

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: P556276

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-80-86-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: P556276
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-40-UNV-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

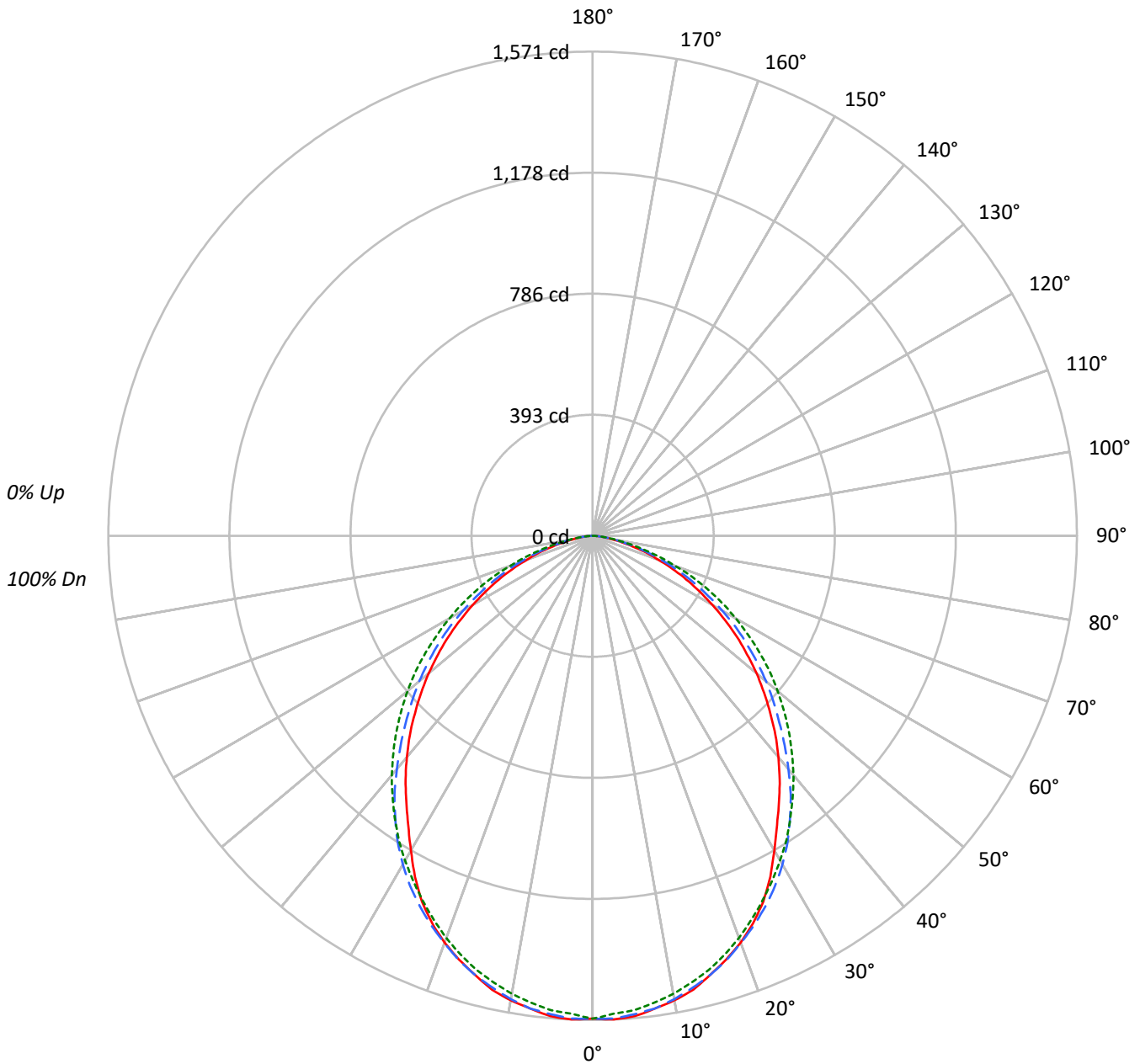
Lumens per Lamp: N/A
Luminaire Lumens: 3623.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4216	4216	4216
5°	4227	4210	4174
10°	4183	4171	4124
15°	4109	4109	4062
20°	4021	4027	3975
25°	3889	3937	3875
30°	3662	3827	3780
35°	3461	3668	3674
40°	3292	3470	3561
45°	3104	3260	3427
50°	2905	3072	3281
55°	2680	2858	3103
60°	2413	2608	2886
65°	2131	2319	2625
70°	1776	1975	2231
75°	1395	1577	1746
80°	998	1110	1232
85°	651	651	614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.5	4.1
10°-20°	414.4	11.4
20°-30°	605.6	16.7
30°-40°	687.5	19.0
40°-50°	663.6	18.3
50°-60°	547.5	15.1
60°-70°	364.6	10.1
70°-80°	163.1	4.5
80°-90°	29.2	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°	1167.6	32.2
0°-40°	1855.0	51.2
0°-60°	3066.1	84.6
0°-90°	3623.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3623.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1567	1567	1567	1567	1567	
5°	1565	1564	1558	1550	1545	148
15°	1475	1478	1475	1468	1458	416
25°	1310	1320	1326	1316	1305	600
35°	1053	1068	1117	1123	1118	660
45°	816	830	857	896	900	629
55°	571	581	609	643	662	510
65°	335	344	364	390	412	332
75°	134	142	152	159	168	147
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1566.9	1566.9	1566.9	1566.9	1566.9
2.5°	1571.1	1571.7	1568.1	1558.4	1552.4
5°	1565.0	1564.4	1558.4	1550.0	1545.2
7.5°	1547.6	1548.8	1547.0	1535.0	1528.3
10°	1530.7	1531.3	1526.5	1516.9	1509.1
12.5°	1509.1	1508.5	1501.8	1497.0	1484.4
15°	1474.8	1478.4	1474.8	1468.1	1457.9
17.5°	1441.7	1441.7	1444.1	1432.6	1424.8
20°	1404.3	1406.1	1406.1	1397.1	1388.1
22.5°	1361.0	1366.4	1368.2	1358.6	1347.7
25°	1309.8	1320.1	1326.1	1316.4	1305.0
27.5°	1247.8	1263.5	1281.5	1274.3	1261.7
30°	1178.6	1201.5	1231.6	1225.6	1216.5
32.5°	1113.0	1135.9	1177.4	1175.0	1170.2
35°	1053.4	1067.8	1116.6	1122.6	1118.4
37.5°	996.8	1010.1	1055.8	1069.7	1066.0
40°	937.2	951.7	987.8	1012.5	1013.7
42.5°	878.2	892.1	921.6	957.1	957.1
45°	815.6	829.5	856.6	895.7	900.5
47.5°	754.2	768.7	795.2	834.3	842.1
50°	694.0	707.3	733.8	771.7	783.7
52.5°	631.4	645.9	671.8	706.7	724.1
55°	571.2	580.9	609.2	642.9	661.5
57.5°	508.6	517.7	549.6	578.5	597.7
60°	448.4	459.9	484.6	514.1	536.3
62.5°	390.7	402.7	423.8	449.7	474.9
65°	334.7	343.7	364.2	390.1	412.3
67.5°	280.5	288.3	308.8	326.9	350.3
70°	225.7	236.0	251.0	268.5	283.5
72.5°	181.8	186.0	198.6	211.3	226.9
75°	134.2	141.5	151.7	158.9	167.9
77.5°	96.3	100.5	106.5	112.6	121.0
80°	64.4	66.2	71.6	72.8	79.5
82.5°	39.1	40.3	41.5	42.1	44.5
85°	21.1	21.1	21.1	19.9	19.9
87.5°	12.0	12.0	10.2	8.4	6.0
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)