

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: P556228

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-81-86-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: P556228
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-35-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

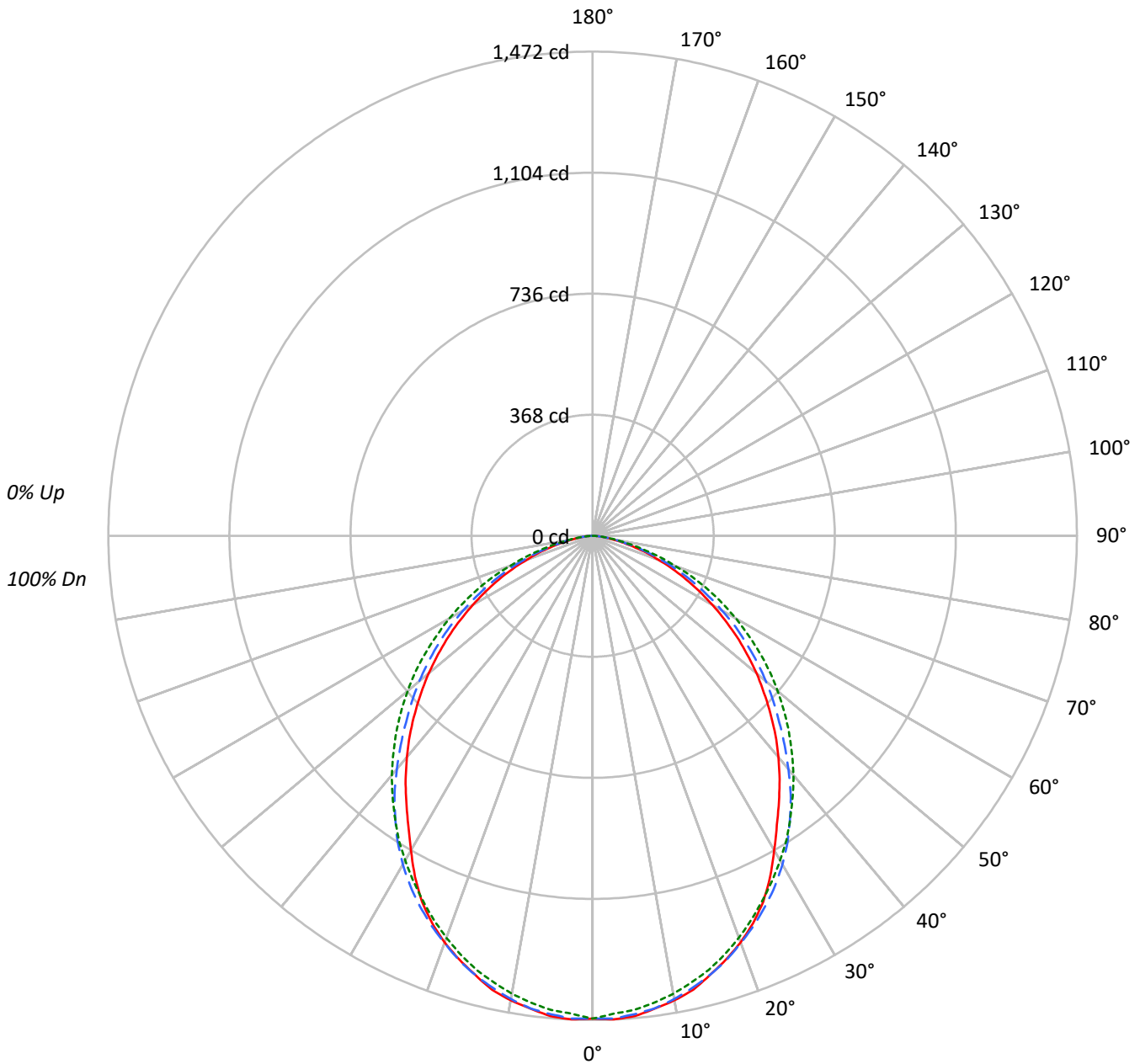
Lumens per Lamp: N/A
Luminaire Lumens: 3394.0 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3950	3950	3950
5°	3960	3944	3910
10°	3918	3907	3863
15°	3849	3849	3805
20°	3767	3772	3724
25°	3643	3689	3630
30°	3431	3585	3541
35°	3242	3436	3442
40°	3084	3251	3336
45°	2908	3054	3210
50°	2722	2878	3074
55°	2510	2677	2907
60°	2261	2443	2704
65°	1996	2173	2460
70°	1664	1850	2090
75°	1307	1477	1635
80°	934	1040	1153
85°	608	608	574



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.2	4.1
10°-20°	388.2	11.4
20°-30°	567.3	16.7
30°-40°	644.0	19.0
40°-50°	621.7	18.3
50°-60°	512.8	15.1
60°-70°	341.5	10.1
70°-80°	152.8	4.5
80°-90°	27.3	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°	1093.8	32.2
0°-40°	1737.8	51.2
0°-60°	2872.3	84.6
0°-90°	3394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3394.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1468	1468	1468	1468	1468	
5°	1466	1466	1460	1452	1448	139
15°	1382	1385	1382	1375	1366	389
25°	1227	1237	1242	1233	1222	562
35°	987	1000	1046	1052	1048	618
45°	764	777	802	839	844	590
55°	535	544	571	602	620	478
65°	314	322	341	365	386	311
75°	126	132	142	149	157	137
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1467.8	1467.8	1467.8	1467.8	1467.8
2.5°	1471.8	1472.3	1468.9	1459.9	1454.3
5°	1466.1	1465.6	1459.9	1452.0	1447.5
7.5°	1449.8	1450.9	1449.2	1437.9	1431.7
10°	1434.0	1434.5	1430.0	1421.0	1413.7
12.5°	1413.7	1413.1	1406.9	1402.4	1390.6
15°	1381.5	1384.9	1381.5	1375.3	1365.8
17.5°	1350.5	1350.5	1352.8	1342.1	1334.7
20°	1315.6	1317.3	1317.3	1308.8	1300.3
22.5°	1275.0	1280.0	1281.7	1272.7	1262.6
25°	1227.0	1236.6	1242.3	1233.2	1222.5
27.5°	1169.0	1183.6	1200.5	1193.8	1181.9
30°	1104.1	1125.5	1153.7	1148.1	1139.6
32.5°	1042.6	1064.1	1103.0	1100.7	1096.2
35°	986.8	1000.3	1046.0	1051.7	1047.7
37.5°	933.8	946.2	989.1	1002.0	998.7
40°	878.0	891.5	925.4	948.5	949.6
42.5°	822.7	835.7	863.3	896.6	896.6
45°	764.1	777.0	802.4	839.1	843.6
47.5°	706.6	720.1	744.9	781.6	788.9
50°	650.2	662.6	687.4	722.9	734.2
52.5°	591.5	605.1	629.3	662.0	678.4
55°	535.1	544.2	570.7	602.2	619.7
57.5°	476.5	484.9	514.8	541.9	559.9
60°	420.1	430.8	453.9	481.6	502.4
62.5°	366.0	377.2	397.0	421.2	444.9
65°	313.5	322.0	341.2	365.4	386.3
67.5°	262.8	270.1	289.3	306.2	328.2
70°	211.5	221.0	235.1	251.5	265.6
72.5°	170.3	174.2	186.1	197.9	212.6
75°	125.7	132.5	142.1	148.9	157.3
77.5°	90.2	94.2	99.8	105.4	113.3
80°	60.3	62.0	67.1	68.2	74.4
82.5°	36.7	37.8	38.9	39.5	41.7
85°	19.7	19.7	19.7	18.6	18.6
87.5°	11.3	11.3	9.6	7.9	5.6
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)