

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: P485724

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3STD-27-120-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: P485724
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-LD4-3STD-27-120-EDD-90
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

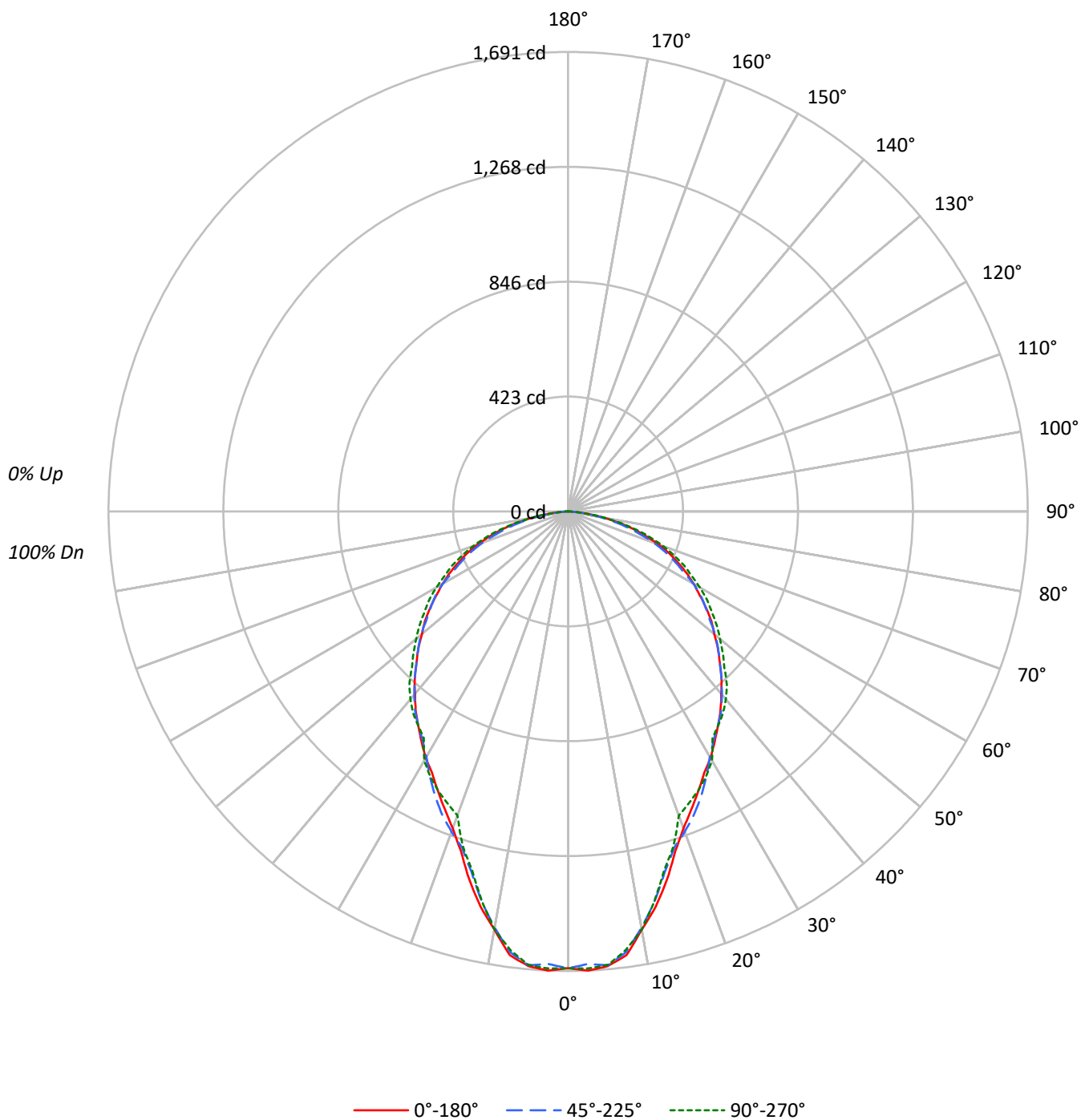
Lumens per Lamp: N/A
Luminaire Lumens: 3594.8 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	4523	4523	4523
5°	4536	4529	4524
10°	4268	4249	4266
15°	3911	3826	3804
20°	3552	3592	3409
25°	3369	3436	3363
30°	3254	3240	3289
35°	3159	3159	3159
40°	3080	3092	3169
45°	3004	3000	3094
50°	2938	2960	3052
55°	2907	2895	3027
60°	2870	2865	3011
65°	2833	2744	2995
70°	2778	2620	2916
75°	2572	2327	2699
80°	2086	1897	2140
85°	1321	1189	1161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.1	4.3
10°-20°	390.3	10.9
20°-30°	527.1	14.7
30°-40°	603.6	16.8
40°-50°	618.3	17.2
50°-60°	561.0	15.6
60°-70°	437.9	12.2
70°-80°	248.4	6.9
80°-90°	52.1	1.4
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°	1073.5	29.9
0°-40°	1677.2	46.7
0°-60°	2856.5	79.5
0°-90°	3594.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3594.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1681	1681	1681	1681	1681	
5°	1679	1660	1676	1680	1675	157
15°	1404	1408	1373	1380	1365	392
25°	1135	1149	1157	1129	1133	524
35°	962	963	962	962	962	602
45°	789	795	788	821	813	610
55°	620	619	617	639	645	554
65°	445	435	431	451	470	441
75°	247	229	224	237	260	259
85°	43	38	38	36	38	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1680.9	1680.9	1680.9	1680.9	1680.9
2.5°	1691.4	1678.3	1666.9	1685.3	1683.5
5°	1679.2	1659.9	1676.5	1680.0	1674.8
7.5°	1646.8	1634.6	1635.4	1628.5	1627.6
10°	1562.0	1569.0	1555.0	1567.3	1561.1
12.5°	1489.5	1493.8	1469.4	1474.6	1467.6
15°	1403.8	1408.2	1373.2	1380.2	1365.3
17.5°	1310.3	1326.0	1297.2	1305.9	1290.2
20°	1240.4	1253.5	1254.3	1240.4	1190.5
22.5°	1185.3	1198.4	1208.9	1166.9	1161.7
25°	1134.6	1149.4	1157.3	1129.3	1132.8
27.5°	1083.9	1100.5	1100.5	1106.6	1098.7
30°	1047.2	1054.2	1042.8	1065.5	1058.5
32.5°	1003.5	1006.1	996.5	1013.1	988.6
35°	961.5	963.3	961.5	962.4	961.5
37.5°	921.3	916.9	924.8	919.6	936.2
40°	876.7	876.7	880.2	889.0	902.1
42.5°	835.6	839.1	834.8	859.2	864.5
45°	789.3	795.4	788.4	820.8	812.9
47.5°	747.4	750.0	748.2	770.1	771.8
50°	701.9	705.4	707.1	726.4	729.0
52.5°	664.3	663.4	657.3	685.3	689.7
55°	619.7	618.9	617.1	639.0	645.1
57.5°	574.3	575.2	579.5	591.8	606.6
60°	533.2	528.8	532.3	547.2	559.4
62.5°	491.2	483.4	475.5	500.0	511.3
65°	444.9	435.3	430.9	451.0	470.3
67.5°	402.1	386.4	383.7	397.7	420.4
70°	353.1	333.9	333.0	343.5	370.6
72.5°	298.9	282.3	278.0	292.0	316.4
75°	247.4	229.0	223.8	236.9	259.6
77.5°	191.4	176.6	173.1	180.1	198.4
80°	134.6	125.9	122.4	125.0	138.1
82.5°	84.8	78.7	76.9	76.0	83.0
85°	42.8	38.5	38.5	35.8	37.6
87.5°	13.1	12.2	11.4	8.7	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)