

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: P485661

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-1STD-50-120-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: P485661
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-LD4-1STD-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

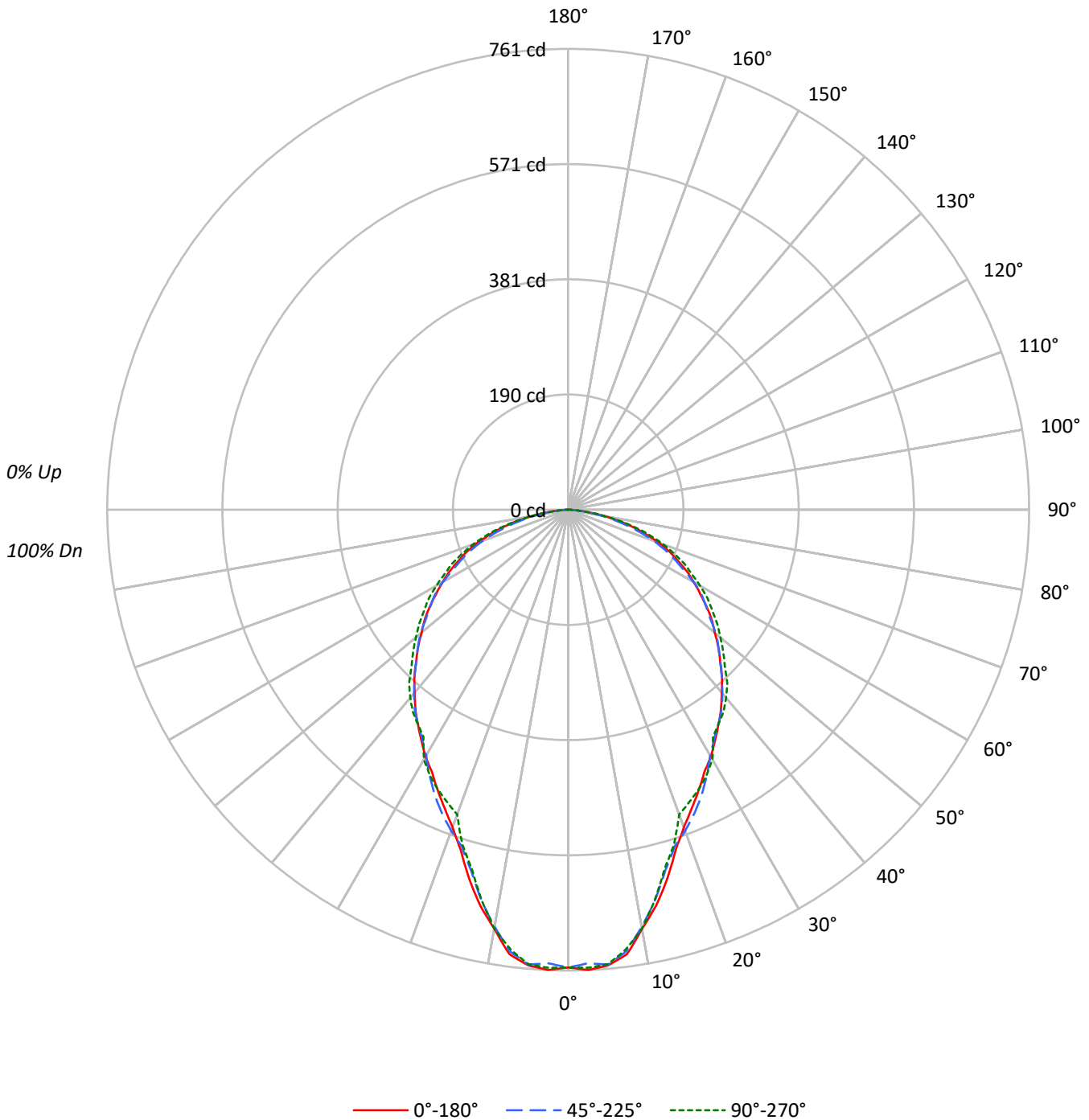
Lumens per Lamp: N/A
Luminaire Lumens: 1616.9 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																												
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70																												
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																												
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51																												
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45																												
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39																												
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35																												
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31																												
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28																												
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2034	2034	2034
5°	2040	2037	2035
10°	1920	1911	1919
15°	1759	1721	1711
20°	1598	1616	1534
25°	1515	1545	1513
30°	1464	1457	1479
35°	1421	1421	1421
40°	1385	1391	1425
45°	1351	1349	1391
50°	1322	1332	1373
55°	1308	1302	1361
60°	1291	1288	1354
65°	1274	1234	1347
70°	1249	1179	1312
75°	1157	1046	1214
80°	938	852	962
85°	596	534	522



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.2	4.3
10°-20°	175.6	10.9
20°-30°	237.1	14.7
30°-40°	271.5	16.8
40°-50°	278.1	17.2
50°-60°	252.4	15.6
60°-70°	196.9	12.2
70°-80°	111.7	6.9
80°-90°	23.4	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°	482.9	29.9
0°-40°	754.4	46.7
0°-60°	1284.8	79.5
0°-90°	1616.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1616.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	756	756	756	756	756	
5°	755	747	754	756	753	71
15°	631	633	618	621	614	176
25°	510	517	520	508	510	235
35°	432	433	432	433	432	271
45°	355	358	355	369	366	275
55°	279	278	278	287	290	249
65°	200	196	194	203	212	198
75°	111	103	101	106	117	116
85°	19	17	17	16	17	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	756.0	756.0	756.0	756.0	756.0
2.5°	760.8	754.9	749.8	758.0	757.2
5°	755.3	746.6	754.1	755.7	753.3
7.5°	740.7	735.2	735.6	732.5	732.1
10°	702.6	705.7	699.4	704.9	702.2
12.5°	669.9	671.9	660.9	663.3	660.1
15°	631.4	633.4	617.7	620.8	614.1
17.5°	589.3	596.4	583.5	587.4	580.3
20°	557.9	563.8	564.2	557.9	535.5
22.5°	533.1	539.0	543.7	524.9	522.5
25°	510.3	517.0	520.5	508.0	509.5
27.5°	487.5	495.0	495.0	497.7	494.2
30°	471.0	474.2	469.0	479.3	476.1
32.5°	451.3	452.5	448.2	455.7	444.7
35°	432.5	433.3	432.5	432.9	432.5
37.5°	414.4	412.4	416.0	413.6	421.1
40°	394.3	394.3	395.9	399.8	405.7
42.5°	375.9	377.4	375.5	386.5	388.8
45°	355.0	357.8	354.6	369.2	365.6
47.5°	336.2	337.3	336.5	346.4	347.2
50°	315.7	317.3	318.1	326.7	327.9
52.5°	298.8	298.4	295.7	308.2	310.2
55°	278.8	278.4	277.6	287.4	290.2
57.5°	258.3	258.7	260.7	266.2	272.9
60°	239.8	237.9	239.4	246.1	251.6
62.5°	221.0	217.4	213.9	224.9	230.0
65°	200.1	195.8	193.8	202.9	211.5
67.5°	180.9	173.8	172.6	178.9	189.1
70°	158.8	150.2	149.8	154.5	166.7
72.5°	134.5	127.0	125.0	131.3	142.3
75°	111.3	103.0	100.6	106.5	116.8
77.5°	86.1	79.4	77.8	81.0	89.2
80°	60.5	56.6	55.0	56.2	62.1
82.5°	38.1	35.4	34.6	34.2	37.4
85°	19.3	17.3	17.3	16.1	16.9
87.5°	5.9	5.5	5.1	3.9	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)