

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: P556151

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-80-87-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: P556151
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-80-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

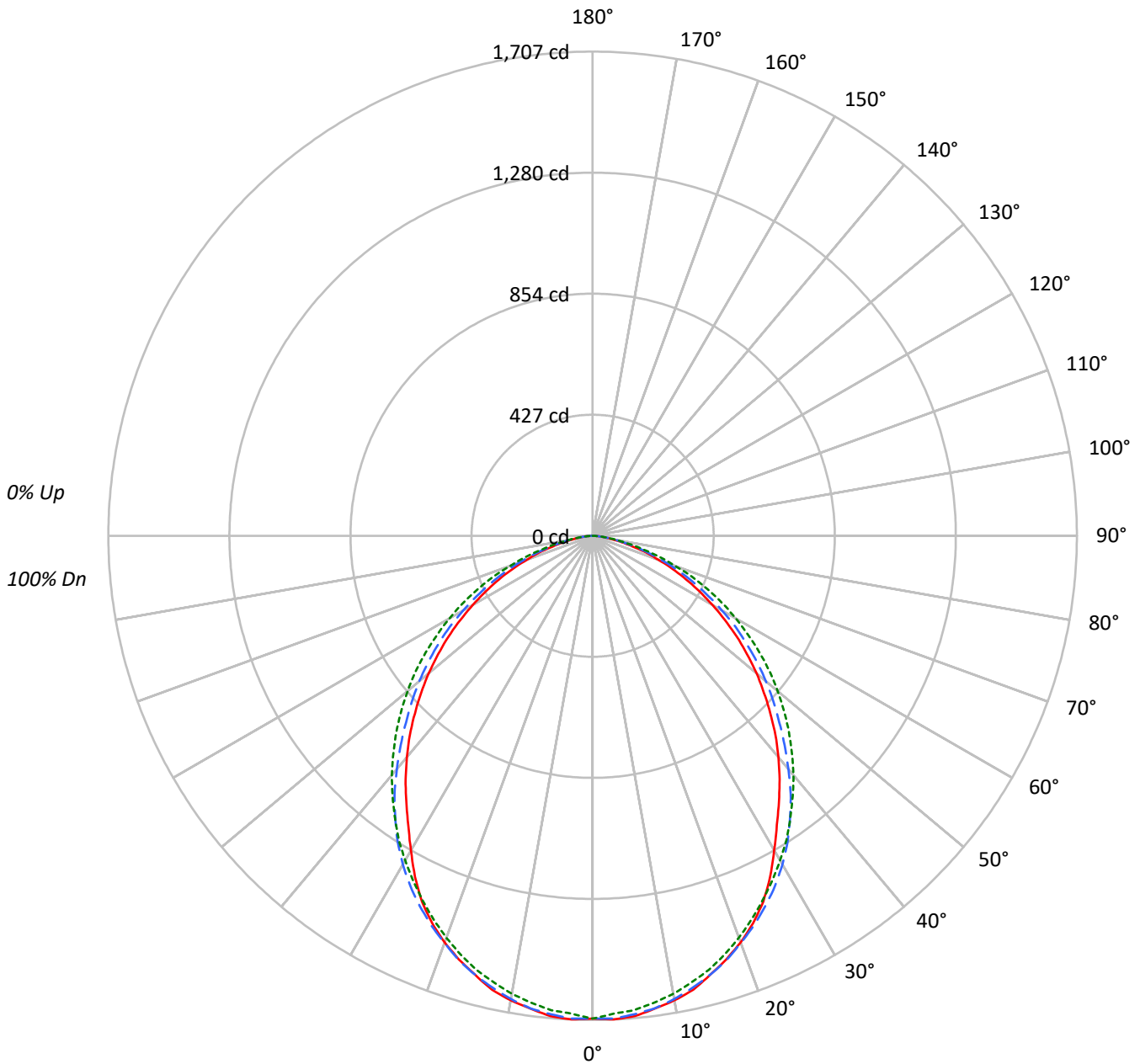
Lumens per Lamp: N/A
Luminaire Lumens: 3936.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	4581	4581	4581
5°	4593	4573	4535
10°	4544	4532	4480
15°	4464	4464	4413
20°	4369	4375	4318
25°	4225	4277	4210
30°	3979	4158	4107
35°	3759	3985	3991
40°	3577	3770	3868
45°	3372	3542	3723
50°	3157	3337	3564
55°	2912	3105	3372
60°	2622	2833	3136
65°	2315	2519	2853
70°	1929	2146	2423
75°	1516	1713	1897
80°	1085	1206	1337
85°	707	707	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.3	4.1
10°-20°	450.2	11.4
20°-30°	658.0	16.7
30°-40°	746.8	19.0
40°-50°	721.0	18.3
50°-60°	594.8	15.1
60°-70°	396.1	10.1
70°-80°	177.2	4.5
80°-90°	31.7	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°	1268.5	32.2
0°-40°	2015.3	51.2
0°-60°	3331.0	84.6
0°-90°	3936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1702	1702	1702	1702	1702	
5°	1700	1700	1693	1684	1679	161
15°	1602	1606	1602	1595	1584	452
25°	1423	1434	1441	1430	1418	652
35°	1144	1160	1213	1220	1215	717
45°	886	901	931	973	978	684
55°	621	631	662	698	719	554
65°	364	373	396	424	448	361
75°	146	154	165	173	182	159
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1702.2	1702.2	1702.2	1702.2	1702.2
2.5°	1706.8	1707.4	1703.5	1693.1	1686.5
5°	1700.3	1699.6	1693.1	1683.9	1678.7
7.5°	1681.3	1682.6	1680.6	1667.6	1660.4
10°	1663.0	1663.6	1658.4	1647.9	1639.4
12.5°	1639.4	1638.8	1631.6	1626.4	1612.6
15°	1602.2	1606.1	1602.2	1595.0	1583.9
17.5°	1566.2	1566.2	1568.8	1556.4	1547.9
20°	1525.7	1527.6	1527.6	1517.8	1508.0
22.5°	1478.6	1484.5	1486.4	1476.0	1464.2
25°	1423.0	1434.1	1440.6	1430.2	1417.8
27.5°	1355.6	1372.6	1392.2	1384.4	1370.7
30°	1280.4	1305.3	1338.0	1331.4	1321.6
32.5°	1209.1	1234.0	1279.1	1276.5	1271.3
35°	1144.4	1160.1	1213.1	1219.6	1215.0
37.5°	1082.9	1097.3	1147.0	1162.1	1158.1
40°	1018.2	1033.9	1073.1	1099.9	1101.2
42.5°	954.1	969.1	1001.2	1039.8	1039.8
45°	886.1	901.1	930.6	973.1	978.3
47.5°	819.4	835.1	863.9	906.4	914.9
50°	754.0	768.4	797.2	838.4	851.4
52.5°	686.0	701.7	729.8	767.7	786.7
55°	620.6	631.1	661.8	698.4	718.7
57.5°	552.6	562.4	597.1	628.4	649.4
60°	487.2	499.6	526.4	558.5	582.7
62.5°	424.4	437.5	460.4	488.5	516.0
65°	363.6	373.4	395.6	423.8	448.0
67.5°	304.7	313.2	335.5	355.1	380.6
70°	245.2	256.3	272.7	291.7	308.0
72.5°	197.5	202.1	215.8	229.5	246.5
75°	145.8	153.7	164.8	172.6	182.5
77.5°	104.6	109.2	115.7	122.3	131.4
80°	70.0	71.9	77.8	79.1	86.3
82.5°	42.5	43.8	45.1	45.8	48.4
85°	22.9	22.9	22.9	21.6	21.6
87.5°	13.1	13.1	11.1	9.2	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)