

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: P556148

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-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: P556148
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-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

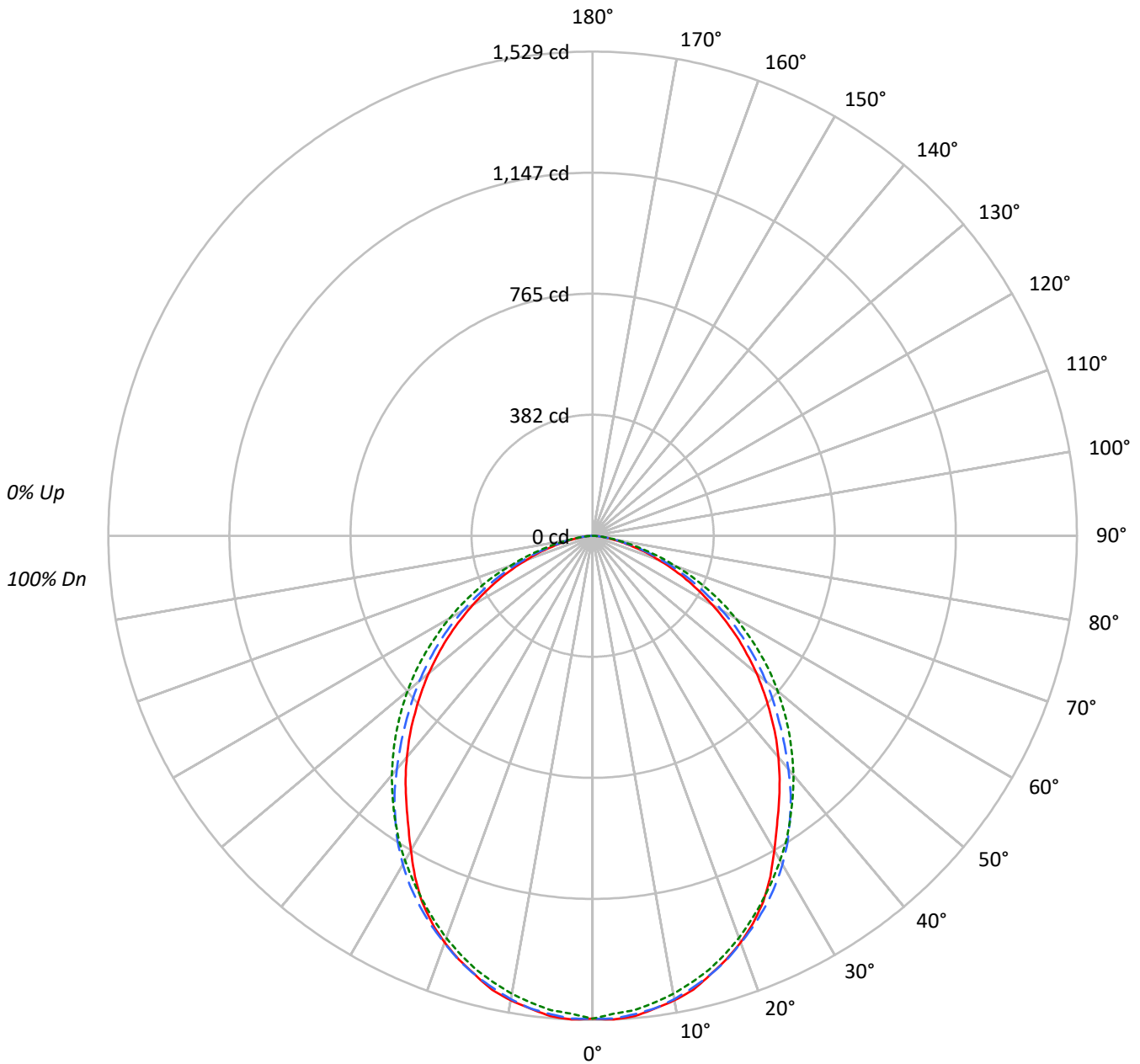
Lumens per Lamp: N/A
Luminaire Lumens: 3526.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4103	4103	4103
5°	4114	4097	4062
10°	4071	4060	4013
15°	3999	3999	3953
20°	3914	3919	3869
25°	3785	3832	3771
30°	3564	3724	3679
35°	3368	3570	3576
40°	3204	3377	3465
45°	3021	3172	3335
50°	2828	2990	3193
55°	2608	2782	3020
60°	2349	2538	2809
65°	2074	2257	2555
70°	1729	1922	2171
75°	1358	1535	1699
80°	972	1080	1198
85°	633	633	596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.6	4.1
10°-20°	403.3	11.4
20°-30°	589.4	16.7
30°-40°	669.0	19.0
40°-50°	645.9	18.3
50°-60°	532.8	15.1
60°-70°	354.8	10.1
70°-80°	158.8	4.5
80°-90°	28.4	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°	1136.3	32.2
0°-40°	1805.4	51.2
0°-60°	2984.0	84.6
0°-90°	3526.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3526.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1525	1525	1525	1525	1525	
5°	1523	1523	1517	1508	1504	144
15°	1435	1439	1435	1429	1419	405
25°	1275	1285	1291	1281	1270	584
35°	1025	1039	1087	1093	1088	642
45°	794	807	834	872	876	612
55°	556	565	593	626	644	496
65°	326	334	354	380	401	323
75°	131	138	148	155	163	143
85°	20	20	20	19	19	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1524.9	1524.9	1524.9	1524.9	1524.9
2.5°	1529.0	1529.6	1526.1	1516.7	1510.8
5°	1523.1	1522.6	1516.7	1508.5	1503.8
7.5°	1506.2	1507.3	1505.6	1493.9	1487.4
10°	1489.8	1490.3	1485.7	1476.3	1468.7
12.5°	1468.7	1468.1	1461.6	1456.9	1444.6
15°	1435.3	1438.8	1435.3	1428.8	1418.9
17.5°	1403.1	1403.1	1405.4	1394.3	1386.6
20°	1366.7	1368.5	1368.5	1359.7	1350.9
22.5°	1324.6	1329.8	1331.6	1322.2	1311.7
25°	1274.8	1284.7	1290.6	1281.2	1270.1
27.5°	1214.4	1229.6	1247.2	1240.2	1227.9
30°	1147.0	1169.3	1198.6	1192.7	1184.0
32.5°	1083.2	1105.5	1145.9	1143.5	1138.8
35°	1025.2	1039.3	1086.7	1092.6	1088.5
37.5°	970.1	983.0	1027.5	1041.0	1037.5
40°	912.1	926.2	961.3	985.4	986.5
42.5°	854.7	868.2	896.9	931.5	931.5
45°	793.8	807.3	833.6	871.7	876.4
47.5°	734.0	748.1	773.9	812.0	819.6
50°	675.5	688.3	714.1	751.0	762.7
52.5°	614.5	628.6	653.8	687.8	704.7
55°	555.9	565.3	592.9	625.7	643.8
57.5°	495.0	503.8	534.9	563.0	581.7
60°	436.4	447.6	471.6	500.3	522.0
62.5°	380.2	391.9	412.4	437.6	462.2
65°	325.7	334.5	354.4	379.6	401.3
67.5°	273.0	280.6	300.5	318.1	341.0
70°	219.7	229.6	244.3	261.3	275.9
72.5°	176.9	181.0	193.3	205.6	220.9
75°	130.6	137.7	147.6	154.7	163.4
77.5°	93.7	97.8	103.7	109.5	117.8
80°	62.7	64.4	69.7	70.9	77.3
82.5°	38.1	39.3	40.4	41.0	43.4
85°	20.5	20.5	20.5	19.3	19.3
87.5°	11.7	11.7	10.0	8.2	5.9
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)