

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: P486945

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1LO-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: P486945
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-50-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

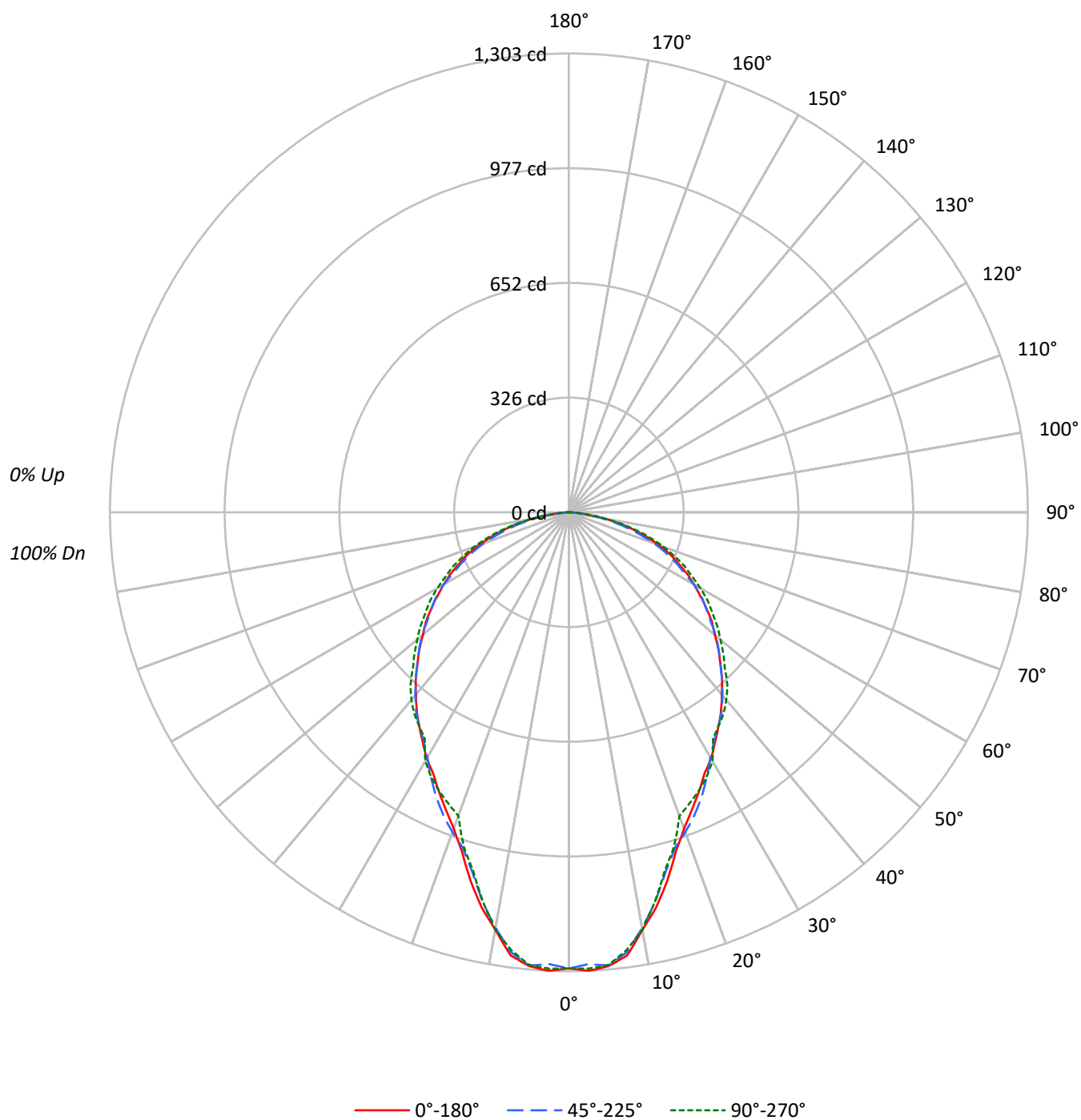
Lumens per Lamp: N/A
Luminaire Lumens: 2769.3 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P486945

CATALOG NUMBER: ORLG-24-4-INS-89BC-LD4-1LO-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°	1742	1742	1742
5°	1747	1744	1743
10°	1644	1637	1643
15°	1506	1474	1465
20°	1368	1384	1313
25°	1298	1324	1296
30°	1253	1248	1267
35°	1217	1217	1217
40°	1186	1191	1221
45°	1157	1156	1192
50°	1132	1140	1176
55°	1120	1115	1166
60°	1105	1104	1160
65°	1091	1057	1153
70°	1070	1009	1123
75°	991	896	1040
80°	804	731	824
85°	509	457	448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.3	4.3
10°-20°	300.7	10.9
20°-30°	406.1	14.7
30°-40°	465.0	16.8
40°-50°	476.3	17.2
50°-60°	432.2	15.6
60°-70°	337.3	12.2
70°-80°	191.3	6.9
80°-90°	40.2	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°	827.0	29.9
0°-40°	1292.0	46.7
0°-60°	2200.5	79.5
0°-90°	2769.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2769.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1295	1295	1295	1295	1295	
5°	1294	1279	1292	1294	1290	121
15°	1081	1085	1058	1063	1052	302
25°	874	886	892	870	873	403
35°	741	742	741	741	741	464
45°	608	613	607	632	626	470
55°	477	477	475	492	497	427
65°	343	335	332	348	362	340
75°	191	176	172	182	200	199
85°	33	30	30	28	29	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1294.9	1294.9	1294.9	1294.9	1294.9
2.5°	1303.0	1292.9	1284.1	1298.3	1296.9
5°	1293.6	1278.7	1291.5	1294.2	1290.2
7.5°	1268.6	1259.2	1259.9	1254.5	1253.8
10°	1203.3	1208.7	1197.9	1207.4	1202.6
12.5°	1147.4	1150.8	1131.9	1136.0	1130.6
15°	1081.4	1084.8	1057.9	1063.3	1051.8
17.5°	1009.4	1021.5	999.3	1006.0	993.9
20°	955.5	965.6	966.3	955.5	917.1
22.5°	913.1	923.2	931.3	899.0	894.9
25°	874.0	885.5	891.5	870.0	872.7
27.5°	835.0	847.8	847.8	852.5	846.4
30°	806.7	812.1	803.3	820.8	815.5
32.5°	773.0	775.1	767.6	780.4	761.6
35°	740.7	742.1	740.7	741.4	740.7
37.5°	709.7	706.4	712.4	708.4	721.2
40°	675.4	675.4	678.1	684.8	694.9
42.5°	643.7	646.4	643.1	661.9	666.0
45°	608.1	612.8	607.4	632.3	626.2
47.5°	575.7	577.8	576.4	593.2	594.6
50°	540.7	543.4	544.8	559.6	561.6
52.5°	511.8	511.1	506.4	527.9	531.3
55°	477.4	476.8	475.4	492.2	497.0
57.5°	442.4	443.1	446.4	455.9	467.3
60°	410.8	407.4	410.1	421.5	431.0
62.5°	378.4	372.4	366.3	385.2	393.9
65°	342.7	335.3	332.0	347.5	362.3
67.5°	309.8	297.6	295.6	306.4	323.9
70°	272.0	257.2	256.6	264.6	285.5
72.5°	230.3	217.5	214.1	224.9	243.8
75°	190.6	176.4	172.4	182.5	200.0
77.5°	147.5	136.0	133.3	138.7	152.9
80°	103.7	97.0	94.3	96.3	106.4
82.5°	65.3	60.6	59.3	58.6	64.0
85°	33.0	29.6	29.6	27.6	29.0
87.5°	10.1	9.4	8.8	6.7	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)