

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: P556147

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-80-85-EDD**

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: P556147
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-30-UNV-80-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

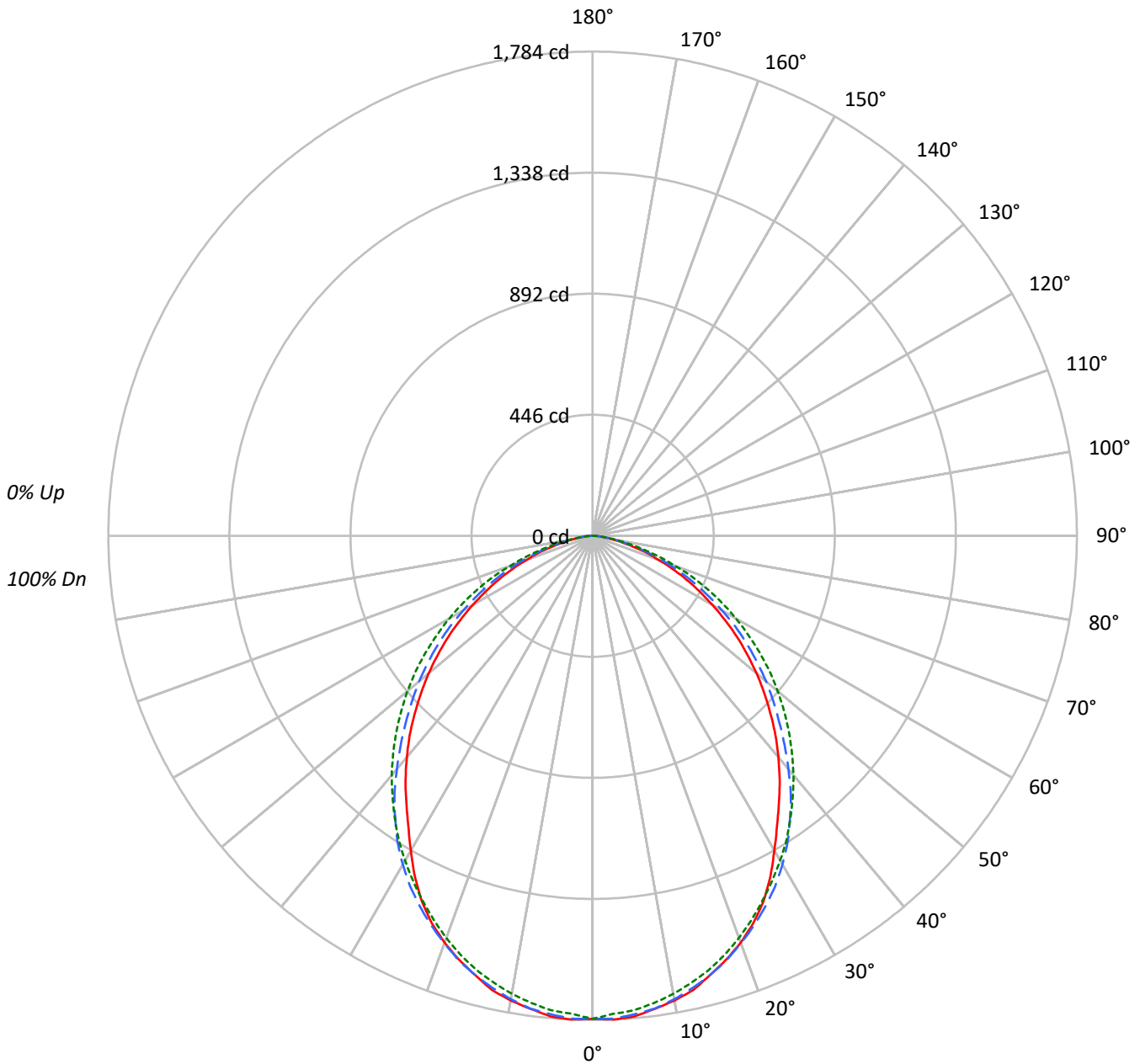
Lumens per Lamp: N/A
Luminaire Lumens: 4115.0 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4789	4789	4789
5°	4802	4781	4741
10°	4751	4738	4683
15°	4666	4666	4613
20°	4568	4574	4515
25°	4417	4472	4401
30°	4160	4346	4293
35°	3930	4166	4173
40°	3739	3941	4044
45°	3526	3702	3892
50°	3300	3489	3727
55°	3044	3246	3525
60°	2741	2962	3279
65°	2420	2634	2982
70°	2017	2243	2533
75°	1586	1791	1983
80°	1134	1261	1398
85°	738	738	698



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.6	4.1
10°-20°	470.7	11.4
20°-30°	687.9	16.7
30°-40°	780.8	19.0
40°-50°	753.8	18.3
50°-60°	621.8	15.1
60°-70°	414.1	10.1
70°-80°	185.3	4.5
80°-90°	33.2	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°	1326.2	32.2
0°-40°	2107.0	51.2
0°-60°	3482.5	84.6
0°-90°	4115.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4115.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1780	1780	1780	1780	1780	
5°	1778	1777	1770	1760	1755	168
15°	1675	1679	1675	1668	1656	472
25°	1488	1499	1506	1495	1482	681
35°	1196	1213	1268	1275	1270	750
45°	926	942	973	1017	1023	715
55°	649	660	692	730	751	579
65°	380	390	414	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°	1779.6	1779.6	1779.6	1779.6	1779.6
2.5°	1784.4	1785.1	1781.0	1770.1	1763.2
5°	1777.6	1776.9	1770.1	1760.5	1755.0
7.5°	1757.8	1759.1	1757.1	1743.4	1735.9
10°	1738.6	1739.3	1733.8	1722.9	1714.0
12.5°	1714.0	1713.3	1705.8	1700.3	1686.0
15°	1675.0	1679.1	1675.0	1667.5	1655.9
17.5°	1637.4	1637.4	1640.2	1627.2	1618.3
20°	1595.0	1597.1	1597.1	1586.8	1576.6
22.5°	1545.8	1552.0	1554.0	1543.1	1530.8
25°	1487.7	1499.3	1506.2	1495.2	1482.2
27.5°	1417.3	1435.1	1455.6	1447.4	1433.0
30°	1338.7	1364.6	1398.8	1392.0	1381.7
32.5°	1264.1	1290.1	1337.3	1334.6	1329.1
35°	1196.4	1212.9	1268.2	1275.1	1270.3
37.5°	1132.2	1147.2	1199.2	1214.9	1210.8
40°	1064.5	1080.9	1121.9	1150.0	1151.3
42.5°	997.5	1013.2	1046.7	1087.1	1087.1
45°	926.4	942.1	972.9	1017.3	1022.8
47.5°	856.7	873.1	903.1	947.6	956.5
50°	788.3	803.3	833.4	876.5	890.2
52.5°	717.2	733.6	763.0	802.6	822.5
55°	648.8	659.8	691.9	730.2	751.4
57.5°	577.7	588.0	624.2	657.0	678.9
60°	509.3	522.3	550.4	583.9	609.2
62.5°	443.7	457.4	481.3	510.7	539.4
65°	380.1	390.4	413.6	443.0	468.3
67.5°	318.6	327.5	350.7	371.2	397.9
70°	256.4	268.0	285.1	304.9	322.0
72.5°	206.5	211.3	225.6	240.0	257.7
75°	152.5	160.7	172.3	180.5	190.7
77.5°	109.4	114.2	121.0	127.8	137.4
80°	73.2	75.2	81.4	82.7	90.2
82.5°	44.4	45.8	47.2	47.9	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)