

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: P487055

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4STD-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: P487055
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-LD4-4STD-20-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

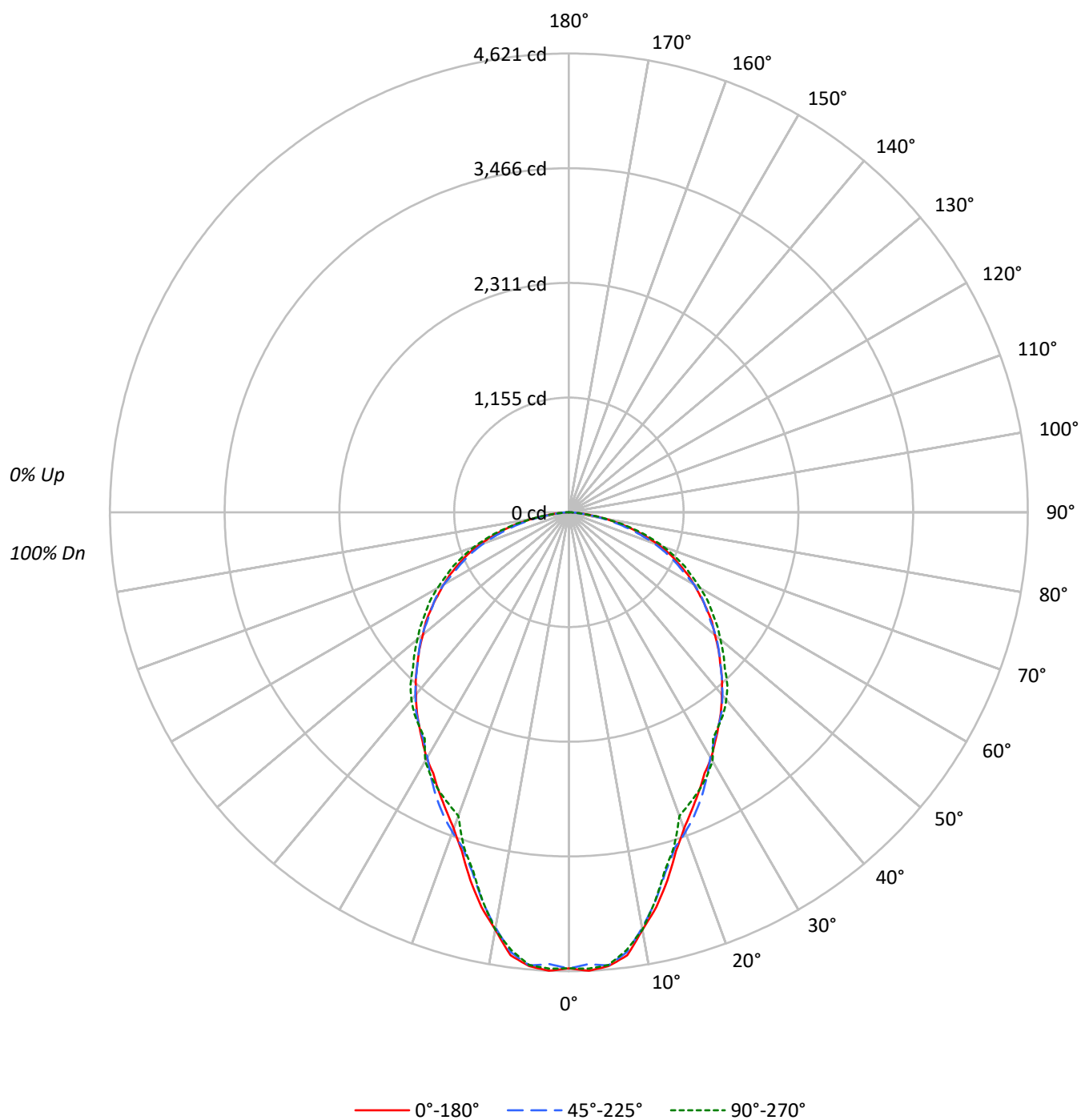
Lumens per Lamp: N/A
Luminaire Lumens: 9820.9 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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: P487055

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

Luminous Intensity Polar Plot



TEST NUMBER: P487055

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

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60		
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51		
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45		
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39		
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35		
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31		
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28		
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6179	6179	6179
5°	6196	6186	6180
10°	5830	5804	5827
15°	5342	5226	5196
20°	4852	4907	4657
25°	4602	4694	4595
30°	4445	4426	4493
35°	4315	4315	4315
40°	4207	4224	4329
45°	4103	4099	4226
50°	4014	4044	4169
55°	3972	3955	4134
60°	3920	3913	4113
65°	3870	3748	4090
70°	3795	3579	3983
75°	3513	3178	3687
80°	2850	2590	2923
85°	1806	1623	1585



TEST NUMBER: P487055

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.5	4.3
10°-20°	1066.3	10.9
20°-30°	1440.0	14.7
30°-40°	1649.1	16.8
40°-50°	1689.2	17.2
50°-60°	1532.7	15.6
60°-70°	1196.2	12.2
70°-80°	678.5	6.9
80°-90°	142.4	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°	2932.9	29.9
0°-40°	4581.9	46.7
0°-60°	7803.8	79.5
0°-90°	9820.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9820.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4592	4592	4592	4592	4592	
5°	4587	4535	4580	4590	4576	428
15°	3835	3847	3752	3771	3730	1072
25°	3100	3140	3162	3085	3095	1430
35°	2627	2632	2627	2629	2627	1646
45°	2156	2173	2154	2242	2221	1667
55°	1693	1691	1686	1746	1762	1513
65°	1216	1189	1177	1232	1285	1205
75°	676	626	611	647	709	707
85°	117	105	105	98	103	155
90°	0	0	0	0	0	



TEST NUMBER: P487055

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4592.2	4592.2	4592.2	4592.2	4592.2
2.5°	4620.8	4585.0	4554.0	4604.1	4599.3
5°	4587.4	4534.9	4580.2	4589.8	4575.5
7.5°	4499.0	4465.6	4468.0	4448.9	4446.5
10°	4267.4	4286.5	4248.3	4281.7	4265.0
12.5°	4069.2	4081.1	4014.3	4028.6	4009.5
15°	3835.2	3847.1	3751.6	3770.7	3730.1
17.5°	3579.6	3622.6	3543.8	3567.7	3524.7
20°	3388.6	3424.4	3426.8	3388.6	3252.5
22.5°	3238.2	3274.0	3302.6	3188.0	3173.7
25°	3099.7	3140.3	3161.7	3085.3	3094.9
27.5°	2961.2	3006.5	3006.5	3023.2	3001.7
30°	2860.9	2880.0	2848.9	2911.0	2891.9
32.5°	2741.5	2748.6	2722.3	2767.7	2700.9
35°	2626.8	2631.6	2626.8	2629.2	2626.8
37.5°	2517.0	2505.0	2526.5	2512.2	2557.6
40°	2395.2	2395.2	2404.7	2428.6	2464.4
42.5°	2283.0	2292.5	2280.6	2347.4	2361.8
45°	2156.4	2173.1	2154.0	2242.4	2220.9
47.5°	2041.8	2048.9	2044.1	2103.8	2108.6
50°	1917.6	1927.1	1931.9	1984.4	1991.6
52.5°	1814.9	1812.5	1795.8	1872.2	1884.2
55°	1693.1	1690.7	1685.9	1745.6	1762.4
57.5°	1568.9	1571.3	1583.3	1616.7	1657.3
60°	1456.7	1444.8	1454.3	1494.9	1528.3
62.5°	1342.1	1320.6	1299.1	1366.0	1397.0
65°	1215.5	1189.2	1177.3	1232.2	1284.8
67.5°	1098.5	1055.5	1048.3	1086.6	1148.6
70°	964.8	912.2	909.8	938.5	1012.5
72.5°	816.7	771.3	759.4	797.6	864.5
75°	675.8	625.7	611.3	647.2	709.2
77.5°	523.0	482.4	472.8	491.9	542.1
80°	367.8	343.9	334.3	341.5	377.3
82.5°	231.6	214.9	210.1	207.8	226.9
85°	117.0	105.1	105.1	97.9	102.7
87.5°	35.8	33.4	31.0	23.9	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)