

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: P485812

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-6HI-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: P485812
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-LD4-6HI-35-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

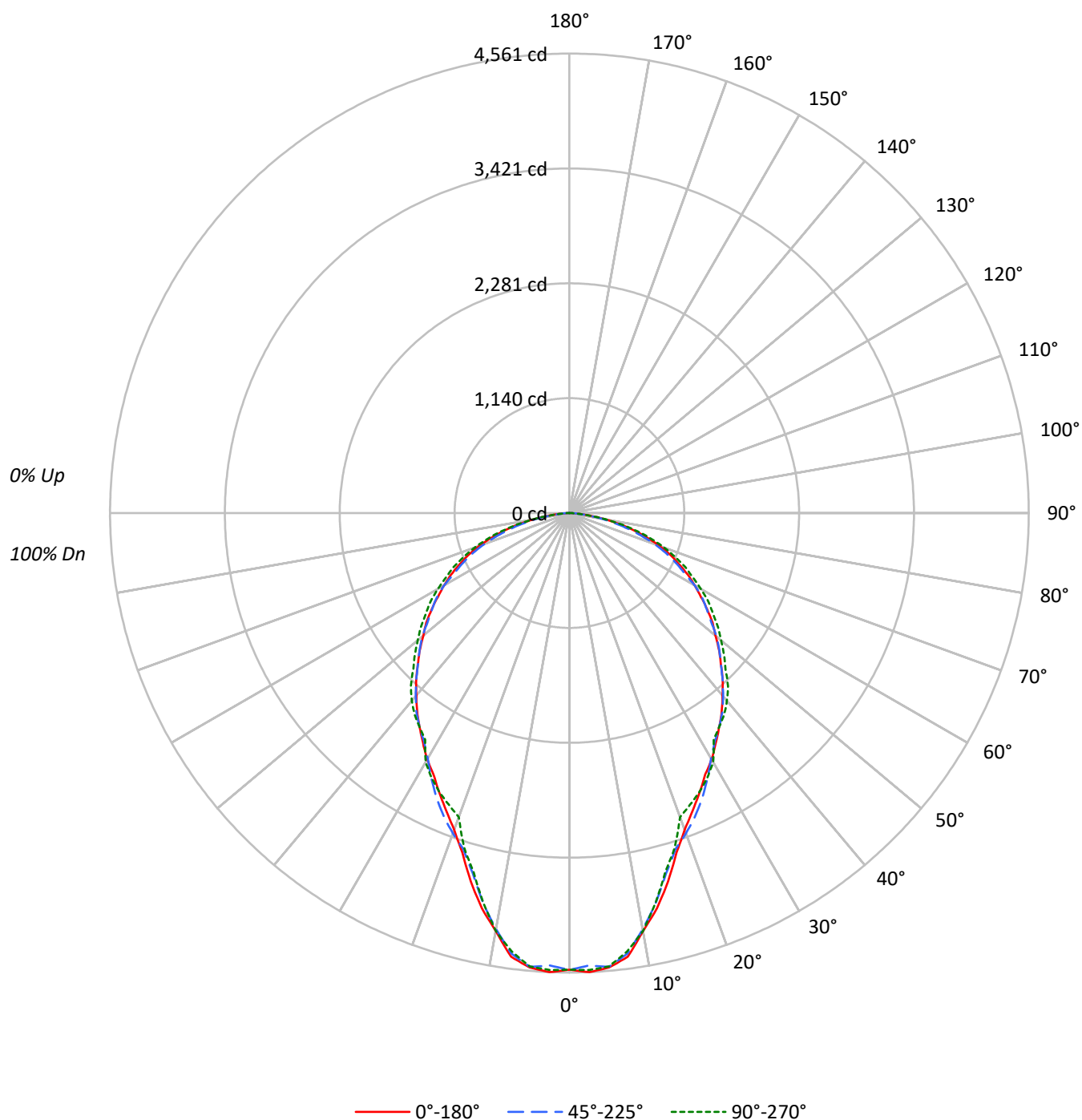
Lumens per Lamp: N/A
Luminaire Lumens: 9693.6 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	12197	12197	12197
5°	12231	12212	12199
10°	11510	11458	11503
15°	10546	10316	10257
20°	9578	9686	9193
25°	9084	9266	9070
30°	8774	8738	8869
35°	8518	8518	8518
40°	8305	8338	8545
45°	8100	8091	8342
50°	7924	7983	8230
55°	7841	7807	8161
60°	7738	7726	8119
65°	7639	7399	8074
70°	7493	7065	7863
75°	6936	6274	7279
80°	5625	5114	5771
85°	3566	3202	3131



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	421.0	4.3
10°-20°	1052.5	10.9
20°-30°	1421.4	14.7
30°-40°	1627.7	16.8
40°-50°	1667.3	17.2
50°-60°	1512.8	15.6
60°-70°	1180.7	12.2
70°-80°	669.7	6.9
80°-90°	140.6	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°	2894.9	29.9
0°-40°	4522.5	46.7
0°-60°	7702.6	79.5
0°-90°	9693.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9693.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4533	4533	4533	4533	4533	
5°	4528	4476	4521	4530	4516	423
15°	3786	3797	3703	3722	3682	1058
25°	3060	3100	3121	3045	3055	1412
35°	2593	2598	2593	2595	2593	1624
45°	2128	2145	2126	2213	2192	1646
55°	1671	1669	1664	1723	1740	1493
65°	1200	1174	1162	1216	1268	1189
75°	667	618	603	639	700	698
85°	116	104	104	97	101	153
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4532.6	4532.6	4532.6	4532.6	4532.6
2.5°	4560.9	4525.6	4494.9	4544.4	4539.7
5°	4527.9	4476.1	4520.9	4530.3	4516.1
7.5°	4440.7	4407.7	4410.1	4391.2	4388.9
10°	4212.1	4230.9	4193.2	4226.2	4209.7
12.5°	4016.4	4028.2	3962.2	3976.4	3957.5
15°	3785.5	3797.2	3703.0	3721.8	3681.7
17.5°	3533.2	3575.7	3497.9	3521.5	3479.0
20°	3344.7	3380.0	3382.4	3344.7	3210.3
22.5°	3196.2	3231.5	3259.8	3146.7	3132.5
25°	3059.5	3099.5	3120.8	3045.3	3054.8
27.5°	2922.8	2967.6	2967.6	2984.1	2962.8
30°	2823.8	2842.6	2812.0	2873.3	2854.4
32.5°	2705.9	2713.0	2687.1	2731.8	2665.8
35°	2592.8	2597.5	2592.8	2595.1	2592.8
37.5°	2484.4	2472.6	2493.8	2479.6	2524.4
40°	2364.1	2364.1	2373.6	2397.1	2432.5
42.5°	2253.4	2262.8	2251.0	2317.0	2331.1
45°	2128.4	2144.9	2126.1	2213.3	2192.1
47.5°	2015.3	2022.4	2017.7	2076.6	2081.3
50°	1892.7	1902.2	1906.9	1958.7	1965.8
52.5°	1791.4	1789.0	1772.5	1847.9	1859.7
55°	1671.2	1668.8	1664.1	1723.0	1739.5
57.5°	1548.6	1551.0	1562.7	1595.7	1635.8
60°	1437.8	1426.0	1435.5	1475.5	1508.5
62.5°	1324.7	1303.5	1282.2	1348.2	1378.9
65°	1199.7	1173.8	1162.0	1216.2	1268.1
67.5°	1084.3	1041.8	1034.8	1072.5	1133.8
70°	952.3	900.4	898.0	926.3	999.4
72.5°	806.1	761.3	749.5	787.3	853.3
75°	667.1	617.6	603.4	638.8	700.1
77.5°	516.2	476.1	466.7	485.6	535.1
80°	363.0	339.4	330.0	337.1	372.4
82.5°	228.6	212.1	207.4	205.1	223.9
85°	115.5	103.7	103.7	96.6	101.4
87.5°	35.4	33.0	30.6	23.6	25.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)