

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: P486943

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1LO-40-120-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: P486943
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-LD4-1LO-40-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

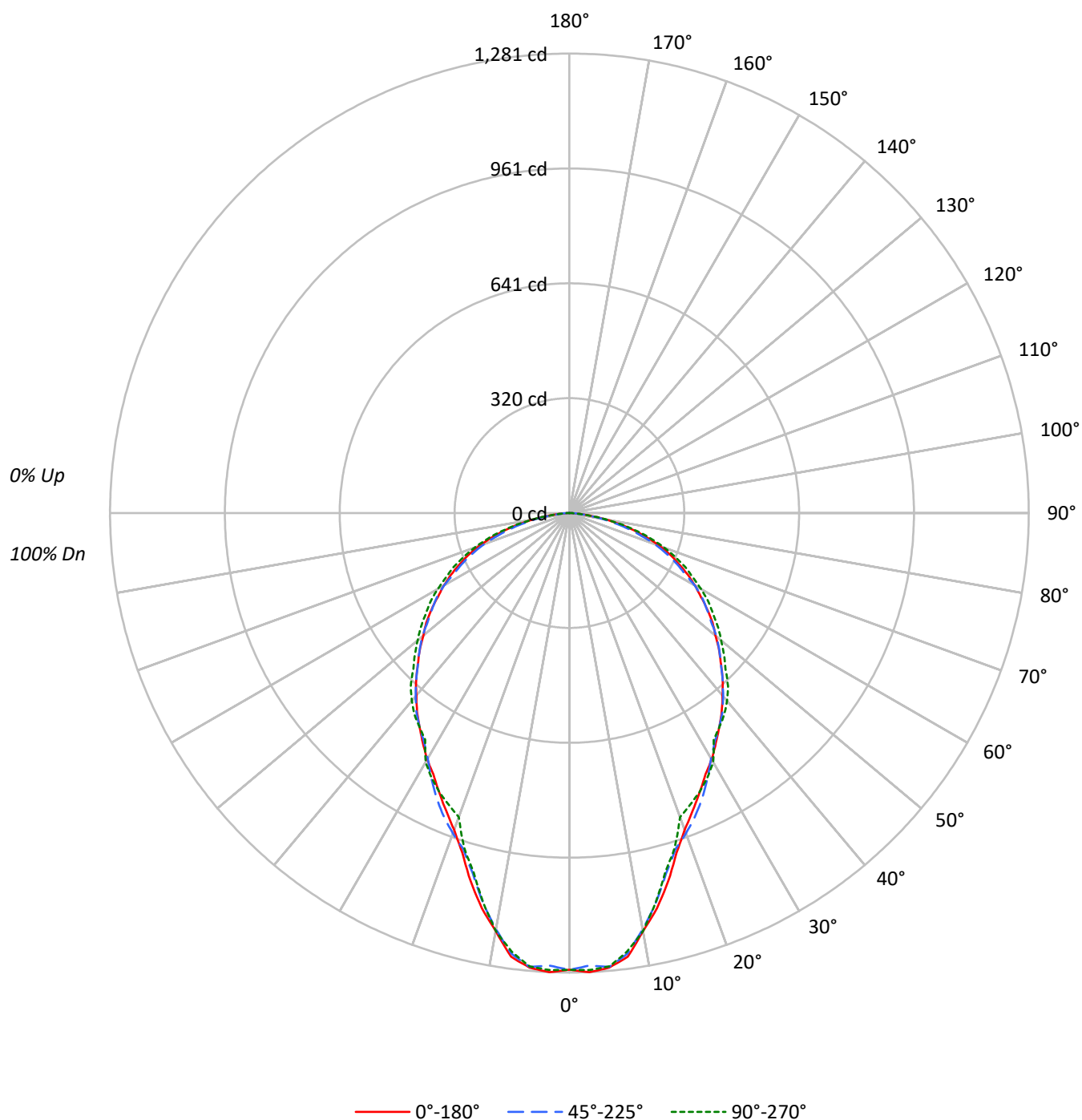
Lumens per Lamp: N/A
Luminaire Lumens: 2723.1 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P486943

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-1LO-40-120-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°	1713	1713	1713
5°	1718	1715	1714
10°	1617	1609	1616
15°	1481	1449	1441
20°	1345	1361	1291
25°	1276	1302	1274
30°	1232	1227	1246
35°	1196	1196	1196
40°	1166	1171	1200
45°	1138	1137	1172
50°	1113	1121	1156
55°	1101	1097	1146
60°	1087	1085	1140
65°	1073	1039	1134
70°	1052	993	1104
75°	974	881	1023
80°	790	718	810
85°	500	449	440



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.3	4.3
10°-20°	295.7	10.9
20°-30°	399.3	14.7
30°-40°	457.2	16.8
40°-50°	468.4	17.2
50°-60°	425.0	15.6
60°-70°	331.7	12.2
70°-80°	188.1	6.9
80°-90°	39.5	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°	813.2	29.9
0°-40°	1270.5	46.7
0°-60°	2163.8	79.5
0°-90°	2723.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2723.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1273	1273	1273	1273	1273	
5°	1272	1257	1270	1273	1269	119
15°	1063	1067	1040	1046	1034	297
25°	860	871	877	856	858	397
35°	728	730	728	729	728	456
45°	598	602	597	622	616	462
55°	470	469	468	484	489	420
65°	337	330	326	342	356	334
75°	187	174	170	179	197	196
85°	32	29	29	27	28	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1273.3	1273.3	1273.3	1273.3	1273.3
2.5°	1281.2	1271.3	1262.7	1276.6	1275.3
5°	1272.0	1257.4	1270.0	1272.6	1268.7
7.5°	1247.5	1238.2	1238.9	1233.6	1232.9
10°	1183.2	1188.5	1178.0	1187.2	1182.6
12.5°	1128.3	1131.6	1113.1	1117.0	1111.7
15°	1063.4	1066.7	1040.2	1045.5	1034.3
17.5°	992.6	1004.5	982.6	989.2	977.3
20°	939.6	949.5	950.2	939.6	901.8
22.5°	897.9	907.8	915.7	884.0	880.0
25°	859.5	870.7	876.7	855.5	858.1
27.5°	821.1	833.6	833.6	838.3	832.3
30°	793.2	798.5	789.9	807.2	801.9
32.5°	760.1	762.1	754.8	767.4	748.9
35°	728.4	729.7	728.4	729.0	728.4
37.5°	697.9	694.6	700.5	696.6	709.2
40°	664.1	664.1	666.8	673.4	683.3
42.5°	633.0	635.7	632.3	650.9	654.9
45°	597.9	602.5	597.3	621.8	615.8
47.5°	566.1	568.1	566.8	583.3	584.7
50°	531.7	534.3	535.7	550.2	552.2
52.5°	503.2	502.6	497.9	519.1	522.4
55°	469.5	468.8	467.5	484.0	488.7
57.5°	435.0	435.7	439.0	448.3	459.5
60°	403.9	400.6	403.2	414.5	423.8
62.5°	372.1	366.2	360.2	378.7	387.4
65°	337.0	329.7	326.4	341.7	356.2
67.5°	304.6	292.7	290.7	301.3	318.5
70°	267.5	252.9	252.3	260.2	280.7
72.5°	226.5	213.9	210.6	221.2	239.7
75°	187.4	173.5	169.5	179.4	196.7
77.5°	145.0	133.8	131.1	136.4	150.3
80°	102.0	95.3	92.7	94.7	104.6
82.5°	64.2	59.6	58.3	57.6	62.9
85°	32.4	29.1	29.1	27.1	28.5
87.5°	9.9	9.3	8.6	6.6	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)