

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: P484982

Luminaire Tested: **ORLG-12-4-INS-89BC-LD4-1HI-30-120-EDD-90**

Issue Date: 3/1/2021

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: P484982
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35357)
Test Lab: INNOVATION CENTER
Issue Date: 3/1/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-12-4-INS-89BC-LD4-1HI-30-120-EDD-90
Description: 1X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

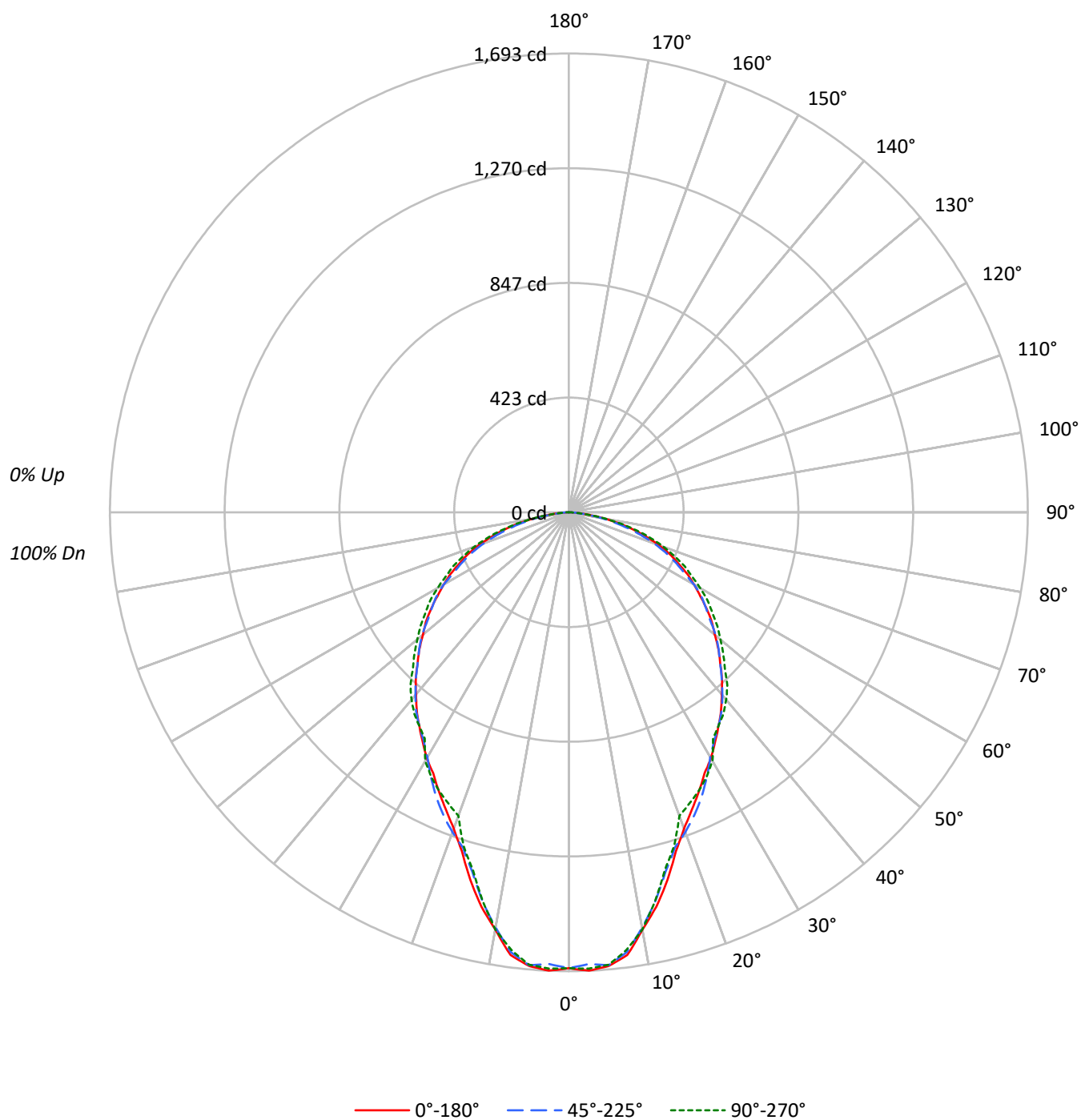
Lumens per Lamp: N/A
Luminaire Lumens: 3597.3 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		79
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		70
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		63
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		44
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4526	4526	4526
5°	4539	4532	4527
10°	4271	4252	4269
15°	3914	3828	3806
20°	3554	3594	3412
25°	3371	3439	3366
30°	3256	3242	3292
35°	3161	3161	3161
40°	3082	3094	3171
45°	3006	3003	3096
50°	2941	2962	3054
55°	2910	2897	3028
60°	2872	2867	3013
65°	2835	2746	2996
70°	2781	2622	2918
75°	2573	2328	2701
80°	2087	1898	2142
85°	1325	1189	1161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.2	4.3
10°-20°	390.6	10.9
20°-30°	527.5	14.7
30°-40°	604.0	16.8
40°-50°	618.7	17.2
50°-60°	561.4	15.6
60°-70°	438.2	12.2
70°-80°	248.5	6.9
80°-90°	52.2	1.5
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°	1074.3	29.9
0°-40°	1678.3	46.7
0°-60°	2858.4	79.5
0°-90°	3597.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3597.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1682	1682	1682	1682	1682	
5°	1680	1661	1678	1681	1676	157
15°	1405	1409	1374	1381	1366	393
25°	1135	1150	1158	1130	1134	524
35°	962	964	962	963	962	603
45°	790	796	789	821	814	611
55°	620	619	618	639	646	554
65°	445	436	431	451	471	441
75°	248	229	224	237	260	259
85°	43	38	38	36	38	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1682.1	1682.1	1682.1	1682.1	1682.1
2.5°	1692.6	1679.4	1668.1	1686.4	1684.7
5°	1680.3	1661.1	1677.7	1681.2	1675.9
7.5°	1648.0	1635.7	1636.6	1629.6	1628.7
10°	1563.1	1570.1	1556.1	1568.4	1562.2
12.5°	1490.5	1494.9	1470.4	1475.6	1468.6
15°	1404.8	1409.2	1374.2	1381.2	1366.3
17.5°	1311.2	1326.9	1298.1	1306.8	1291.1
20°	1241.2	1254.3	1255.2	1241.2	1191.4
22.5°	1186.1	1199.2	1209.7	1167.7	1162.5
25°	1135.4	1150.2	1158.1	1130.1	1133.6
27.5°	1084.6	1101.3	1101.3	1107.4	1099.5
30°	1047.9	1054.9	1043.5	1066.3	1059.3
32.5°	1004.2	1006.8	997.2	1013.8	989.3
35°	962.2	963.9	962.2	963.1	962.2
37.5°	921.9	917.6	925.4	920.2	936.8
40°	877.3	877.3	880.8	889.6	902.7
42.5°	836.2	839.7	835.3	859.8	865.1
45°	789.9	796.0	789.0	821.4	813.5
47.5°	747.9	750.5	748.8	770.6	772.4
50°	702.4	705.9	707.6	726.9	729.5
52.5°	664.8	663.9	657.8	685.8	690.1
55°	620.2	619.3	617.5	639.4	645.5
57.5°	574.7	575.6	579.9	592.2	607.0
60°	533.6	529.2	532.7	547.6	559.8
62.5°	491.6	483.7	475.8	500.3	511.7
65°	445.2	435.6	431.2	451.4	470.6
67.5°	402.4	386.6	384.0	398.0	420.7
70°	353.4	334.1	333.3	343.8	370.9
72.5°	299.2	282.5	278.2	292.2	316.6
75°	247.5	229.2	223.9	237.0	259.8
77.5°	191.6	176.7	173.2	180.2	198.6
80°	134.7	126.0	122.5	125.1	138.2
82.5°	84.8	78.7	77.0	76.1	83.1
85°	42.9	38.5	38.5	35.9	37.6
87.5°	13.1	12.2	11.4	8.7	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)