

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: METALUX

Report Number: P393516

Luminaire Tested: **24EN-LD2-45-UNV-L83050-W2A-1-U (3500K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393516  
Test Lab: INNOVATION CENTER (G3)  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24EN-LD2-45-UNV-L83050-W2A-1-U (3500K)  
Description: 2X4 ENCOUNTER, 4500 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4581.5 lumens  
Efficiency: N/A  
Efficacy: 142.3 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

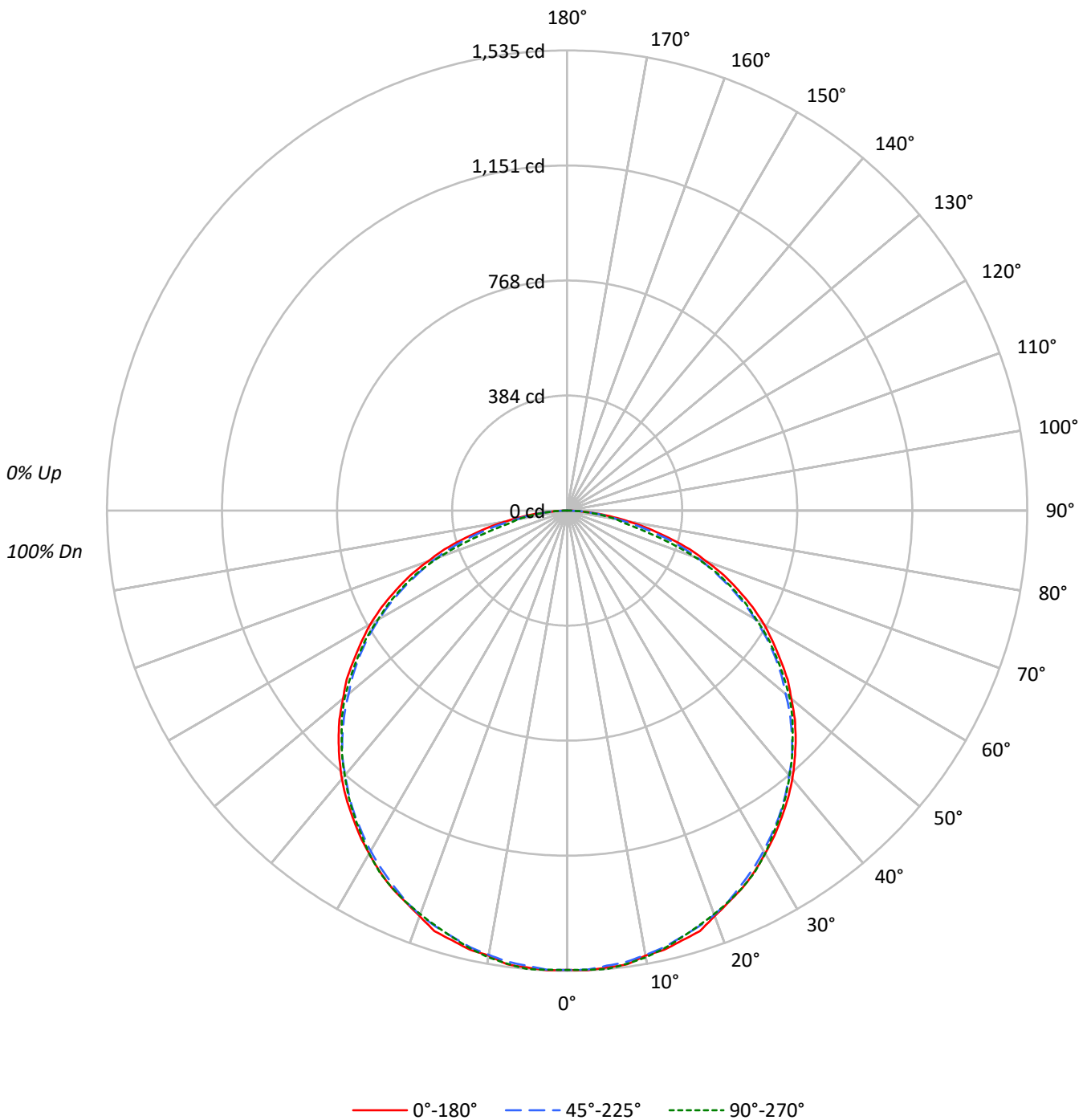
Input Watts (W): 32.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2061	2061	2061
5°	2066	2058	2073
10°	2059	2056	2067
15°	2067	2052	2053
20°	2060	2055	2052
25°	2059	2044	2058
30°	2052	2037	2052
35°	2050	2032	2037
40°	2053	2023	2027
45°	2051	2017	2025
50°	2043	1993	2026
55°	2038	1982	1999
60°	2040	1948	1964
65°	2009	1897	1929
70°	1939	1829	1786
75°	1814	1679	1398
80°	1604	1348	1294
85°	1312	1189	1081



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.2	3.2
10°-20°	416.9	9.1
20°-30°	636.1	13.9
30°-40°	776.0	16.9
40°-50°	821.4	17.9
50°-60°	761.8	16.6
60°-70°	598.9	13.1
70°-80°	335.6	7.3
80°-90°	89.6	2.0
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°	1198.2	26.2
0°-40°	1974.2	43.1
0°-60°	3557.4	77.6
0°-90°	4581.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4581.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1532	1532	1532	1532	1532	
5°	1530	1527	1524	1523	1535	146
15°	1484	1478	1473	1476	1474	419
25°	1387	1380	1377	1378	1386	639
35°	1248	1244	1237	1237	1240	782
45°	1078	1071	1060	1057	1064	831
55°	869	859	845	846	852	778
65°	631	614	596	600	606	624
75°	349	341	323	283	269	371
85°	85	78	77	73	70	98
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1532	1532	1532	1532	1532
2.5°	1535	1530	1533	1527	1533
5°	1530	1527	1524	1523	1535
7.5°	1527	1521	1518	1515	1525
10°	1507	1509	1505	1506	1513
12.5°	1500	1494	1492	1492	1496
15°	1484	1478	1473	1476	1474
17.5°	1471	1455	1456	1456	1453
20°	1439	1432	1435	1430	1433
22.5°	1412	1408	1409	1404	1411
25°	1387	1380	1377	1378	1386
27.5°	1356	1349	1345	1344	1358
30°	1321	1316	1311	1311	1321
32.5°	1287	1280	1274	1273	1279
35°	1248	1244	1237	1237	1240
37.5°	1210	1202	1196	1197	1199
40°	1169	1161	1152	1152	1154
42.5°	1124	1117	1111	1107	1111
45°	1078	1071	1060	1057	1064
47.5°	1030	1021	1008	1010	1019
50°	976	967	952	957	968
52.5°	927	916	900	905	910
55°	869	859	845	846	852
57.5°	813	802	787	786	795
60°	758	743	724	725	730
62.5°	697	681	662	662	671
65°	631	614	596	600	606
67.5°	567	545	529	531	538
70°	493	478	465	458	454
72.5°	428	407	397	372	364
75°	349	341	323	283	269
77.5°	279	271	247	204	196
80°	207	209	174	167	167
82.5°	145	139	127	121	118
85°	85	78	77	73	70
87.5°	28	32	31	32	32
90°	0	0	0	0	0

(END OF REPORT)