

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: P485803

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-5STD-40-120-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: P485803
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-LD4-5STD-40-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

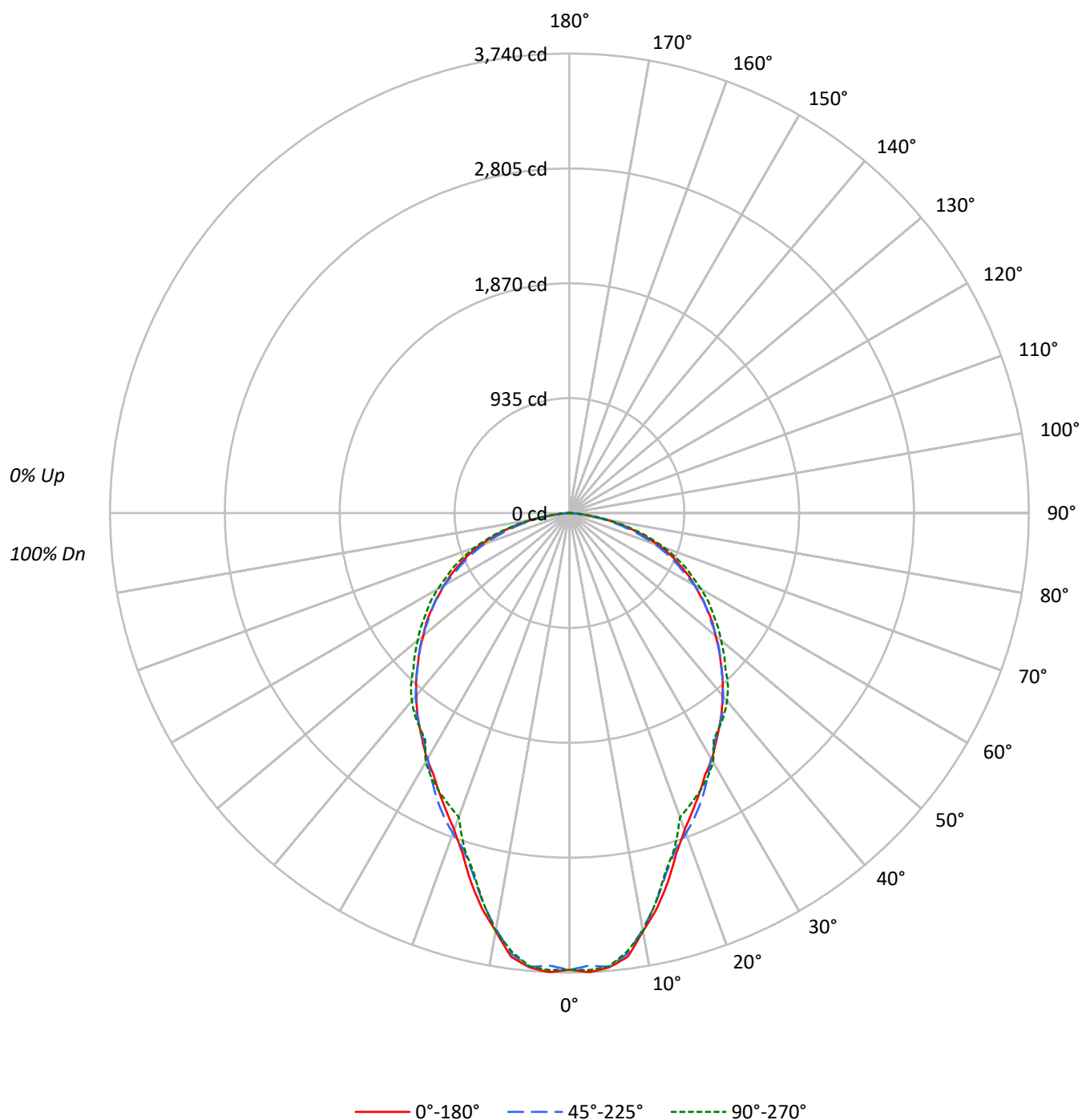
Lumens per Lamp: N/A
Luminaire Lumens: 7949.4 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 83.2
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°	10003	10003	10003
5°	10030	10015	10004
10°	9439	9396	9433
15°	8648	8460	8411
20°	7855	7943	7539
25°	7450	7599	7438
30°	7196	7165	7274
35°	6985	6985	6985
40°	6811	6838	7007
45°	6643	6635	6841
50°	6498	6547	6749
55°	6430	6403	6693
60°	6346	6336	6658
65°	6265	6067	6621
70°	6144	5795	6449
75°	5687	5145	5969
80°	4613	4193	4733
85°	2924	2628	2566



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	345.2	4.3
10°-20°	863.1	10.9
20°-30°	1165.6	14.7
30°-40°	1334.8	16.8
40°-50°	1367.3	17.2
50°-60°	1240.6	15.6
60°-70°	968.3	12.2
70°-80°	549.2	6.9
80°-90°	115.3	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°	2374.0	29.9
0°-40°	3708.8	46.7
0°-60°	6316.7	79.5
0°-90°	7949.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7949.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3717	3717	3717	3717	3717	
5°	3713	3671	3707	3715	3704	347
15°	3104	3114	3037	3052	3019	868
25°	2509	2542	2559	2497	2505	1158
35°	2126	2130	2126	2128	2126	1332
45°	1746	1759	1744	1815	1798	1350
55°	1370	1368	1365	1413	1426	1225
65°	984	963	953	997	1040	975
75°	547	506	495	524	574	572
85°	95	85	85	79	83	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3717.1	3717.1	3717.1	3717.1	3717.1
2.5°	3740.3	3711.3	3686.1	3726.7	3722.9
5°	3713.2	3670.7	3707.4	3715.1	3703.5
7.5°	3641.7	3614.6	3616.6	3601.1	3599.2
10°	3454.2	3469.7	3438.7	3465.8	3452.3
12.5°	3293.8	3303.4	3249.3	3260.9	3245.4
15°	3104.3	3114.0	3036.7	3052.1	3019.3
17.5°	2897.5	2932.3	2868.5	2887.8	2853.0
20°	2742.9	2771.9	2773.8	2742.9	2632.7
22.5°	2621.1	2650.1	2673.3	2580.5	2568.9
25°	2509.0	2541.8	2559.2	2497.4	2505.1
27.5°	2396.9	2433.6	2433.6	2447.1	2429.7
30°	2315.7	2331.1	2306.0	2356.3	2340.8
32.5°	2219.0	2224.8	2203.6	2240.3	2186.2
35°	2126.3	2130.1	2126.3	2128.2	2126.3
37.5°	2037.3	2027.7	2045.1	2033.5	2070.2
40°	1938.8	1938.8	1946.5	1965.8	1994.8
42.5°	1847.9	1855.6	1846.0	1900.1	1911.7
45°	1745.5	1759.0	1743.5	1815.0	1797.6
47.5°	1652.7	1658.5	1654.6	1702.9	1706.8
50°	1552.2	1559.9	1563.8	1606.3	1612.1
52.5°	1469.0	1467.1	1453.6	1515.4	1525.1
55°	1370.5	1368.5	1364.7	1413.0	1426.5
57.5°	1270.0	1271.9	1281.5	1308.6	1341.5
60°	1179.1	1169.4	1177.2	1210.0	1237.1
62.5°	1086.3	1068.9	1051.5	1105.7	1130.8
65°	983.9	962.6	952.9	997.4	1039.9
67.5°	889.2	854.4	848.6	879.5	929.8
70°	780.9	738.4	736.5	759.7	819.6
72.5°	661.1	624.3	614.7	645.6	699.7
75°	547.0	506.4	494.8	523.8	574.1
77.5°	423.3	390.5	382.7	398.2	438.8
80°	297.7	278.3	270.6	276.4	305.4
82.5°	187.5	174.0	170.1	168.2	183.6
85°	94.7	85.1	85.1	79.3	83.1
87.5°	29.0	27.1	25.1	19.3	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)