

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: P485837

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6STD-35-120-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: P485837
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-LD4-6STD-35-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

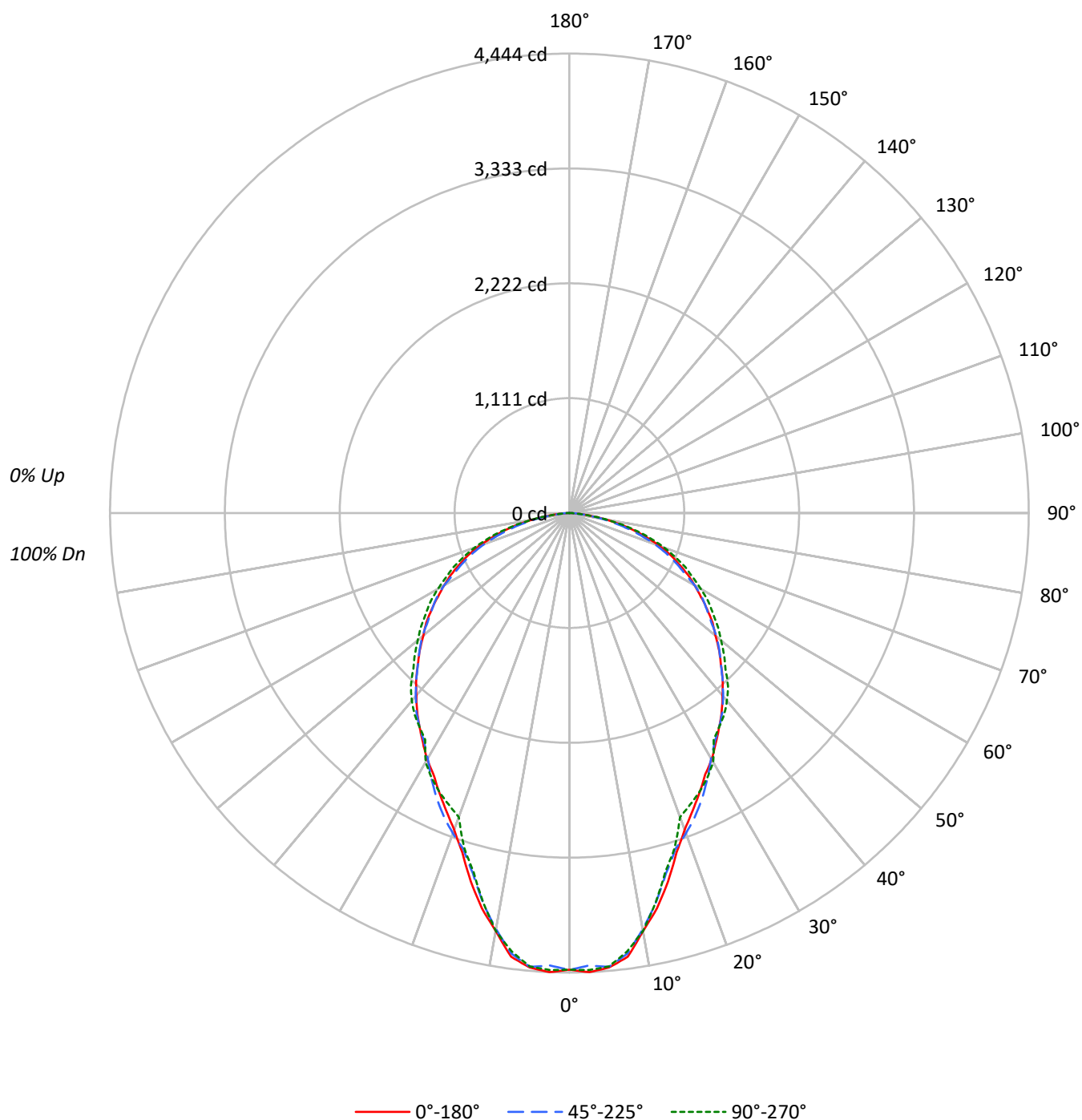
Lumens per Lamp: N/A
Luminaire Lumens: 9444.8 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	11884	11884	11884
5°	11917	11899	11886
10°	11214	11164	11208
15°	10275	10051	9994
20°	9332	9438	8957
25°	8851	9028	8837
30°	8549	8513	8642
35°	8299	8299	8299
40°	8092	8124	8326
45°	7892	7883	8128
50°	7720	7778	8018
55°	7639	7607	7952
60°	7540	7527	7910
65°	7443	7209	7868
70°	7300	6884	7661
75°	6757	6112	7092
80°	5481	4982	5624
85°	3473	3118	3051



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	410.2	4.3
10°-20°	1025.5	10.9
20°-30°	1384.9	14.7
30°-40°	1585.9	16.8
40°-50°	1624.5	17.2
50°-60°	1474.0	15.6
60°-70°	1150.4	12.2
70°-80°	652.5	6.9
80°-90°	137.0	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°	2820.6	29.9
0°-40°	4406.5	46.7
0°-60°	7504.9	79.5
0°-90°	9444.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9444.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4416	4416	4416	4416	4416	
5°	4412	4361	4405	4414	4400	412
15°	3688	3700	3608	3626	3587	1031
25°	2981	3020	3041	2967	2976	1376
35°	2526	2531	2526	2528	2526	1582
45°	2074	2090	2072	2156	2136	1603
55°	1628	1626	1621	1679	1695	1455
65°	1169	1144	1132	1185	1236	1158
75°	650	602	588	622	682	680
85°	112	101	101	94	99	149
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4416.3	4416.3	4416.3	4416.3	4416.3
2.5°	4443.9	4409.4	4379.6	4427.8	4423.2
5°	4411.7	4361.2	4404.8	4414.0	4400.2
7.5°	4326.7	4294.6	4296.9	4278.5	4276.2
10°	4104.0	4122.3	4085.6	4117.8	4101.7
12.5°	3913.4	3924.8	3860.5	3874.3	3855.9
15°	3688.3	3699.8	3607.9	3626.3	3587.2
17.5°	3442.6	3483.9	3408.1	3431.1	3389.7
20°	3258.8	3293.3	3295.6	3258.8	3127.9
22.5°	3114.2	3148.6	3176.2	3065.9	3052.1
25°	2981.0	3020.0	3040.7	2967.2	2976.4
27.5°	2847.8	2891.4	2891.4	2907.5	2886.8
30°	2751.3	2769.7	2739.8	2799.5	2781.2
32.5°	2636.5	2643.4	2618.1	2661.7	2597.4
35°	2526.2	2530.8	2526.2	2528.5	2526.2
37.5°	2420.6	2409.1	2429.8	2416.0	2459.6
40°	2303.5	2303.5	2312.6	2335.6	2370.1
42.5°	2195.5	2204.7	2193.2	2257.5	2271.3
45°	2073.8	2089.9	2071.5	2156.5	2135.8
47.5°	1963.6	1970.5	1965.9	2023.3	2027.9
50°	1844.1	1853.3	1857.9	1908.5	1915.3
52.5°	1745.4	1743.1	1727.0	1800.5	1812.0
55°	1628.3	1626.0	1621.4	1678.8	1694.9
57.5°	1508.8	1511.1	1522.6	1554.8	1593.8
60°	1400.9	1389.4	1398.6	1437.7	1469.8
62.5°	1290.7	1270.0	1249.3	1313.6	1343.5
65°	1169.0	1143.7	1132.2	1185.0	1235.6
67.5°	1056.4	1015.1	1008.2	1044.9	1104.7
70°	927.8	877.3	875.0	902.6	973.7
72.5°	785.4	741.8	730.3	767.1	831.4
75°	649.9	601.7	587.9	622.4	682.1
77.5°	502.9	463.9	454.7	473.1	521.3
80°	353.7	330.7	321.5	328.4	362.9
82.5°	222.8	206.7	202.1	199.8	218.2
85°	112.5	101.0	101.0	94.2	98.8
87.5°	34.4	32.2	29.9	23.0	25.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)