

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: P393525

Luminaire Tested: **24EN-LD2-45-UNV-L92765-W2A-1-U (4000K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393525  
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-L92765-W2A-1-U (4000K)  
Description: 2X4 ENCOUNTER, 4500 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3789.1 lumens  
Efficiency: N/A  
Efficacy: 119.2 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

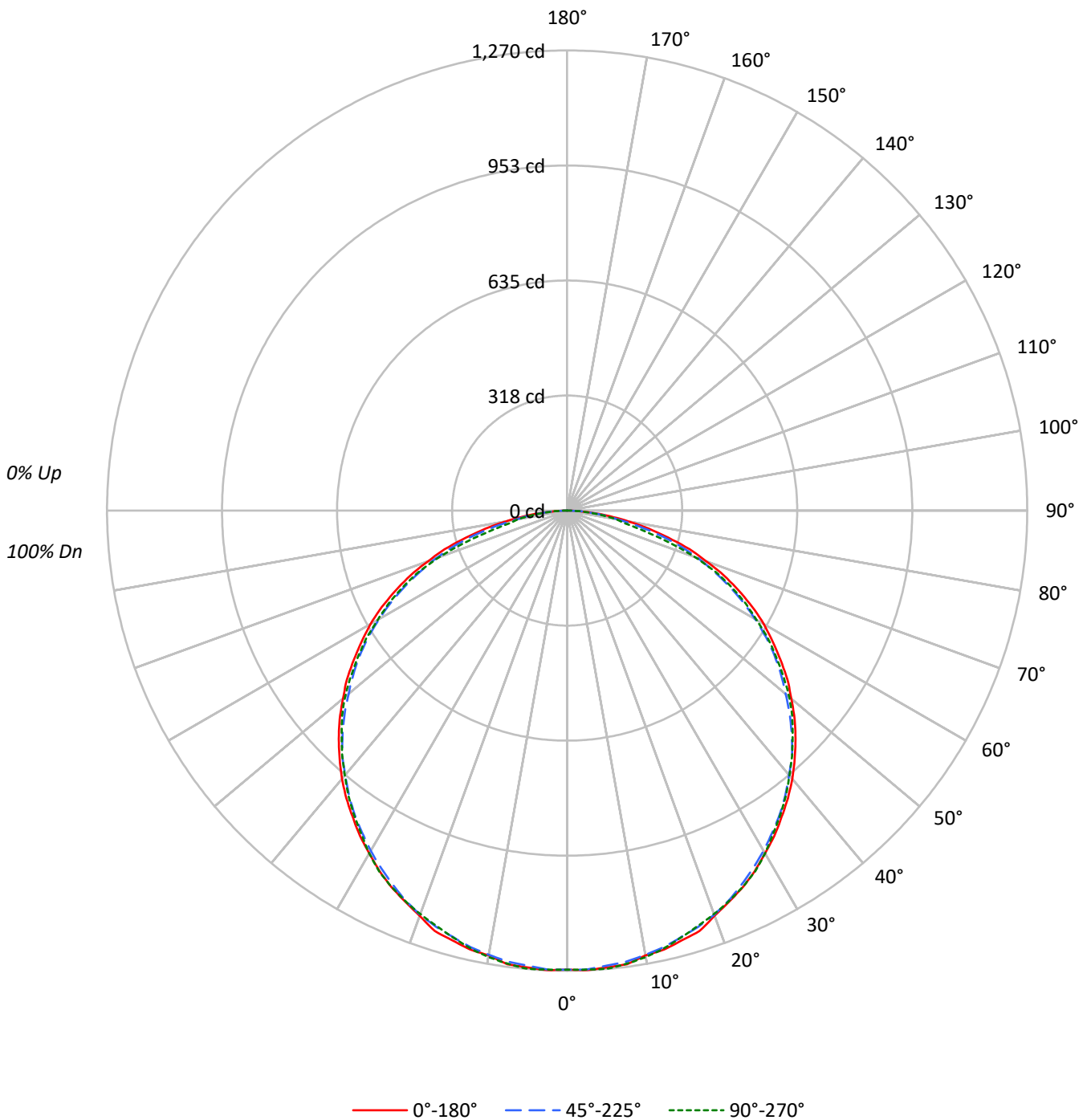
Input Watts (W): 31.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1705	1705	1705
5°	1709	1702	1715
10°	1703	1701	1710
15°	1710	1697	1698
20°	1704	1699	1697
25°	1703	1691	1702
30°	1697	1684	1697
35°	1695	1680	1684
40°	1698	1673	1676
45°	1696	1668	1674
50°	1690	1648	1676
55°	1686	1639	1653
60°	1687	1611	1625
65°	1662	1569	1596
70°	1604	1513	1477
75°	1500	1389	1157
80°	1327	1115	1070
85°	1085	983	894



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.1	3.2
10°-20°	344.8	9.1
20°-30°	526.1	13.9
30°-40°	641.8	16.9
40°-50°	679.3	17.9
50°-60°	630.0	16.6
60°-70°	495.3	13.1
70°-80°	277.6	7.3
80°-90°	74.1	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°	991.0	26.2
0°-40°	1632.8	43.1
0°-60°	2942.1	77.6
0°-90°	3789.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3789.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1267	1267	1267	1267	1267	
5°	1265	1263	1260	1260	1270	120
15°	1227	1222	1218	1221	1219	347
25°	1147	1141	1139	1140	1146	528
35°	1032	1029	1023	1023	1026	647
45°	892	886	877	874	880	688
55°	719	710	699	700	705	643
65°	522	508	493	496	501	516
75°	289	282	267	234	222	307
85°	70	64	64	60	58	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1267.0	1267.0	1267.0	1267.0	1267.0
2.5°	1269.5	1265.4	1267.8	1262.9	1267.8
5°	1265.4	1262.9	1260.4	1259.6	1269.5
7.5°	1262.9	1257.9	1255.4	1253.0	1261.2
10°	1246.3	1248.0	1244.7	1245.5	1251.3
12.5°	1240.6	1235.6	1233.9	1233.9	1237.2
15°	1227.3	1222.4	1218.2	1220.7	1219.1
17.5°	1216.6	1203.3	1204.2	1204.2	1201.7
20°	1190.1	1184.3	1186.8	1182.7	1185.1
22.5°	1167.8	1164.5	1165.3	1161.2	1166.9
25°	1147.1	1141.3	1138.8	1139.7	1146.3
27.5°	1121.5	1115.7	1112.4	1111.5	1123.1
30°	1092.5	1088.4	1084.2	1084.2	1092.5
32.5°	1064.4	1058.6	1053.6	1052.8	1057.8
35°	1032.1	1028.8	1023.0	1023.0	1025.5
37.5°	1000.7	994.1	989.1	990.0	991.6
40°	966.8	960.2	952.7	952.7	954.4
42.5°	929.6	923.8	918.8	915.5	918.8
45°	891.5	885.8	876.7	874.2	880.0
47.5°	851.8	844.4	833.7	835.3	842.7
50°	807.2	799.7	787.3	791.5	800.6
52.5°	766.7	757.6	744.3	748.5	752.6
55°	718.7	710.4	698.8	699.7	704.6
57.5°	672.4	663.3	650.9	650.1	657.5
60°	626.9	614.5	598.8	599.6	603.7
62.5°	576.4	563.2	547.5	547.5	554.9
65°	521.9	507.8	492.9	496.2	501.2
67.5°	468.9	450.7	437.5	439.2	444.9
70°	407.7	395.3	384.6	378.8	375.5
72.5°	354.0	336.6	328.3	307.7	301.0
75°	288.6	282.0	267.1	234.1	222.5
77.5°	230.7	224.1	204.3	168.7	162.1
80°	171.2	172.9	143.9	138.1	138.1
82.5°	119.9	115.0	105.0	100.1	97.6
85°	70.3	64.5	63.7	60.4	57.9
87.5°	23.2	26.5	25.6	26.5	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)