

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: P487008

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3LO-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: P487008
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-24-4-INS-89BC-LD4-3LO-27-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

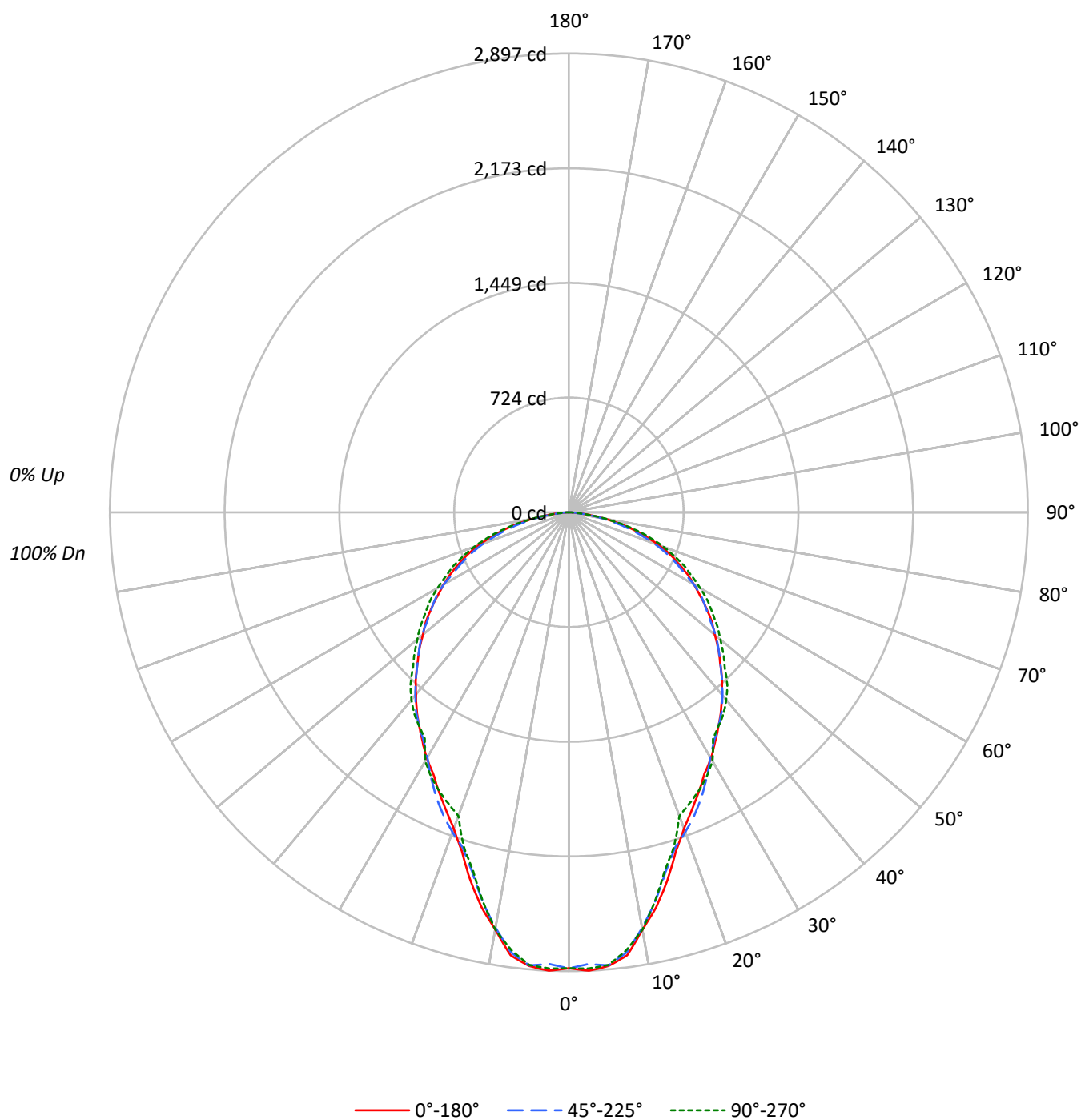
Lumens per Lamp: N/A
Luminaire Lumens: 6157.2 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	3874	3874	3874
5°	3885	3878	3874
10°	3655	3639	3653
15°	3349	3276	3258
20°	3042	3076	2920
25°	2885	2943	2881
30°	2787	2775	2817
35°	2705	2705	2705
40°	2638	2648	2714
45°	2572	2570	2649
50°	2516	2535	2614
55°	2490	2479	2592
60°	2458	2454	2578
65°	2426	2350	2564
70°	2380	2244	2497
75°	2203	1993	2312
80°	1787	1624	1833
85°	1133	1017	994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.4	4.3
10°-20°	668.5	10.9
20°-30°	902.8	14.7
30°-40°	1033.9	16.8
40°-50°	1059.0	17.2
50°-60°	960.9	15.6
60°-70°	750.0	12.2
70°-80°	425.4	6.9
80°-90°	89.3	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°	1838.8	29.9
0°-40°	2872.6	46.7
0°-60°	4892.6	79.5
0°-90°	6157.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6157.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2879	2879	2879	2879	2879	
5°	2876	2843	2872	2878	2869	269
15°	2404	2412	2352	2364	2339	672
25°	1943	1969	1982	1934	1940	897
35°	1647	1650	1647	1648	1647	1032
45°	1352	1362	1350	1406	1392	1045
55°	1062	1060	1057	1094	1105	949
65°	762	746	738	772	806	755
75°	424	392	383	406	445	443
85°	73	66	66	61	64	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2879.1	2879.1	2879.1	2879.1	2879.1
2.5°	2897.0	2874.6	2855.1	2886.5	2883.5
5°	2876.1	2843.1	2871.6	2877.6	2868.6
7.5°	2820.7	2799.7	2801.2	2789.2	2787.7
10°	2675.4	2687.4	2663.5	2684.4	2673.9
12.5°	2551.2	2558.7	2516.7	2525.7	2513.7
15°	2404.5	2411.9	2352.1	2364.0	2338.6
17.5°	2244.3	2271.2	2221.8	2236.8	2209.8
20°	2124.5	2146.9	2148.4	2124.5	2039.1
22.5°	2030.2	2052.6	2070.6	1998.7	1989.7
25°	1943.3	1968.8	1982.3	1934.3	1940.3
27.5°	1856.5	1884.9	1884.9	1895.4	1881.9
30°	1793.6	1805.6	1786.1	1825.0	1813.1
32.5°	1718.8	1723.2	1706.8	1735.2	1693.3
35°	1646.9	1649.9	1646.9	1648.4	1646.9
37.5°	1578.0	1570.5	1584.0	1575.0	1603.5
40°	1501.7	1501.7	1507.6	1522.6	1545.1
42.5°	1431.3	1437.3	1429.8	1471.7	1480.7
45°	1351.9	1362.4	1350.4	1405.8	1392.4
47.5°	1280.1	1284.6	1281.6	1319.0	1322.0
50°	1202.2	1208.2	1211.2	1244.1	1248.6
52.5°	1137.8	1136.4	1125.9	1173.8	1181.3
55°	1061.5	1060.0	1057.0	1094.4	1104.9
57.5°	983.6	985.1	992.6	1013.6	1039.0
60°	913.3	905.8	911.8	937.2	958.2
62.5°	841.4	827.9	814.5	856.4	875.8
65°	762.1	745.6	738.1	772.5	805.5
67.5°	688.7	661.7	657.3	681.2	720.1
70°	604.9	571.9	570.4	588.4	634.8
72.5°	512.0	483.6	476.1	500.1	542.0
75°	423.7	392.3	383.3	405.7	444.7
77.5°	327.9	302.4	296.4	308.4	339.9
80°	230.6	215.6	209.6	214.1	236.6
82.5°	145.2	134.7	131.8	130.3	142.2
85°	73.4	65.9	65.9	61.4	64.4
87.5°	22.5	21.0	19.5	15.0	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)