

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: P485672

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2HI-50-120-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: P485672
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-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

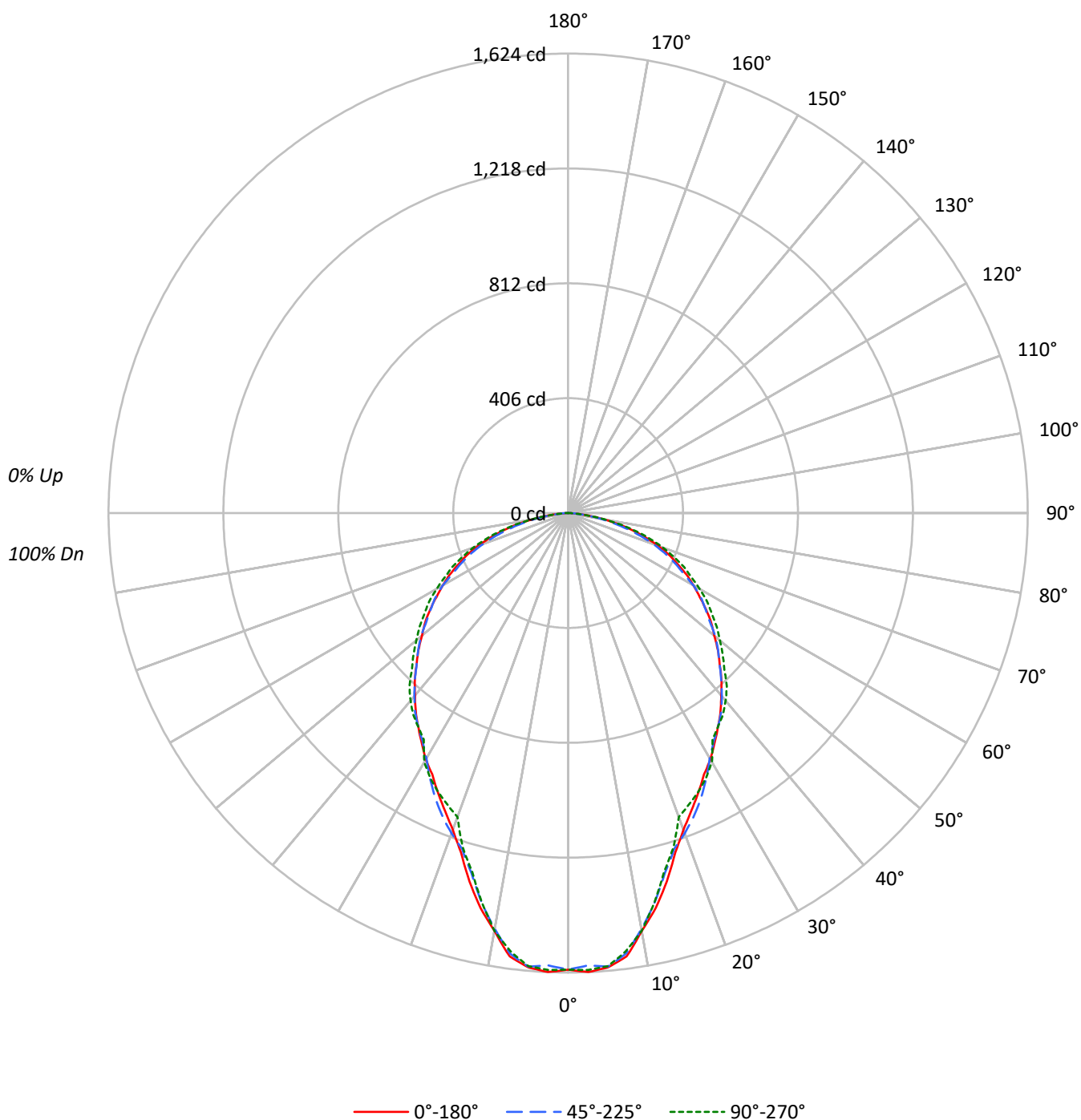
Lumens per Lamp: N/A
Luminaire Lumens: 3450.8 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4342	4342	4342
5°	4354	4347	4343
10°	4097	4079	4095
15°	3754	3672	3651
20°	3410	3448	3273
25°	3234	3299	3229
30°	3123	3110	3157
35°	3032	3032	3032
40°	2956	2968	3042
45°	2884	2880	2970
50°	2821	2842	2930
55°	2791	2779	2905
60°	2754	2750	2890
65°	2720	2634	2874
70°	2667	2515	2799
75°	2469	2233	2591
80°	2002	1821	2055
85°	1269	1139	1115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	4.3
10°-20°	374.7	10.9
20°-30°	506.0	14.7
30°-40°	579.4	16.8
40°-50°	593.5	17.2
50°-60°	538.5	15.6
60°-70°	420.3	12.2
70°-80°	238.4	6.9
80°-90°	50.0	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°	1030.5	29.9
0°-40°	1610.0	46.7
0°-60°	2742.0	79.5
0°-90°	3450.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3450.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1614	1614	1614	1614	1614	
5°	1612	1593	1609	1613	1608	151
15°	1348	1352	1318	1325	1311	377
25°	1089	1103	1111	1084	1088	503
35°	923	925	923	924	923	578
45°	758	764	757	788	780	586
55°	595	594	592	613	619	532
65°	427	418	414	433	451	423
75°	238	220	215	227	249	248
85°	41	37	37	34	36	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1613.6	1613.6	1613.6	1613.6	1613.6
2.5°	1623.6	1611.0	1600.1	1617.8	1616.1
5°	1611.9	1593.4	1609.4	1612.7	1607.7
7.5°	1580.8	1569.1	1569.9	1563.2	1562.4
10°	1499.4	1506.2	1492.7	1504.5	1498.6
12.5°	1429.8	1434.0	1410.5	1415.5	1408.8
15°	1347.6	1351.8	1318.2	1324.9	1310.7
17.5°	1257.8	1272.9	1245.2	1253.6	1238.5
20°	1190.7	1203.3	1204.1	1190.7	1142.8
22.5°	1137.8	1150.4	1160.5	1120.2	1115.1
25°	1089.1	1103.4	1111.0	1084.1	1087.5
27.5°	1040.5	1056.4	1056.4	1062.3	1054.7
30°	1005.2	1011.9	1001.0	1022.8	1016.1
32.5°	963.3	965.8	956.6	972.5	949.0
35°	923.0	924.7	923.0	923.8	923.0
37.5°	884.4	880.2	887.8	882.7	898.7
40°	841.6	841.6	845.0	853.4	865.9
42.5°	802.2	805.5	801.3	824.8	829.9
45°	757.7	763.6	756.9	787.9	780.4
47.5°	717.4	719.9	718.3	739.2	740.9
50°	673.8	677.1	678.8	697.3	699.8
52.5°	637.7	636.9	631.0	657.8	662.0
55°	594.9	594.1	592.4	613.4	619.2
57.5°	551.3	552.1	556.3	568.1	582.3
60°	511.8	507.6	511.0	525.3	537.0
62.5°	471.6	464.0	456.5	480.0	490.9
65°	427.1	417.9	413.7	433.0	451.4
67.5°	386.0	370.9	368.4	381.8	403.6
70°	339.0	320.5	319.7	329.8	355.8
72.5°	287.0	271.0	266.8	280.3	303.7
75°	237.5	219.8	214.8	227.4	249.2
77.5°	183.8	169.5	166.1	172.9	190.5
80°	129.2	120.8	117.5	120.0	132.6
82.5°	81.4	75.5	73.8	73.0	79.7
85°	41.1	36.9	36.9	34.4	36.1
87.5°	12.6	11.7	10.9	8.4	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)