

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: P486986

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2STD-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: P486986
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-24-4-INS-89BC-LD4-2STD-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

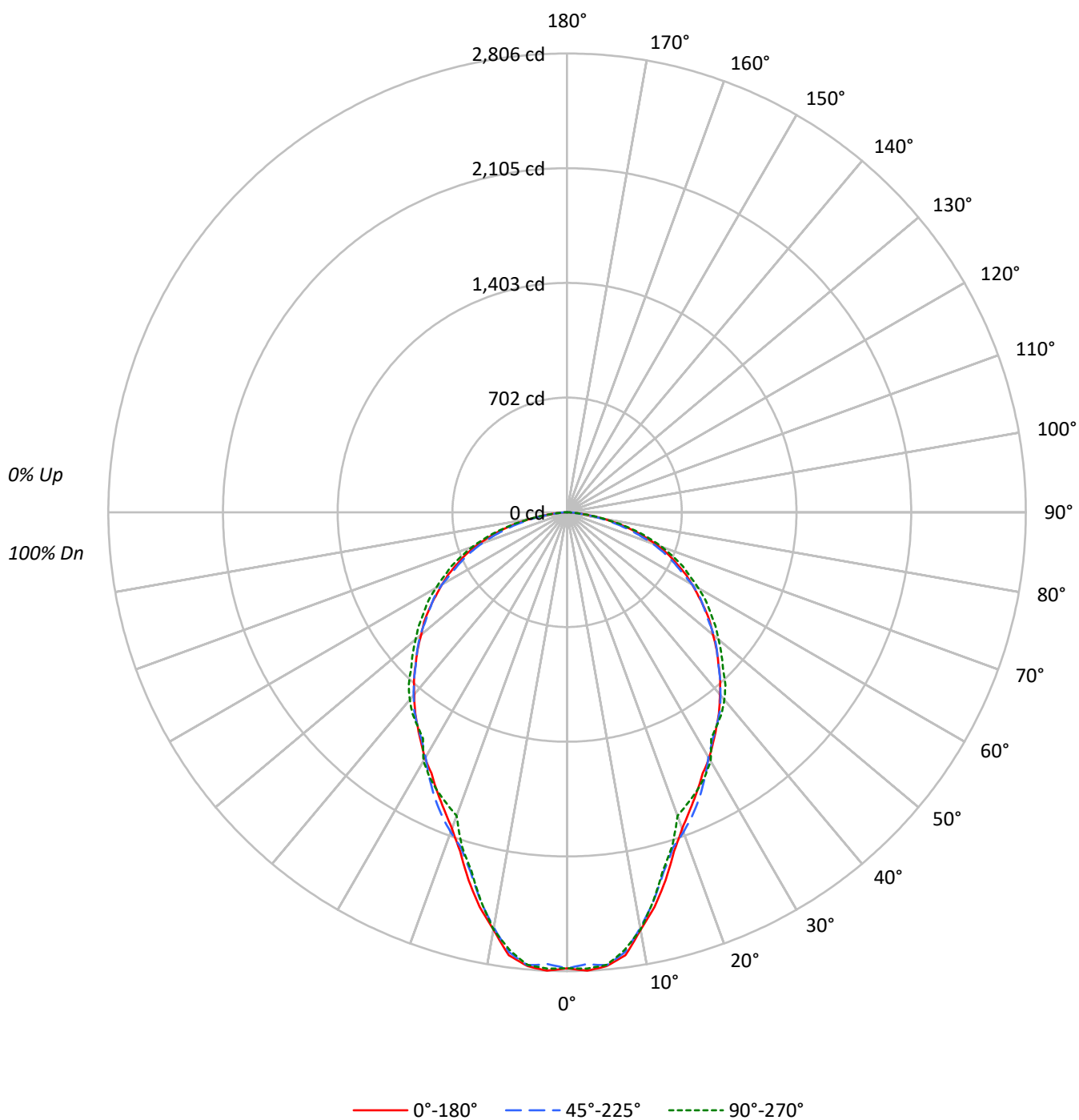
Lumens per Lamp: N/A
Luminaire Lumens: 5962.7 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	3751	3751	3751
5°	3762	3756	3752
10°	3540	3524	3538
15°	3243	3173	3155
20°	2946	2979	2827
25°	2794	2850	2790
30°	2699	2687	2728
35°	2620	2620	2620
40°	2554	2564	2628
45°	2491	2488	2566
50°	2437	2455	2531
55°	2411	2401	2510
60°	2380	2376	2497
65°	2350	2276	2483
70°	2304	2173	2418
75°	2133	1930	2239
80°	1730	1573	1775
85°	1096	985	962



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.0	4.3
10°-20°	647.4	10.9
20°-30°	874.3	14.7
30°-40°	1001.2	16.8
40°-50°	1025.6	17.2
50°-60°	930.6	15.6
60°-70°	726.3	12.2
70°-80°	411.9	6.9
80°-90°	86.4	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°	1780.7	29.9
0°-40°	2781.9	46.7
0°-60°	4738.0	79.5
0°-90°	5962.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5962.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2788	2788	2788	2788	2788	
5°	2785	2753	2781	2787	2778	260
15°	2328	2336	2278	2289	2265	651
25°	1882	1907	1920	1873	1879	868
35°	1595	1598	1595	1596	1595	999
45°	1309	1319	1308	1361	1348	1012
55°	1028	1026	1024	1060	1070	919
65°	738	722	715	748	780	731
75°	410	380	371	393	431	429
85°	71	64	64	59	62	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2788.1	2788.1	2788.1	2788.1	2788.1
2.5°	2805.5	2783.8	2764.9	2795.4	2792.5
5°	2785.2	2753.3	2780.9	2786.7	2778.0
7.5°	2731.6	2711.3	2712.7	2701.1	2699.7
10°	2590.9	2602.5	2579.3	2599.6	2589.5
12.5°	2470.6	2477.8	2437.2	2445.9	2434.3
15°	2328.5	2335.7	2277.8	2289.4	2264.7
17.5°	2173.4	2199.5	2151.6	2166.1	2140.0
20°	2057.4	2079.1	2080.6	2057.4	1974.7
22.5°	1966.0	1987.8	2005.2	1935.6	1926.9
25°	1881.9	1906.6	1919.6	1873.2	1879.0
27.5°	1797.8	1825.4	1825.4	1835.5	1822.5
30°	1737.0	1748.5	1729.7	1767.4	1755.8
32.5°	1664.5	1668.8	1652.9	1680.4	1639.8
35°	1594.9	1597.8	1594.9	1596.3	1594.9
37.5°	1528.2	1520.9	1534.0	1525.3	1552.8
40°	1454.2	1454.2	1460.0	1474.5	1496.3
42.5°	1386.1	1391.9	1384.6	1425.2	1433.9
45°	1309.2	1319.4	1307.8	1361.4	1348.4
47.5°	1239.6	1244.0	1241.1	1277.3	1280.2
50°	1164.2	1170.0	1172.9	1204.8	1209.2
52.5°	1101.9	1100.5	1090.3	1136.7	1144.0
55°	1028.0	1026.5	1023.6	1059.9	1070.0
57.5°	952.6	954.0	961.3	981.6	1006.2
60°	884.4	877.2	883.0	907.6	927.9
62.5°	814.8	801.8	788.7	829.3	848.2
65°	738.0	722.0	714.8	748.1	780.0
67.5°	666.9	640.8	636.5	659.7	697.4
70°	585.7	553.9	552.4	569.8	614.7
72.5°	495.9	468.3	461.1	484.3	524.9
75°	410.3	379.9	371.2	392.9	430.6
77.5°	317.5	292.9	287.1	298.7	329.1
80°	223.3	208.8	203.0	207.3	229.1
82.5°	140.6	130.5	127.6	126.1	137.7
85°	71.0	63.8	63.8	59.4	62.3
87.5°	21.7	20.3	18.8	14.5	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)