

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: P487024

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-3STD-35-120-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: P487024
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-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

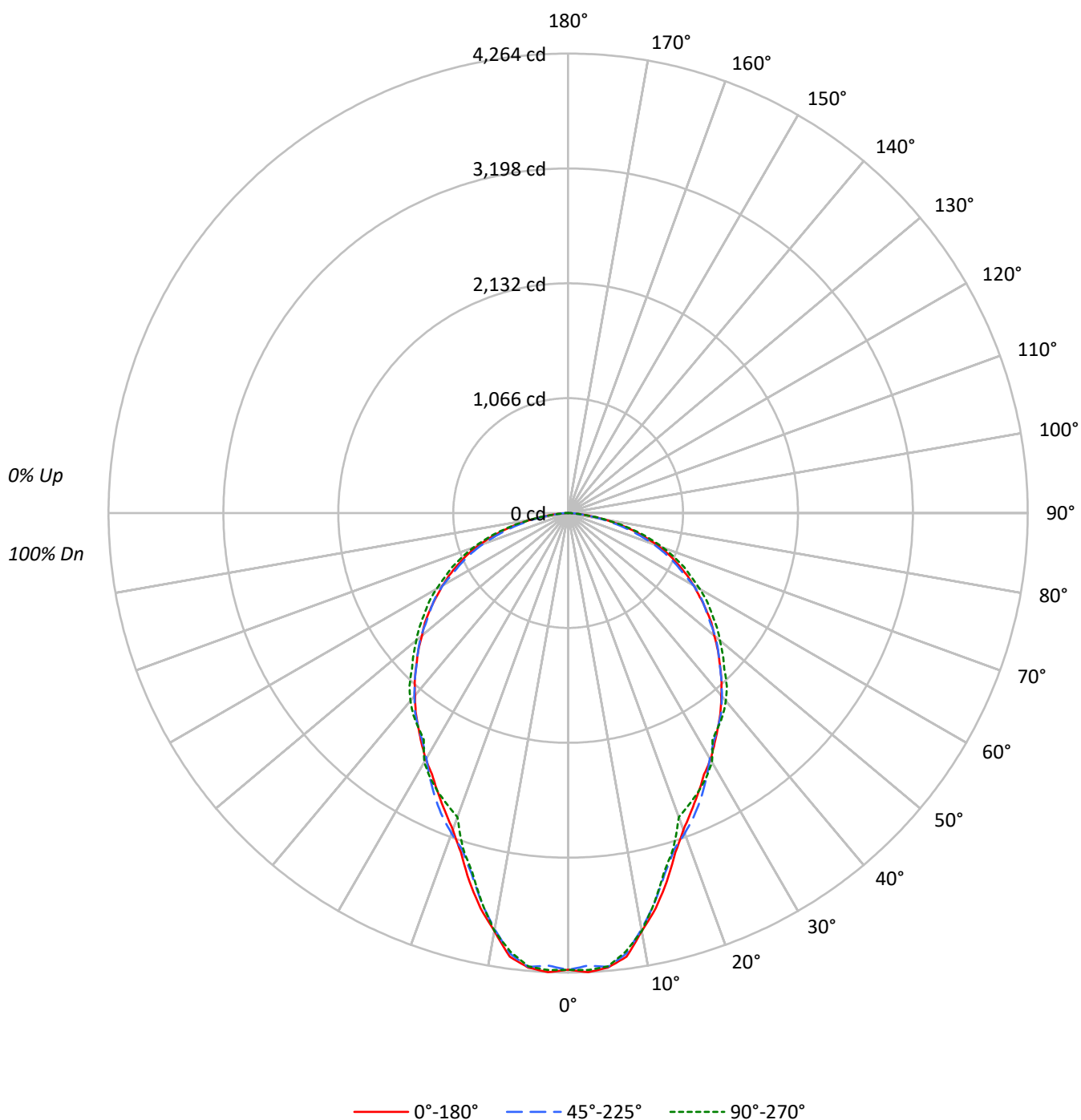
Lumens per Lamp: N/A
Luminaire Lumens: 9063.6 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	5702	5702	5702
5°	5718	5709	5703
10°	5381	5357	5378
15°	4930	4823	4795
20°	4478	4528	4298
25°	4247	4332	4240
30°	4102	4085	4147
35°	3982	3982	3982
40°	3883	3898	3995
45°	3787	3783	3900
50°	3704	3732	3847
55°	3666	3650	3815
60°	3618	3612	3796
65°	3571	3459	3775
70°	3503	3303	3676
75°	3242	2933	3403
80°	2630	2390	2698
85°	1667	1497	1463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.6	4.3
10°-20°	984.1	10.9
20°-30°	1329.0	14.7
30°-40°	1521.9	16.8
40°-50°	1558.9	17.2
50°-60°	1414.5	15.6
60°-70°	1104.0	12.2
70°-80°	626.2	6.9
80°-90°	131.4	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°	2706.7	29.9
0°-40°	4228.6	46.7
0°-60°	7202.0	79.5
0°-90°	9063.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9063.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4238	4238	4238	4238	4238	
5°	4234	4185	4227	4236	4223	395
15°	3539	3550	3462	3480	3442	989
25°	2861	2898	2918	2847	2856	1320
35°	2424	2429	2424	2426	2424	1519
45°	1990	2006	1988	2069	2050	1539
55°	1563	1560	1556	1611	1626	1396
65°	1122	1098	1086	1137	1186	1112
75°	624	577	564	597	655	652
85°	108	97	97	90	95	143
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4238.1	4238.1	4238.1	4238.1	4238.1
2.5°	4264.5	4231.5	4202.8	4249.1	4244.7
5°	4233.7	4185.2	4227.0	4235.9	4222.6
7.5°	4152.1	4121.3	4123.5	4105.8	4103.6
10°	3938.3	3956.0	3920.7	3951.6	3936.1
12.5°	3755.4	3766.4	3704.7	3717.9	3700.3
15°	3539.4	3550.5	3462.3	3479.9	3442.5
17.5°	3303.6	3343.3	3270.6	3292.6	3252.9
20°	3127.3	3160.4	3162.6	3127.3	3001.7
22.5°	2988.5	3021.5	3048.0	2942.2	2929.0
25°	2860.6	2898.1	2917.9	2847.4	2856.2
27.5°	2732.8	2774.7	2774.7	2790.1	2770.3
30°	2640.3	2657.9	2629.2	2686.5	2668.9
32.5°	2530.1	2536.7	2512.4	2554.3	2492.6
35°	2424.3	2428.7	2424.3	2426.5	2424.3
37.5°	2322.9	2311.9	2331.7	2318.5	2360.4
40°	2210.5	2210.5	2219.3	2241.3	2274.4
42.5°	2106.9	2115.7	2104.7	2166.4	2179.6
45°	1990.1	2005.5	1987.9	2069.4	2049.6
47.5°	1884.3	1890.9	1886.5	1941.6	1946.0
50°	1769.7	1778.5	1782.9	1831.4	1838.0
52.5°	1675.0	1672.7	1657.3	1727.8	1738.9
55°	1562.6	1560.3	1555.9	1611.0	1626.5
57.5°	1448.0	1450.2	1461.2	1492.0	1529.5
60°	1344.4	1333.3	1342.2	1379.6	1410.5
62.5°	1238.6	1218.7	1198.9	1260.6	1289.3
65°	1121.8	1097.5	1086.5	1137.2	1185.7
67.5°	1013.8	974.1	967.5	1002.8	1060.1
70°	890.4	841.9	839.7	866.1	934.4
72.5°	753.7	711.9	700.8	736.1	797.8
75°	623.7	577.4	564.2	597.3	654.6
77.5°	482.7	445.2	436.4	454.0	500.3
80°	339.4	317.4	308.5	315.2	348.2
82.5°	213.8	198.3	193.9	191.7	209.4
85°	108.0	97.0	97.0	90.4	94.8
87.5°	33.1	30.9	28.7	22.0	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)