

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: P485810

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6HI-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: P485810
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-LD4-6HI-30-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

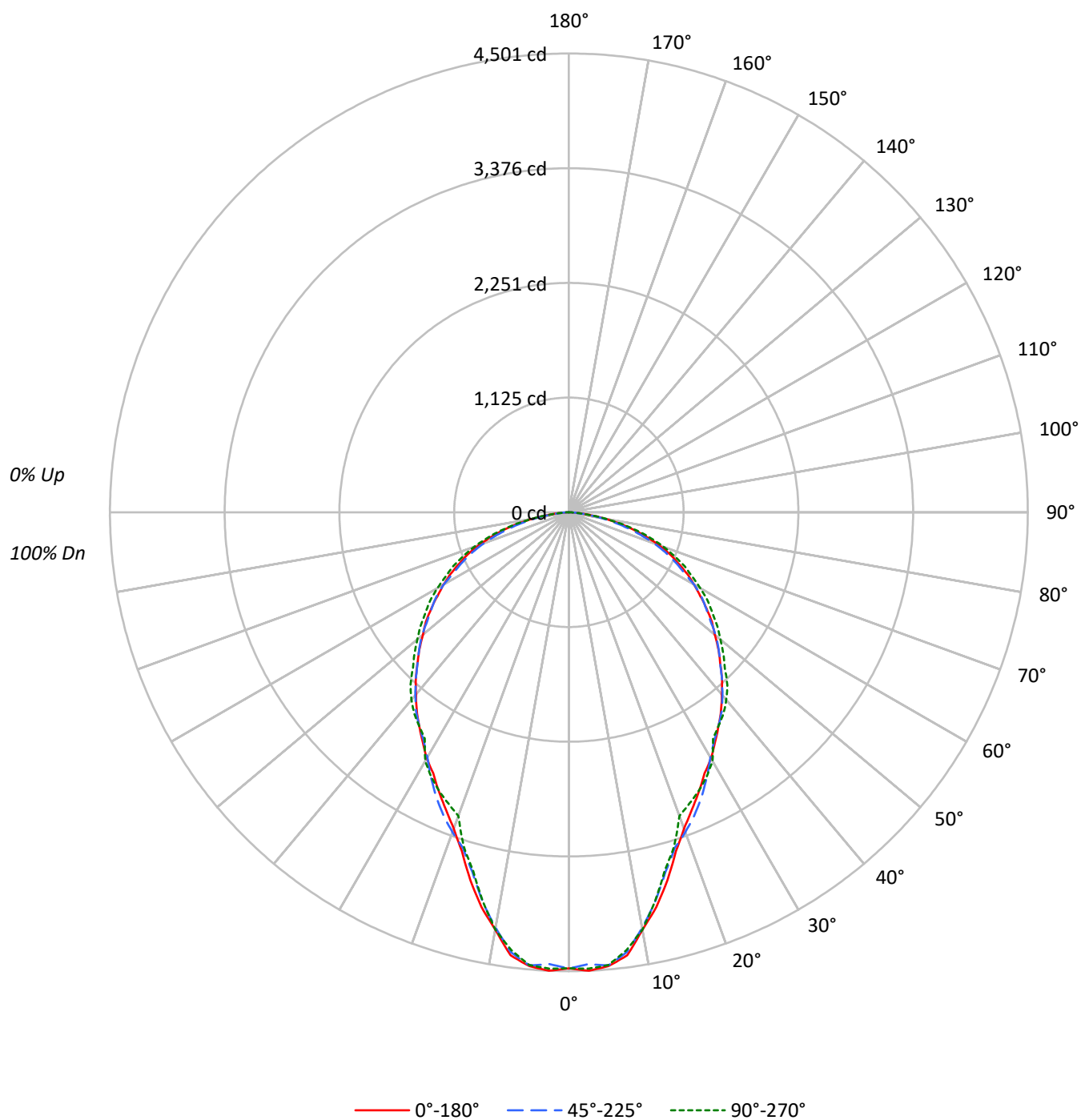
Lumens per Lamp: N/A
Luminaire Lumens: 9565.8 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P485810

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-6HI-30-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P485810

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-6HI-30-120-EDD-90

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°	12036	12036	12036
5°	12070	12051	12038
10°	11358	11307	11351
15°	10407	10180	10122
20°	9452	9558	9072
25°	8964	9144	8951
30°	8658	8622	8753
35°	8405	8405	8405
40°	8195	8228	8432
45°	7993	7984	8232
50°	7819	7878	8121
55°	7737	7705	8054
60°	7636	7624	8012
65°	7538	7301	7968
70°	7393	6973	7759
75°	6844	6191	7182
80°	5551	5046	5695
85°	3520	3159	3088



TEST NUMBER: P485810

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-6HI-30-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	415.4	4.3
10°-20°	1038.6	10.9
20°-30°	1402.6	14.7
30°-40°	1606.2	16.8
40°-50°	1645.3	17.2
50°-60°	1492.9	15.6
60°-70°	1165.1	12.2
70°-80°	660.9	6.9
80°-90°	138.7	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°	2856.7	29.9
0°-40°	4462.9	46.7
0°-60°	7601.1	79.5
0°-90°	9565.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9565.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4473	4473	4473	4473	4473	
5°	4468	4417	4461	4471	4457	417
15°	3736	3747	3654	3673	3633	1044
25°	3019	3059	3080	3005	3014	1393
35°	2559	2563	2559	2561	2559	1603
45°	2100	2117	2098	2184	2163	1624
55°	1649	1647	1642	1700	1717	1474
65°	1184	1158	1147	1200	1251	1173
75°	658	609	596	630	691	689
85°	114	102	102	95	100	151
90°	0	0	0	0	0	



TEST NUMBER: P485810

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-6HI-30-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4472.9	4472.9	4472.9	4472.9	4472.9
2.5°	4500.8	4465.9	4435.7	4484.5	4479.9
5°	4468.2	4417.1	4461.3	4470.6	4456.6
7.5°	4382.2	4349.6	4351.9	4333.3	4331.0
10°	4156.6	4175.2	4137.9	4170.5	4154.2
12.5°	3963.5	3975.1	3910.0	3924.0	3905.3
15°	3735.5	3747.2	3654.1	3672.7	3633.2
17.5°	3486.7	3528.5	3451.8	3475.0	3433.2
20°	3300.6	3335.5	3337.8	3300.6	3168.0
22.5°	3154.0	3188.9	3216.9	3105.2	3091.2
25°	3019.1	3058.7	3079.6	3005.2	3014.5
27.5°	2884.2	2928.4	2928.4	2944.7	2923.8
30°	2786.5	2805.2	2774.9	2835.4	2816.8
32.5°	2670.2	2677.2	2651.6	2695.8	2630.7
35°	2558.6	2563.2	2558.6	2560.9	2558.6
37.5°	2451.6	2440.0	2460.9	2446.9	2491.1
40°	2333.0	2333.0	2342.3	2365.5	2400.4
42.5°	2223.7	2233.0	2221.3	2286.5	2300.4
45°	2100.4	2116.7	2098.0	2184.1	2163.2
47.5°	1988.7	1995.7	1991.1	2049.2	2053.9
50°	1867.8	1877.1	1881.7	1932.9	1939.9
52.5°	1767.8	1765.4	1749.1	1823.6	1835.2
55°	1649.1	1646.8	1642.2	1700.3	1716.6
57.5°	1528.2	1530.5	1542.1	1574.7	1614.2
60°	1418.9	1407.2	1416.5	1456.1	1488.6
62.5°	1307.2	1286.3	1265.3	1330.5	1360.7
65°	1183.9	1158.3	1146.7	1200.2	1251.4
67.5°	1070.0	1028.1	1021.1	1058.3	1118.8
70°	939.7	888.5	886.2	914.1	986.2
72.5°	795.5	751.3	739.7	776.9	842.0
75°	658.3	609.4	595.5	630.3	690.8
77.5°	509.4	469.9	460.5	479.2	528.0
80°	358.2	334.9	325.6	332.6	367.5
82.5°	225.6	209.3	204.7	202.4	221.0
85°	114.0	102.3	102.3	95.4	100.0
87.5°	34.9	32.6	30.2	23.3	25.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)