

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: P487071

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-5HI-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: P487071
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-LD4-5HI-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

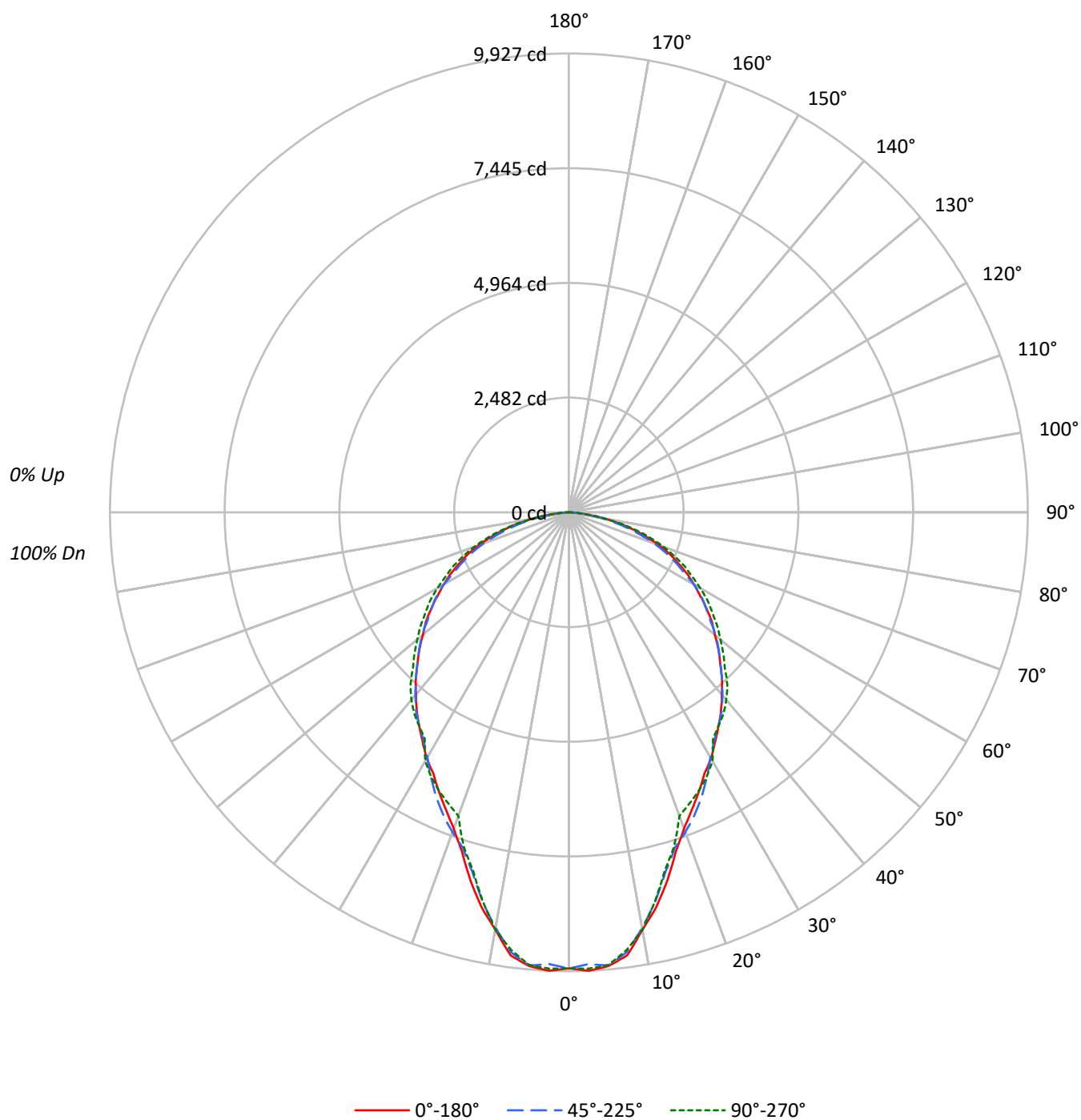
Lumens per Lamp: N/A
Luminaire Lumens: 21097.5 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 220
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°	13273	13273	13273
5°	13310	13289	13275
10°	12525	12469	12518
15°	11476	11226	11162
20°	10423	10541	10004
25°	9886	10083	9870
30°	9548	9508	9652
35°	9269	9269	9269
40°	9037	9073	9299
45°	8815	8805	9078
50°	8623	8687	8956
55°	8532	8496	8881
60°	8421	8407	8835
65°	8313	8052	8787
70°	8153	7689	8557
75°	7547	6827	7921
80°	6121	5565	6280
85°	3881	3484	3406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	916.3	4.3
10°-20°	2290.7	10.9
20°-30°	3093.5	14.7
30°-40°	3542.5	16.8
40°-50°	3628.7	17.2
50°-60°	3292.6	15.6
60°-70°	2569.8	12.2
70°-80°	1457.5	6.9
80°-90°	305.9	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°	6300.5	29.9
0°-40°	9843.0	46.7
0°-60°	16764.3	79.5
0°-90°	21097.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	21097.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9865	9865	9865	9865	9865	
5°	9855	9742	9839	9860	9829	920
15°	8239	8264	8059	8100	8013	2303
25°	6659	6746	6792	6628	6648	3073
35°	5643	5653	5643	5648	5643	3535
45°	4632	4668	4627	4817	4771	3582
55°	3637	3632	3622	3750	3786	3250
65°	2611	2555	2529	2647	2760	2588
75°	1452	1344	1313	1390	1524	1519
85°	251	226	226	210	221	332
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9865.0	9865.0	9865.0	9865.0	9865.0
2.5°	9926.6	9849.6	9782.9	9890.7	9880.4
5°	9854.8	9741.9	9839.4	9859.9	9829.1
7.5°	9664.9	9593.1	9598.3	9557.2	9552.1
10°	9167.3	9208.4	9126.3	9198.1	9162.2
12.5°	8741.5	8767.2	8623.6	8654.3	8613.3
15°	8238.8	8264.5	8059.3	8100.3	8013.1
17.5°	7689.9	7782.2	7612.9	7664.2	7571.9
20°	7279.5	7356.4	7361.6	7279.5	6987.1
22.5°	6956.3	7033.2	7094.8	6848.6	6817.8
25°	6658.8	6746.0	6792.1	6628.0	6648.5
27.5°	6361.2	6458.7	6458.7	6494.6	6448.4
30°	6145.8	6186.8	6120.1	6253.5	6212.4
32.5°	5889.3	5904.6	5848.2	5945.7	5802.0
35°	5643.0	5653.3	5643.0	5648.1	5643.0
37.5°	5407.0	5381.4	5427.6	5396.8	5494.2
40°	5145.4	5145.4	5165.9	5217.2	5294.2
42.5°	4904.3	4924.8	4899.2	5042.8	5073.6
45°	4632.4	4668.3	4627.3	4817.1	4770.9
47.5°	4386.2	4401.6	4391.3	4519.5	4529.8
50°	4119.4	4139.9	4150.2	4263.0	4278.4
52.5°	3898.8	3893.7	3857.8	4021.9	4047.6
55°	3637.2	3632.1	3621.8	3750.0	3786.0
57.5°	3370.4	3375.5	3401.2	3473.0	3560.2
60°	3129.3	3103.7	3124.2	3211.4	3283.2
62.5°	2883.1	2836.9	2790.7	2934.4	3001.1
65°	2611.2	2554.7	2529.1	2647.1	2759.9
67.5°	2359.8	2267.5	2252.1	2334.2	2467.5
70°	2072.5	1959.7	1954.5	2016.1	2175.1
72.5°	1754.5	1657.0	1631.3	1713.4	1857.1
75°	1451.8	1344.1	1313.3	1390.2	1523.6
77.5°	1123.5	1036.3	1015.7	1056.8	1164.5
80°	790.0	738.7	718.2	733.6	810.5
82.5°	497.6	461.7	451.4	446.3	487.4
85°	251.4	225.7	225.7	210.3	220.6
87.5°	77.0	71.8	66.7	51.3	56.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)