

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: P487025

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3STD-35-120-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: P487025
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-35-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

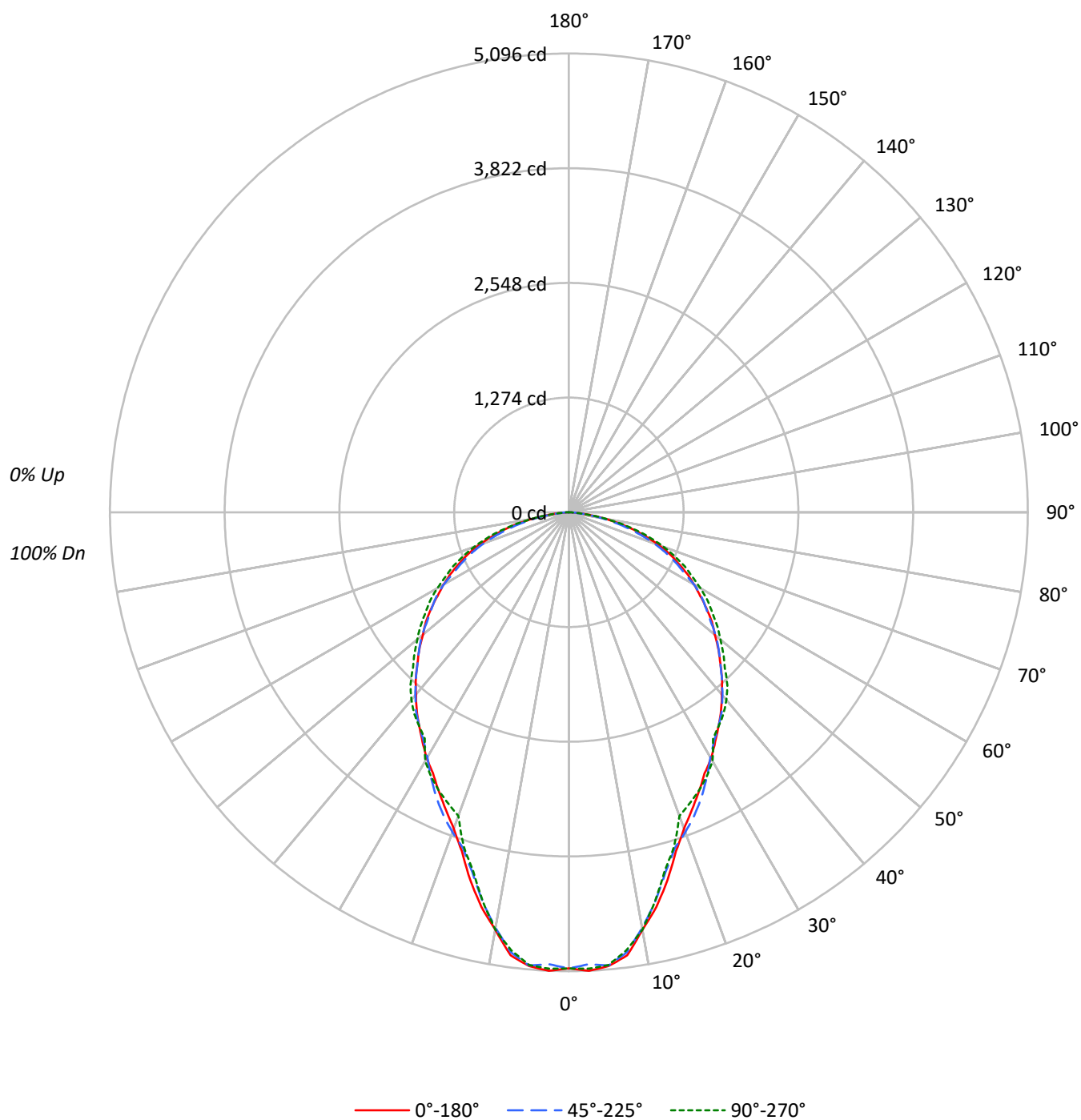
Lumens per Lamp: N/A
Luminaire Lumens: 10831.9 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

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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					10
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°	6815	6815	6815
5°	6834	6823	6816
10°	6431	6402	6427
15°	5892	5764	5731
20°	5351	5412	5136
25°	5075	5177	5068
30°	4902	4882	4955
35°	4759	4759	4759
40°	4640	4659	4774
45°	4526	4521	4661
50°	4427	4460	4598
55°	4381	4362	4560
60°	4324	4316	4536
65°	4268	4134	4511
70°	4186	3948	4393
75°	3875	3505	4067
80°	3143	2857	3224
85°	1993	1789	1749



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	470.4	4.3
10°-20°	1176.1	10.9
20°-30°	1588.3	14.7
30°-40°	1818.8	16.8
40°-50°	1863.0	17.2
50°-60°	1690.5	15.6
60°-70°	1319.4	12.2
70°-80°	748.3	6.9
80°-90°	157.1	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°	3234.8	29.9
0°-40°	5053.6	46.7
0°-60°	8607.1	79.5
0°-90°	10831.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10831.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5065	5065	5065	5065	5065	
5°	5060	5002	5052	5062	5046	473
15°	4230	4243	4138	4159	4114	1182
25°	3419	3464	3487	3403	3414	1578
35°	2897	2902	2897	2900	2897	1815
45°	2378	2397	2376	2473	2450	1839
55°	1867	1865	1860	1925	1944	1669
65°	1341	1312	1298	1359	1417	1329
75°	745	690	674	714	782	780
85°	129	116	116	108	113	170
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5064.9	5064.9	5064.9	5064.9	5064.9
2.5°	5096.5	5057.0	5022.8	5078.1	5072.8
5°	5059.6	5001.7	5051.7	5062.3	5046.5
7.5°	4962.2	4925.3	4927.9	4906.9	4904.2
10°	4706.7	4727.8	4685.6	4722.5	4704.1
12.5°	4488.1	4501.3	4427.5	4443.3	4422.2
15°	4230.0	4243.1	4137.8	4158.9	4114.1
17.5°	3948.2	3995.6	3908.6	3935.0	3887.6
20°	3737.4	3777.0	3779.6	3737.4	3587.3
22.5°	3571.5	3611.0	3642.6	3516.2	3500.4
25°	3418.7	3463.5	3487.2	3402.9	3413.5
27.5°	3266.0	3316.0	3316.0	3334.5	3310.8
30°	3155.4	3176.4	3142.2	3210.7	3189.6
32.5°	3023.7	3031.6	3002.6	3052.6	2978.9
35°	2897.2	2902.5	2897.2	2899.9	2897.2
37.5°	2776.1	2762.9	2786.6	2770.8	2820.9
40°	2641.8	2641.8	2652.3	2678.6	2718.1
42.5°	2518.0	2528.5	2515.3	2589.1	2604.9
45°	2378.4	2396.8	2375.7	2473.2	2449.5
47.5°	2251.9	2259.8	2254.6	2320.4	2325.7
50°	2115.0	2125.5	2130.8	2188.7	2196.6
52.5°	2001.7	1999.1	1980.7	2064.9	2078.1
55°	1867.4	1864.8	1859.5	1925.3	1943.8
57.5°	1730.4	1733.1	1746.2	1783.1	1827.9
60°	1606.7	1593.5	1604.0	1648.8	1685.7
62.5°	1480.2	1456.5	1432.8	1506.6	1540.8
65°	1340.6	1311.7	1298.5	1359.1	1417.0
67.5°	1211.6	1164.2	1156.3	1198.4	1266.9
70°	1064.1	1006.1	1003.5	1035.1	1116.8
72.5°	900.8	850.7	837.6	879.7	953.5
75°	745.4	690.1	674.3	713.8	782.3
77.5°	576.8	532.0	521.5	542.6	597.9
80°	405.6	379.3	368.7	376.6	416.1
82.5°	255.5	237.0	231.8	229.1	250.2
85°	129.1	115.9	115.9	108.0	113.3
87.5°	39.5	36.9	34.2	26.3	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)