

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: P486952

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1STD-35-120-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: P486952
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-LD4-1STD-35-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

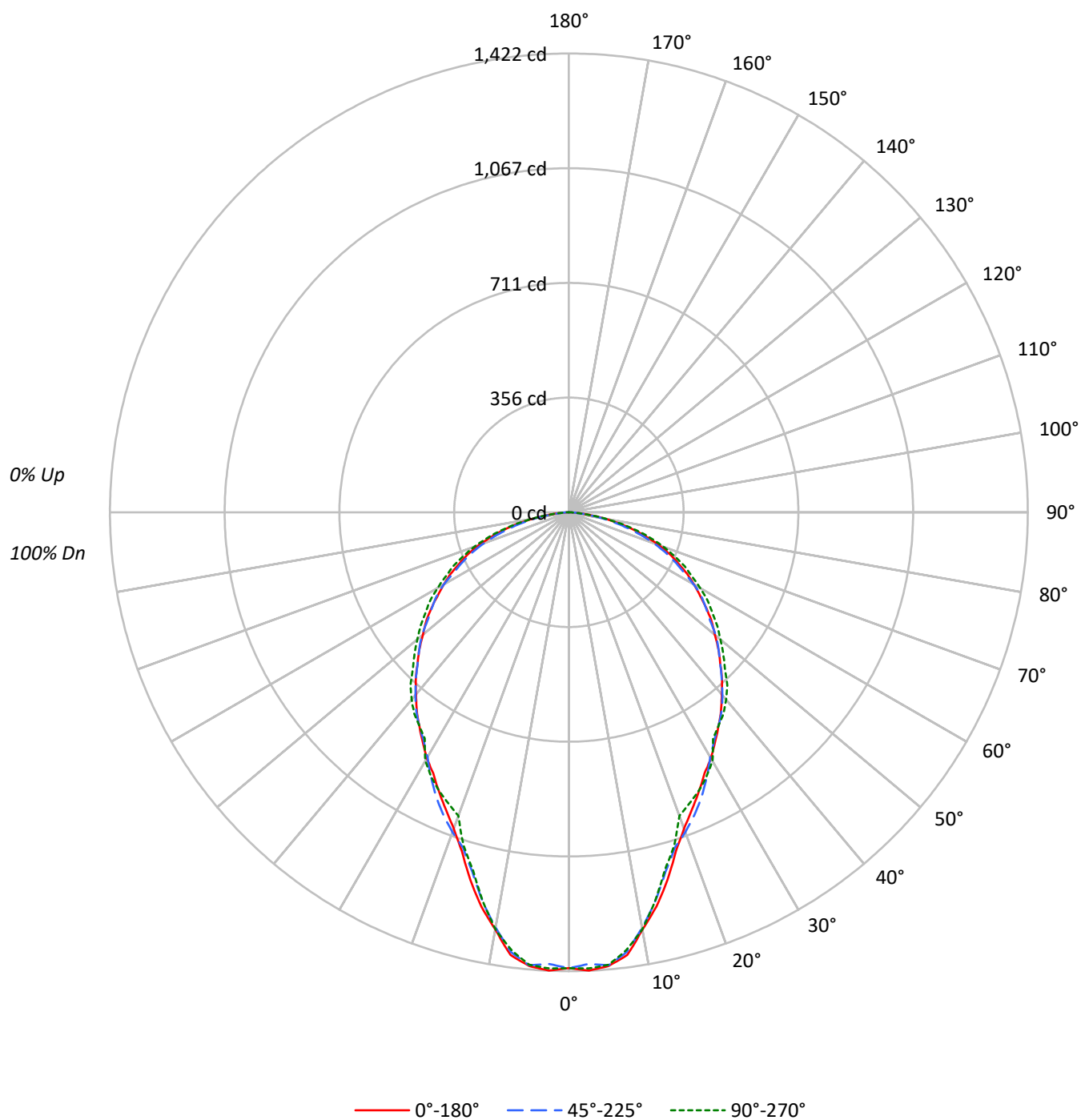
Lumens per Lamp: N/A
Luminaire Lumens: 3021.2 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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				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°	1901	1901	1901
5°	1906	1903	1901
10°	1794	1786	1793
15°	1643	1608	1598
20°	1493	1509	1433
25°	1416	1444	1413
30°	1367	1362	1382
35°	1327	1327	1327
40°	1294	1299	1332
45°	1262	1261	1300
50°	1235	1244	1283
55°	1222	1217	1272
60°	1206	1204	1265
65°	1190	1153	1258
70°	1168	1101	1225
75°	1081	978	1134
80°	876	797	900
85°	556	499	488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.2	4.3
10°-20°	328.0	10.9
20°-30°	443.0	14.7
30°-40°	507.3	16.8
40°-50°	519.6	17.2
50°-60°	471.5	15.6
60°-70°	368.0	12.2
70°-80°	208.7	6.9
80°-90°	43.8	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°	902.2	29.9
0°-40°	1409.5	46.7
0°-60°	2400.7	79.5
0°-90°	3021.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3021.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1413	1413	1413	1413	1413	
5°	1411	1395	1409	1412	1408	132
15°	1180	1184	1154	1160	1148	330
25°	954	966	973	949	952	440
35°	808	810	808	809	808	506
45°	663	668	663	690	683	513
55°	521	520	519	537	542	465
65°	374	366	362	379	395	371
75°	208	192	188	199	218	217
85°	36	32	32	30	32	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1412.7	1412.7	1412.7	1412.7	1412.7
2.5°	1421.5	1410.5	1400.9	1416.4	1414.9
5°	1411.2	1395.1	1409.0	1412.0	1407.5
7.5°	1384.0	1373.8	1374.5	1368.6	1367.9
10°	1312.8	1318.7	1306.9	1317.2	1312.0
12.5°	1251.8	1255.5	1234.9	1239.3	1233.4
15°	1179.8	1183.5	1154.1	1160.0	1147.5
17.5°	1101.2	1114.4	1090.2	1097.5	1084.3
20°	1042.4	1053.5	1054.2	1042.4	1000.6
22.5°	996.2	1007.2	1016.0	980.7	976.3
25°	953.5	966.0	972.6	949.1	952.1
27.5°	910.9	924.9	924.9	930.0	923.4
30°	880.1	886.0	876.4	895.5	889.6
32.5°	843.4	845.6	837.5	851.4	830.9
35°	808.1	809.6	808.1	808.8	808.1
37.5°	774.3	770.6	777.2	772.8	786.8
40°	736.8	736.8	739.8	747.1	758.1
42.5°	702.3	705.2	701.6	722.1	726.5
45°	663.4	668.5	662.6	689.8	683.2
47.5°	628.1	630.3	628.8	647.2	648.7
50°	589.9	592.8	594.3	610.5	612.7
52.5°	558.3	557.6	552.4	575.9	579.6
55°	520.9	520.1	518.6	537.0	542.2
57.5°	482.7	483.4	487.1	497.3	509.8
60°	448.1	444.4	447.4	459.9	470.2
62.5°	412.9	406.2	399.6	420.2	429.8
65°	373.9	365.8	362.2	379.1	395.2
67.5°	337.9	324.7	322.5	334.3	353.4
70°	296.8	280.6	279.9	288.7	311.5
72.5°	251.2	237.3	233.6	245.4	265.9
75°	207.9	192.5	188.1	199.1	218.2
77.5°	160.9	148.4	145.5	151.3	166.8
80°	113.1	105.8	102.8	105.1	116.1
82.5°	71.3	66.1	64.6	63.9	69.8
85°	36.0	32.3	32.3	30.1	31.6
87.5°	11.0	10.3	9.6	7.3	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)