

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: P485751

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-4LO-30-120-EDD**

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: P485751
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-LD4-4LO-30-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

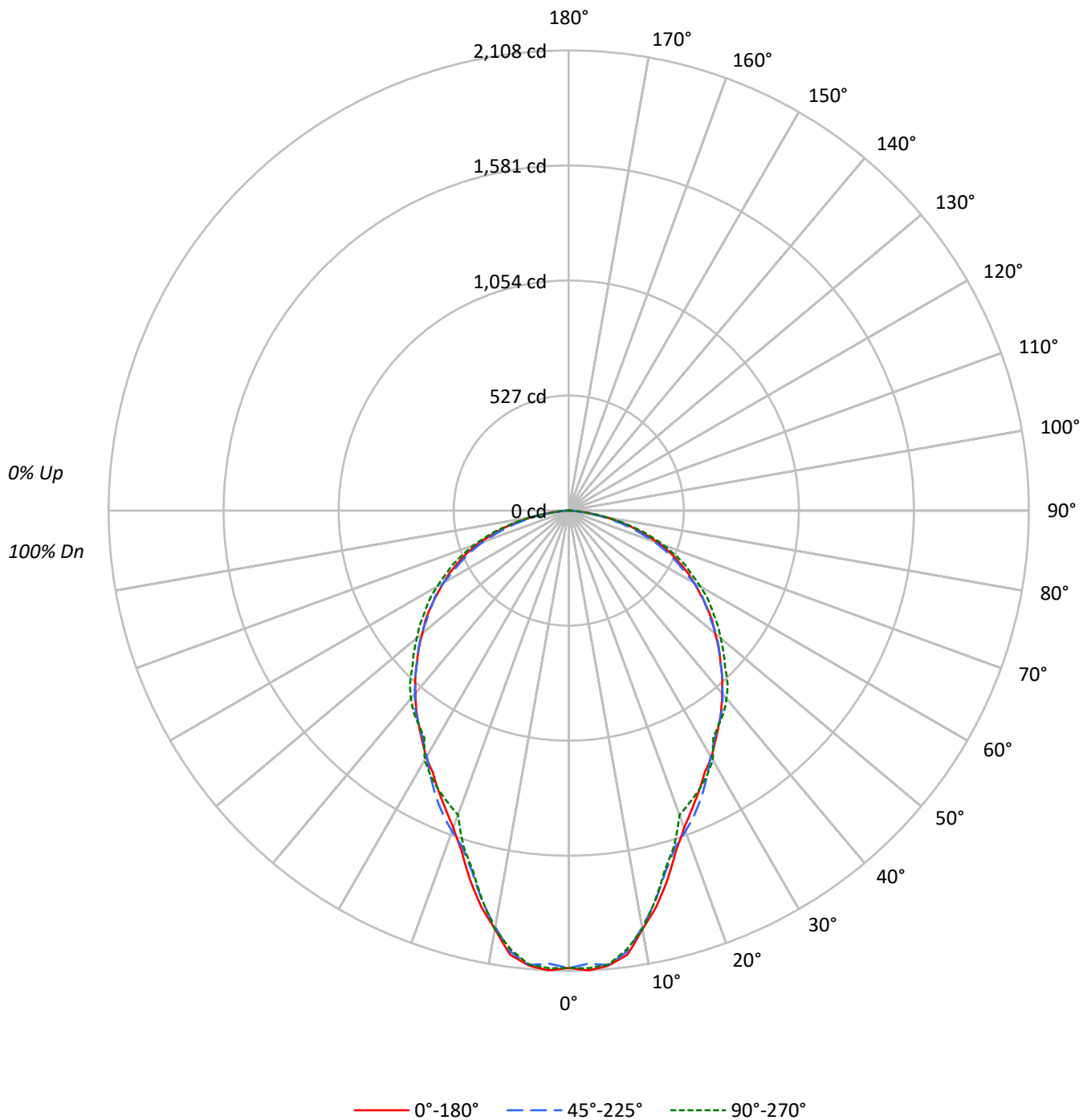
Lumens per Lamp: N/A
Luminaire Lumens: 4479.8 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	109	104	100	96	106	102	98	95		98	95	92		94	91	89		90	88	86
2	99	91	84	79	97	89	83	78		86	81	76		82	78	74		79	76	73
3	91	80	72	66	88	79	71	65		76	69	64		73	67	63		70	66	62
4	83	71	63	56	81	70	62	56		67	60	55		65	59	54		63	58	53
5	77	64	55	48	75	63	54	48		61	53	48		59	52	47		57	51	47
6	71	58	49	43	69	57	48	42		55	48	42		53	47	42		52	46	41
7	66	53	44	38	64	52	44	38		50	43	37		49	42	37		47	41	37
8	61	48	40	34	60	47	39	34		46	39	34		45	38	33		44	38	33
9	58	44	36	31	56	44	36	31		43	35	30		41	35	30		40	35	30
10	54	41	33	28	53	40	33	28		40	33	28		39	32	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5637	5637	5637
5°	5652	5644	5638
10°	5319	5295	5316
15°	4874	4768	4740
20°	4426	4476	4249
25°	4198	4282	4192
30°	4055	4038	4099
35°	3936	3936	3936
40°	3838	3853	3949
45°	3743	3739	3855
50°	3662	3689	3803
55°	3623	3608	3772
60°	3576	3570	3752
65°	3531	3419	3731
70°	3463	3265	3634
75°	3205	2900	3363
80°	2600	2363	2667
85°	1649	1479	1445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.6	4.3
10°-20°	486.4	10.9
20°-30°	656.9	14.7
30°-40°	752.2	16.8
40°-50°	770.5	17.2
50°-60°	699.1	15.6
60°-70°	545.7	12.2
70°-80°	309.5	6.9
80°-90°	65.0	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°	1337.8	29.9
0°-40°	2090.0	46.7
0°-60°	3559.7	79.5
0°-90°	4479.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4479.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2095	2095	2095	2095	2095	
5°	2092	2069	2089	2094	2087	195
15°	1749	1755	1711	1720	1702	489
25°	1414	1432	1442	1407	1412	652
35°	1198	1200	1198	1199	1198	751
45°	984	991	982	1023	1013	761
55°	772	771	769	796	804	690
65°	554	542	537	562	586	550
75°	308	285	279	295	324	323
85°	53	48	48	45	47	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2094.7	2094.7	2094.7	2094.7	2094.7
2.5°	2107.8	2091.4	2077.3	2100.2	2098.0
5°	2092.5	2068.6	2089.3	2093.6	2087.1
7.5°	2052.2	2037.0	2038.1	2029.4	2028.3
10°	1946.6	1955.3	1937.9	1953.1	1945.5
12.5°	1856.2	1861.6	1831.1	1837.6	1828.9
15°	1749.4	1754.9	1711.3	1720.0	1701.5
17.5°	1632.9	1652.5	1616.5	1627.4	1607.8
20°	1545.7	1562.1	1563.1	1545.7	1483.6
22.5°	1477.1	1493.4	1506.5	1454.2	1447.7
25°	1413.9	1432.4	1442.2	1407.4	1411.7
27.5°	1350.7	1371.4	1371.4	1379.0	1369.2
30°	1305.0	1313.7	1299.5	1327.9	1319.1
32.5°	1250.5	1253.8	1241.8	1262.5	1232.0
35°	1198.2	1200.4	1198.2	1199.3	1198.2
37.5°	1148.1	1142.7	1152.5	1145.9	1166.6
40°	1092.6	1092.6	1096.9	1107.8	1124.2
42.5°	1041.4	1045.7	1040.3	1070.8	1077.3
45°	983.6	991.3	982.5	1022.8	1013.0
47.5°	931.3	934.6	932.4	959.7	961.8
50°	874.7	879.1	881.2	905.2	908.5
52.5°	827.9	826.8	819.2	854.0	859.5
55°	772.3	771.2	769.0	796.3	803.9
57.5°	715.7	716.8	722.2	737.5	756.0
60°	664.5	659.0	663.4	681.9	697.1
62.5°	612.2	602.4	592.6	623.1	637.2
65°	554.5	542.5	537.0	562.1	586.0
67.5°	501.1	481.5	478.2	495.6	524.0
70°	440.1	416.1	415.0	428.1	461.9
72.5°	372.5	351.8	346.4	363.8	394.3
75°	308.3	285.4	278.9	295.2	323.5
77.5°	238.6	220.0	215.7	224.4	247.3
80°	167.8	156.9	152.5	155.8	172.1
82.5°	105.7	98.0	95.9	94.8	103.5
85°	53.4	47.9	47.9	44.7	46.8
87.5°	16.3	15.3	14.2	10.9	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)