

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: P485701

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3HI-27-120-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: P485701
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-LD4-3HI-27-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

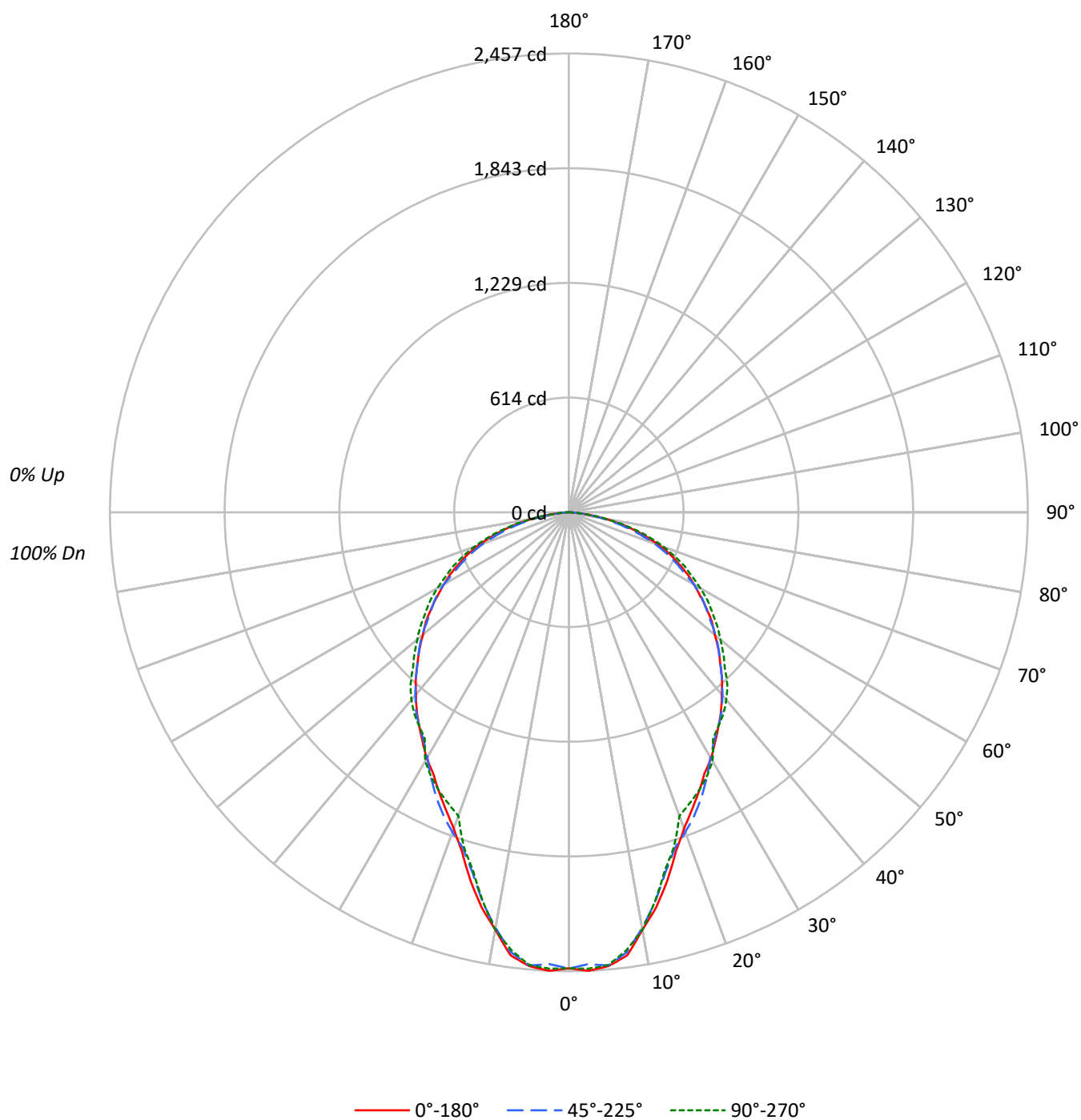
Lumens per Lamp: N/A
Luminaire Lumens: 5221.9 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66
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°	6571	6571	6571
5°	6589	6579	6572
10°	6200	6172	6197
15°	5681	5557	5525
20°	5160	5218	4952
25°	4893	4991	4886
30°	4727	4707	4778
35°	4588	4588	4588
40°	4474	4491	4603
45°	4364	4359	4494
50°	4268	4300	4433
55°	4223	4206	4396
60°	4168	4162	4373
65°	4115	3986	4350
70°	4036	3806	4236
75°	3736	3380	3921
80°	3030	2755	3109
85°	1920	1726	1686



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.8	4.3
10°-20°	567.0	10.9
20°-30°	765.7	14.7
30°-40°	876.8	16.8
40°-50°	898.2	17.2
50°-60°	814.9	15.6
60°-70°	636.0	12.2
70°-80°	360.8	6.9
80°-90°	75.7	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°	1559.4	29.9
0°-40°	2436.3	46.7
0°-60°	4149.4	79.5
0°-90°	5221.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5221.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2442	2442	2442	2442	2442	
5°	2439	2411	2435	2440	2433	228
15°	2039	2046	1995	2005	1983	570
25°	1648	1670	1681	1640	1646	761
35°	1397	1399	1397	1398	1397	875
45°	1147	1156	1145	1192	1181	887
55°	900	899	896	928	937	804
65°	646	632	626	655	683	641
75°	359	333	325	344	377	376
85°	62	56	56	52	55	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2441.7	2441.7	2441.7	2441.7	2441.7
2.5°	2457.0	2437.9	2421.4	2448.1	2445.5
5°	2439.2	2411.2	2435.4	2440.4	2432.8
7.5°	2392.2	2374.4	2375.7	2365.5	2364.3
10°	2269.0	2279.2	2258.9	2276.7	2267.8
12.5°	2163.6	2170.0	2134.4	2142.1	2131.9
15°	2039.2	2045.6	1994.8	2004.9	1983.3
17.5°	1903.3	1926.2	1884.3	1897.0	1874.1
20°	1801.8	1820.8	1822.1	1801.8	1729.4
22.5°	1721.8	1740.8	1756.1	1695.1	1687.5
25°	1648.1	1669.7	1681.1	1640.5	1645.6
27.5°	1574.5	1598.6	1598.6	1607.5	1596.1
30°	1521.2	1531.3	1514.8	1547.8	1537.7
32.5°	1457.7	1461.5	1447.5	1471.6	1436.1
35°	1396.7	1399.3	1396.7	1398.0	1396.7
37.5°	1338.3	1332.0	1343.4	1335.8	1359.9
40°	1273.6	1273.6	1278.6	1291.3	1310.4
42.5°	1213.9	1219.0	1212.6	1248.2	1255.8
45°	1146.6	1155.5	1145.3	1192.3	1180.9
47.5°	1085.6	1089.4	1086.9	1118.6	1121.2
50°	1019.6	1024.7	1027.2	1055.2	1059.0
52.5°	965.0	963.7	954.8	995.5	1001.8
55°	900.2	899.0	896.4	928.2	937.1
57.5°	834.2	835.5	841.8	859.6	881.2
60°	774.5	768.2	773.3	794.9	812.6
62.5°	713.6	702.2	690.7	726.3	742.8
65°	646.3	632.3	626.0	655.2	683.1
67.5°	584.1	561.2	557.4	577.7	610.7
70°	513.0	485.0	483.8	499.0	538.4
72.5°	434.3	410.1	403.8	424.1	459.6
75°	359.3	332.7	325.1	344.1	377.1
77.5°	278.1	256.5	251.4	261.6	288.2
80°	195.5	182.8	177.8	181.6	200.6
82.5°	123.2	114.3	111.7	110.5	120.6
85°	62.2	55.9	55.9	52.1	54.6
87.5°	19.0	17.8	16.5	12.7	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)