

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: P487046

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-4LO-30-120-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: P487046
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-LD4-4LO-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

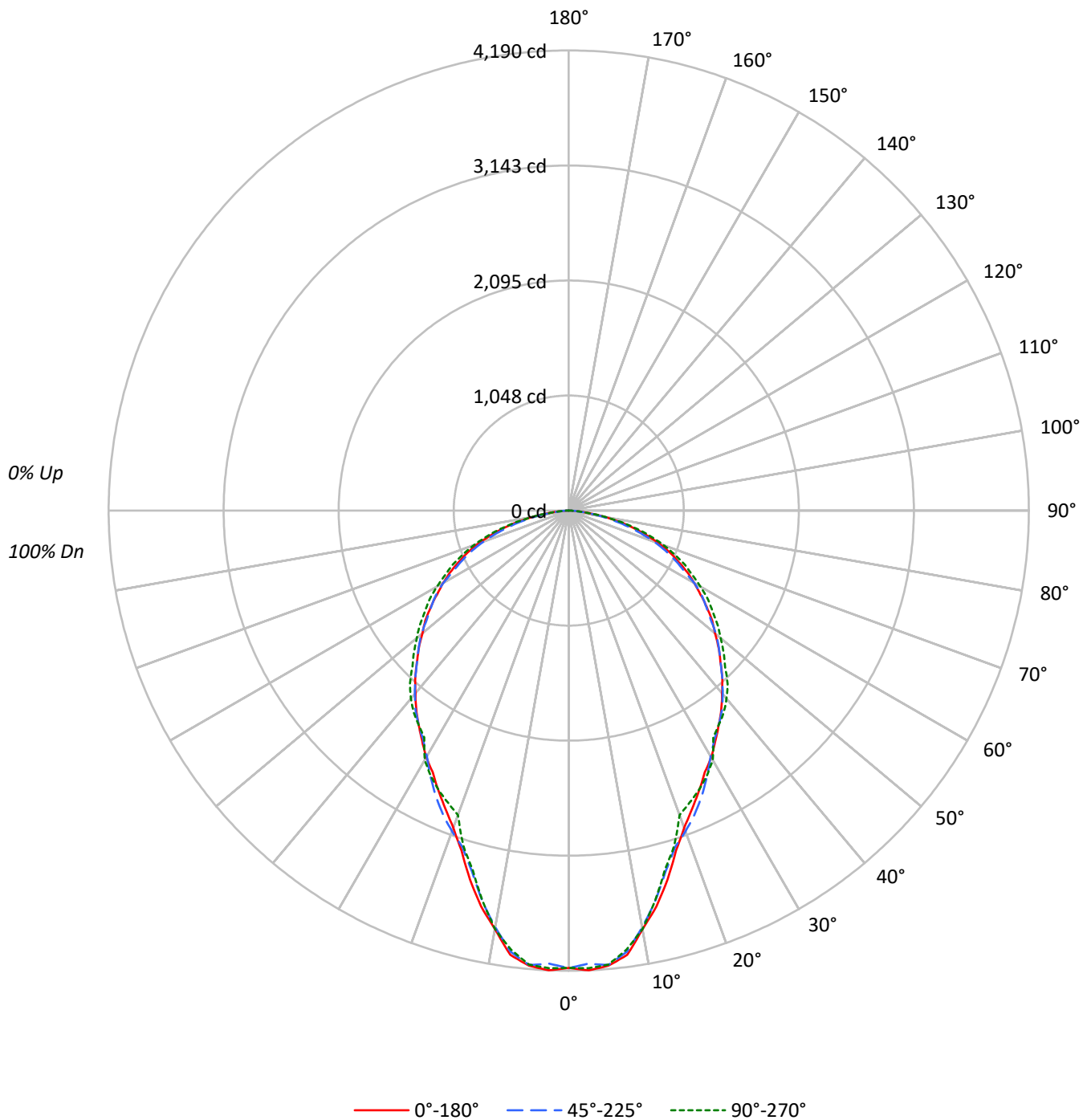
Lumens per Lamp: N/A
Luminaire Lumens: 8905.1 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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°	5603	5603	5603
5°	5618	5609	5603
10°	5287	5263	5284
15°	4844	4739	4711
20°	4399	4449	4223
25°	4173	4256	4166
30°	4030	4014	4074
35°	3912	3912	3912
40°	3815	3830	3925
45°	3721	3716	3832
50°	3640	3667	3780
55°	3601	3586	3749
60°	3555	3549	3729
65°	3509	3399	3709
70°	3441	3246	3612
75°	3186	2882	3343
80°	2584	2349	2651
85°	1638	1471	1437



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.7	4.3
10°-20°	966.9	10.9
20°-30°	1305.8	14.7
30°-40°	1495.3	16.8
40°-50°	1531.7	17.2
50°-60°	1389.8	15.6
60°-70°	1084.7	12.2
70°-80°	615.2	6.9
80°-90°	129.1	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°	2659.4	29.9
0°-40°	4154.7	46.7
0°-60°	7076.1	79.5
0°-90°	8905.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8905.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4164	4164	4164	4164	4164	
5°	4160	4112	4153	4162	4149	389
15°	3478	3488	3402	3419	3382	972
25°	2811	2847	2867	2798	2806	1297
35°	2382	2386	2382	2384	2382	1492
45°	1955	1970	1953	2033	2014	1512
55°	1535	1533	1529	1583	1598	1372
65°	1102	1078	1068	1117	1165	1092
75°	613	567	554	587	643	641
85°	106	95	95	89	93	140
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4164.0	4164.0	4164.0	4164.0	4164.0
2.5°	4189.9	4157.5	4129.3	4174.8	4170.4
5°	4159.6	4112.0	4153.1	4161.8	4148.8
7.5°	4079.5	4049.2	4051.4	4034.0	4031.9
10°	3869.5	3886.8	3852.1	3882.5	3867.3
12.5°	3689.7	3700.6	3639.9	3652.9	3635.6
15°	3477.5	3488.4	3401.8	3419.1	3382.3
17.5°	3245.8	3284.8	3213.4	3235.0	3196.0
20°	3072.6	3105.1	3107.3	3072.6	2949.2
22.5°	2936.2	2968.7	2994.7	2890.7	2877.7
25°	2810.6	2847.4	2866.9	2797.6	2806.3
27.5°	2685.0	2726.2	2726.2	2741.3	2721.8
30°	2594.1	2611.4	2583.3	2639.6	2622.2
32.5°	2485.8	2492.3	2468.5	2509.6	2449.0
35°	2381.9	2386.2	2381.9	2384.0	2381.9
37.5°	2282.3	2271.4	2290.9	2277.9	2319.1
40°	2171.8	2171.8	2180.5	2202.2	2234.6
42.5°	2070.1	2078.7	2067.9	2128.5	2141.5
45°	1955.3	1970.5	1953.1	2033.3	2013.8
47.5°	1851.4	1857.9	1853.5	1907.7	1912.0
50°	1738.8	1747.4	1751.8	1799.4	1805.9
52.5°	1645.7	1643.5	1628.3	1697.6	1708.5
55°	1535.2	1533.1	1528.7	1582.9	1598.0
57.5°	1422.6	1424.8	1435.6	1465.9	1502.7
60°	1320.9	1310.0	1318.7	1355.5	1385.8
62.5°	1216.9	1197.4	1177.9	1238.6	1266.7
65°	1102.2	1078.3	1067.5	1117.3	1165.0
67.5°	996.1	957.1	950.6	985.2	1041.5
70°	874.8	827.2	825.0	851.0	918.1
72.5°	740.5	699.4	688.6	723.2	783.9
75°	612.8	567.3	554.3	586.8	643.1
77.5°	474.2	437.4	428.7	446.1	491.5
80°	333.5	311.8	303.1	309.6	342.1
82.5°	210.0	194.9	190.6	188.4	205.7
85°	106.1	95.3	95.3	88.8	93.1
87.5°	32.5	30.3	28.1	21.7	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)