

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: P487114

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-6LO-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: P487114
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-LD4-6LO-20-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

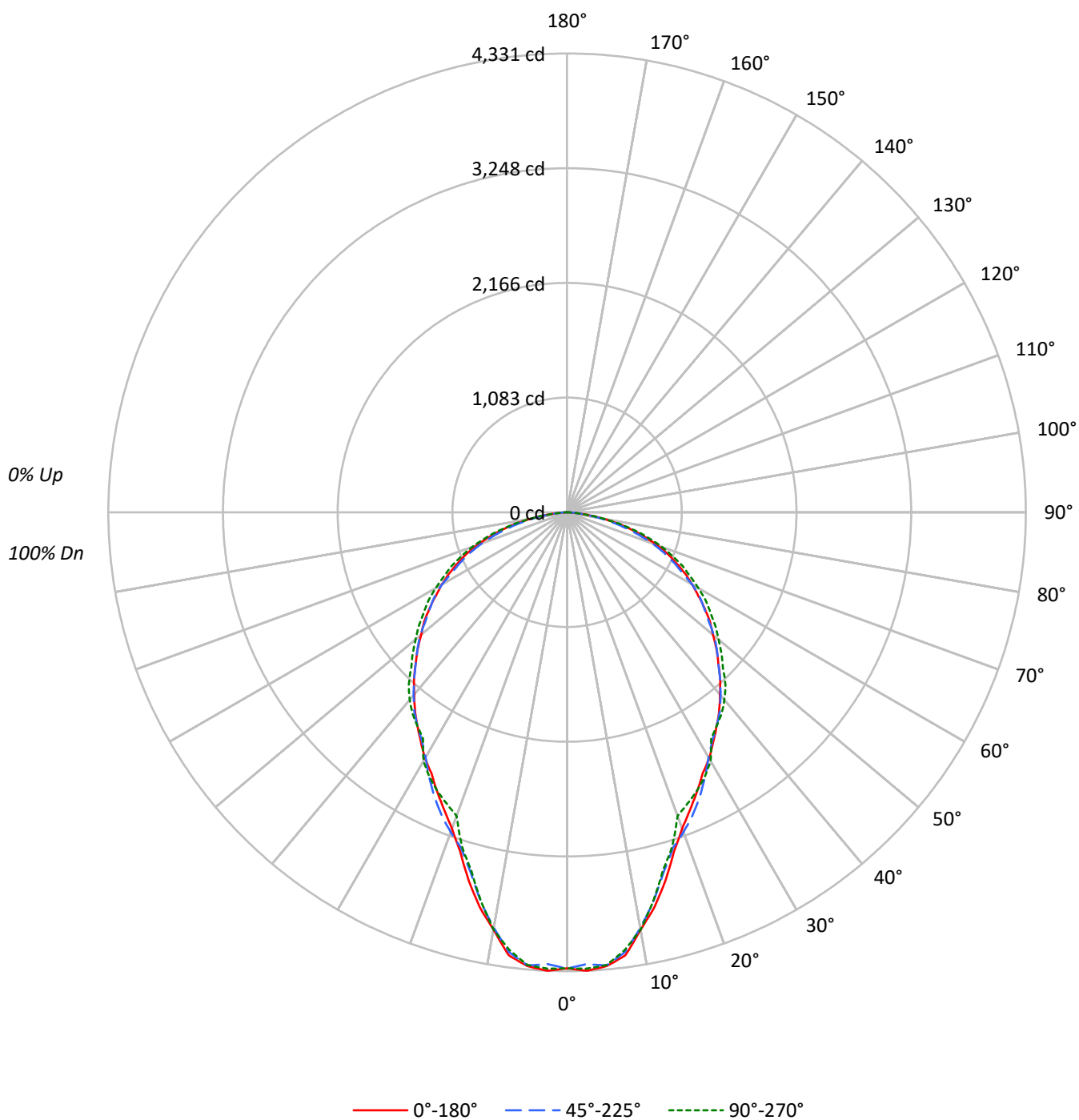
Lumens per Lamp: N/A
Luminaire Lumens: 9204.6 lumens
Efficiency: N/A
Efficacy: 65.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 140.4
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	84	79	97	89	83	78	86	81	76		82	78	74		79
3	91	80	72	66	88	79	71	65	76	69	64		73	67	63		70
4	83	71	63	56	81	70	62	56	67	60	55		65	59	54		63
5	77	64	55	48	75	63	54	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	53	44	38	64	52	44	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	34		45	38	33		44
9	58	44	36	31	56	44	36	31	43	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	40	33	28		39	32	28		38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5791	5791	5791
5°	5807	5798	5792
10°	5464	5440	5461
15°	5007	4898	4870
20°	4548	4599	4365
25°	4313	4399	4306
30°	4166	4148	4211
35°	4044	4044	4044
40°	3943	3959	4057
45°	3846	3841	3961
50°	3762	3790	3907
55°	3723	3707	3875
60°	3674	3668	3855
65°	3627	3513	3833
70°	3557	3354	3733
75°	3293	2979	3455
80°	2671	2428	2740
85°	1694	1521	1485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	399.8	4.3
10°-20°	999.4	10.9
20°-30°	1349.7	14.7
30°-40°	1545.6	16.8
40°-50°	1583.1	17.2
50°-60°	1436.5	15.6
60°-70°	1121.2	12.2
70°-80°	635.9	6.9
80°-90°	133.5	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°	2748.8	29.9
0°-40°	4294.4	46.7
0°-60°	7314.0	79.5
0°-90°	9204.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9204.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4304	4304	4304	4304	4304	
5°	4300	4250	4293	4302	4288	402
15°	3594	3606	3516	3534	3496	1005
25°	2905	2943	2963	2892	2901	1341
35°	2462	2466	2462	2464	2462	1542
45°	2021	2037	2019	2102	2082	1563
55°	1587	1585	1580	1636	1652	1418
65°	1139	1115	1103	1155	1204	1129
75°	633	586	573	606	665	663
85°	110	98	98	92	96	145
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4304.0	4304.0	4304.0	4304.0	4304.0
2.5°	4330.9	4297.3	4268.2	4315.2	4310.7
5°	4299.5	4250.3	4292.8	4301.8	4288.3
7.5°	4216.7	4185.4	4187.6	4169.7	4167.5
10°	3999.6	4017.5	3981.7	4013.0	3997.4
12.5°	3813.8	3825.0	3762.4	3775.8	3757.9
15°	3594.5	3605.7	3516.2	3534.1	3496.0
17.5°	3355.0	3395.3	3321.4	3343.8	3303.5
20°	3176.0	3209.5	3211.8	3176.0	3048.4
22.5°	3035.0	3068.5	3095.4	2988.0	2974.5
25°	2905.1	2943.2	2963.3	2891.7	2900.7
27.5°	2775.3	2817.9	2817.9	2833.5	2813.4
30°	2681.3	2699.2	2670.1	2728.3	2710.4
32.5°	2569.4	2576.1	2551.5	2594.0	2531.4
35°	2462.0	2466.5	2462.0	2464.2	2462.0
37.5°	2359.0	2347.8	2368.0	2354.6	2397.1
40°	2244.9	2244.9	2253.8	2276.2	2309.8
42.5°	2139.7	2148.6	2137.4	2200.1	2213.5
45°	2021.1	2036.7	2018.8	2101.6	2081.5
47.5°	1913.6	1920.3	1915.9	1971.8	1976.3
50°	1797.2	1806.2	1810.7	1859.9	1866.6
52.5°	1701.0	1698.8	1683.1	1754.7	1765.9
55°	1586.9	1584.6	1580.1	1636.1	1651.8
57.5°	1470.5	1472.7	1483.9	1515.2	1553.3
60°	1365.3	1354.1	1363.0	1401.1	1432.4
62.5°	1257.8	1237.7	1217.6	1280.2	1309.3
65°	1139.2	1114.6	1103.4	1154.9	1204.1
67.5°	1029.6	989.3	982.6	1018.4	1076.6
70°	904.2	855.0	852.7	879.6	949.0
72.5°	765.5	722.9	711.7	747.5	810.2
75°	633.4	586.4	573.0	606.5	664.7
77.5°	490.2	452.1	443.2	461.1	508.1
80°	344.7	322.3	313.3	320.1	353.6
82.5°	217.1	201.4	197.0	194.7	212.6
85°	109.7	98.5	98.5	91.8	96.2
87.5°	33.6	31.3	29.1	22.4	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)