

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-L850.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-L850.ies
Description: 2x2 D3X-LP AT 4500LM 5000K 80CRI
Light Source: -
Ballast/Driver: -

Summary

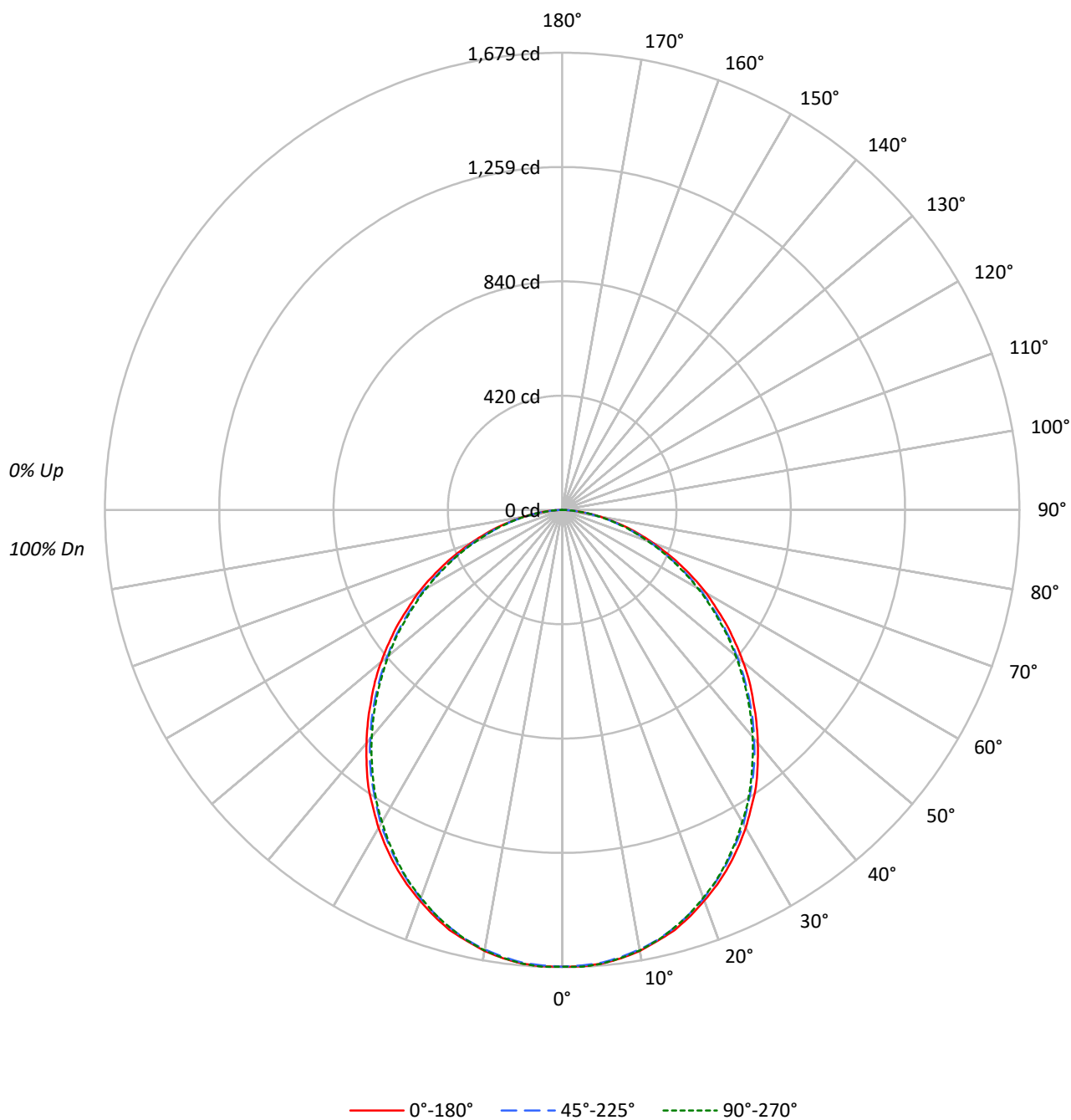
Lumens per Lamp: N/A
Luminaire Lumens: 4191.2 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.29
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	0
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°	4513	4513	4513
5°	4517	4508	4517
10°	4492	4478	4487
15°	4449	4426	4426
20°	4373	4348	4339
25°	4290	4251	4236
30°	4189	4137	4111
35°	4077	4001	3973
40°	3926	3850	3820
45°	3776	3687	3656
50°	3630	3511	3483
55°	3464	3339	3292
60°	3291	3147	3102
65°	3063	2914	2883
70°	2799	2695	2629
75°	2554	2397	2414
80°	2201	2070	2097
85°	1701	1652	1547

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3776 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	3.8
10°-20°	448.0	10.7
20°-30°	659.8	15.7
30°-40°	763.2	18.2
40°-50°	750.4	17.9
50°-60°	639.5	15.3
60°-70°	458.2	10.9
70°-80°	248.8	5.9
80°-90°	64.9	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°	1266.2	30.2
0°-40°	2029.4	48.4
0°-60°	3419.2	81.6
0°-90°	4191.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4191.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1677	1677	1677	1677	1677	
5°	1672	1669	1669	1669	1672	159
15°	1597	1590	1589	1587	1589	449
25°	1445	1438	1432	1428	1427	665
35°	1241	1231	1218	1211	1210	774
45°	992	986	969	961	961	767
55°	738	725	712	703	702	659
65°	481	471	458	453	453	477
75°	246	237	230	227	232	259
85°	55	55	54	52	50	67
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1677.2	1677.2	1677.2	1677.2	1677.2
2.5°	1677.2	1675.5	1673.9	1675.5	1678.9
5°	1672.2	1668.9	1668.9	1668.9	1672.2
7.5°	1660.5	1657.2	1655.5	1657.2	1658.8
10°	1643.8	1640.5	1638.8	1640.5	1642.1
12.5°	1620.4	1618.7	1617.1	1617.1	1618.7
15°	1597.0	1590.3	1588.7	1587.0	1588.7
17.5°	1563.6	1561.9	1555.3	1555.3	1555.3
20°	1526.9	1523.5	1518.5	1515.2	1515.2
22.5°	1488.4	1485.1	1476.7	1473.4	1475.1
25°	1445.0	1438.3	1431.6	1428.3	1426.6
27.5°	1398.2	1391.5	1381.5	1376.5	1376.5
30°	1348.1	1343.1	1331.4	1324.7	1323.1
32.5°	1293.0	1289.6	1272.9	1269.6	1269.6
35°	1241.2	1231.2	1217.8	1211.1	1209.5
37.5°	1179.4	1172.7	1159.3	1151.0	1149.3
40°	1117.6	1109.2	1095.9	1089.2	1087.5
42.5°	1055.8	1047.4	1034.1	1025.7	1024.0
45°	992.3	985.6	968.9	960.6	960.6
47.5°	932.2	918.8	903.8	897.1	895.4
50°	867.0	855.3	838.6	831.9	831.9
52.5°	801.9	793.5	775.1	771.8	768.4
55°	738.4	725.0	711.6	703.3	701.6
57.5°	669.9	658.2	644.8	638.1	638.1
60°	611.4	596.4	584.7	576.3	576.3
62.5°	544.6	531.2	519.5	514.5	512.9
65°	481.1	471.1	457.7	452.7	452.7
67.5°	417.6	409.3	397.6	392.6	394.2
70°	355.8	350.8	342.5	335.8	334.1
72.5°	299.0	292.3	284.0	282.3	282.3
75°	245.6	237.2	230.5	227.2	232.2
77.5°	190.4	185.4	182.1	180.4	182.1
80°	142.0	135.3	133.6	135.3	135.3
82.5°	98.6	95.2	93.5	93.5	93.5
85°	55.1	55.1	53.5	51.8	50.1
87.5°	21.7	21.7	23.4	23.4	25.1
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	16.2	17.8	16.6	18.1	18.4	16.0	17.6	16.3	17.9	18.2
	3H	17.9	19.3	18.2	19.6	20.0	17.6	19.0	18.0	19.3	19.7
	4H	18.5	19.8	18.9	20.2	20.5	18.2	19.5	18.6	19.9	20.2
	6H	18.9	20.1	19.3	20.5	20.9	18.6	19.8	19.0	20.2	20.6
	8H	19.0	20.2	19.4	20.6	21.0	18.7	19.9	19.1	20.3	20.7
	12H	19.1	20.2	19.5	20.6	21.0	18.8	19.9	19.2	20.3	20.7
4H	2H	16.8	18.1	17.2	18.5	18.8	16.6	17.9	17.0	18.3	18.6
	3H	18.6	19.8	19.0	20.2	20.6	18.4	19.5	18.8	19.9	20.3
	4H	19.3	20.4	19.8	20.8	21.2	19.1	20.1	19.5	20.5	21.0
	6H	19.9	20.8	20.3	21.2	21.7	19.6	20.5	20.1	21.0	21.4
	8H	20.1	20.9	20.5	21.3	21.8	19.8	20.6	20.3	21.1	21.5
	12H	20.2	20.9	20.6	21.4	21.9	19.9	20.7	20.4	21.1	21.6
8H	4H	19.6	20.4	20.1	20.9	21.3	19.4	20.2	19.8	20.6	21.1
	6H	20.2	20.9	20.7	21.4	21.9	20.0	20.7	20.5	21.2	21.7
	8H	20.5	21.1	21.0	21.6	22.1	20.3	20.9	20.8	21.4	21.9
	12H	20.6	21.2	21.2	21.7	22.2	20.4	21.0	20.9	21.5	22.0
12H	4H	19.6	20.4	20.1	20.8	21.3	19.4	20.1	19.9	20.6	21.1
	6H	20.3	20.9	20.8	21.4	21.9	20.1	20.7	20.6	21.2	21.7
	8H	20.6	21.1	21.1	21.6	22.2	20.3	20.9	20.9	21.4	21.9

(END OF REPORT)