

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: P556308

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-82-86-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: P556308
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-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC 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

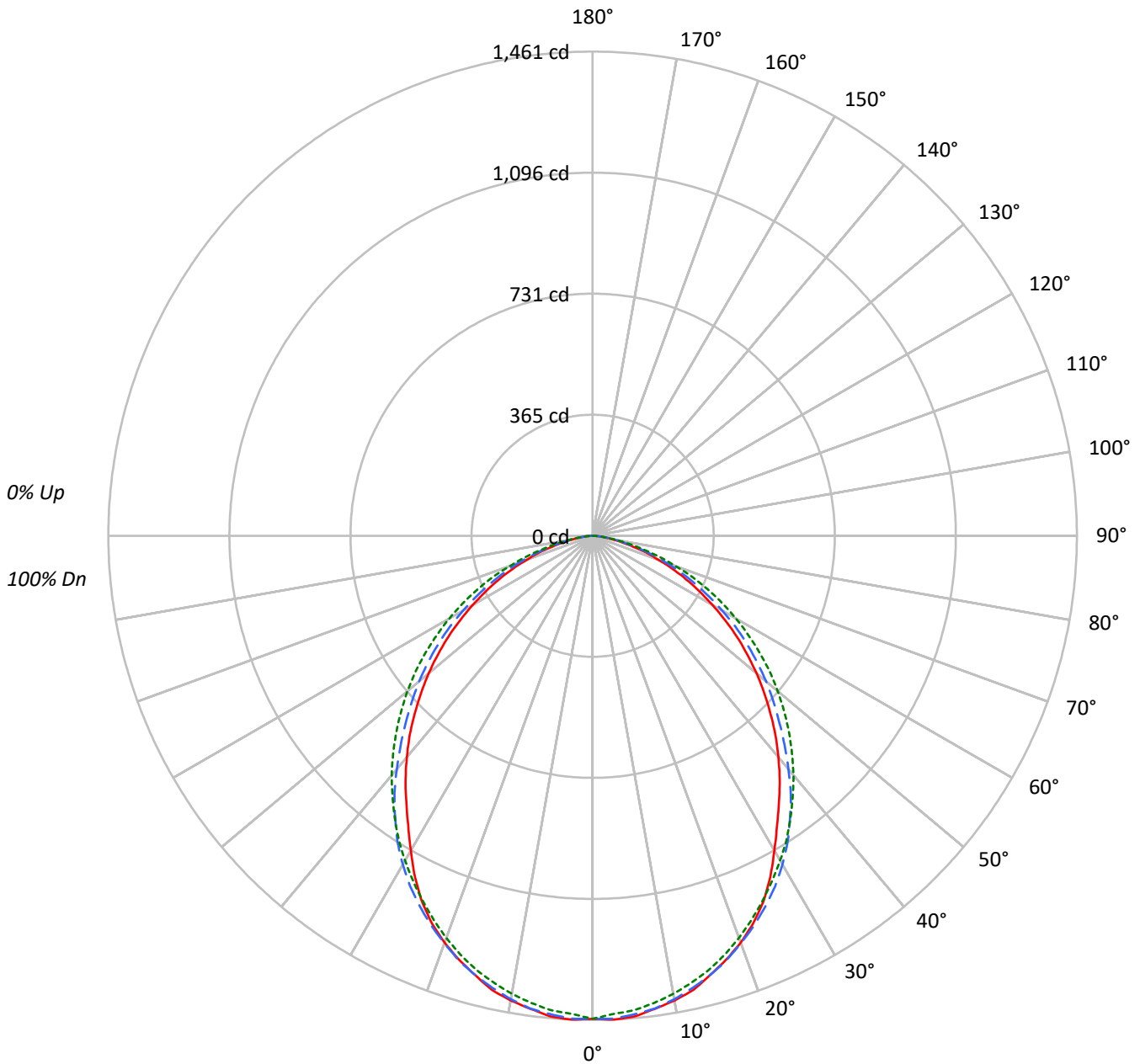
Lumens per Lamp: N/A
Luminaire Lumens: 3370.0 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3922	3922	3922
5°	3932	3916	3883
10°	3891	3880	3836
15°	3822	3822	3778
20°	3741	3745	3697
25°	3618	3662	3604
30°	3407	3560	3516
35°	3219	3412	3417
40°	3062	3228	3312
45°	2887	3032	3188
50°	2703	2857	3052
55°	2493	2658	2887
60°	2245	2426	2685
65°	1982	2157	2442
70°	1652	1837	2075
75°	1299	1467	1624
80°	928	1032	1145
85°	605	605	571



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.2	4.1
10°-20°	385.5	11.4
20°-30°	563.3	16.7
30°-40°	639.4	19.0
40°-50°	617.3	18.3
50°-60°	509.2	15.1
60°-70°	339.1	10.1
70°-80°	151.7	4.5
80°-90°	27.1	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°	1086.1	32.2
0°-40°	1725.5	51.2
0°-60°	2852.0	84.6
0°-90°	3370.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3370.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1457	1457	1457	1457	1457	
5°	1456	1455	1450	1442	1437	138
15°	1372	1375	1372	1366	1356	387
25°	1218	1228	1234	1224	1214	558
35°	980	993	1039	1044	1040	614
45°	759	772	797	833	838	585
55°	531	540	567	598	615	474
65°	311	320	339	363	384	309
75°	125	132	141	148	156	137
85°	20	20	20	18	18	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1457.4	1457.4	1457.4	1457.4	1457.4
2.5°	1461.4	1461.9	1458.6	1449.6	1444.0
5°	1455.8	1455.2	1449.6	1441.8	1437.3
7.5°	1439.5	1440.6	1439.0	1427.8	1421.6
10°	1423.8	1424.4	1419.9	1411.0	1403.7
12.5°	1403.7	1403.1	1397.0	1392.5	1380.7
15°	1371.8	1375.1	1371.8	1365.6	1356.1
17.5°	1341.0	1341.0	1343.2	1332.6	1325.3
20°	1306.3	1307.9	1307.9	1299.5	1291.1
22.5°	1265.9	1271.0	1272.7	1263.7	1253.6
25°	1218.4	1227.9	1233.5	1224.5	1213.9
27.5°	1160.7	1175.2	1192.0	1185.3	1173.6
30°	1096.3	1117.6	1145.6	1140.0	1131.6
32.5°	1035.3	1056.5	1095.2	1092.9	1088.5
35°	979.8	993.3	1038.6	1044.2	1040.3
37.5°	927.2	939.5	982.1	995.0	991.6
40°	871.8	885.2	918.8	941.8	942.9
42.5°	816.9	829.8	857.2	890.3	890.3
45°	758.7	771.6	796.7	833.1	837.6
47.5°	701.6	715.0	739.6	776.0	783.3
50°	645.6	657.9	682.5	717.8	729.0
52.5°	587.3	600.8	624.9	657.3	673.6
55°	531.4	540.3	566.6	598.0	615.3
57.5°	473.1	481.5	511.2	538.1	556.0
60°	417.1	427.8	450.7	478.2	498.9
62.5°	363.4	374.6	394.2	418.3	441.8
65°	311.3	319.7	338.7	362.8	383.5
67.5°	260.9	268.2	287.2	304.0	325.9
70°	210.0	219.5	233.5	249.7	263.7
72.5°	169.1	173.0	184.8	196.5	211.1
75°	124.9	131.6	141.1	147.8	156.2
77.5°	89.6	93.5	99.1	104.7	112.5
80°	59.9	61.6	66.6	67.7	73.9
82.5°	36.4	37.5	38.6	39.2	41.4
85°	19.6	19.6	19.6	18.5	18.5
87.5°	11.2	11.2	9.5	7.8	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)