

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: P486992

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-2STD-50-120-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: P486992
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-LD4-2STD-50-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

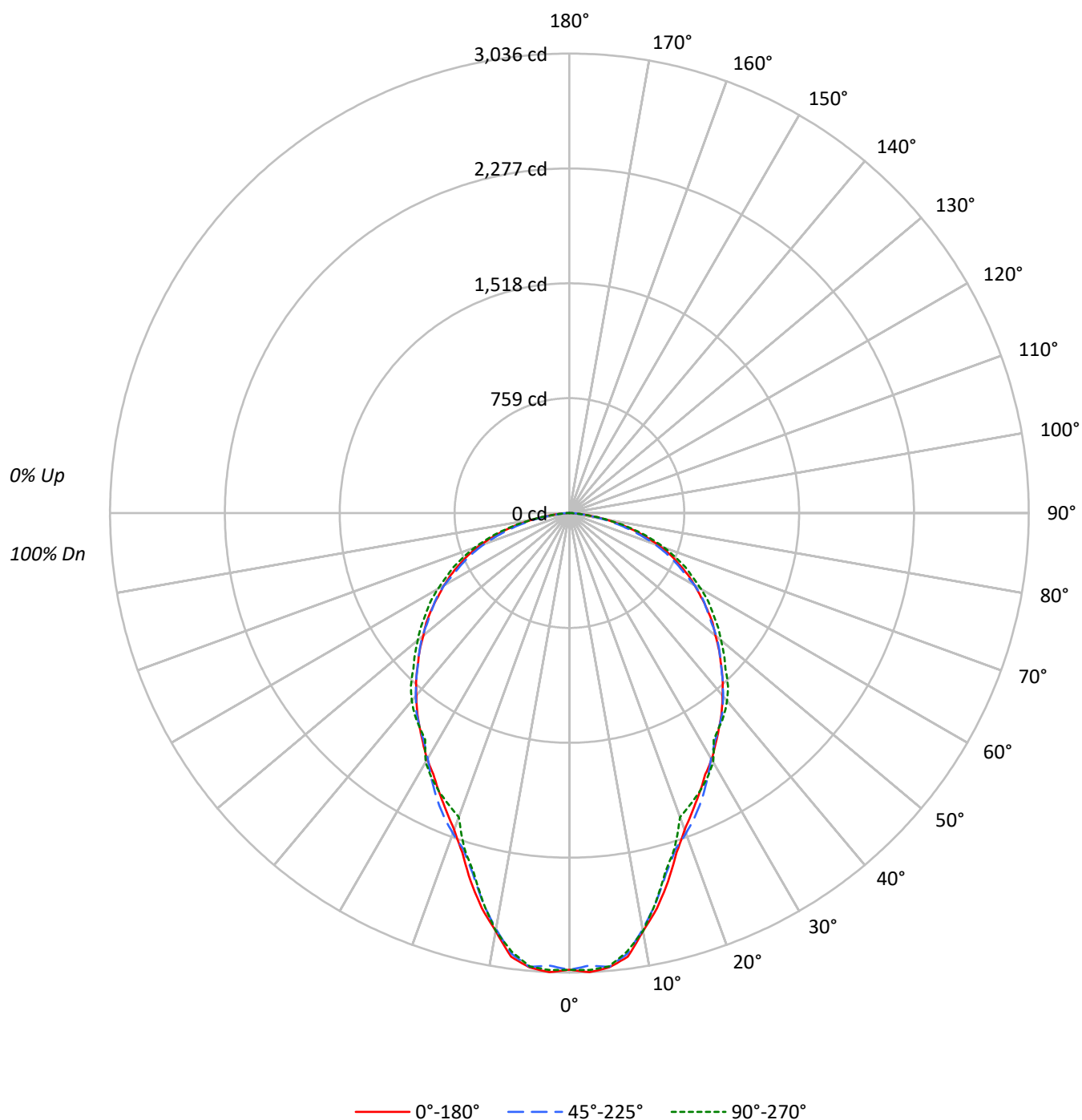
Lumens per Lamp: N/A
Luminaire Lumens: 6453.0 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	4060	4060	4060
5°	4071	4065	4061
10°	3831	3814	3829
15°	3510	3434	3414
20°	3188	3224	3060
25°	3024	3084	3019
30°	2921	2908	2952
35°	2835	2835	2835
40°	2764	2775	2844
45°	2696	2693	2777
50°	2637	2657	2739
55°	2610	2599	2716
60°	2576	2571	2702
65°	2543	2463	2688
70°	2494	2352	2617
75°	2309	2088	2423
80°	1872	1702	1921
85°	1187	1065	1042



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.2	4.3
10°-20°	700.6	10.9
20°-30°	946.2	14.7
30°-40°	1083.5	16.8
40°-50°	1109.9	17.2
50°-60°	1007.1	15.6
60°-70°	786.0	12.2
70°-80°	445.8	6.9
80°-90°	93.6	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°	1927.1	29.9
0°-40°	3010.6	46.7
0°-60°	5127.6	79.5
0°-90°	6453.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6453.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3017	3017	3017	3017	3017	
5°	3014	2980	3010	3016	3006	282
15°	2520	2528	2465	2478	2451	704
25°	2037	2063	2078	2027	2034	940
35°	1726	1729	1726	1728	1726	1081
45°	1417	1428	1415	1473	1459	1096
55°	1112	1111	1108	1147	1158	994
65°	799	781	774	810	844	792
75°	444	411	402	425	466	465
85°	77	69	69	64	68	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3017.4	3017.4	3017.4	3017.4	3017.4
2.5°	3036.2	3012.7	2992.3	3025.2	3022.1
5°	3014.2	2979.7	3009.5	3015.8	3006.4
7.5°	2956.2	2934.2	2935.8	2923.2	2921.7
10°	2804.0	2816.5	2791.4	2813.4	2802.4
12.5°	2673.7	2681.6	2637.6	2647.1	2634.5
15°	2520.0	2527.8	2465.0	2477.6	2450.9
17.5°	2352.1	2380.3	2328.5	2344.2	2316.0
20°	2226.5	2250.1	2251.7	2226.5	2137.1
22.5°	2127.7	2151.2	2170.1	2094.7	2085.3
25°	2036.7	2063.4	2077.5	2027.3	2033.5
27.5°	1945.7	1975.5	1975.5	1986.5	1972.4
30°	1879.8	1892.3	1871.9	1912.7	1900.2
32.5°	1801.3	1806.0	1788.8	1818.6	1774.6
35°	1726.0	1729.1	1726.0	1727.6	1726.0
37.5°	1653.8	1646.0	1660.1	1650.7	1680.5
40°	1573.8	1573.8	1580.1	1595.8	1619.3
42.5°	1500.1	1506.3	1498.5	1542.4	1551.8
45°	1416.9	1427.9	1415.3	1473.4	1459.3
47.5°	1341.6	1346.3	1343.1	1382.4	1385.5
50°	1260.0	1266.3	1269.4	1303.9	1308.6
52.5°	1192.5	1190.9	1180.0	1230.2	1238.0
55°	1112.5	1110.9	1107.8	1147.0	1158.0
57.5°	1030.9	1032.5	1040.3	1062.3	1089.0
60°	957.1	949.3	955.6	982.3	1004.2
62.5°	881.8	867.7	853.6	897.5	917.9
65°	798.7	781.4	773.6	809.7	844.2
67.5°	721.8	693.5	688.8	713.9	754.7
70°	633.9	599.4	597.8	616.7	665.3
72.5°	536.6	506.8	499.0	524.1	568.0
75°	444.1	411.1	401.7	425.2	466.0
77.5°	343.6	317.0	310.7	323.2	356.2
80°	241.6	225.9	219.7	224.4	247.9
82.5°	152.2	141.2	138.1	136.5	149.1
85°	76.9	69.0	69.0	64.3	67.5
87.5°	23.5	22.0	20.4	15.7	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)