

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: P485772

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5HI-27-120-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: P485772
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-24-2-INS-89BC-LD4-5HI-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

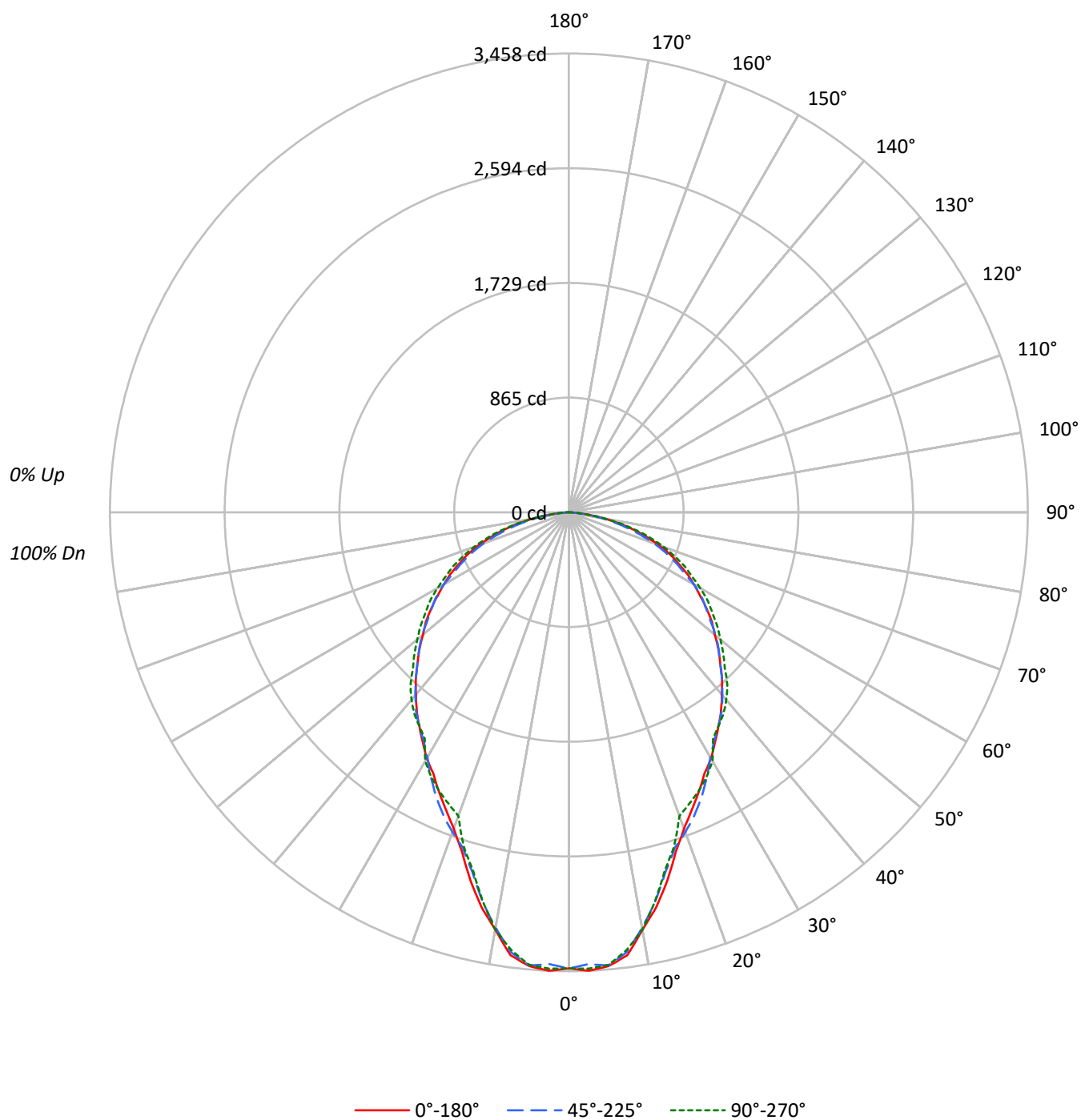
Lumens per Lamp: N/A
Luminaire Lumens: 7348.8 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 110
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°	9247	9247	9247
5°	9273	9258	9248
10°	8725	8686	8720
15°	7995	7821	7776
20°	7261	7343	6970
25°	6887	7025	6876
30°	6652	6624	6724
35°	6457	6457	6457
40°	6296	6321	6478
45°	6141	6134	6324
50°	6007	6052	6239
55°	5944	5919	6187
60°	5866	5857	6155
65°	5791	5609	6122
70°	5680	5356	5962
75°	5258	4757	5518
80°	4265	3877	4375
85°	2705	2427	2371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.2	4.3
10°-20°	797.9	10.9
20°-30°	1077.6	14.7
30°-40°	1234.0	16.8
40°-50°	1264.0	17.2
50°-60°	1146.9	15.6
60°-70°	895.1	12.2
70°-80°	507.7	6.9
80°-90°	106.6	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°	2194.6	29.9
0°-40°	3428.6	46.7
0°-60°	5839.4	79.5
0°-90°	7348.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7348.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3436	3436	3436	3436	3436	
5°	3433	3393	3427	3434	3424	321
15°	2870	2879	2807	2822	2791	802
25°	2319	2350	2366	2309	2316	1070
35°	1966	1969	1966	1967	1966	1231
45°	1614	1626	1612	1678	1662	1248
55°	1267	1265	1262	1306	1319	1132
65°	910	890	881	922	961	901
75°	506	468	458	484	531	529
85°	88	79	79	73	77	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3436.2	3436.2	3436.2	3436.2	3436.2
2.5°	3457.7	3430.9	3407.6	3445.2	3441.6
5°	3432.7	3393.4	3427.3	3434.5	3423.7
7.5°	3366.5	3341.5	3343.3	3329.0	3327.2
10°	3193.2	3207.5	3178.9	3203.9	3191.4
12.5°	3044.9	3053.8	3003.8	3014.5	3000.2
15°	2869.8	2878.7	2807.2	2821.5	2791.2
17.5°	2678.6	2710.8	2651.8	2669.7	2637.5
20°	2535.6	2562.4	2564.2	2535.6	2433.8
22.5°	2423.1	2449.9	2471.3	2385.5	2374.8
25°	2319.4	2349.8	2365.9	2308.7	2315.8
27.5°	2215.8	2249.7	2249.7	2262.2	2246.2
30°	2140.7	2155.0	2131.8	2178.2	2164.0
32.5°	2051.4	2056.7	2037.1	2071.0	2021.0
35°	1965.6	1969.2	1965.6	1967.4	1965.6
37.5°	1883.4	1874.5	1890.6	1879.8	1913.8
40°	1792.3	1792.3	1799.4	1817.3	1844.1
42.5°	1708.3	1715.4	1706.5	1756.5	1767.3
45°	1613.6	1626.1	1611.8	1677.9	1661.8
47.5°	1527.8	1533.2	1529.6	1574.3	1577.8
50°	1434.9	1442.0	1445.6	1484.9	1490.3
52.5°	1358.1	1356.3	1343.8	1400.9	1409.9
55°	1266.9	1265.1	1261.6	1306.2	1318.7
57.5°	1174.0	1175.8	1184.7	1209.7	1240.1
60°	1090.0	1081.1	1088.2	1118.6	1143.6
62.5°	1004.2	988.2	972.1	1022.1	1045.3
65°	909.5	889.9	880.9	922.0	961.4
67.5°	822.0	789.8	784.5	813.0	859.5
70°	721.9	682.6	680.8	702.3	757.7
72.5°	611.1	577.2	568.2	596.8	646.9
75°	505.7	468.2	457.5	484.3	530.7
77.5°	391.3	361.0	353.8	368.1	405.6
80°	275.2	257.3	250.2	255.5	282.3
82.5°	173.3	160.8	157.2	155.5	169.8
85°	87.6	78.6	78.6	73.3	76.8
87.5°	26.8	25.0	23.2	17.9	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)