

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: P487018

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3STD-20-120-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: P487018
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-LD4-3STD-20-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

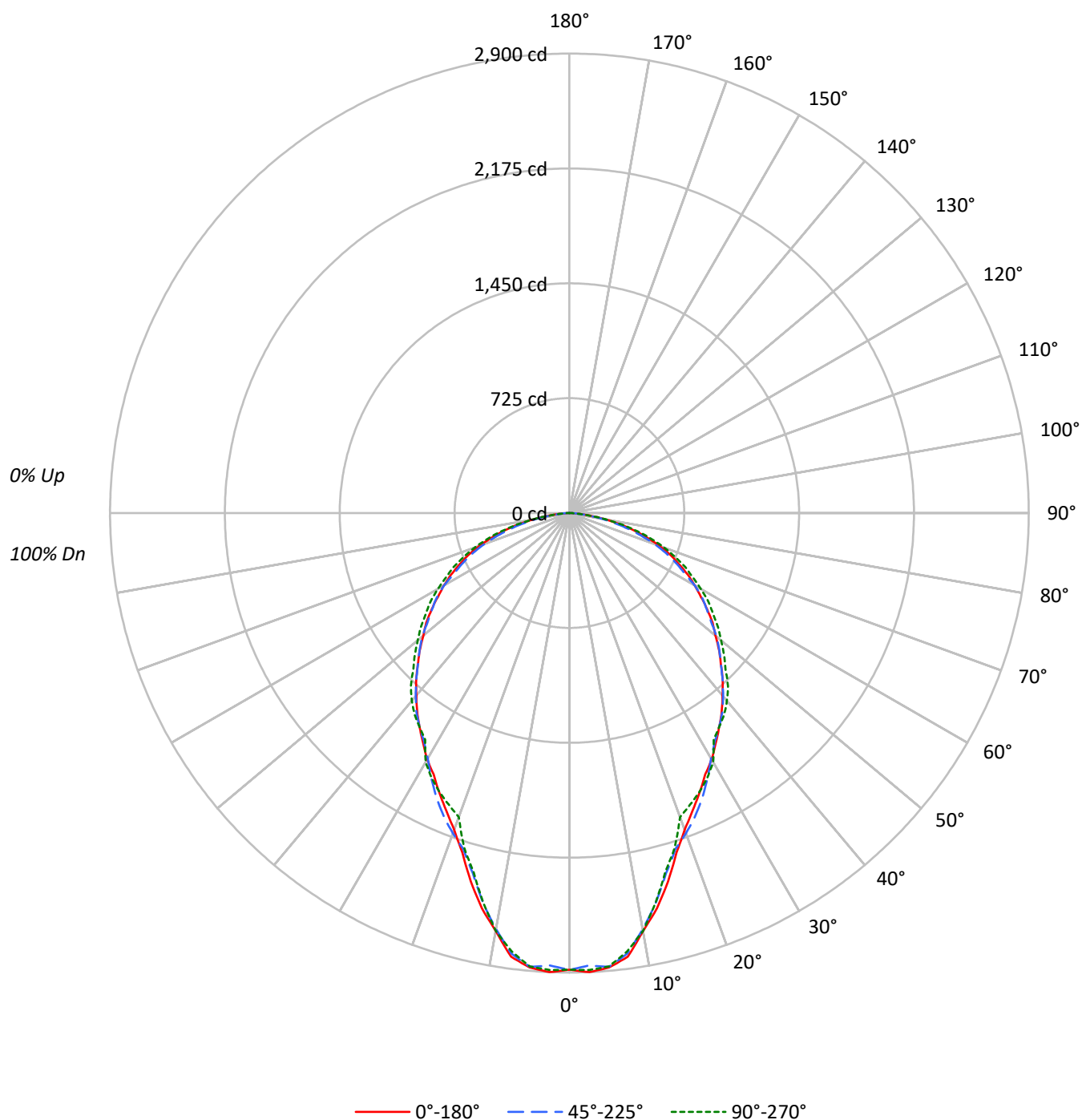
Lumens per Lamp: N/A
Luminaire Lumens: 6163.2 lumens
Efficiency: N/A
Efficacy: 61.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P487018

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-3STD-20-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P487018

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-3STD-20-120-EDD-90

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°	3878	3878	3878
5°	3888	3882	3878
10°	3659	3643	3657
15°	3353	3279	3261
20°	3045	3079	2923
25°	2888	2946	2883
30°	2789	2778	2820
35°	2708	2708	2708
40°	2640	2651	2716
45°	2575	2572	2652
50°	2519	2538	2616
55°	2492	2482	2594
60°	2460	2456	2581
65°	2429	2352	2567
70°	2382	2246	2500
75°	2205	1994	2314
80°	1788	1626	1835
85°	1133	1017	994



TEST NUMBER: P487018

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-3STD-20-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.7	4.3
10°-20°	669.2	10.9
20°-30°	903.7	14.7
30°-40°	1034.9	16.8
40°-50°	1060.1	17.2
50°-60°	961.9	15.6
60°-70°	750.7	12.2
70°-80°	425.8	6.9
80°-90°	89.4	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°	1840.6	29.9
0°-40°	2875.4	46.7
0°-60°	4897.3	79.5
0°-90°	6163.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6163.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2882	2882	2882	2882	2882	
5°	2879	2846	2874	2880	2871	269
15°	2407	2414	2354	2366	2341	673
25°	1945	1971	1984	1936	1942	898
35°	1648	1652	1648	1650	1648	1033
45°	1353	1364	1352	1407	1394	1046
55°	1062	1061	1058	1096	1106	950
65°	763	746	739	773	806	756
75°	424	393	384	406	445	444
85°	73	66	66	61	64	97
90°	0	0	0	0	0	



TEST NUMBER: P487018

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-3STD-20-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2881.9	2881.9	2881.9	2881.9	2881.9
2.5°	2899.8	2877.4	2857.9	2889.4	2886.4
5°	2878.9	2845.9	2874.4	2880.4	2871.4
7.5°	2823.4	2802.4	2803.9	2791.9	2790.4
10°	2678.0	2690.0	2666.1	2687.0	2676.5
12.5°	2553.7	2561.2	2519.2	2528.2	2516.2
15°	2406.8	2414.3	2354.3	2366.3	2340.9
17.5°	2246.4	2273.4	2224.0	2239.0	2212.0
20°	2126.6	2149.0	2150.5	2126.6	2041.1
22.5°	2032.1	2054.6	2072.6	2000.7	1991.7
25°	1945.2	1970.7	1984.2	1936.2	1942.2
27.5°	1858.3	1886.8	1886.8	1897.3	1883.8
30°	1795.4	1807.3	1787.9	1826.8	1814.8
32.5°	1720.4	1724.9	1708.4	1736.9	1694.9
35°	1648.5	1651.5	1648.5	1650.0	1648.5
37.5°	1579.6	1572.1	1585.5	1576.6	1605.0
40°	1503.1	1503.1	1509.1	1524.1	1546.6
42.5°	1432.7	1438.7	1431.2	1473.2	1482.1
45°	1353.3	1363.8	1351.8	1407.2	1393.7
47.5°	1281.3	1285.8	1282.8	1320.3	1323.3
50°	1203.4	1209.4	1212.4	1245.4	1249.9
52.5°	1139.0	1137.5	1127.0	1174.9	1182.4
55°	1062.5	1061.0	1058.0	1095.5	1106.0
57.5°	984.6	986.1	993.6	1014.6	1040.0
60°	914.2	906.7	912.7	938.1	959.1
62.5°	842.2	828.7	815.3	857.2	876.7
65°	762.8	746.3	738.8	773.3	806.3
67.5°	689.4	662.4	657.9	681.9	720.8
70°	605.4	572.5	571.0	589.0	635.4
72.5°	512.5	484.1	476.6	500.5	542.5
75°	424.1	392.6	383.6	406.1	445.1
77.5°	328.2	302.7	296.7	308.7	340.2
80°	230.8	215.8	209.8	214.3	236.8
82.5°	145.4	134.9	131.9	130.4	142.4
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)