

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: P487000

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3HI-35-120-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: P487000
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-LD4-3HI-35-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

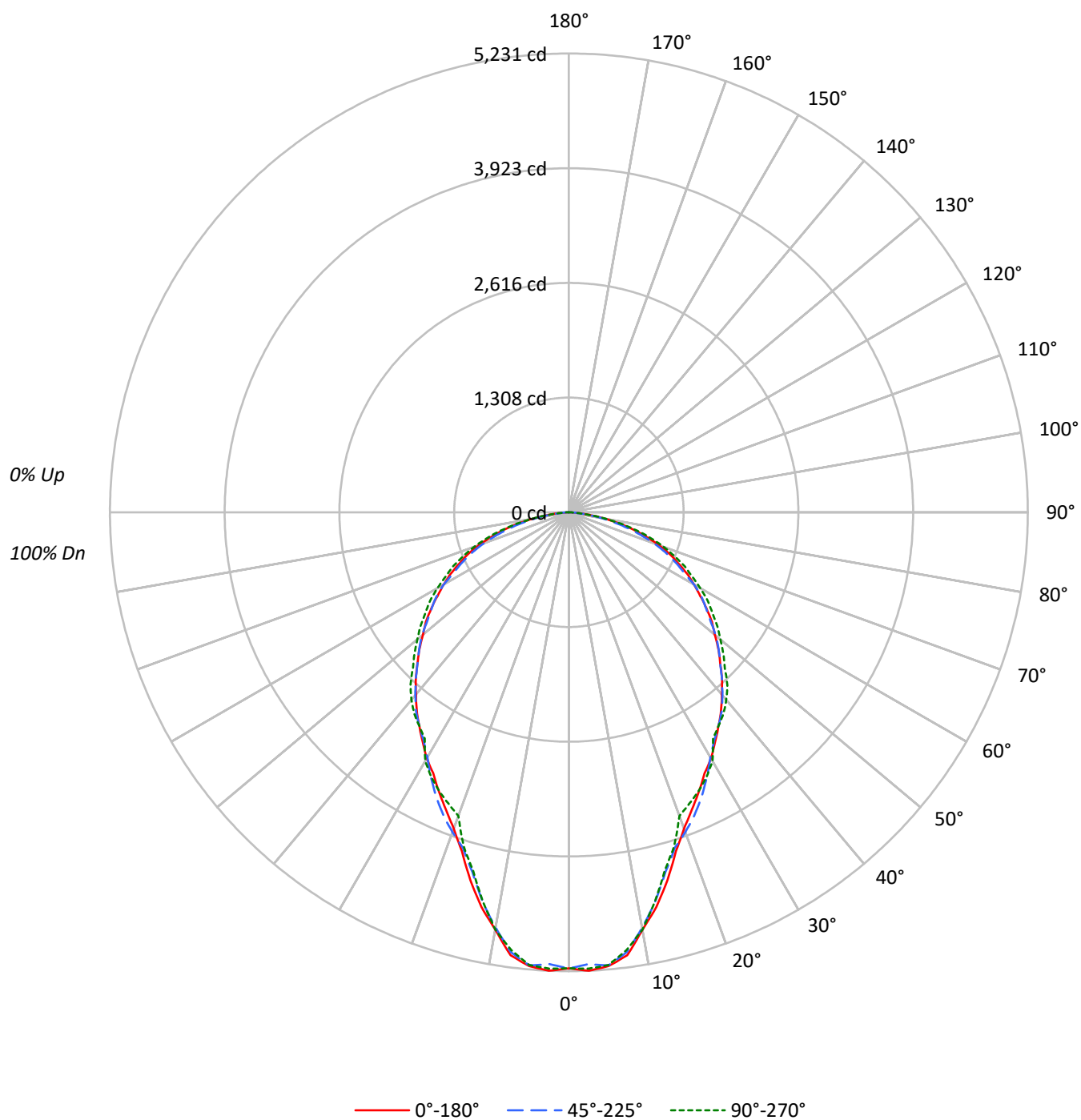
Lumens per Lamp: N/A
Luminaire Lumens: 11117.1 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 132
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°	6994	6994	6994
5°	7014	7003	6995
10°	6600	6570	6596
15°	6047	5915	5882
20°	5492	5554	5272
25°	5209	5313	5201
30°	5031	5010	5086
35°	4884	4884	4884
40°	4762	4781	4900
45°	4645	4640	4784
50°	4544	4578	4719
55°	4496	4477	4680
60°	4437	4430	4656
65°	4380	4243	4630
70°	4296	4052	4509
75°	3977	3597	4174
80°	3226	2932	3309
85°	2046	1836	1794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	482.8	4.3
10°-20°	1207.0	10.9
20°-30°	1630.1	14.7
30°-40°	1866.7	16.8
40°-50°	1912.1	17.2
50°-60°	1735.0	15.6
60°-70°	1354.1	12.2
70°-80°	768.0	6.9
80°-90°	161.2	1.4
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°	3320.0	29.9
0°-40°	5186.7	46.7
0°-60°	8833.8	79.5
0°-90°	11117.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11117.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5198	5198	5198	5198	5198	
5°	5193	5133	5185	5196	5179	485
15°	4341	4355	4247	4268	4222	1213
25°	3509	3555	3579	3492	3503	1619
35°	2974	2979	2974	2976	2974	1863
45°	2441	2460	2438	2538	2514	1887
55°	1917	1914	1908	1976	1995	1713
65°	1376	1346	1333	1395	1454	1364
75°	765	708	692	733	803	800
85°	132	119	119	111	116	175
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5198.3	5198.3	5198.3	5198.3	5198.3
2.5°	5230.7	5190.2	5155.0	5211.8	5206.4
5°	5192.9	5133.4	5184.7	5195.6	5179.3
7.5°	5092.8	5055.0	5057.7	5036.1	5033.4
10°	4830.6	4852.3	4809.0	4846.8	4827.9
12.5°	4606.3	4619.8	4544.1	4560.3	4538.7
15°	4341.3	4354.9	4246.7	4268.4	4222.4
17.5°	4052.1	4100.8	4011.6	4038.6	3989.9
20°	3835.8	3876.4	3879.1	3835.8	3681.8
22.5°	3665.5	3706.1	3738.5	3608.8	3592.6
25°	3508.8	3554.7	3579.0	3492.5	3503.4
27.5°	3352.0	3403.3	3403.3	3422.3	3397.9
30°	3238.4	3260.1	3224.9	3295.2	3273.6
32.5°	3103.3	3111.4	3081.7	3133.0	3057.3
35°	2973.5	2978.9	2973.5	2976.2	2973.5
37.5°	2849.2	2835.7	2860.0	2843.8	2895.1
40°	2711.3	2711.3	2722.1	2749.2	2789.7
42.5°	2584.3	2595.1	2581.6	2657.3	2673.5
45°	2441.0	2459.9	2438.3	2538.3	2514.0
47.5°	2311.2	2319.4	2313.9	2381.5	2386.9
50°	2170.7	2181.5	2186.9	2246.4	2254.5
52.5°	2054.4	2051.7	2032.8	2119.3	2132.8
55°	1916.6	1913.9	1908.5	1976.0	1995.0
57.5°	1776.0	1778.7	1792.2	1830.1	1876.0
60°	1649.0	1635.4	1646.3	1692.2	1730.1
62.5°	1519.2	1494.9	1470.5	1546.2	1581.4
65°	1375.9	1346.2	1332.7	1394.9	1454.3
67.5°	1243.5	1194.8	1186.7	1230.0	1300.2
70°	1092.1	1032.6	1029.9	1062.4	1146.2
72.5°	924.5	873.1	859.6	902.9	978.6
75°	765.0	708.2	692.0	732.6	802.9
77.5°	592.0	546.0	535.2	556.9	613.6
80°	416.3	389.3	378.4	386.6	427.1
82.5°	262.2	243.3	237.9	235.2	256.8
85°	132.5	118.9	118.9	110.8	116.2
87.5°	40.5	37.8	35.1	27.0	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)