

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: P556186

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-82-94-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: P556186
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-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

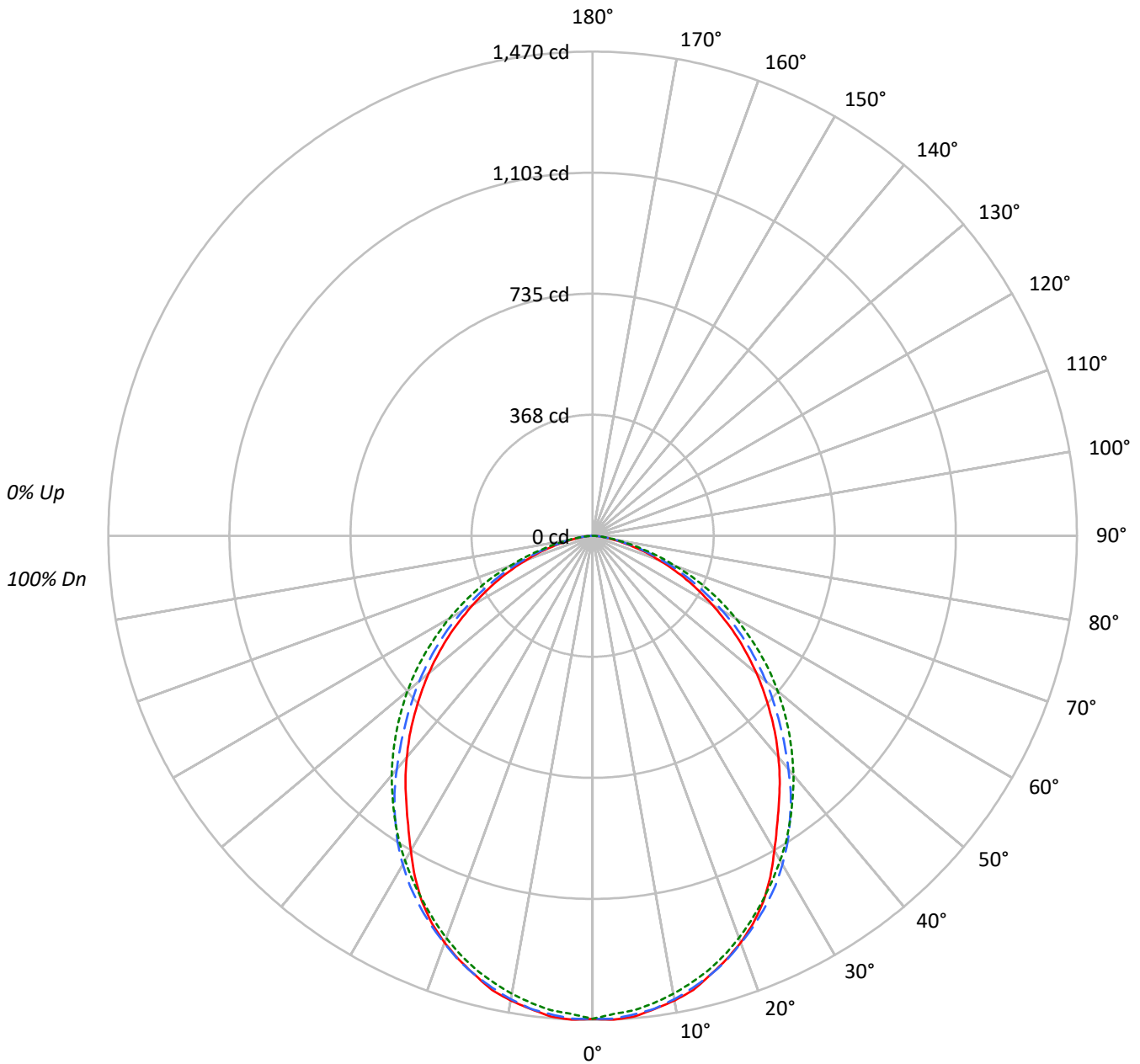
Lumens per Lamp: N/A
Luminaire Lumens: 3391.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3946	3946	3946
5°	3957	3940	3907
10°	3915	3904	3859
15°	3845	3845	3801
20°	3764	3769	3720
25°	3640	3685	3627
30°	3428	3582	3538
35°	3239	3433	3439
40°	3081	3248	3333
45°	2905	3051	3207
50°	2719	2875	3071
55°	2509	2675	2905
60°	2259	2441	2702
65°	1994	2171	2457
70°	1662	1848	2088
75°	1306	1476	1634
80°	934	1038	1153
85°	608	608	574



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	4.1
10°-20°	387.9	11.4
20°-30°	566.8	16.7
30°-40°	643.4	19.0
40°-50°	621.1	18.3
50°-60°	512.4	15.1
60°-70°	341.2	10.1
70°-80°	152.7	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°	1092.8	32.2
0°-40°	1736.2	51.2
0°-60°	2869.8	84.6
0°-90°	3391.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1466	1466	1466	1466	1466	
5°	1465	1464	1459	1451	1446	139
15°	1380	1384	1380	1374	1364	389
25°	1226	1236	1241	1232	1221	561
35°	986	1000	1045	1051	1047	618
45°	763	776	802	838	843	589
55°	535	544	570	602	619	477
65°	313	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°	1466.5	1466.5	1466.5	1466.5	1466.5
2.5°	1470.5	1471.0	1467.6	1458.6	1453.0
5°	1464.8	1464.3	1458.6	1450.7	1446.2
7.5°	1448.5	1449.6	1447.9	1436.7	1430.5
10°	1432.7	1433.3	1428.8	1419.8	1412.4
12.5°	1412.4	1411.9	1405.7	1401.2	1389.3
15°	1380.3	1383.7	1380.3	1374.1	1364.5
17.5°	1349.3	1349.3	1351.6	1340.9	1333.6
20°	1314.4	1316.1	1316.1	1307.6	1299.2
22.5°	1273.8	1278.9	1280.6	1271.6	1261.4
25°	1225.9	1235.5	1241.2	1232.1	1221.4
27.5°	1167.9	1182.6	1199.5	1192.7	1180.9
30°	1103.1	1124.5	1152.7	1147.1	1138.6
32.5°	1041.7	1063.1	1102.0	1099.7	1095.2
35°	985.9	999.5	1045.1	1050.7	1046.8
37.5°	933.0	945.4	988.2	1001.2	997.8
40°	877.2	890.7	924.5	947.6	948.8
42.5°	822.0	835.0	862.6	895.8	895.8
45°	763.4	776.4	801.7	838.3	842.8
47.5°	705.9	719.5	744.2	780.9	788.2
50°	649.6	662.0	686.8	722.3	733.5
52.5°	591.0	604.5	628.7	661.4	677.8
55°	534.7	543.7	570.2	601.7	619.2
57.5°	476.1	484.5	514.4	541.4	559.5
60°	419.7	430.4	453.5	481.1	502.0
62.5°	365.6	376.9	396.6	420.9	444.5
65°	313.2	321.7	340.9	365.1	385.9
67.5°	262.5	269.9	289.0	305.9	327.9
70°	211.3	220.9	234.9	251.3	265.4
72.5°	170.1	174.1	185.9	197.8	212.4
75°	125.6	132.4	142.0	148.7	157.2
77.5°	90.1	94.1	99.7	105.4	113.2
80°	60.3	62.0	67.0	68.2	74.4
82.5°	36.6	37.7	38.9	39.4	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)