

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: P485708

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3HI-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: P485708
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-24-2-INS-89BC-LD4-3HI-50-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

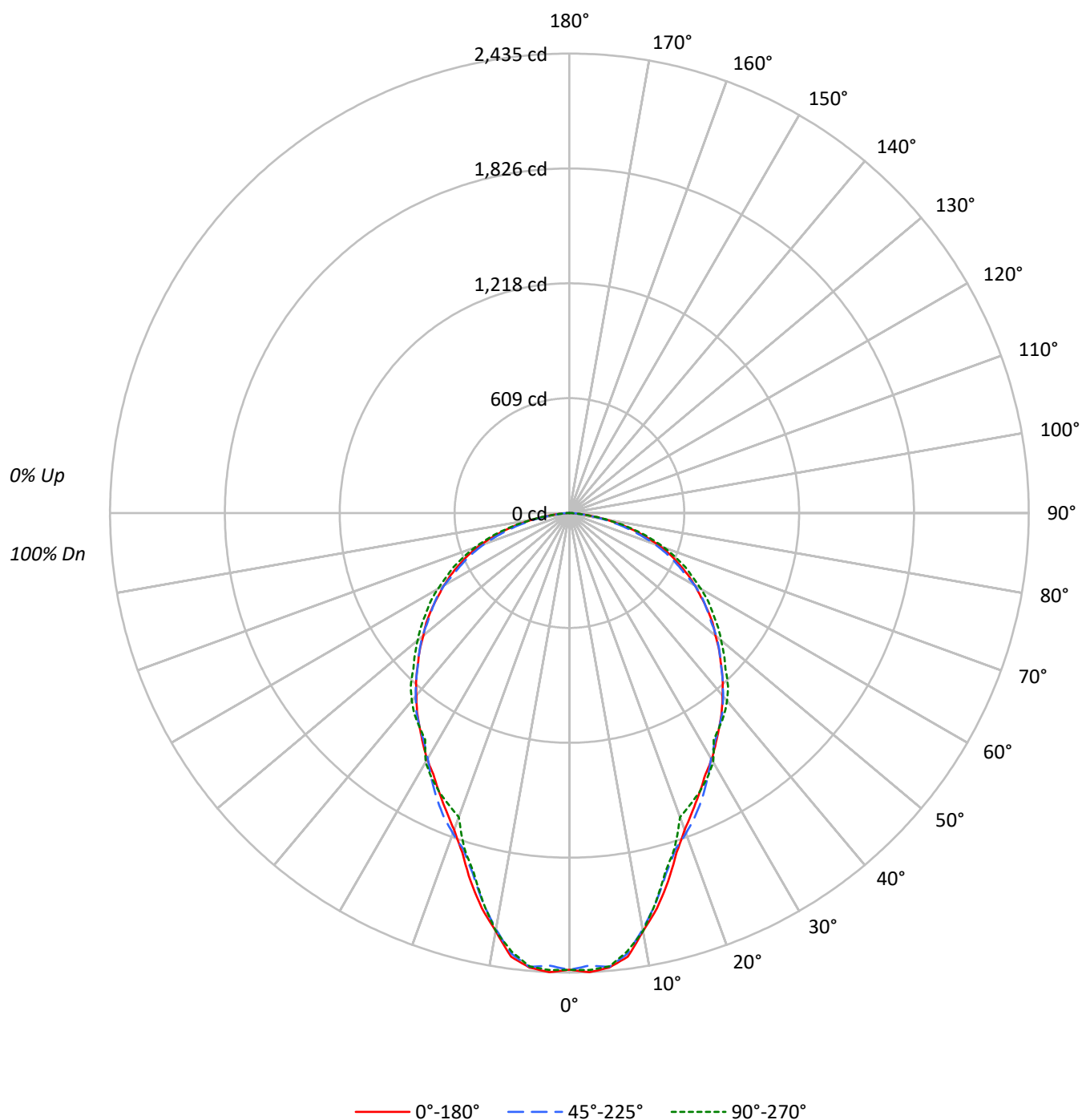
Lumens per Lamp: N/A
Luminaire Lumens: 5176.1 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66
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°	6513	6513	6513
5°	6531	6521	6514
10°	6146	6118	6142
15°	5631	5509	5477
20°	5115	5172	4909
25°	4851	4948	4843
30°	4685	4666	4736
35°	4548	4548	4548
40°	4435	4452	4563
45°	4325	4321	4454
50°	4231	4263	4394
55°	4187	4169	4358
60°	4132	4125	4335
65°	4079	3951	4311
70°	4001	3773	4198
75°	3703	3350	3886
80°	3003	2731	3082
85°	1905	1711	1670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.8	4.3
10°-20°	562.0	10.9
20°-30°	759.0	14.7
30°-40°	869.1	16.8
40°-50°	890.3	17.2
50°-60°	807.8	15.6
60°-70°	630.5	12.2
70°-80°	357.6	6.9
80°-90°	75.1	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°	1545.8	29.9
0°-40°	2414.9	46.7
0°-60°	4113.0	79.5
0°-90°	5176.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5176.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2420	2420	2420	2420	2420	
5°	2418	2390	2414	2419	2412	226
15°	2021	2028	1977	1987	1966	565
25°	1634	1655	1666	1626	1631	754
35°	1384	1387	1384	1386	1384	867
45°	1136	1145	1135	1182	1170	879
55°	892	891	889	920	929	797
65°	641	627	620	649	677	635
75°	356	330	322	341	374	373
85°	62	55	55	52	54	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2420.3	2420.3	2420.3	2420.3	2420.3
2.5°	2435.4	2416.5	2400.2	2426.6	2424.1
5°	2417.8	2390.1	2414.0	2419.0	2411.5
7.5°	2371.2	2353.6	2354.9	2344.8	2343.5
10°	2249.1	2259.2	2239.1	2256.7	2247.9
12.5°	2144.7	2151.0	2115.7	2123.3	2113.2
15°	2021.3	2027.6	1977.3	1987.3	1965.9
17.5°	1886.7	1909.3	1867.8	1880.4	1857.7
20°	1786.0	1804.8	1806.1	1786.0	1714.2
22.5°	1706.7	1725.6	1740.7	1680.2	1672.7
25°	1633.7	1655.1	1666.4	1626.1	1631.2
27.5°	1560.7	1584.6	1584.6	1593.4	1582.1
30°	1507.8	1517.9	1501.5	1534.2	1524.2
32.5°	1444.9	1448.7	1434.8	1458.7	1423.5
35°	1384.5	1387.0	1384.5	1385.7	1384.5
37.5°	1326.6	1320.3	1331.6	1324.1	1348.0
40°	1262.4	1262.4	1267.4	1280.0	1298.9
42.5°	1203.2	1208.3	1202.0	1237.2	1244.8
45°	1136.5	1145.3	1135.3	1181.8	1170.5
47.5°	1076.1	1079.9	1077.4	1108.8	1111.4
50°	1010.7	1015.7	1018.2	1045.9	1049.7
52.5°	956.5	955.3	946.5	986.7	993.0
55°	892.4	891.1	888.6	920.0	928.9
57.5°	826.9	828.2	834.5	852.1	873.5
60°	767.8	761.5	766.5	787.9	805.5
62.5°	707.3	696.0	684.7	719.9	736.3
65°	640.6	626.8	620.5	649.4	677.1
67.5°	579.0	556.3	552.5	572.7	605.4
70°	508.5	480.8	479.5	494.6	533.6
72.5°	430.4	406.5	400.2	420.4	455.6
75°	356.2	329.8	322.2	341.1	373.8
77.5°	275.6	254.2	249.2	259.3	285.7
80°	193.8	181.2	176.2	180.0	198.9
82.5°	122.1	113.3	110.8	109.5	119.6
85°	61.7	55.4	55.4	51.6	54.1
87.5°	18.9	17.6	16.4	12.6	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)