

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: P487131

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6STD-30-120-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: P487131
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-LD4-6STD-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

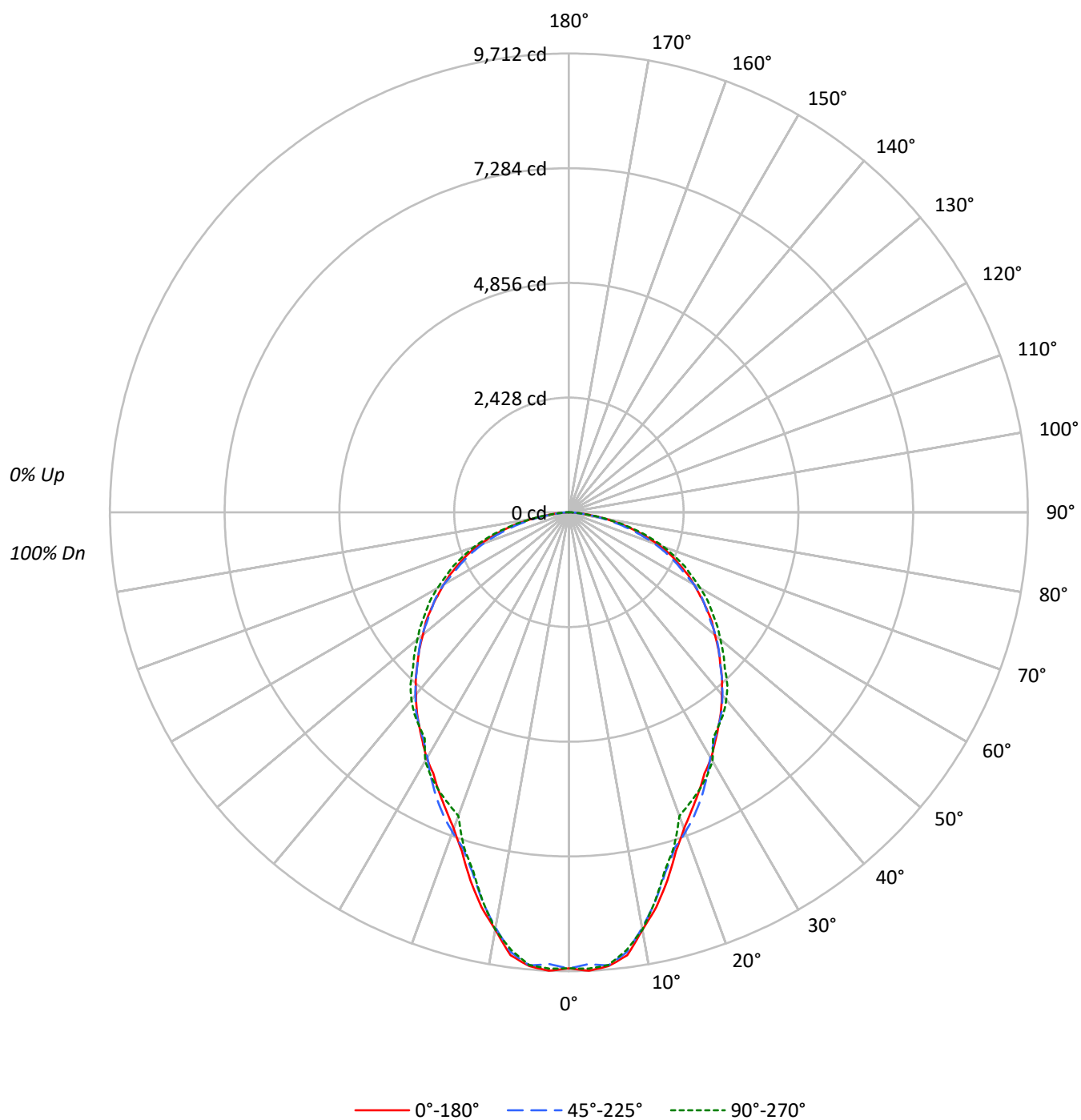
Lumens per Lamp: N/A
Luminaire Lumens: 20640.4 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 199.8
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°	12986	12986	12986
5°	13022	13001	12988
10°	12253	12199	12247
15°	11228	10983	10920
20°	10197	10312	9788
25°	9671	9865	9656
30°	9341	9302	9443
35°	9068	9068	9068
40°	8842	8877	9097
45°	8624	8614	8881
50°	8436	8499	8762
55°	8347	8312	8689
60°	8238	8225	8644
65°	8133	7877	8597
70°	7976	7522	8371
75°	7384	6679	7749
80°	5989	5444	6144
85°	3796	3409	3331



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	896.4	4.3
10°-20°	2241.0	10.9
20°-30°	3026.5	14.7
30°-40°	3465.8	16.8
40°-50°	3550.1	17.2
50°-60°	3221.2	15.6
60°-70°	2514.1	12.2
70°-80°	1425.9	6.9
80°-90°	299.3	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°	6164.0	29.9
0°-40°	9629.8	46.7
0°-60°	16401.1	79.5
0°-90°	20640.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20640.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9651	9651	9651	9651	9651	
5°	9641	9531	9626	9646	9616	901
15°	8060	8085	7885	7925	7840	2253
25°	6514	6600	6645	6484	6504	3006
35°	5521	5531	5521	5526	5521	3458
45°	4532	4567	4527	4713	4668	3504
55°	3558	3553	3543	3669	3704	3180
65°	2555	2499	2474	2590	2700	2532
75°	1420	1315	1285	1360	1491	1486
85°	246	221	221	206	216	325
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9651.3	9651.3	9651.3	9651.3	9651.3
2.5°	9711.5	9636.2	9571.0	9676.4	9666.3
5°	9641.2	9530.8	9626.2	9646.3	9616.1
7.5°	9455.5	9385.3	9390.3	9350.1	9345.1
10°	8968.7	9008.9	8928.6	8998.8	8963.7
12.5°	8552.1	8577.2	8436.7	8466.8	8426.7
15°	8060.3	8085.4	7884.6	7924.8	7839.5
17.5°	7523.3	7613.6	7448.0	7498.2	7407.8
20°	7121.8	7197.1	7202.1	7121.8	6835.7
22.5°	6805.6	6880.9	6941.1	6700.2	6670.1
25°	6514.5	6599.8	6645.0	6484.4	6504.5
27.5°	6223.4	6318.8	6318.8	6353.9	6308.7
30°	6012.6	6052.8	5987.5	6118.0	6077.8
32.5°	5761.7	5776.7	5721.5	5816.9	5676.3
35°	5520.8	5530.8	5520.8	5525.8	5520.8
37.5°	5289.9	5264.8	5310.0	5279.8	5375.2
40°	5033.9	5033.9	5054.0	5104.2	5179.5
42.5°	4798.0	4818.1	4793.0	4933.5	4963.7
45°	4532.0	4567.2	4527.0	4712.7	4667.5
47.5°	4291.1	4306.2	4296.2	4421.6	4431.7
50°	4030.2	4050.2	4060.3	4170.7	4185.7
52.5°	3814.3	3809.3	3774.2	3934.8	3959.9
55°	3558.4	3553.4	3543.3	3668.8	3703.9
57.5°	3297.4	3302.4	3327.5	3397.8	3483.1
60°	3061.5	3036.4	3056.5	3141.8	3212.1
62.5°	2820.6	2775.4	2730.3	2870.8	2936.0
65°	2554.6	2499.4	2474.3	2589.7	2700.2
67.5°	2308.7	2218.3	2203.3	2283.6	2414.1
70°	2027.6	1917.2	1912.2	1972.4	2128.0
72.5°	1716.5	1621.1	1596.0	1676.3	1816.8
75°	1420.3	1314.9	1284.8	1360.1	1490.6
77.5°	1099.1	1013.8	993.7	1033.9	1139.3
80°	772.9	722.7	702.6	717.7	793.0
82.5°	486.8	451.7	441.7	436.6	476.8
85°	245.9	220.8	220.8	205.8	215.8
87.5°	75.3	70.3	65.2	50.2	55.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)