

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: P486926

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1HI-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: P486926
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-LD4-1HI-30-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

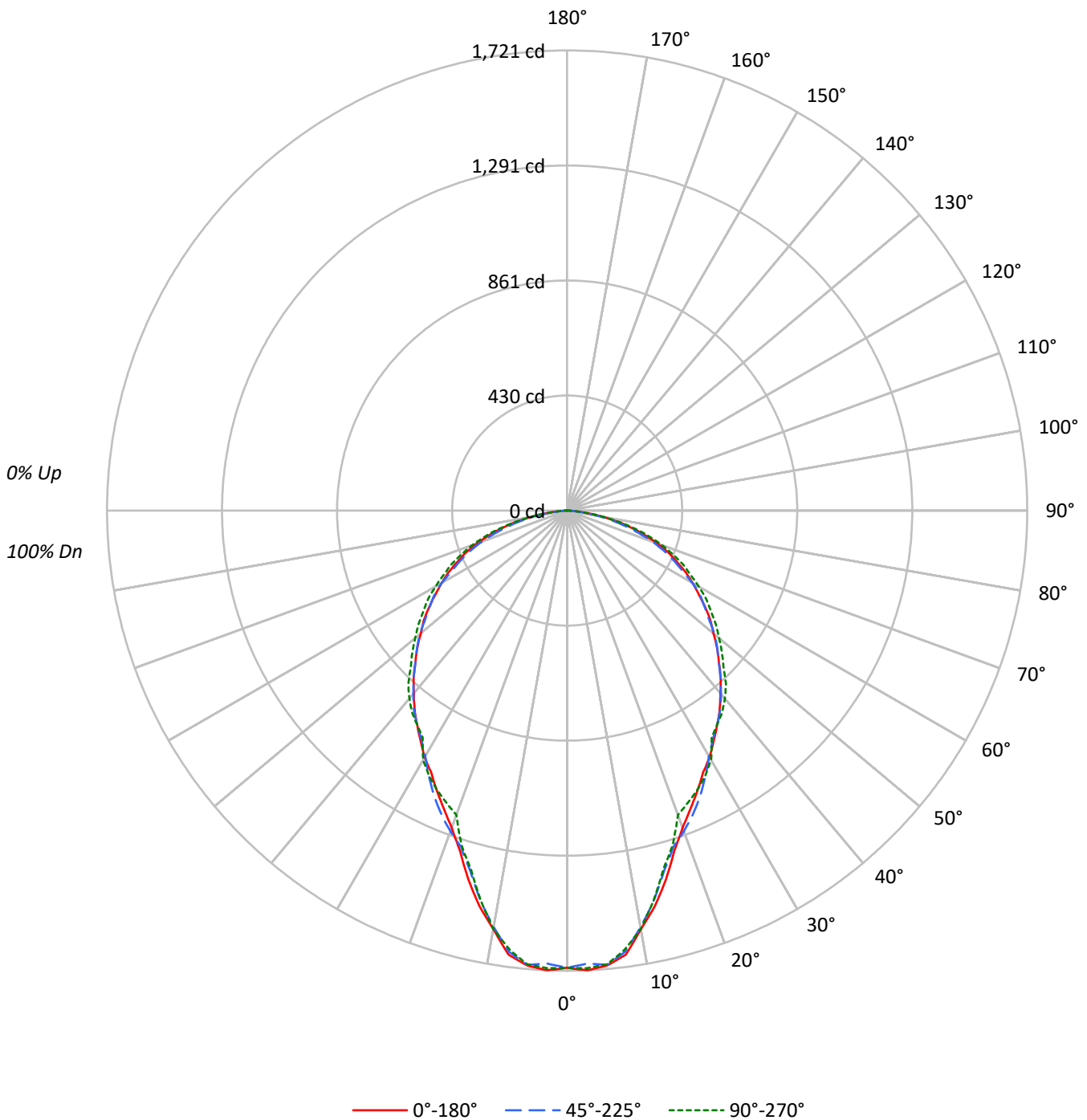
Lumens per Lamp: N/A
Luminaire Lumens: 3656.9 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	81	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	35	30	28
10	54	41	33	28	53	40	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2301	2301	2301
5°	2307	2303	2301
10°	2171	2161	2170
15°	1989	1946	1935
20°	1807	1827	1734
25°	1714	1748	1711
30°	1655	1648	1673
35°	1607	1607	1607
40°	1567	1573	1612
45°	1528	1526	1574
50°	1495	1506	1552
55°	1479	1473	1539
60°	1460	1457	1531
65°	1441	1396	1523
70°	1413	1333	1483
75°	1308	1183	1373
80°	1061	965	1089
85°	673	604	590



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.8	4.3
10°-20°	397.1	10.9
20°-30°	536.2	14.7
30°-40°	614.0	16.8
40°-50°	629.0	17.2
50°-60°	570.7	15.6
60°-70°	445.4	12.2
70°-80°	252.6	6.9
80°-90°	53.0	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°	1092.1	29.9
0°-40°	1706.1	46.7
0°-60°	2905.8	79.5
0°-90°	3656.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3656.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1710	1710	1710	1710	1710	
5°	1708	1689	1706	1709	1704	160
15°	1428	1432	1397	1404	1389	399
25°	1154	1169	1177	1149	1152	533
35°	978	980	978	979	978	613
45°	803	809	802	835	827	621
55°	630	630	628	650	656	563
65°	453	443	438	459	478	449
75°	252	233	228	241	264	263
85°	44	39	39	36	38	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1709.9	1709.9	1709.9	1709.9	1709.9
2.5°	1720.6	1707.3	1695.7	1714.4	1712.6
5°	1708.2	1688.6	1705.5	1709.0	1703.7
7.5°	1675.3	1662.8	1663.7	1656.6	1655.7
10°	1589.0	1596.1	1581.9	1594.3	1588.1
12.5°	1515.2	1519.6	1494.7	1500.1	1493.0
15°	1428.1	1432.5	1396.9	1404.1	1388.9
17.5°	1332.9	1348.9	1319.6	1328.5	1312.5
20°	1261.8	1275.1	1276.0	1261.8	1211.1
22.5°	1205.8	1219.1	1229.8	1187.1	1181.8
25°	1154.2	1169.3	1177.3	1148.8	1152.4
27.5°	1102.6	1119.5	1119.5	1125.7	1117.7
30°	1065.3	1072.4	1060.8	1083.9	1076.8
32.5°	1020.8	1023.5	1013.7	1030.6	1005.7
35°	978.1	979.9	978.1	979.0	978.1
37.5°	937.2	932.8	940.8	935.4	952.3
40°	891.9	891.9	895.4	904.3	917.7
42.5°	850.1	853.6	849.2	874.1	879.4
45°	802.9	809.2	802.1	835.0	827.0
47.5°	760.3	762.9	761.2	783.4	785.2
50°	714.0	717.6	719.4	738.9	741.6
52.5°	675.8	674.9	668.7	697.1	701.6
55°	630.4	629.6	627.8	650.0	656.2
57.5°	584.2	585.1	589.5	602.0	617.1
60°	542.4	538.0	541.5	556.6	569.1
62.5°	499.7	491.7	483.7	508.6	520.2
65°	452.6	442.8	438.4	458.8	478.4
67.5°	409.0	393.0	390.4	404.6	427.7
70°	359.2	339.7	338.8	349.5	377.0
72.5°	304.1	287.2	282.8	297.0	321.9
75°	251.6	233.0	227.6	241.0	264.1
77.5°	194.7	179.6	176.1	183.2	201.8
80°	136.9	128.0	124.5	127.2	140.5
82.5°	86.3	80.0	78.2	77.4	84.5
85°	43.6	39.1	39.1	36.5	38.2
87.5°	13.3	12.4	11.6	8.9	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)