

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: P486995

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3HI-20-120-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: P486995
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-LD4-3HI-20-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

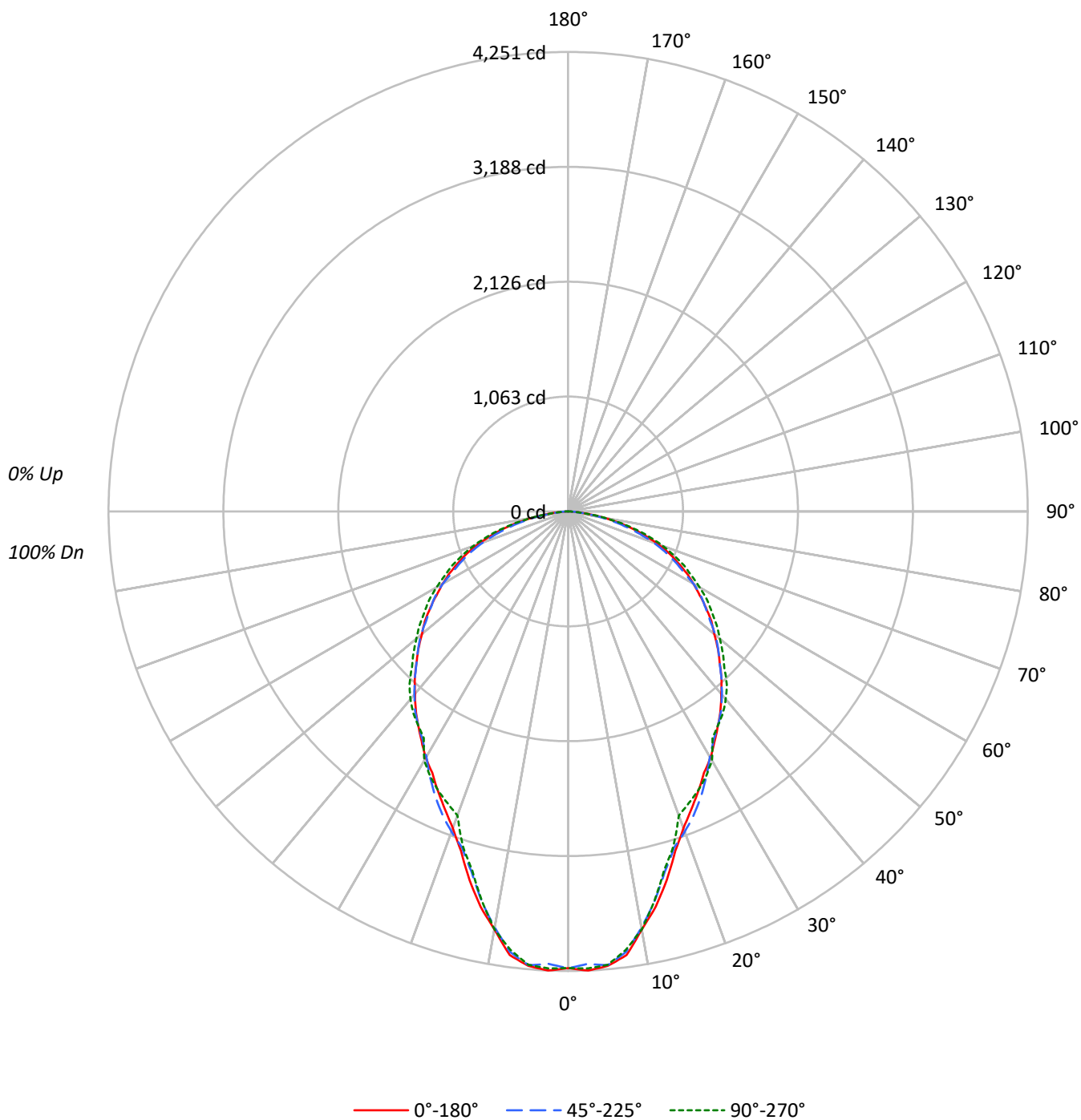
Lumens per Lamp: N/A
Luminaire Lumens: 9034.5 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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

TEST NUMBER: P486995

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-3HI-20-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P486995

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-3HI-20-120-EDD

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°	5684	5684	5684
5°	5700	5691	5685
10°	5363	5339	5360
15°	4914	4807	4780
20°	4463	4514	4284
25°	4233	4318	4227
30°	4089	4072	4133
35°	3969	3969	3969
40°	3870	3886	3982
45°	3775	3770	3887
50°	3692	3720	3835
55°	3654	3638	3803
60°	3606	3600	3784
65°	3560	3448	3763
70°	3491	3293	3664
75°	3232	2924	3392
80°	2621	2383	2689
85°	1661	1493	1459



TEST NUMBER: P486995

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-3HI-20-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.4	4.3
10°-20°	980.9	10.9
20°-30°	1324.7	14.7
30°-40°	1517.0	16.8
40°-50°	1553.9	17.2
50°-60°	1410.0	15.6
60°-70°	1100.4	12.2
70°-80°	624.2	6.9
80°-90°	131.0	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°	2698.0	29.9
0°-40°	4215.0	46.7
0°-60°	7178.9	79.5
0°-90°	9034.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9034.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4224	4224	4224	4224	4224	
5°	4220	4172	4214	4222	4209	394
15°	3528	3539	3451	3469	3431	986
25°	2852	2889	2909	2838	2847	1316
35°	2416	2421	2416	2419	2416	1514
45°	1984	1999	1982	2063	2043	1534
55°	1558	1555	1551	1606	1621	1392
65°	1118	1094	1083	1134	1182	1108
75°	622	576	562	595	652	650
85°	108	97	97	90	94	142
90°	0	0	0	0	0	



TEST NUMBER: P486995

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-3HI-20-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4224.5	4224.5	4224.5	4224.5	4224.5
2.5°	4250.8	4217.9	4189.3	4235.4	4231.0
5°	4220.1	4171.7	4213.5	4222.3	4209.1
7.5°	4138.8	4108.0	4110.2	4092.6	4090.5
10°	3925.7	3943.3	3908.1	3938.9	3923.5
12.5°	3743.4	3754.3	3692.8	3706.0	3688.4
15°	3528.1	3539.1	3451.2	3468.8	3431.4
17.5°	3293.0	3332.6	3260.1	3282.0	3242.5
20°	3117.3	3150.2	3152.4	3117.3	2992.0
22.5°	2978.9	3011.8	3038.2	2932.7	2919.6
25°	2851.5	2888.8	2908.6	2838.3	2847.1
27.5°	2724.0	2765.8	2765.8	2781.2	2761.4
30°	2631.8	2649.3	2620.8	2677.9	2660.3
32.5°	2521.9	2528.5	2504.4	2546.1	2484.6
35°	2416.5	2420.9	2416.5	2418.7	2416.5
37.5°	2315.4	2304.4	2324.2	2311.0	2352.8
40°	2203.4	2203.4	2212.2	2234.2	2267.1
42.5°	2100.1	2108.9	2097.9	2159.5	2172.6
45°	1983.7	1999.1	1981.5	2062.8	2043.0
47.5°	1878.3	1884.9	1880.5	1935.4	1939.8
50°	1764.0	1772.8	1777.2	1825.5	1832.1
52.5°	1669.6	1667.4	1652.0	1722.3	1733.3
55°	1557.5	1555.3	1550.9	1605.9	1621.2
57.5°	1443.3	1445.5	1456.5	1487.2	1524.6
60°	1340.1	1329.1	1337.9	1375.2	1406.0
62.5°	1234.6	1214.8	1195.1	1256.6	1285.1
65°	1118.2	1094.0	1083.0	1133.6	1181.9
67.5°	1010.5	971.0	964.4	999.5	1056.7
70°	887.5	839.2	837.0	863.3	931.4
72.5°	751.3	709.6	698.6	733.7	795.2
75°	621.7	575.6	562.4	595.3	652.5
77.5°	481.1	443.8	435.0	452.5	498.7
80°	338.3	316.3	307.6	314.1	347.1
82.5°	213.1	197.7	193.3	191.1	208.7
85°	107.6	96.7	96.7	90.1	94.5
87.5°	33.0	30.8	28.6	22.0	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)