

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: P486923

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1HI-20-120-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: P486923
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-20-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

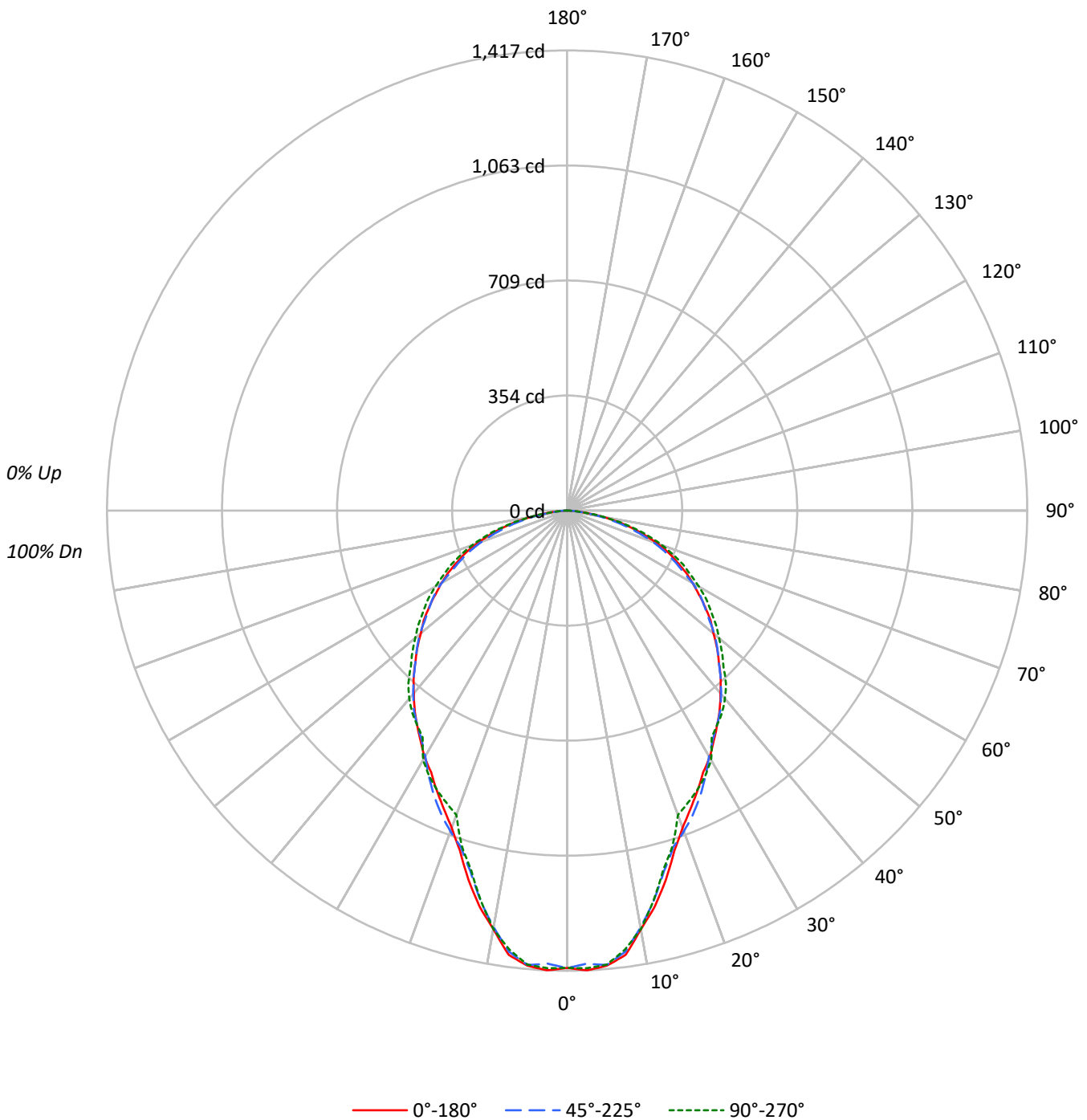
Lumens per Lamp: N/A
Luminaire Lumens: 3011.5 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P486923

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-1HI-20-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P486923

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-1HI-20-120-EDD

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°	1895	1895	1895
5°	1900	1897	1895
10°	1788	1780	1787
15°	1638	1602	1593
20°	1488	1505	1428
25°	1411	1439	1409
30°	1363	1357	1378
35°	1323	1323	1323
40°	1290	1295	1327
45°	1258	1257	1296
50°	1231	1240	1278
55°	1218	1213	1268
60°	1202	1200	1261
65°	1187	1149	1254
70°	1164	1098	1221
75°	1077	975	1131
80°	874	794	896
85°	554	497	486



TEST NUMBER: P486923

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-1HI-20-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.8	4.3
10°-20°	327.0	10.9
20°-30°	441.6	14.7
30°-40°	505.7	16.8
40°-50°	518.0	17.2
50°-60°	470.0	15.6
60°-70°	366.8	12.2
70°-80°	208.0	6.9
80°-90°	43.7	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°	899.3	29.9
0°-40°	1405.0	46.7
0°-60°	2393.0	79.5
0°-90°	3011.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3011.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1408	1408	1408	1408	1408	
5°	1407	1391	1404	1407	1403	131
15°	1176	1180	1150	1156	1144	329
25°	950	963	970	946	949	439
35°	806	807	806	806	806	505
45°	661	666	660	688	681	511
55°	519	518	517	535	540	464
65°	373	365	361	378	394	369
75°	207	192	188	198	218	217
85°	36	32	32	30	32	47
90°	0	0	0	0	0	



TEST NUMBER: P486923

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-1HI-20-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1408.2	1408.2	1408.2	1408.2	1408.2
2.5°	1416.9	1406.0	1396.4	1411.8	1410.3
5°	1406.7	1390.6	1404.5	1407.4	1403.0
7.5°	1379.6	1369.3	1370.1	1364.2	1363.5
10°	1308.6	1314.4	1302.7	1313.0	1307.8
12.5°	1247.8	1251.4	1230.9	1235.3	1229.5
15°	1176.0	1179.7	1150.4	1156.3	1143.8
17.5°	1097.7	1110.9	1086.7	1094.0	1080.8
20°	1039.1	1050.1	1050.8	1039.1	997.3
22.5°	993.0	1003.9	1012.7	977.6	973.2
25°	950.5	962.9	969.5	946.1	949.0
27.5°	908.0	921.9	921.9	927.1	920.5
30°	877.3	883.1	873.6	892.6	886.8
32.5°	840.6	842.8	834.8	848.7	828.2
35°	805.5	807.0	805.5	806.2	805.5
37.5°	771.8	768.1	774.7	770.3	784.3
40°	734.5	734.5	737.4	744.7	755.7
42.5°	700.0	703.0	699.3	719.8	724.2
45°	661.2	666.4	660.5	687.6	681.0
47.5°	626.1	628.3	626.8	645.1	646.6
50°	588.0	590.9	592.4	608.5	610.7
52.5°	556.5	555.8	550.7	574.1	577.8
55°	519.2	518.4	517.0	535.3	540.4
57.5°	481.1	481.8	485.5	495.7	508.2
60°	446.7	443.0	446.0	458.4	468.7
62.5°	411.5	404.9	398.4	418.9	428.4
65°	372.7	364.7	361.0	377.9	394.0
67.5°	336.8	323.7	321.5	333.2	352.2
70°	295.8	279.7	279.0	287.8	310.5
72.5°	250.4	236.5	232.9	244.6	265.1
75°	207.2	191.9	187.5	198.4	217.5
77.5°	160.4	147.9	145.0	150.8	166.2
80°	112.8	105.4	102.5	104.7	115.7
82.5°	71.0	65.9	64.4	63.7	69.6
85°	35.9	32.2	32.2	30.0	31.5
87.5°	11.0	10.3	9.5	7.3	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)