

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: P485664

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2HI-27-120-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: P485664
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-24-2-INS-89BC-LD4-2HI-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

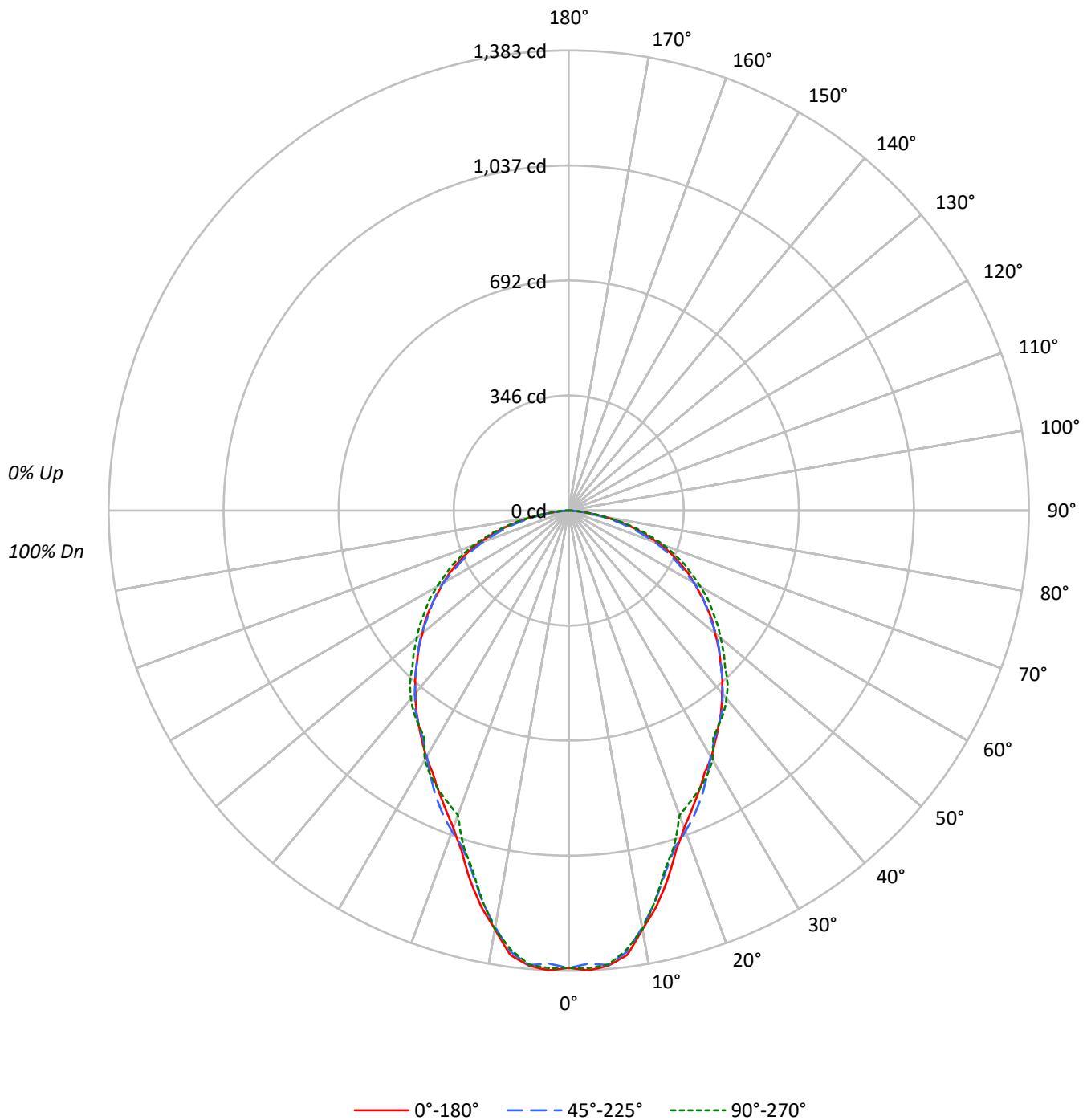
Lumens per Lamp: N/A
Luminaire Lumens: 2939.5 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3699	3699	3699
5°	3709	3703	3699
10°	3490	3475	3488
15°	3198	3128	3110
20°	2904	2937	2788
25°	2755	2810	2750
30°	2661	2650	2690
35°	2583	2583	2583
40°	2518	2529	2591
45°	2456	2453	2530
50°	2403	2421	2496
55°	2378	2367	2475
60°	2347	2343	2462
65°	2316	2244	2448
70°	2272	2142	2385
75°	2103	1903	2207
80°	1706	1551	1750
85°	1081	969	948



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.7	4.3
10°-20°	319.2	10.9
20°-30°	431.0	14.7
30°-40°	493.6	16.8
40°-50°	505.6	17.2
50°-60°	458.7	15.6
60°-70°	358.0	12.2
70°-80°	203.1	6.9
80°-90°	42.6	1.4
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°	877.8	29.9
0°-40°	1371.4	46.7
0°-60°	2335.8	79.5
0°-90°	2939.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2939.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1374	1374	1374	1374	1374	
5°	1373	1357	1371	1374	1370	128
15°	1148	1152	1123	1129	1116	321
25°	928	940	946	924	926	428
35°	786	788	786	787	786	493
45°	645	650	645	671	665	499
55°	507	506	505	522	528	453
65°	364	356	352	369	384	361
75°	202	187	183	194	212	212
85°	35	31	31	29	31	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1374.5	1374.5	1374.5	1374.5	1374.5
2.5°	1383.1	1372.3	1363.0	1378.1	1376.6
5°	1373.1	1357.3	1370.9	1373.8	1369.5
7.5°	1346.6	1336.6	1337.3	1331.6	1330.9
10°	1277.3	1283.0	1271.6	1281.6	1276.6
12.5°	1218.0	1221.5	1201.5	1205.8	1200.1
15°	1147.9	1151.5	1122.9	1128.6	1116.5
17.5°	1071.4	1084.3	1060.7	1067.9	1055.0
20°	1014.2	1025.0	1025.7	1014.2	973.5
22.5°	969.2	979.9	988.5	954.2	949.9
25°	927.8	939.9	946.3	923.5	926.3
27.5°	886.3	899.9	899.9	904.9	898.5
30°	856.3	862.0	852.7	871.3	865.6
32.5°	820.5	822.7	814.8	828.4	808.4
35°	786.2	787.7	786.2	787.0	786.2
37.5°	753.4	749.8	756.2	751.9	765.5
40°	716.9	716.9	719.8	726.9	737.6
42.5°	683.3	686.2	682.6	702.6	706.9
45°	645.4	650.4	644.7	671.2	664.7
47.5°	611.1	613.3	611.8	629.7	631.1
50°	574.0	576.8	578.2	594.0	596.1
52.5°	543.2	542.5	537.5	560.4	563.9
55°	506.8	506.1	504.6	522.5	527.5
57.5°	469.6	470.3	473.9	483.9	496.0
60°	436.0	432.4	435.3	447.4	457.4
62.5°	401.7	395.3	388.8	408.8	418.1
65°	363.8	356.0	352.4	368.8	384.5
67.5°	328.8	315.9	313.8	325.2	343.8
70°	288.8	273.0	272.3	280.9	303.1
72.5°	244.4	230.9	227.3	238.7	258.7
75°	202.3	187.3	183.0	193.7	212.3
77.5°	156.5	144.4	141.5	147.2	162.3
80°	110.1	102.9	100.1	102.2	112.9
82.5°	69.3	64.3	62.9	62.2	67.9
85°	35.0	31.4	31.4	29.3	30.7
87.5°	10.7	10.0	9.3	7.1	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)