

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: P486951

Luminaire Tested: **ORLG-24-4-INS-89BC-LD4-1STD-30-120-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: P486951
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-30-120-EDD
Description: 2X4 ORL LED LUMINAIRE WITH 89BC LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

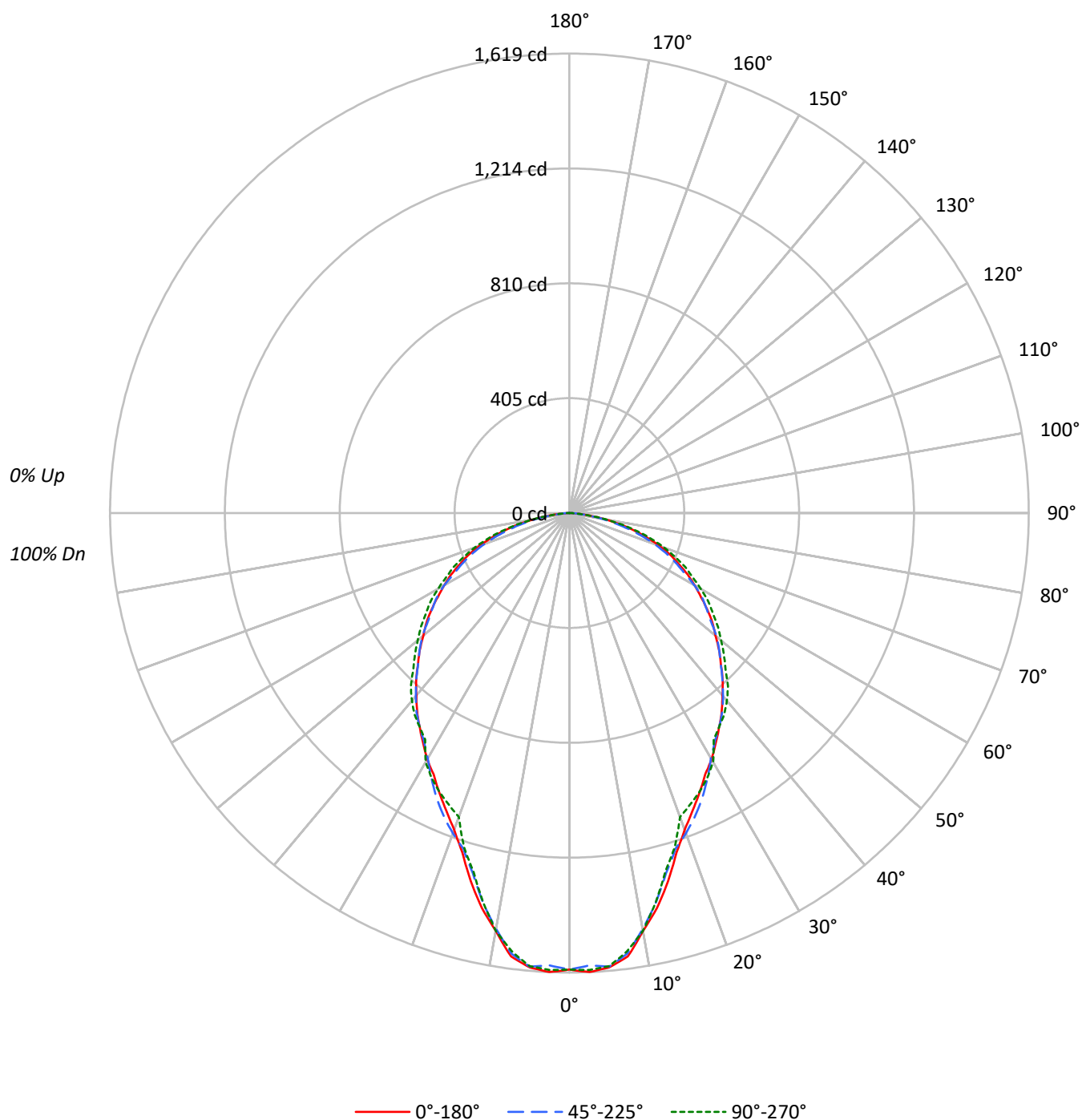
Lumens per Lamp: N/A
Luminaire Lumens: 3440.1 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2164	2164	2164
5°	2170	2167	2165
10°	2042	2033	2041
15°	1871	1830	1820
20°	1700	1719	1631
25°	1612	1644	1609
30°	1557	1550	1574
35°	1511	1511	1511
40°	1474	1479	1516
45°	1437	1436	1480
50°	1406	1416	1460
55°	1391	1385	1448
60°	1373	1371	1441
65°	1356	1313	1433
70°	1329	1254	1395
75°	1231	1113	1291
80°	998	907	1024
85°	633	568	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.4	4.3
10°-20°	373.5	10.9
20°-30°	504.4	14.7
30°-40°	577.6	16.8
40°-50°	591.7	17.2
50°-60°	536.9	15.6
60°-70°	419.0	12.2
70°-80°	237.7	6.9
80°-90°	49.9	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°	1027.3	29.9
0°-40°	1605.0	46.7
0°-60°	2733.5	79.5
0°-90°	3440.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3440.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1609	1609	1609	1609	1609	
5°	1607	1588	1604	1608	1603	150
15°	1343	1348	1314	1321	1307	375
25°	1086	1100	1108	1081	1084	501
35°	920	922	920	921	920	576
45°	755	761	754	786	778	584
55°	593	592	591	612	617	530
65°	426	417	412	432	450	422
75°	237	219	214	227	248	248
85°	41	37	37	34	36	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1608.6	1608.6	1608.6	1608.6	1608.6
2.5°	1618.6	1606.1	1595.2	1612.7	1611.1
5°	1606.9	1588.5	1604.4	1607.7	1602.7
7.5°	1575.9	1564.2	1565.1	1558.4	1557.5
10°	1494.8	1501.5	1488.1	1499.8	1494.0
12.5°	1425.4	1429.6	1406.1	1411.2	1404.5
15°	1343.4	1347.6	1314.1	1320.8	1306.6
17.5°	1253.9	1268.9	1241.3	1249.7	1234.7
20°	1187.0	1199.5	1200.4	1187.0	1139.3
22.5°	1134.3	1146.8	1156.9	1116.7	1111.7
25°	1085.8	1100.0	1107.5	1080.7	1084.1
27.5°	1037.2	1053.1	1053.1	1059.0	1051.5
30°	1002.1	1008.8	997.9	1019.7	1013.0
32.5°	960.3	962.8	953.6	969.5	946.1
35°	920.1	921.8	920.1	921.0	920.1
37.5°	881.7	877.5	885.0	880.0	895.9
40°	839.0	839.0	842.3	850.7	863.3
42.5°	799.7	803.0	798.8	822.3	827.3
45°	755.3	761.2	754.5	785.5	777.9
47.5°	715.2	717.7	716.0	736.9	738.6
50°	671.7	675.0	676.7	695.1	697.6
52.5°	635.7	634.9	629.0	655.8	660.0
55°	593.1	592.2	590.6	611.5	617.3
57.5°	549.6	550.4	554.6	566.3	580.5
60°	510.3	506.1	509.4	523.6	535.4
62.5°	470.1	462.6	455.0	478.5	489.3
65°	425.8	416.6	412.4	431.6	450.0
67.5°	384.8	369.7	367.2	380.6	402.3
70°	337.9	319.5	318.7	328.7	354.7
72.5°	286.1	270.2	266.0	279.4	302.8
75°	236.7	219.2	214.1	226.7	248.4
77.5°	183.2	169.0	165.6	172.3	189.9
80°	128.8	120.5	117.1	119.6	132.2
82.5°	81.1	75.3	73.6	72.8	79.5
85°	41.0	36.8	36.8	34.3	36.0
87.5°	12.5	11.7	10.9	8.4	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)