

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-45-L950.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-45-L950.ies
Description: 2x2 D3X-LP AT 4500LM 5000K 90CRI
Light Source: -
Ballast/Driver: -

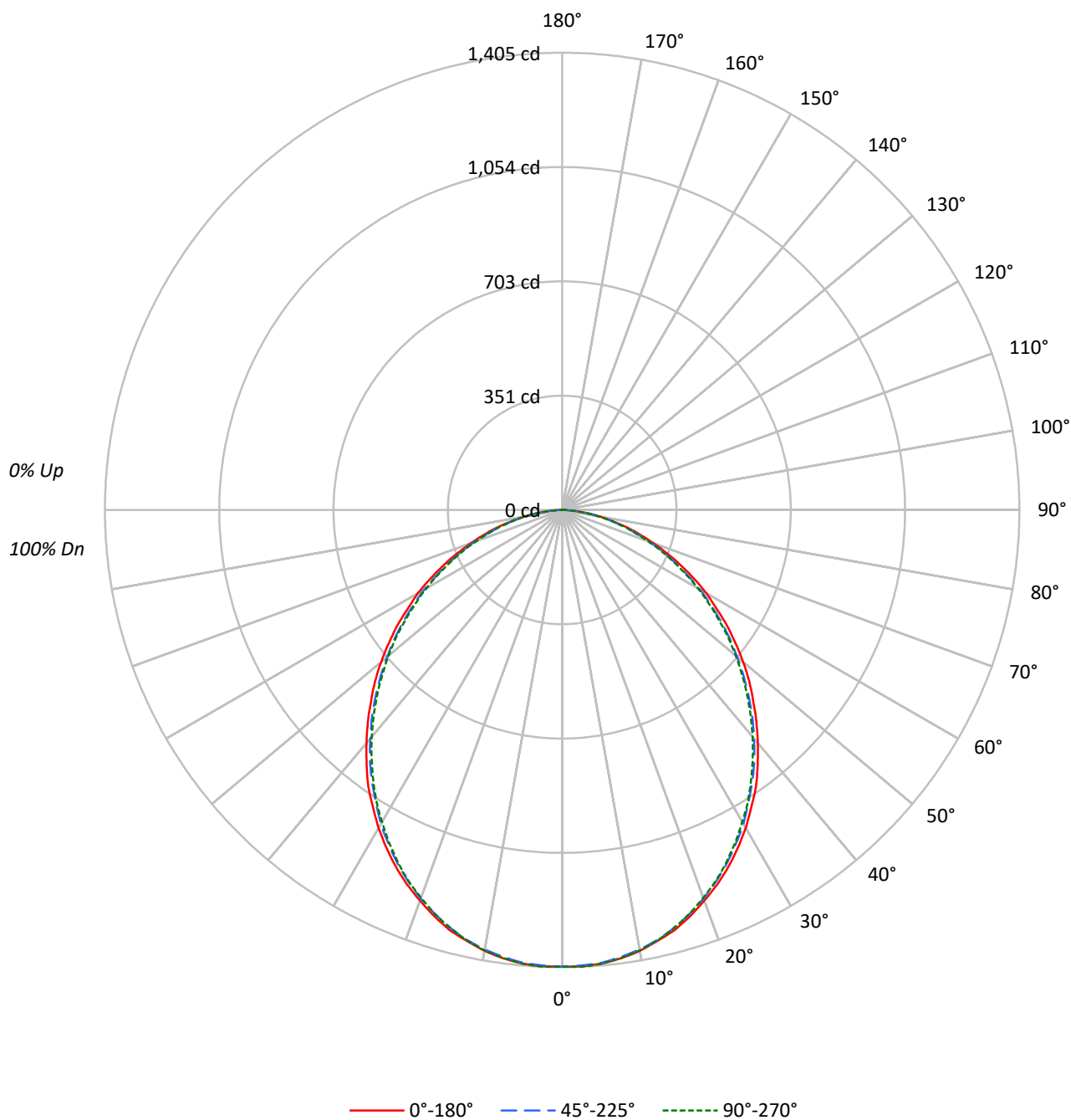
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3507.2 lumens
Efficiency: N/A
Efficacy: 92.8 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): 37.8
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	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	87	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	73	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	63	63	61
4	84	72	64	57	81	71	63	57	68	61	56	66	60	55	64	59	54	54	54	52
5	77	65	56	49	75	64	55	49	61	54	49	59	53	48	58	52	48	48	48	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	47	42	42	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	37	37	36
8	62	49	40	34	60	48	40	34	47	39	34	45	39	34	44	38	34	34	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	31	31	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3777	3777	3777
5°	3780	3772	3780
10°	3759	3747	3755
15°	3723	3704	3704
20°	3659	3639	3631
25°	3590	3557	3545
30°	3505	3462	3440
35°	3412	3348	3325
40°	3285	3221	3197
45°	3160	3086	3059
50°	3037	2938	2915
55°	2899	2794	2754
60°	2753	2633	2596
65°	2564	2439	2412
70°	2343	2255	2200
75°	2137	2006	2020
80°	1841	1733	1754
85°	1423	1380	1294

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3160 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.6	3.8
10°-20°	374.9	10.7
20°-30°	552.1	15.7
30°-40°	638.7	18.2
40°-50°	627.9	17.9
50°-60°	535.1	15.3
60°-70°	383.4	10.9
70°-80°	208.2	5.9
80°-90°	54.3	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°	1059.5	30.2
0°-40°	1698.2	48.4
0°-60°	2861.2	81.6
0°-90°	3507.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3507.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1404	1404	1404	1404	1404	
5°	1399	1396	1396	1396	1399	133
15°	1336	1331	1329	1328	1329	376
25°	1209	1204	1198	1195	1194	557
35°	1039	1030	1019	1014	1012	648
45°	830	825	811	804	804	641
55°	618	607	596	588	587	552
65°	403	394	383	379	379	399
75°	206	198	193	190	194	217
85°	46	46	45	43	42	56
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1403.5	1403.5	1403.5	1403.5	1403.5
2.5°	1403.5	1402.1	1400.7	1402.1	1404.9
5°	1399.3	1396.5	1396.5	1396.5	1399.3
7.5°	1389.5	1386.7	1385.3	1386.7	1388.1
10°	1375.5	1372.7	1371.3	1372.7	1374.1
12.5°	1356.0	1354.6	1353.2	1353.2	1354.6
15°	1336.4	1330.8	1329.4	1328.0	1329.4
17.5°	1308.4	1307.0	1301.4	1301.4	1301.4
20°	1277.7	1274.9	1270.7	1267.9	1267.9
22.5°	1245.5	1242.7	1235.7	1233.0	1234.3
25°	1209.2	1203.6	1198.0	1195.2	1193.8
27.5°	1170.0	1164.5	1156.1	1151.9	1151.9
30°	1128.1	1123.9	1114.1	1108.5	1107.1
32.5°	1082.0	1079.2	1065.2	1062.4	1062.4
35°	1038.6	1030.3	1019.1	1013.5	1012.1
37.5°	986.9	981.3	970.1	963.2	961.8
40°	935.2	928.2	917.0	911.4	910.0
42.5°	883.5	876.5	865.3	858.3	856.9
45°	830.4	824.8	810.8	803.8	803.8
47.5°	780.0	768.8	756.3	750.7	749.3
50°	725.5	715.7	701.7	696.2	696.2
52.5°	671.0	664.0	648.6	645.8	643.0
55°	617.9	606.7	595.5	588.5	587.1
57.5°	560.6	550.8	539.6	534.0	534.0
60°	511.6	499.1	489.3	482.3	482.3
62.5°	455.7	444.5	434.7	430.6	429.2
65°	402.6	394.2	383.0	378.8	378.8
67.5°	349.5	342.5	332.7	328.5	329.9
70°	297.8	293.6	286.6	281.0	279.6
72.5°	250.2	244.6	237.6	236.2	236.2
75°	205.5	198.5	192.9	190.1	194.3
77.5°	159.4	155.2	152.4	151.0	152.4
80°	118.8	113.2	111.8	113.2	113.2
82.5°	82.5	79.7	78.3	78.3	78.3
85°	46.1	46.1	44.7	43.3	41.9
87.5°	18.2	18.2	19.6	19.6	21.0
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	15.6	17.2	16.0	17.5	17.8	15.4	16.9	15.7	17.3	17.6
	3H	17.3	18.7	17.6	19.0	19.4	17.0	18.4	17.3	18.7	19.1
	4H	17.9	19.2	18.2	19.5	19.9	17.6	18.9	18.0	19.3	19.6
	6H	18.3	19.5	18.7	19.9	20.3	18.0	19.2	18.4	19.6	20.0
	8H	18.4	19.6	18.8	20.0	20.4	18.1	19.3	18.5	19.7	20.1
	12H	18.5	19.6	18.9	20.0	20.4	18.2	19.3	18.6	19.7	20.1
4H	2H	16.1	17.5	16.5	17.8	18.2	15.9	17.3	16.3	17.6	18.0
	3H	18.0	19.1	18.4	19.5	19.9	17.8	18.9	18.2	19.3	19.7
	4H	18.7	19.7	19.2	20.2	20.6	18.5	19.5	18.9	19.9	20.3
	6H	19.3	20.2	19.7	20.6	21.0	19.0	19.9	19.5	20.3	20.8
	8H	19.4	20.3	19.9	20.7	21.2	19.2	20.0	19.6	20.5	20.9
	12H	19.6	20.3	20.0	20.8	21.2	19.3	20.0	19.8	20.5	21.0
8H	4H	19.0	19.8	19.4	20.2	20.7	18.7	19.6	19.2	20.0	20.5
	6H	19.6	20.3	20.1	20.8	21.3	19.4	20.1	19.9	20.6	21.1
	8H	19.9	20.5	20.4	21.0	21.5	19.6	20.3	20.1	20.8	21.2
	12H	20.0	20.6	20.5	21.1	21.6	19.8	20.3	20.3	20.8	21.4
12H	4H	19.0	19.7	19.5	20.2	20.7	18.8	19.5	19.3	20.0	20.5
	6H	19.7	20.3	20.2	20.7	21.3	19.5	20.1	20.0	20.5	21.1
	8H	19.9	20.5	20.4	21.0	21.5	19.7	20.3	20.2	20.8	21.3

(END OF REPORT)