

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: P485721

Luminaire Tested: **ORLG-24-2-INS-89BC-LD4-3LO-50-120-EDD**

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: P485721
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-LD4-3LO-50-120-EDD
Description: 2X2 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

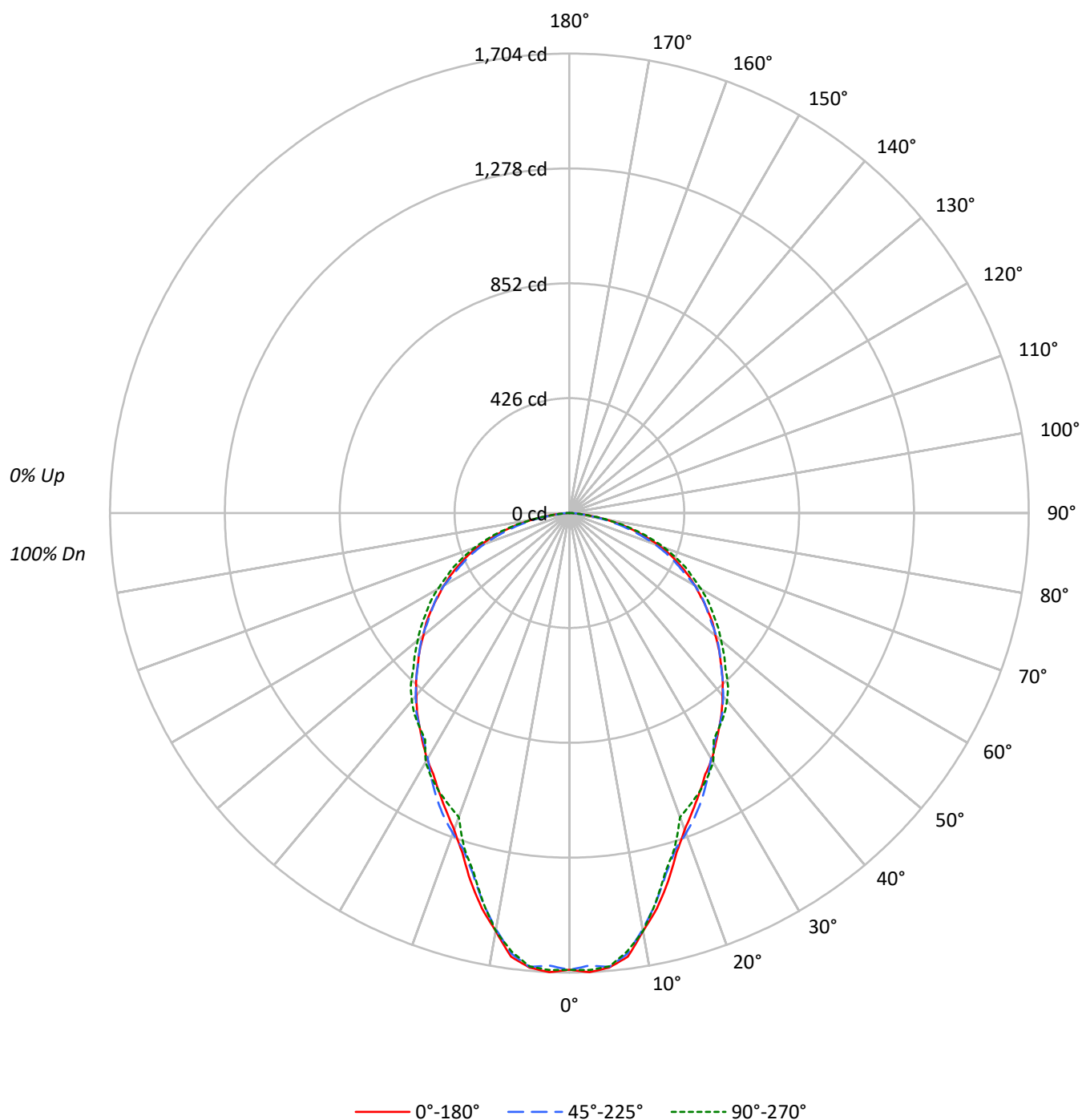
Lumens per Lamp: N/A
Luminaire Lumens: 3622.1 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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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CATALOG NUMBER: ORLG-24-2-INS-89BC-LD4-3LO-50-120-EDD

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°	4558	4558	4558
5°	4570	4563	4558
10°	4301	4281	4298
15°	3941	3855	3833
20°	3579	3619	3435
25°	3394	3462	3389
30°	3278	3265	3314
35°	3183	3183	3183
40°	3103	3116	3193
45°	3027	3023	3117
50°	2961	2983	3075
55°	2929	2917	3050
60°	2892	2887	3034
65°	2855	2765	3017
70°	2799	2640	2938
75°	2591	2345	2720
80°	2101	1911	2157
85°	1334	1198	1170



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.3	4.3
10°-20°	393.3	10.9
20°-30°	531.1	14.7
30°-40°	608.2	16.8
40°-50°	623.0	17.2
50°-60°	565.3	15.6
60°-70°	441.2	12.2
70°-80°	250.2	6.9
80°-90°	52.5	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°	1081.7	29.9
0°-40°	1689.9	46.7
0°-60°	2878.2	79.5
0°-90°	3622.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3622.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1694	1694	1694	1694	1694	
5°	1692	1672	1689	1693	1688	158
15°	1414	1419	1384	1391	1376	395
25°	1143	1158	1166	1138	1141	528
35°	969	971	969	970	969	607
45°	795	802	794	827	819	615
55°	624	624	622	644	650	558
65°	448	439	434	454	474	444
75°	249	231	226	239	262	261
85°	43	39	39	36	38	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1693.7	1693.7	1693.7	1693.7	1693.7
2.5°	1704.2	1691.0	1679.6	1698.1	1696.3
5°	1691.9	1672.5	1689.3	1692.8	1687.5
7.5°	1659.3	1647.0	1647.9	1640.8	1639.9
10°	1573.9	1580.9	1566.8	1579.2	1573.0
12.5°	1500.8	1505.2	1480.5	1485.8	1478.8
15°	1414.5	1418.9	1383.6	1390.7	1375.7
17.5°	1320.2	1336.1	1307.0	1315.8	1300.0
20°	1249.8	1263.0	1263.9	1249.8	1199.6
22.5°	1194.3	1207.5	1218.1	1175.8	1170.5
25°	1143.2	1158.2	1166.1	1137.9	1141.4
27.5°	1092.1	1108.9	1108.9	1115.0	1107.1
30°	1055.1	1062.2	1050.7	1073.6	1066.6
32.5°	1011.1	1013.7	1004.0	1020.8	996.1
35°	968.8	970.6	968.8	969.7	968.8
37.5°	928.3	923.9	931.8	926.5	943.3
40°	883.4	883.4	886.9	895.7	908.9
42.5°	842.0	845.5	841.1	865.8	871.1
45°	795.3	801.5	794.4	827.0	819.1
47.5°	753.0	755.7	753.9	775.9	777.7
50°	707.2	710.8	712.5	731.9	734.5
52.5°	669.4	668.5	662.3	690.5	694.9
55°	624.4	623.6	621.8	643.8	650.0
57.5°	578.6	579.5	583.9	596.3	611.2
60°	537.3	532.8	536.4	551.3	563.7
62.5°	495.0	487.0	479.1	503.8	515.2
65°	448.3	438.6	434.2	454.5	473.8
67.5°	405.1	389.3	386.6	400.7	423.6
70°	355.8	336.4	335.6	346.1	373.4
72.5°	301.2	284.5	280.1	294.2	318.8
75°	249.2	230.8	225.5	238.7	261.6
77.5°	192.9	177.9	174.4	181.4	199.9
80°	135.6	126.8	123.3	125.9	139.2
82.5°	85.4	79.3	77.5	76.6	83.7
85°	43.2	38.8	38.8	36.1	37.9
87.5°	13.2	12.3	11.4	8.8	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)