°	1256.7	1281.1	1313.2	1306.7	1297.1
32.5°	1186.7	1211.1	1255.4	1252.8	1247.7
35°	1123.2	1138.6	1190.6	1197.0	1192.5
37.5°	1062.8	1077.0	1125.7	1140.5	1136.7
40°	999.3	1014.7	1053.2	1079.5	1080.8
42.5°	936.4	951.2	982.6	1020.5	1020.5
45°	869.7	884.4	913.3	955.0	960.2
47.5°	804.2	819.6	847.8	889.6	897.9
50°	740.0	754.1	782.4	822.8	835.6
52.5°	673.3	688.7	716.3	753.5	772.1
55°	609.1	619.4	649.5	685.5	705.4
57.5°	542.3	552.0	586.0	616.8	637.3
60°	478.2	490.3	516.7	548.1	571.9
62.5°	416.5	429.4	451.8	479.4	506.4
65°	356.8	366.5	388.3	415.9	439.6
67.5°	299.1	307.4	329.3	348.5	373.5
70°	240.7	251.6	267.6	286.3	302.3
72.5°	193.8	198.3	211.8	225.3	242.0
75°	143.1	150.8	161.7	169.4	179.1
77.5°	102.7	107.2	113.6	120.0	129.0
80°	68.7	70.6	76.4	77.7	84.7
82.5°	41.7	43.0	44.3	44.9	47.5
85°	22.5	22.5	22.5	21.2	21.2
87.5°	12.8	12.8	10.9	9.0	6.4
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)