

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: P486956

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1STD-50-120-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: P486956
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-50-120-EDD-90
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

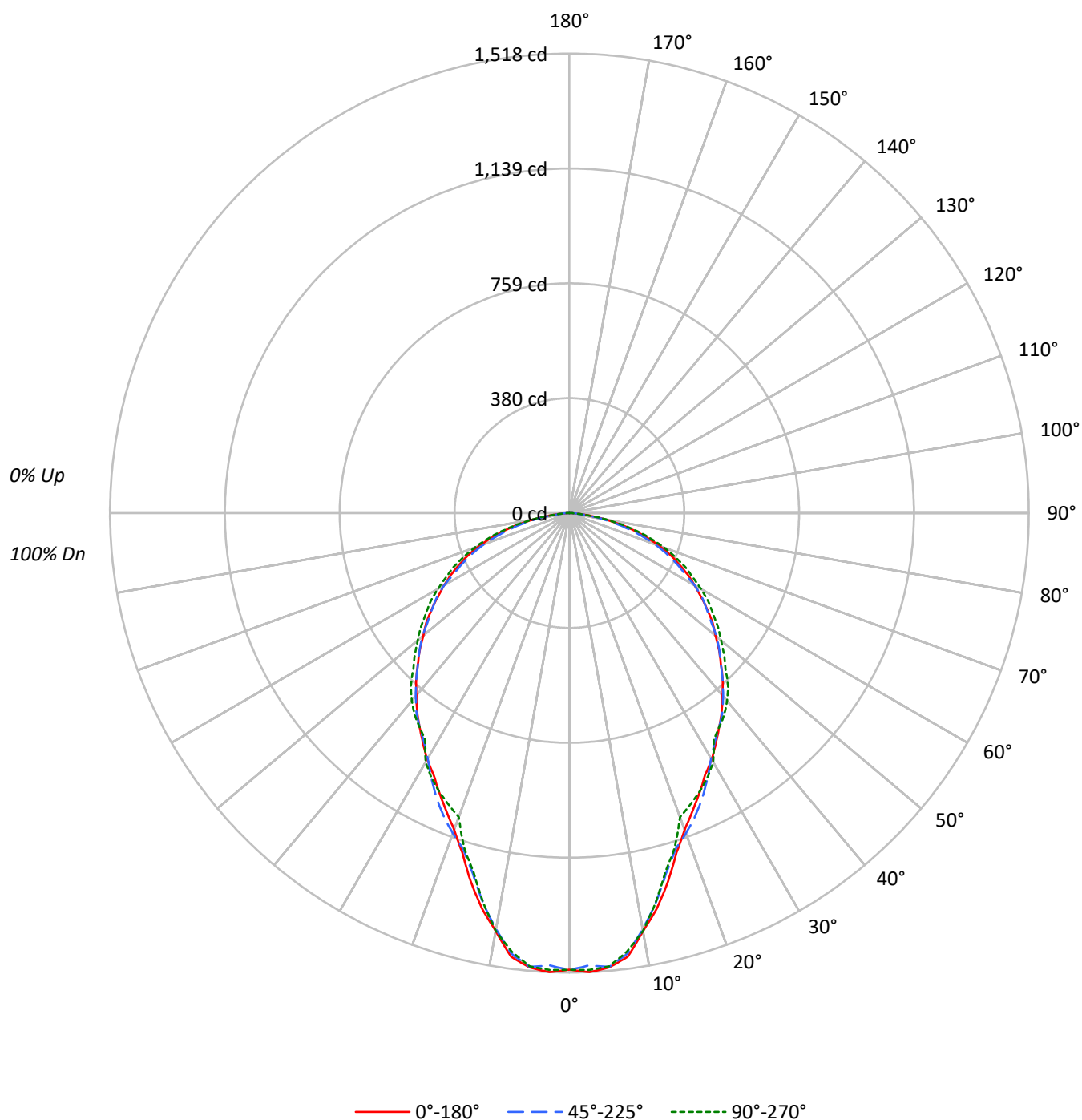
Lumens per Lamp: N/A
Luminaire Lumens: 3226.5 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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					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°	2030	2030	2030
5°	2036	2032	2030
10°	1915	1907	1914
15°	1755	1717	1707
20°	1594	1612	1530
25°	1512	1542	1510
30°	1460	1454	1476
35°	1418	1418	1418
40°	1382	1388	1422
45°	1348	1347	1388
50°	1319	1329	1370
55°	1305	1299	1358
60°	1288	1286	1351
65°	1271	1231	1344
70°	1247	1176	1308
75°	1154	1044	1211
80°	936	851	961
85°	593	533	520



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.1	4.3
10°-20°	350.3	10.9
20°-30°	473.1	14.7
30°-40°	541.8	16.8
40°-50°	554.9	17.2
50°-60°	503.5	15.6
60°-70°	393.0	12.2
70°-80°	222.9	6.9
80°-90°	46.8	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°	963.5	29.9
0°-40°	1505.3	46.7
0°-60°	2563.8	79.5
0°-90°	3226.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3226.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1509	1509	1509	1509	1509	
5°	1507	1490	1505	1508	1503	141
15°	1260	1264	1232	1239	1226	352
25°	1018	1032	1039	1014	1017	470
35°	863	865	863	864	863	541
45°	708	714	708	737	730	548
55°	556	556	554	574	579	497
65°	399	391	387	405	422	396
75°	222	206	201	213	233	232
85°	38	34	34	32	34	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1508.7	1508.7	1508.7	1508.7	1508.7
2.5°	1518.1	1506.3	1496.1	1512.6	1511.0
5°	1507.1	1489.9	1504.8	1507.9	1503.2
7.5°	1478.1	1467.1	1467.9	1461.6	1460.8
10°	1402.0	1408.3	1395.7	1406.7	1401.2
12.5°	1336.9	1340.8	1318.8	1323.5	1317.3
15°	1260.0	1263.9	1232.5	1238.8	1225.5
17.5°	1176.0	1190.2	1164.3	1172.1	1158.0
20°	1113.3	1125.0	1125.8	1113.3	1068.6
22.5°	1063.8	1075.6	1085.0	1047.4	1042.7
25°	1018.3	1031.7	1038.7	1013.6	1016.8
27.5°	972.8	987.7	987.7	993.2	986.2
30°	939.9	946.2	936.0	956.4	950.1
32.5°	900.7	903.0	894.4	909.3	887.3
35°	863.0	864.6	863.0	863.8	863.0
37.5°	826.9	823.0	830.1	825.3	840.3
40°	786.9	786.9	790.0	797.9	809.7
42.5°	750.0	753.2	749.2	771.2	775.9
45°	708.4	713.9	707.7	736.7	729.6
47.5°	670.8	673.1	671.6	691.2	692.8
50°	630.0	633.1	634.7	652.0	654.3
52.5°	596.3	595.5	590.0	615.1	619.0
55°	556.2	555.5	553.9	573.5	579.0
57.5°	515.4	516.2	520.2	531.1	544.5
60°	478.6	474.7	477.8	491.1	502.1
62.5°	440.9	433.9	426.8	448.8	459.0
65°	399.3	390.7	386.8	404.8	422.1
67.5°	360.9	346.8	344.4	357.0	377.4
70°	317.0	299.7	298.9	308.3	332.6
72.5°	268.3	253.4	249.5	262.0	284.0
75°	222.0	205.6	200.8	212.6	233.0
77.5°	171.8	158.5	155.3	161.6	178.1
80°	120.8	113.0	109.8	112.2	124.0
82.5°	76.1	70.6	69.0	68.3	74.5
85°	38.4	34.5	34.5	32.2	33.7
87.5°	11.8	11.0	10.2	7.8	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)