

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: P487106

Luminaire Tested: **ORLG-24-4-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: P487106
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-LD4-6HI-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

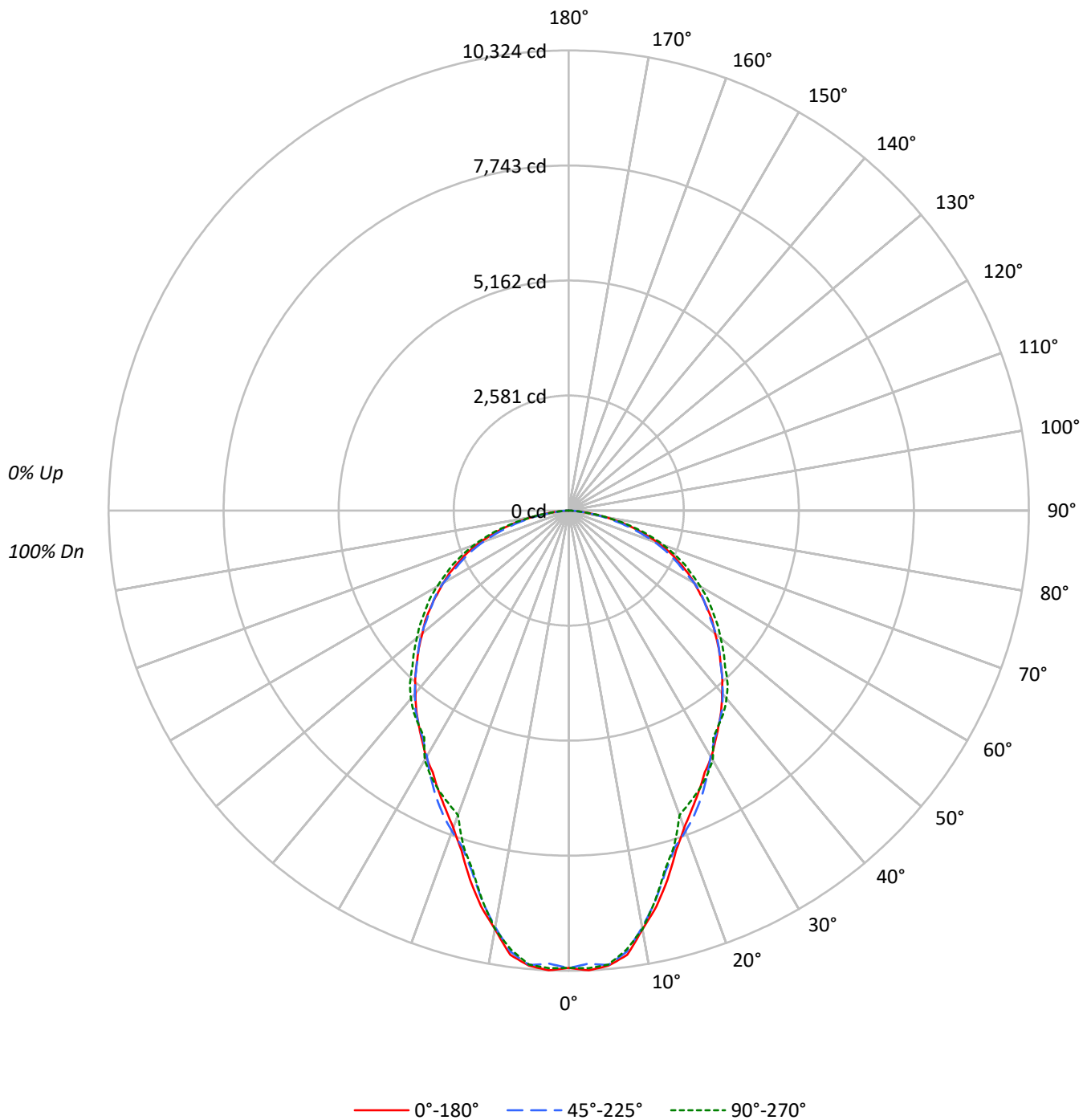
Lumens per Lamp: N/A
Luminaire Lumens: 21941.1 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 264
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

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Luminous Intensity Polar Plot





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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°	13804	13804	13804
5°	13842	13821	13806
10°	13026	12967	13018
15°	11935	11675	11608
20°	10840	10962	10404
25°	10281	10487	10265
30°	9930	9889	10038
35°	9640	9640	9640
40°	9399	9436	9671
45°	9167	9157	9441
50°	8968	9035	9314
55°	8873	8836	9236
60°	8758	8743	9188
65°	8646	8374	9138
70°	8479	7997	8899
75°	7849	7100	8237
80°	6366	5787	6532
85°	4035	3623	3541



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	952.9	4.3
10°-20°	2382.3	10.9
20°-30°	3217.2	14.7
30°-40°	3684.2	16.8
40°-50°	3773.8	17.2
50°-60°	3424.2	15.6
60°-70°	2672.5	12.2
70°-80°	1515.8	6.9
80°-90°	318.2	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°	6552.4	29.9
0°-40°	10236.6	46.7
0°-60°	17434.6	79.5
0°-90°	21941.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	21941.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10260	10260	10260	10260	10260	
5°	10249	10131	10233	10254	10222	957
15°	8568	8595	8382	8424	8334	2395
25°	6925	7016	7064	6893	6914	3196
35°	5869	5879	5869	5874	5869	3676
45°	4818	4855	4812	5010	4962	3725
55°	3783	3777	3767	3900	3937	3380
65°	2716	2657	2630	2753	2870	2691
75°	1510	1398	1366	1446	1584	1579
85°	261	235	235	219	229	345
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10259.5	10259.5	10259.5	10259.5	10259.5
2.5°	10323.5	10243.5	10174.1	10286.2	10275.5
5°	10248.8	10131.4	10232.8	10254.1	10222.1
7.5°	10051.4	9976.7	9982.1	9939.4	9934.0
10°	9533.9	9576.6	9491.2	9565.9	9528.6
12.5°	9091.1	9117.8	8968.4	9000.4	8957.7
15°	8568.2	8594.9	8381.5	8424.2	8333.5
17.5°	7997.4	8093.4	7917.4	7970.7	7874.7
20°	7570.6	7650.6	7655.9	7570.6	7266.5
22.5°	7234.5	7314.5	7378.5	7122.4	7090.4
25°	6925.0	7015.7	7063.7	6893.0	6914.3
27.5°	6615.6	6716.9	6716.9	6754.3	6706.3
30°	6391.5	6434.2	6364.8	6503.5	6460.9
32.5°	6124.7	6140.7	6082.1	6183.4	6034.0
35°	5868.7	5879.3	5868.7	5874.0	5868.7
37.5°	5623.2	5596.6	5644.6	5612.6	5713.9
40°	5351.1	5351.1	5372.5	5425.8	5505.9
42.5°	5100.4	5121.7	5095.1	5244.4	5276.5
45°	4817.6	4855.0	4812.3	5009.7	4961.7
47.5°	4561.5	4577.6	4566.9	4700.3	4710.9
50°	4284.1	4305.5	4316.1	4433.5	4449.5
52.5°	4054.7	4049.4	4012.0	4182.8	4209.4
55°	3782.6	3777.3	3766.6	3900.0	3937.3
57.5°	3505.2	3510.5	3537.2	3611.9	3702.6
60°	3254.4	3227.8	3249.1	3339.8	3414.5
62.5°	2998.3	2950.3	2902.3	3051.7	3121.1
65°	2715.6	2656.9	2630.2	2752.9	2870.3
67.5°	2454.2	2358.1	2342.1	2427.5	2566.2
70°	2155.4	2038.0	2032.7	2096.7	2262.1
72.5°	1824.6	1723.3	1696.6	1781.9	1931.3
75°	1509.8	1397.8	1365.8	1445.8	1584.5
77.5°	1168.4	1077.7	1056.4	1099.0	1211.1
80°	821.6	768.3	746.9	762.9	843.0
82.5°	517.5	480.2	469.5	464.2	506.8
85°	261.4	234.7	234.7	218.7	229.4
87.5°	80.0	74.7	69.4	53.4	58.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)