

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P#

Luminaire Tested: 22D3X-LP-20-L927.ies

Issue Date: 12/20/2023

Test Information

Test Method: LM-79-2019
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2307-104-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 22D3X-LP-20-L927.ies
Description: 2x2 D3X-LP AT 2000LM 2700K 90CRI
Light Source: -
Ballast/Driver: -

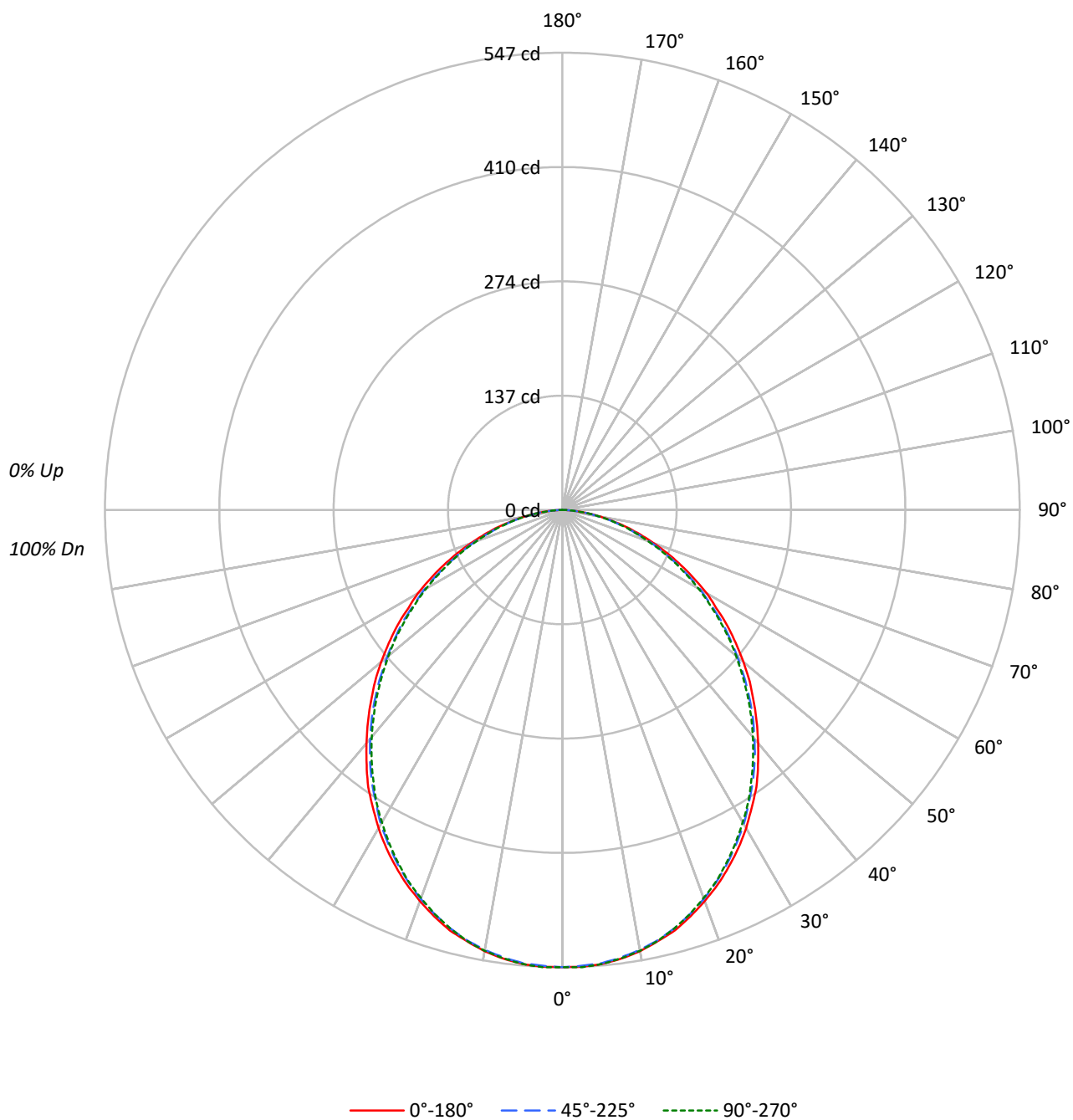
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1366.5 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.29
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.1
Input Voltage (V): 120
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: 24 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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	105	101	97	107	102	99	95	98	95	92		94	92	89		91
2	100	92	85	80	97	90	84	79	86	81	77		83	79	75		80
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	84	72	64	57	81	71	63	57	68	61	56		66	60	55		64
5	77	65	56	49	75	64	55	49	61	54	49		59	53	48		58
6	71	58	50	43	69	57	49	43	56	48	43		54	47	42		52
7	66	53	44	38	65	52	44	38	51	43	38		49	43	38		48
8	62	49	40	34	60	48	40	34	47	39	34		45	39	34		44
9	58	45	37	31	56	44	36	31	43	36	31		42	35	31		41
10	54	41	33	28	53	41	33	28	40	33	28		39	32	28		38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1472	1472	1472
5°	1473	1470	1473
10°	1465	1460	1463
15°	1451	1443	1443
20°	1426	1418	1415
25°	1399	1386	1381
30°	1366	1349	1340
35°	1329	1305	1295
40°	1280	1255	1246
45°	1231	1202	1192
50°	1184	1145	1135
55°	1129	1088	1073
60°	1073	1026	1011
65°	999	950	940
70°	913	879	857
75°	833	782	787
80°	717	676	683
85°	556	537	503

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1231 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	3.8
10°-20°	146.1	10.7
20°-30°	215.1	15.7
30°-40°	248.9	18.2
40°-50°	244.7	17.9
50°-60°	208.5	15.3
60°-70°	149.4	10.9
70°-80°	81.1	5.9
80°-90°	21.2	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°	412.8	30.2
0°-40°	661.7	48.4
0°-60°	1114.8	81.6
0°-90°	1366.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1366.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	547	547	547	547	547	
5°	545	544	544	544	545	52
15°	521	518	518	517	518	147
25°	471	469	467	466	465	217
35°	405	401	397	395	394	252
45°	324	321	316	313	313	250
55°	241	236	232	229	229	215
65°	157	154	149	148	148	155
75°	80	77	75	74	76	85
85°	18	18	17	17	16	22
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	546.9	546.9	546.9	546.9	546.9
2.5°	546.9	546.3	545.8	546.3	547.4
5°	545.2	544.1	544.1	544.1	545.2
7.5°	541.4	540.3	539.8	540.3	540.9
10°	536.0	534.9	534.3	534.9	535.4
12.5°	528.3	527.8	527.2	527.2	527.8
15°	520.7	518.5	518.0	517.4	518.0
17.5°	509.8	509.3	507.1	507.1	507.1
20°	497.8	496.7	495.1	494.0	494.0
22.5°	485.3	484.2	481.5	480.4	480.9
25°	471.1	469.0	466.8	465.7	465.2
27.5°	455.9	453.7	450.4	448.8	448.8
30°	439.6	437.9	434.1	431.9	431.4
32.5°	421.6	420.5	415.0	414.0	414.0
35°	404.7	401.4	397.1	394.9	394.3
37.5°	384.5	382.4	378.0	375.3	374.7
40°	364.4	361.7	357.3	355.1	354.6
42.5°	344.2	341.5	337.2	334.4	333.9
45°	323.5	321.4	315.9	313.2	313.2
47.5°	303.9	299.6	294.7	292.5	291.9
50°	282.7	278.9	273.4	271.2	271.2
52.5°	261.4	258.7	252.7	251.6	250.5
55°	240.7	236.4	232.0	229.3	228.8
57.5°	218.4	214.6	210.2	208.1	208.1
60°	199.4	194.4	190.6	187.9	187.9
62.5°	177.6	173.2	169.4	167.8	167.2
65°	156.9	153.6	149.2	147.6	147.6
67.5°	136.2	133.4	129.6	128.0	128.5
70°	116.0	114.4	111.7	109.5	108.9
72.5°	97.5	95.3	92.6	92.0	92.0
75°	80.1	77.3	75.2	74.1	75.7
77.5°	62.1	60.5	59.4	58.8	59.4
80°	46.3	44.1	43.6	44.1	44.1
82.5°	32.1	31.0	30.5	30.5	30.5
85°	18.0	18.0	17.4	16.9	16.3
87.5°	7.1	7.1	7.6	7.6	8.2
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room Dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	12.3	13.9	12.7	14.2	14.5	12.1	13.7	12.4	14.0	14.3
	3H	14.0	15.4	14.4	15.7	16.1	13.7	15.1	14.1	15.5	15.8
	4H	14.6	15.9	15.0	16.3	16.7	14.3	15.6	14.7	16.0	16.4
	6H	15.0	16.2	15.4	16.6	17.0	14.7	16.0	15.1	16.3	16.7
	8H	15.1	16.3	15.5	16.7	17.1	14.8	16.0	15.3	16.4	16.8
	12H	15.2	16.3	15.6	16.7	17.2	14.9	16.0	15.3	16.4	16.9
4H	2H	12.9	14.2	13.3	14.6	14.9	12.7	14.0	13.1	14.4	14.7
	3H	14.7	15.9	15.1	16.3	16.7	14.5	15.6	14.9	16.0	16.4
	4H	15.5	16.5	15.9	16.9	17.3	15.2	16.2	15.6	16.6	17.1
	6H	16.0	16.9	16.4	17.3	17.8	15.7	16.6	16.2	17.1	17.5
	8H	16.2	17.0	16.6	17.4	17.9	15.9	16.7	16.4	17.2	17.6
	12H	16.3	17.0	16.8	17.5	18.0	16.0	16.8	16.5	17.2	17.7
8H	4H	15.7	16.5	16.2	17.0	17.4	15.5	16.3	15.9	16.7	17.2
	6H	16.3	17.0	16.8	17.5	18.0	16.1	16.8	16.6	17.3	17.8
	8H	16.6	17.2	17.1	17.7	18.2	16.4	17.0	16.9	17.5	18.0
	12H	16.8	17.3	17.3	17.8	18.4	16.5	17.1	17.0	17.6	18.1
12H	4H	15.7	16.5	16.2	16.9	17.4	15.5	16.2	16.0	16.7	17.2
	6H	16.4	17.0	16.9	17.5	18.0	16.2	16.8	16.7	17.3	17.8
	8H	16.7	17.2	17.2	17.7	18.3	16.5	17.0	17.0	17.5	18.1

(END OF REPORT)