

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: P487110

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6HI-40-120-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: P487110
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-40-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

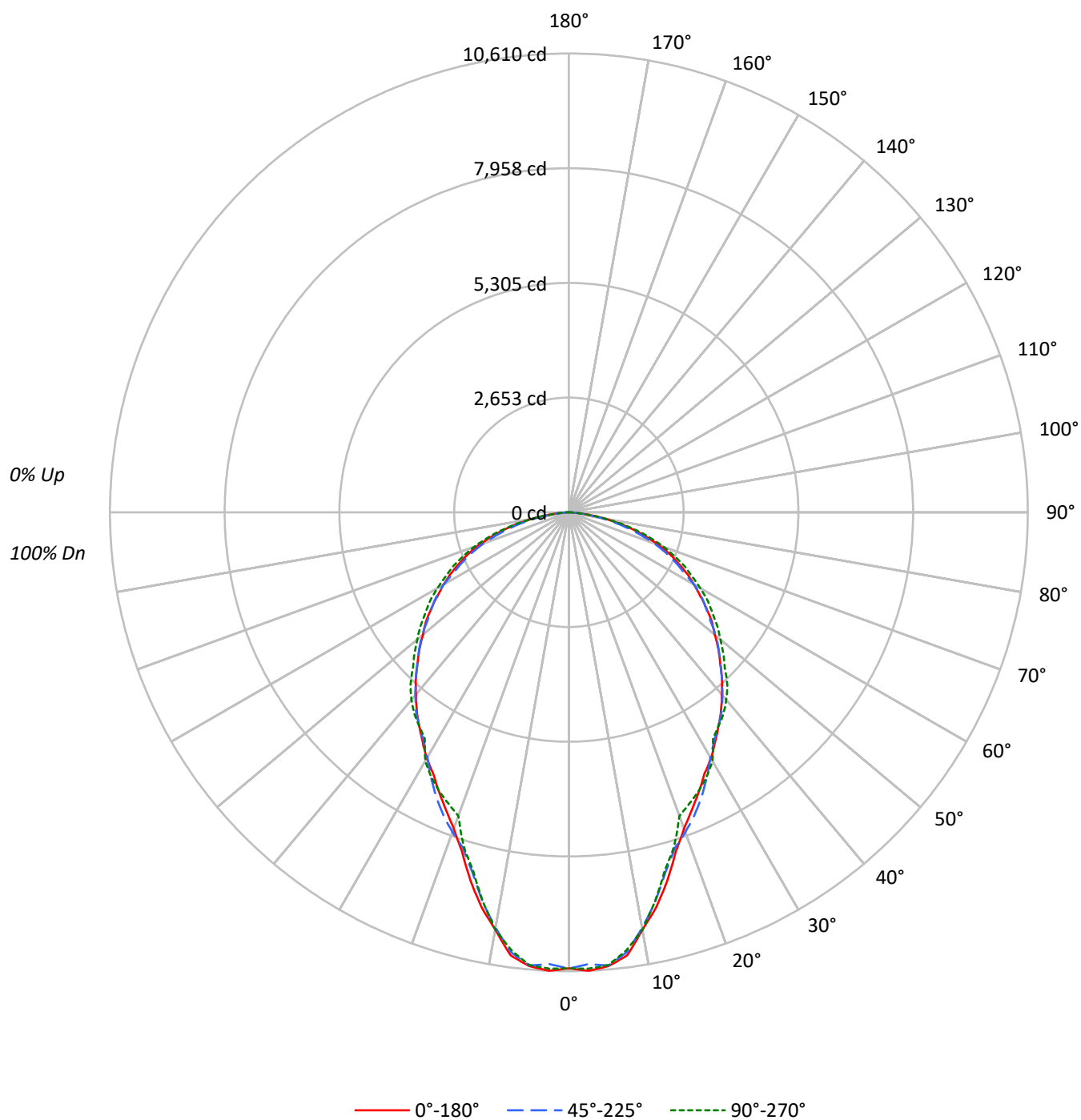
Lumens per Lamp: N/A
Luminaire Lumens: 22550.0 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	14187	14187	14187
5°	14226	14204	14189
10°	13387	13327	13380
15°	12266	11999	11930
20°	11141	11266	10693
25°	10566	10778	10550
30°	10206	10163	10316
35°	9907	9907	9907
40°	9660	9698	9939
45°	9421	9411	9703
50°	9216	9285	9572
55°	9119	9081	9492
60°	9001	8986	9443
65°	8885	8606	9392
70°	8714	8218	9146
75°	8067	7297	8466
80°	6543	5948	6712
85°	4148	3725	3640



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	979.3	4.3
10°-20°	2448.4	10.9
20°-30°	3306.5	14.7
30°-40°	3786.4	16.8
40°-50°	3878.5	17.2
50°-60°	3519.2	15.6
60°-70°	2746.7	12.2
70°-80°	1557.9	6.9
80°-90°	327.0	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°	6734.2	29.9
0°-40°	10520.7	46.7
0°-60°	17918.4	79.5
0°-90°	22550.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	22550.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10544	10544	10544	10544	10544	
5°	10533	10413	10517	10539	10506	984
15°	8806	8833	8614	8658	8565	2461
25°	7117	7210	7260	7084	7106	3284
35°	6032	6042	6032	6037	6032	3778
45°	4951	4990	4946	5149	5099	3828
55°	3888	3882	3871	4008	4047	3474
65°	2791	2731	2703	2829	2950	2766
75°	1552	1437	1404	1486	1628	1623
85°	269	241	241	225	236	355
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10544.2	10544.2	10544.2	10544.2	10544.2
2.5°	10610.0	10527.7	10456.5	10571.6	10560.6
5°	10533.2	10412.6	10516.8	10538.7	10505.8
7.5°	10330.3	10253.6	10259.1	10215.2	10209.7
10°	9798.5	9842.3	9754.6	9831.4	9793.0
12.5°	9343.4	9370.8	9217.3	9250.2	9206.3
15°	8806.0	8833.4	8614.1	8658.0	8564.8
17.5°	8219.3	8318.0	8137.1	8191.9	8093.2
20°	7780.7	7862.9	7868.4	7780.7	7468.1
22.5°	7435.2	7517.5	7583.3	7320.1	7287.2
25°	7117.2	7210.4	7259.8	7084.3	7106.2
27.5°	6799.2	6903.3	6903.3	6941.7	6892.4
30°	6568.9	6612.7	6541.5	6684.0	6640.2
32.5°	6294.7	6311.2	6250.8	6355.0	6201.5
35°	6031.5	6042.5	6031.5	6037.0	6031.5
37.5°	5779.3	5751.9	5801.2	5768.3	5872.5
40°	5499.7	5499.7	5521.6	5576.4	5658.7
42.5°	5241.9	5263.9	5236.5	5390.0	5422.9
45°	4951.3	4989.7	4945.8	5148.7	5099.4
47.5°	4688.1	4704.6	4693.6	4830.7	4841.7
50°	4403.0	4424.9	4435.9	4556.5	4573.0
52.5°	4167.2	4161.7	4123.4	4298.8	4326.2
55°	3887.6	3882.1	3871.1	4008.2	4046.6
57.5°	3602.5	3607.9	3635.4	3712.1	3805.3
60°	3344.8	3317.3	3339.3	3432.5	3509.2
62.5°	3081.6	3032.2	2982.9	3136.4	3207.7
65°	2790.9	2730.6	2703.2	2829.3	2950.0
67.5°	2522.3	2423.6	2407.1	2494.9	2637.4
70°	2215.2	2094.6	2089.1	2154.9	2324.9
72.5°	1875.3	1771.1	1743.7	1831.4	1984.9
75°	1551.7	1436.6	1403.7	1485.9	1628.5
77.5°	1200.8	1107.6	1085.7	1129.5	1244.7
80°	844.4	789.6	767.6	784.1	866.3
82.5°	531.9	493.5	482.5	477.0	520.9
85°	268.7	241.3	241.3	224.8	235.8
87.5°	82.2	76.8	71.3	54.8	60.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)