

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: P393517

Luminaire Tested: **24EN-LD2-45-UNV-L83050-W2A-1-U (4000K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393517  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-563-34)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24EN-LD2-45-UNV-L83050-W2A-1-U (4000K)  
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: 4601.0 lumens  
Efficiency: N/A  
Efficacy: 143.8 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

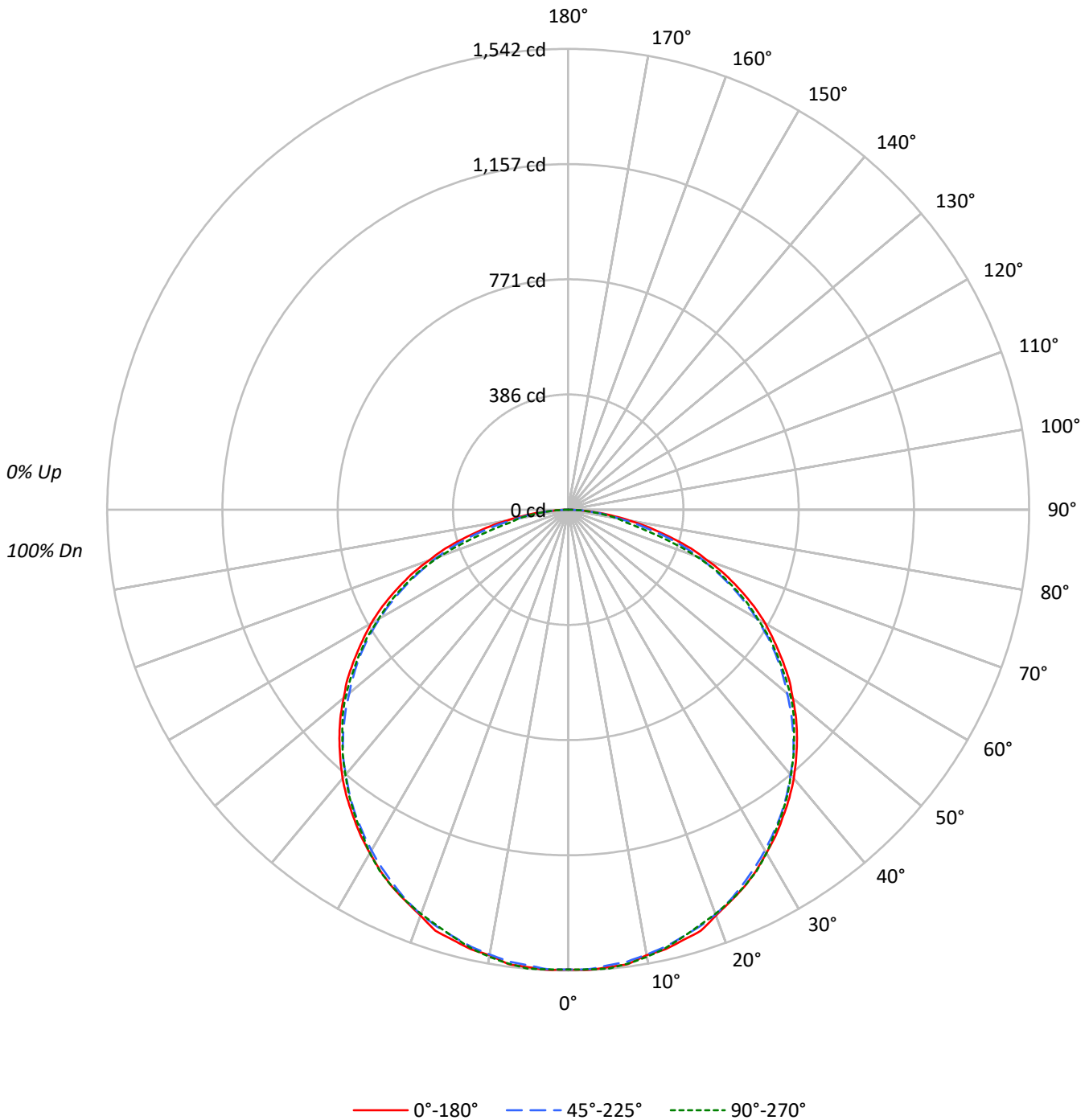
Input Watts (W): 32  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2070	2070	2070
5°	2075	2067	2082
10°	2068	2065	2076
15°	2076	2061	2062
20°	2069	2063	2061
25°	2068	2053	2066
30°	2061	2046	2061
35°	2059	2041	2045
40°	2062	2032	2036
45°	2060	2026	2033
50°	2052	2001	2035
55°	2047	1991	2007
60°	2048	1957	1973
65°	2018	1905	1938
70°	1948	1837	1793
75°	1822	1686	1404
80°	1611	1354	1299
85°	1318	1193	1085



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.8	3.2
10°-20°	418.7	9.1
20°-30°	638.8	13.9
30°-40°	779.3	16.9
40°-50°	824.9	17.9
50°-60°	765.0	16.6
60°-70°	601.4	13.1
70°-80°	337.1	7.3
80°-90°	90.0	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°	1203.3	26.2
0°-40°	1982.6	43.1
0°-60°	3572.6	77.6
0°-90°	4601.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4601.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1538	1538	1538	1538	1538	
5°	1536	1534	1530	1530	1542	146
15°	1490	1484	1479	1482	1480	421
25°	1393	1386	1383	1384	1392	642
35°	1253	1249	1242	1242	1245	785
45°	1083	1076	1064	1062	1068	835
55°	873	863	849	850	856	781
65°	634	617	598	603	609	626
75°	350	342	324	284	270	372
85°	85	78	77	73	70	99
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1538.5	1538.5	1538.5	1538.5	1538.5
2.5°	1541.5	1536.5	1539.5	1533.5	1539.5
5°	1536.5	1533.5	1530.5	1529.5	1541.5
7.5°	1533.5	1527.5	1524.5	1521.4	1531.5
10°	1513.4	1515.4	1511.4	1512.4	1519.4
12.5°	1506.4	1500.4	1498.3	1498.3	1502.4
15°	1490.3	1484.3	1479.3	1482.3	1480.3
17.5°	1477.3	1461.2	1462.2	1462.2	1459.2
20°	1445.1	1438.1	1441.1	1436.1	1439.1
22.5°	1418.0	1414.0	1415.0	1410.0	1417.0
25°	1392.9	1385.9	1382.9	1383.9	1391.9
27.5°	1361.8	1354.7	1350.7	1349.7	1363.8
30°	1326.6	1321.6	1316.6	1316.6	1326.6
32.5°	1292.5	1285.4	1279.4	1278.4	1284.4
35°	1253.3	1249.3	1242.3	1242.3	1245.3
37.5°	1215.1	1207.1	1201.1	1202.1	1204.1
40°	1174.0	1165.9	1156.9	1156.9	1158.9
42.5°	1128.8	1121.7	1115.7	1111.7	1115.7
45°	1082.6	1075.6	1064.5	1061.5	1068.5
47.5°	1034.4	1025.3	1012.3	1014.3	1023.3
50°	980.1	971.1	956.0	961.1	972.1
52.5°	930.9	919.9	903.8	908.8	913.9
55°	872.7	862.7	848.6	849.6	855.6
57.5°	816.5	805.4	790.3	789.3	798.4
60°	761.2	746.2	727.1	728.1	733.1
62.5°	700.0	683.9	664.8	664.8	673.9
65°	633.7	616.6	598.5	602.6	608.6
67.5°	569.4	547.3	531.2	533.3	540.3
70°	495.1	480.0	467.0	459.9	455.9
72.5°	429.8	408.7	398.7	373.6	365.5
75°	350.5	342.4	324.4	284.2	270.1
77.5°	280.2	272.2	248.1	204.9	196.8
80°	207.9	209.9	174.7	167.7	167.7
82.5°	145.6	139.6	127.5	121.5	118.5
85°	85.4	78.3	77.3	73.3	70.3
87.5°	28.1	32.1	31.1	32.1	32.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)