

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: P485666

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2HI-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: P485666
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-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

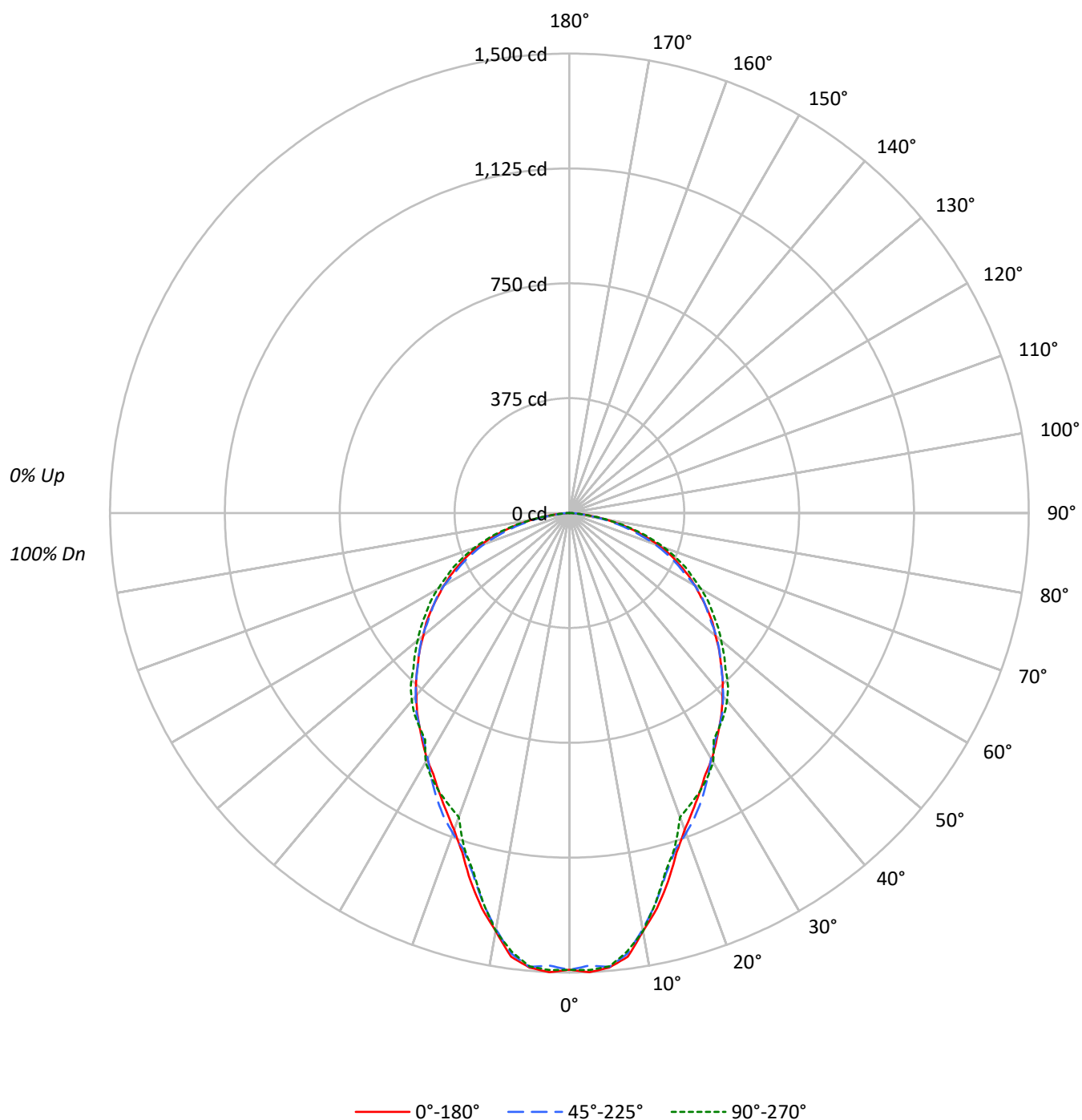
Lumens per Lamp: N/A
Luminaire Lumens: 3188.6 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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				0
RW	70	50	30	10	70	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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39			
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35			
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31			
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28			
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4012	4012	4012
5°	4023	4017	4013
10°	3786	3769	3784
15°	3469	3393	3374
20°	3151	3186	3024
25°	2988	3048	2983
30°	2886	2874	2917
35°	2802	2802	2802
40°	2732	2743	2811
45°	2664	2661	2744
50°	2606	2626	2707
55°	2579	2568	2685
60°	2546	2541	2671
65°	2513	2434	2656
70°	2464	2324	2586
75°	2281	2064	2394
80°	1850	1681	1898
85°	1173	1053	1028



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.5	4.3
10°-20°	346.2	10.9
20°-30°	467.5	14.7
30°-40°	535.4	16.8
40°-50°	548.4	17.2
50°-60°	497.6	15.6
60°-70°	388.4	12.2
70°-80°	220.3	6.9
80°-90°	46.2	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°	952.2	29.9
0°-40°	1487.6	46.7
0°-60°	2533.7	79.5
0°-90°	3188.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3188.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1491	1491	1491	1491	1491	
5°	1489	1472	1487	1490	1486	139
15°	1245	1249	1218	1224	1211	348
25°	1006	1020	1026	1002	1005	464
35°	853	854	853	854	853	534
45°	700	706	699	728	721	541
55°	550	549	547	567	572	491
65°	395	386	382	400	417	391
75°	219	203	198	210	230	230
85°	38	34	34	32	33	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1491.0	1491.0	1491.0	1491.0	1491.0
2.5°	1500.3	1488.6	1478.6	1494.8	1493.3
5°	1489.4	1472.4	1487.1	1490.2	1485.5
7.5°	1460.7	1449.9	1450.6	1444.4	1443.7
10°	1385.5	1391.7	1379.3	1390.2	1384.7
12.5°	1321.2	1325.0	1303.3	1308.0	1301.8
15°	1245.2	1249.1	1218.0	1224.2	1211.1
17.5°	1162.2	1176.2	1150.6	1158.3	1144.4
20°	1100.2	1111.8	1112.6	1100.2	1056.0
22.5°	1051.3	1063.0	1072.3	1035.1	1030.4
25°	1006.4	1019.6	1026.5	1001.7	1004.8
27.5°	961.4	976.1	976.1	981.6	974.6
30°	928.8	935.1	925.0	945.1	938.9
32.5°	890.1	892.4	883.9	898.6	876.9
35°	852.9	854.4	852.9	853.6	852.9
37.5°	817.2	813.3	820.3	815.6	830.4
40°	777.7	777.7	780.8	788.5	800.1
42.5°	741.2	744.3	740.4	762.2	766.8
45°	700.1	705.6	699.3	728.0	721.1
47.5°	662.9	665.2	663.7	683.1	684.6
50°	622.6	625.7	627.2	644.3	646.6
52.5°	589.3	588.5	583.0	607.9	611.7
55°	549.7	548.9	547.4	566.8	572.2
57.5°	509.4	510.2	514.0	524.9	538.1
60°	473.0	469.1	472.2	485.4	496.2
62.5°	435.7	428.8	421.8	443.5	453.6
65°	394.6	386.1	382.2	400.1	417.1
67.5°	356.7	342.7	340.4	352.8	372.9
70°	313.2	296.2	295.4	304.7	328.7
72.5°	265.2	250.4	246.6	259.0	280.7
75°	219.4	203.1	198.5	210.1	230.3
77.5°	169.8	156.6	153.5	159.7	176.0
80°	119.4	111.6	108.5	110.9	122.5
82.5°	75.2	69.8	68.2	67.5	73.7
85°	38.0	34.1	34.1	31.8	33.3
87.5°	11.6	10.9	10.1	7.8	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)