

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: P485804

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5STD-50-120-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: P485804
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-LD4-5STD-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

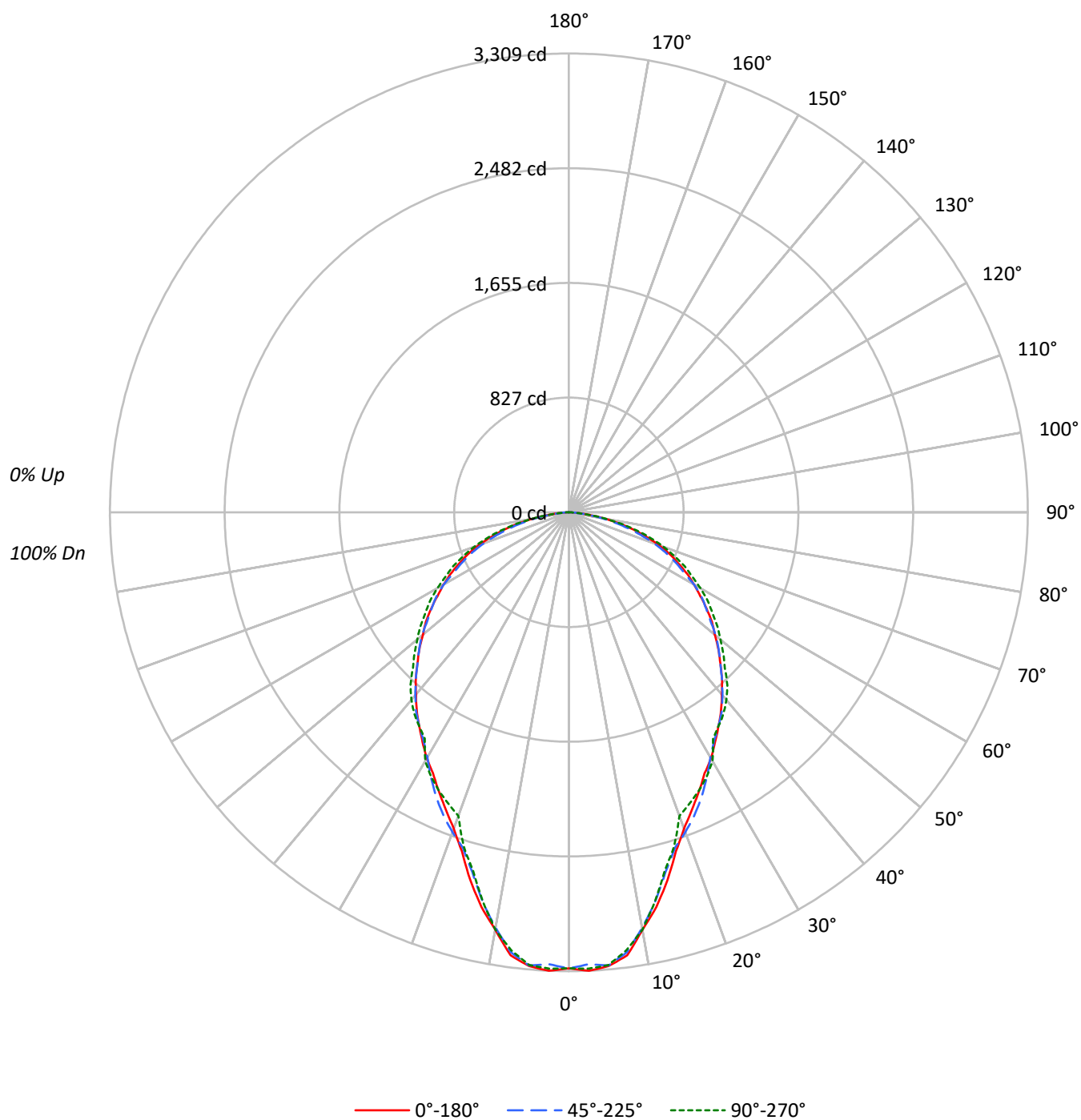
Lumens per Lamp: N/A
Luminaire Lumens: 7033.3 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 83.2
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: P485804

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-5STD-50-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P485804

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-5STD-50-120-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°	8850	8850	8850
5°	8874	8861	8851
10°	8351	8313	8346
15°	7652	7485	7442
20°	6950	7028	6670
25°	6591	6723	6581
30°	6366	6340	6435
35°	6180	6180	6180
40°	6026	6050	6200
45°	5877	5871	6053
50°	5749	5792	5971
55°	5689	5665	5921
60°	5614	5605	5891
65°	5543	5368	5859
70°	5436	5127	5705
75°	5032	4552	5281
80°	4082	3710	4187
85°	2587	2322	2269



TEST NUMBER: P485804

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-5STD-50-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.5	4.3
10°-20°	763.6	10.9
20°-30°	1031.3	14.7
30°-40°	1181.0	16.8
40°-50°	1209.7	17.2
50°-60°	1097.6	15.6
60°-70°	856.7	12.2
70°-80°	485.9	6.9
80°-90°	102.0	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°	2100.4	29.9
0°-40°	3281.4	46.7
0°-60°	5588.7	79.5
0°-90°	7033.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7033.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3289	3289	3289	3289	3289	
5°	3285	3248	3280	3287	3277	307
15°	2747	2755	2687	2700	2671	768
25°	2220	2249	2264	2210	2216	1024
35°	1881	1885	1881	1883	1881	1178
45°	1544	1556	1543	1606	1590	1194
55°	1212	1211	1207	1250	1262	1084
65°	870	852	843	882	920	863
75°	484	448	438	464	508	506
85°	84	75	75	70	74	111
90°	0	0	0	0	0	



TEST NUMBER: P485804

CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-5STD-50-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3288.7	3288.7	3288.7	3288.7	3288.7
2.5°	3309.2	3283.6	3261.4	3297.3	3293.8
5°	3285.3	3247.7	3280.2	3287.0	3276.7
7.5°	3222.0	3198.1	3199.8	3186.1	3184.4
10°	3056.1	3069.8	3042.4	3066.4	3054.4
12.5°	2914.2	2922.7	2874.8	2885.1	2871.4
15°	2746.6	2755.1	2686.7	2700.4	2671.3
17.5°	2563.6	2594.4	2537.9	2555.0	2524.3
20°	2426.8	2452.4	2454.1	2426.8	2329.3
22.5°	2319.0	2344.7	2365.2	2283.1	2272.9
25°	2219.8	2248.9	2264.3	2209.6	2216.4
27.5°	2120.6	2153.1	2153.1	2165.1	2149.7
30°	2048.8	2062.5	2040.3	2084.7	2071.1
32.5°	1963.3	1968.4	1949.6	1982.1	1934.2
35°	1881.2	1884.6	1881.2	1882.9	1881.2
37.5°	1802.6	1794.0	1809.4	1799.1	1831.6
40°	1715.3	1715.3	1722.2	1739.3	1764.9
42.5°	1635.0	1641.8	1633.2	1681.1	1691.4
45°	1544.3	1556.3	1542.6	1605.9	1590.5
47.5°	1462.2	1467.4	1463.9	1506.7	1510.1
50°	1373.3	1380.1	1383.6	1421.2	1426.3
52.5°	1299.8	1298.0	1286.1	1340.8	1349.3
55°	1212.5	1210.8	1207.4	1250.2	1262.1
57.5°	1123.6	1125.3	1133.9	1157.8	1186.9
60°	1043.2	1034.7	1041.5	1070.6	1094.5
62.5°	961.1	945.7	930.3	978.2	1000.5
65°	870.5	851.7	843.1	882.5	920.1
67.5°	786.7	755.9	750.8	778.1	822.6
70°	690.9	653.3	651.6	672.1	725.1
72.5°	584.9	552.4	543.8	571.2	619.1
75°	484.0	448.1	437.8	463.5	507.9
77.5°	374.5	345.5	338.6	352.3	388.2
80°	263.4	246.3	239.4	244.6	270.2
82.5°	165.9	153.9	150.5	148.8	162.5
85°	83.8	75.2	75.2	70.1	73.5
87.5°	25.7	23.9	22.2	17.1	18.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)