

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: P487099

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5STD-40-120-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: P487099
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-LD4-5STD-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

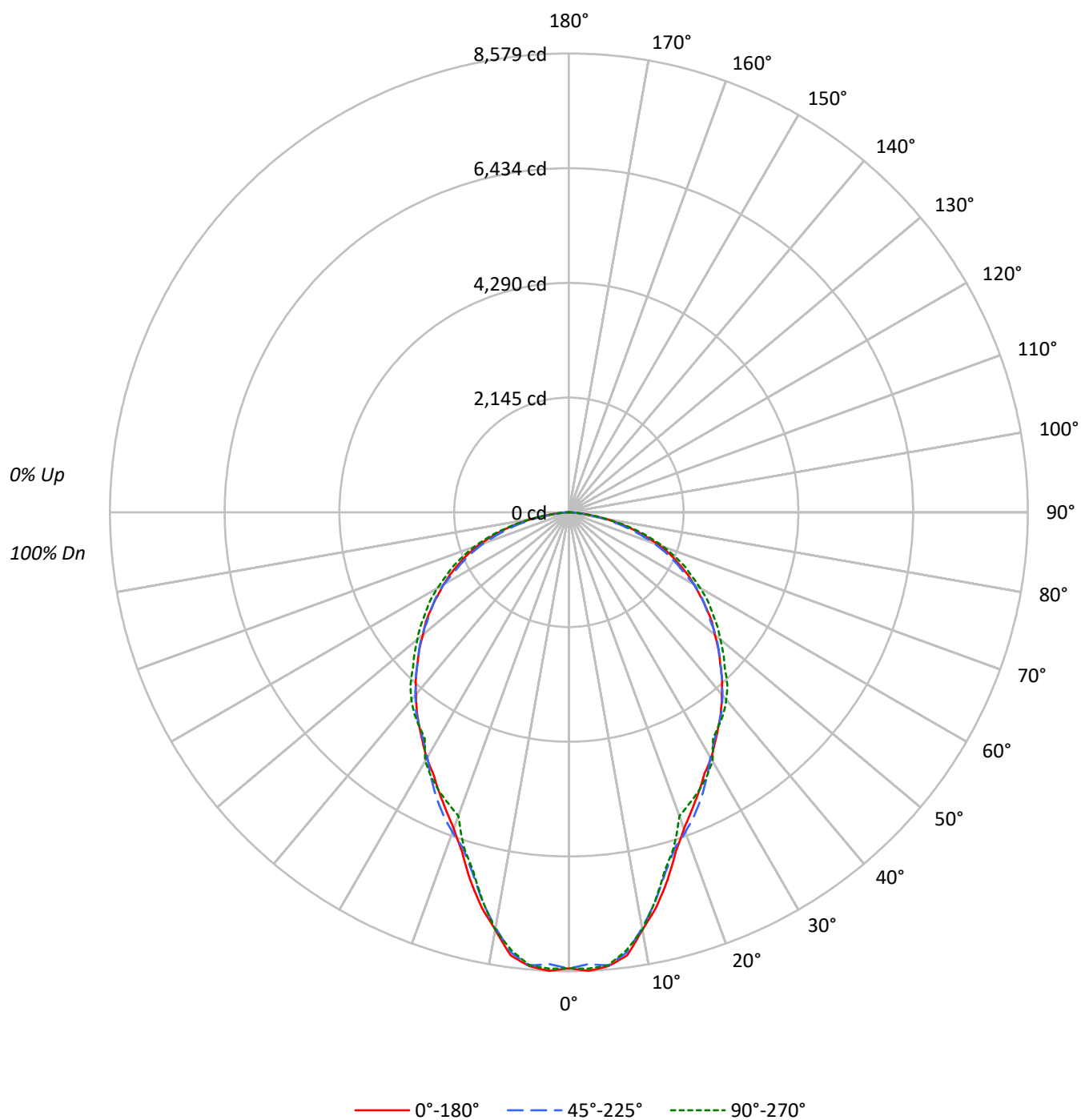
Lumens per Lamp: N/A
Luminaire Lumens: 18233.6 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 166.5
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: P487099

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5STD-40-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P487099

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5STD-40-120-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°	11472	11472	11472
5°	11503	11485	11473
10°	10825	10776	10819
15°	9918	9702	9647
20°	9008	9110	8646
25°	8544	8715	8530
30°	8252	8218	8342
35°	8011	8011	8011
40°	7811	7842	8036
45°	7618	7610	7846
50°	7452	7508	7740
55°	7374	7343	7675
60°	7278	7266	7636
65°	7185	6959	7594
70°	7046	6645	7395
75°	6523	5900	6845
80°	5291	4809	5428
85°	3353	3012	2942



TEST NUMBER: P487099

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5STD-40-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	791.9	4.3
10°-20°	1979.7	10.9
20°-30°	2673.6	14.7
30°-40°	3061.7	16.8
40°-50°	3136.1	17.2
50°-60°	2845.6	15.6
60°-70°	2220.9	12.2
70°-80°	1259.7	6.9
80°-90°	264.4	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°	5445.2	29.9
0°-40°	8506.9	46.7
0°-60°	14488.6	79.5
0°-90°	18233.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18233.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8526	8526	8526	8526	8526	
5°	8517	8420	8504	8521	8495	796
15°	7120	7143	6965	7001	6925	1990
25°	5755	5830	5870	5728	5746	2656
35°	4877	4886	4877	4881	4877	3055
45°	4004	4035	3999	4163	4123	3095
55°	3143	3139	3130	3241	3272	2809
65°	2257	2208	2186	2288	2385	2237
75°	1255	1162	1135	1202	1317	1313
85°	217	195	195	182	191	287
90°	0	0	0	0	0	



TEST NUMBER: P487099

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-5STD-40-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8525.9	8525.9	8525.9	8525.9	8525.9
2.5°	8579.1	8512.6	8454.9	8548.0	8539.2
5°	8517.0	8419.5	8503.7	8521.4	8494.8
7.5°	8353.0	8290.9	8295.3	8259.9	8255.4
10°	7922.9	7958.4	7887.4	7949.5	7918.5
12.5°	7554.9	7577.1	7452.9	7479.5	7444.1
15°	7120.4	7142.6	6965.2	7000.7	6925.3
17.5°	6646.0	6725.8	6579.5	6623.9	6544.0
20°	6291.3	6357.8	6362.3	6291.3	6038.6
22.5°	6012.0	6078.5	6131.7	5918.9	5892.3
25°	5754.9	5830.2	5870.1	5728.3	5746.0
27.5°	5497.7	5581.9	5581.9	5613.0	5573.1
30°	5311.5	5347.0	5289.3	5404.6	5369.1
32.5°	5089.8	5103.1	5054.3	5138.6	5014.4
35°	4877.0	4885.9	4877.0	4881.4	4877.0
37.5°	4673.1	4650.9	4690.8	4664.2	4748.4
40°	4446.9	4446.9	4464.7	4509.0	4575.5
42.5°	4238.6	4256.3	4234.1	4358.3	4384.9
45°	4003.6	4034.6	3999.1	4163.2	4123.3
47.5°	3790.8	3804.1	3795.2	3906.0	3914.9
50°	3560.2	3577.9	3586.8	3684.4	3697.7
52.5°	3369.6	3365.1	3334.1	3476.0	3498.1
55°	3143.4	3139.0	3130.1	3241.0	3272.0
57.5°	2912.9	2917.3	2939.5	3001.6	3076.9
60°	2704.5	2682.3	2700.1	2775.5	2837.5
62.5°	2491.7	2451.8	2411.9	2536.0	2593.7
65°	2256.7	2208.0	2185.8	2287.8	2385.3
67.5°	2039.5	1959.7	1946.4	2017.3	2132.6
70°	1791.2	1693.6	1689.2	1742.4	1879.9
72.5°	1516.3	1432.1	1409.9	1480.8	1605.0
75°	1254.7	1161.6	1135.0	1201.5	1316.8
77.5°	971.0	895.6	877.9	913.3	1006.4
80°	682.8	638.4	620.7	634.0	700.5
82.5°	430.1	399.0	390.2	385.7	421.2
85°	217.2	195.1	195.1	181.8	190.6
87.5°	66.5	62.1	57.6	44.3	48.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)