

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: P485682

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-2LO-40-120-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: P485682
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-LD4-2LO-40-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

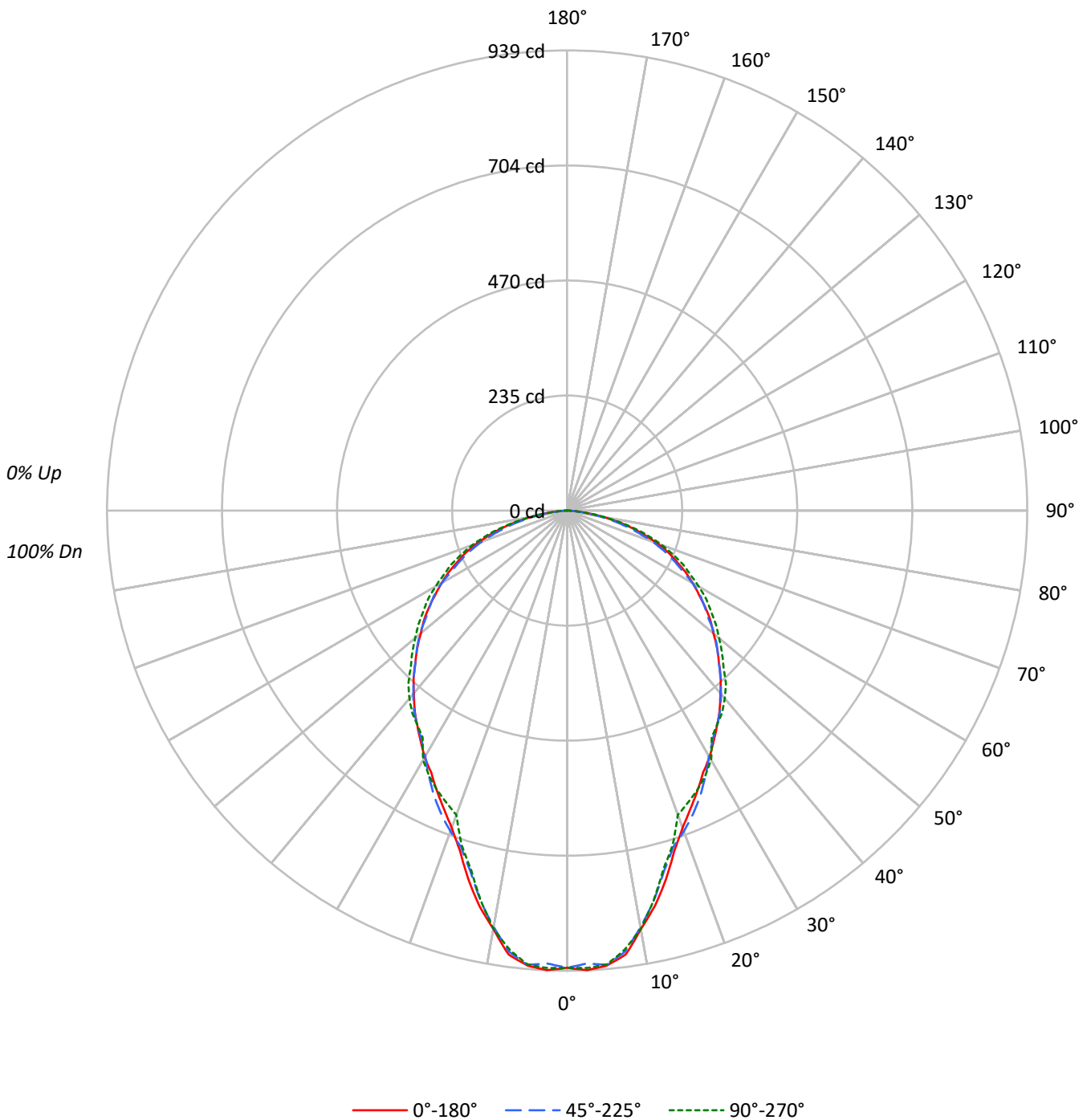
Lumens per Lamp: N/A
Luminaire Lumens: 1995.1 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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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CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-2LO-40-120-EDD-90

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°	2510	2510	2510
5°	2517	2514	2511
10°	2369	2358	2367
15°	2170	2123	2111
20°	1971	1994	1892
25°	1870	1907	1867
30°	1806	1798	1826
35°	1753	1753	1753
40°	1709	1716	1759
45°	1667	1665	1717
50°	1631	1643	1694
55°	1614	1607	1680
60°	1593	1590	1671
65°	1572	1523	1662
70°	1542	1454	1618
75°	1428	1291	1498
80°	1158	1052	1187
85°	735	658	645



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.6	4.3
10°-20°	216.6	10.9
20°-30°	292.5	14.7
30°-40°	335.0	16.8
40°-50°	343.2	17.2
50°-60°	311.4	15.6
60°-70°	243.0	12.2
70°-80°	137.8	6.9
80°-90°	28.9	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°	595.8	29.9
0°-40°	930.8	46.7
0°-60°	1585.3	79.5
0°-90°	1995.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1995.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	932	921	930	932	930	87
15°	779	782	762	766	758	218
25°	630	638	642	627	629	291
35°	534	535	534	534	534	334
45°	438	442	438	456	451	339
55°	344	344	342	355	358	307
65°	247	242	239	250	261	245
75°	137	127	124	132	144	144
85°	24	21	21	20	21	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	932.9	932.9	932.9	932.9	932.9
2.5°	938.7	931.4	925.1	935.3	934.3
5°	931.9	921.2	930.5	932.4	929.5
7.5°	914.0	907.2	907.7	903.8	903.3
10°	866.9	870.8	863.0	869.8	866.4
12.5°	826.7	829.1	815.5	818.4	814.5
15°	779.1	781.5	762.1	766.0	757.8
17.5°	727.2	735.9	719.9	724.8	716.0
20°	688.4	695.7	696.2	688.4	660.7
22.5°	657.8	665.1	670.9	647.6	644.7
25°	629.7	637.9	642.3	626.8	628.7
27.5°	601.6	610.8	610.8	614.2	609.8
30°	581.2	585.1	578.8	591.4	587.5
32.5°	556.9	558.4	553.0	562.3	548.7
35°	533.6	534.6	533.6	534.1	533.6
37.5°	511.3	508.9	513.3	510.3	519.6
40°	486.6	486.6	488.5	493.4	500.6
42.5°	463.8	465.7	463.3	476.9	479.8
45°	438.1	441.5	437.6	455.5	451.2
47.5°	414.8	416.2	415.3	427.4	428.4
50°	389.6	391.5	392.5	403.1	404.6
52.5°	368.7	368.2	364.8	380.3	382.8
55°	344.0	343.5	342.5	354.6	358.0
57.5°	318.7	319.2	321.6	328.4	336.7
60°	295.9	293.5	295.4	303.7	310.5
62.5°	272.6	268.3	263.9	277.5	283.8
65°	246.9	241.6	239.2	250.3	261.0
67.5°	223.2	214.4	213.0	220.7	233.3
70°	196.0	185.3	184.8	190.7	205.7
72.5°	165.9	156.7	154.3	162.0	175.6
75°	137.3	127.1	124.2	131.5	144.1
77.5°	106.2	98.0	96.1	99.9	110.1
80°	74.7	69.9	67.9	69.4	76.6
82.5°	47.1	43.7	42.7	42.2	46.1
85°	23.8	21.3	21.3	19.9	20.9
87.5°	7.3	6.8	6.3	4.9	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)