

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: P393509

Luminaire Tested: **24EN-LD2-45-UNV-L82765-W2A-1-U (4000K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393509  
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-L82765-W2A-1-U (4000K)  
Description: 2X4 ENCOUNTER, 4500 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 3000K/5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4279.8 lumens  
Efficiency: N/A  
Efficacy: 134.2 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

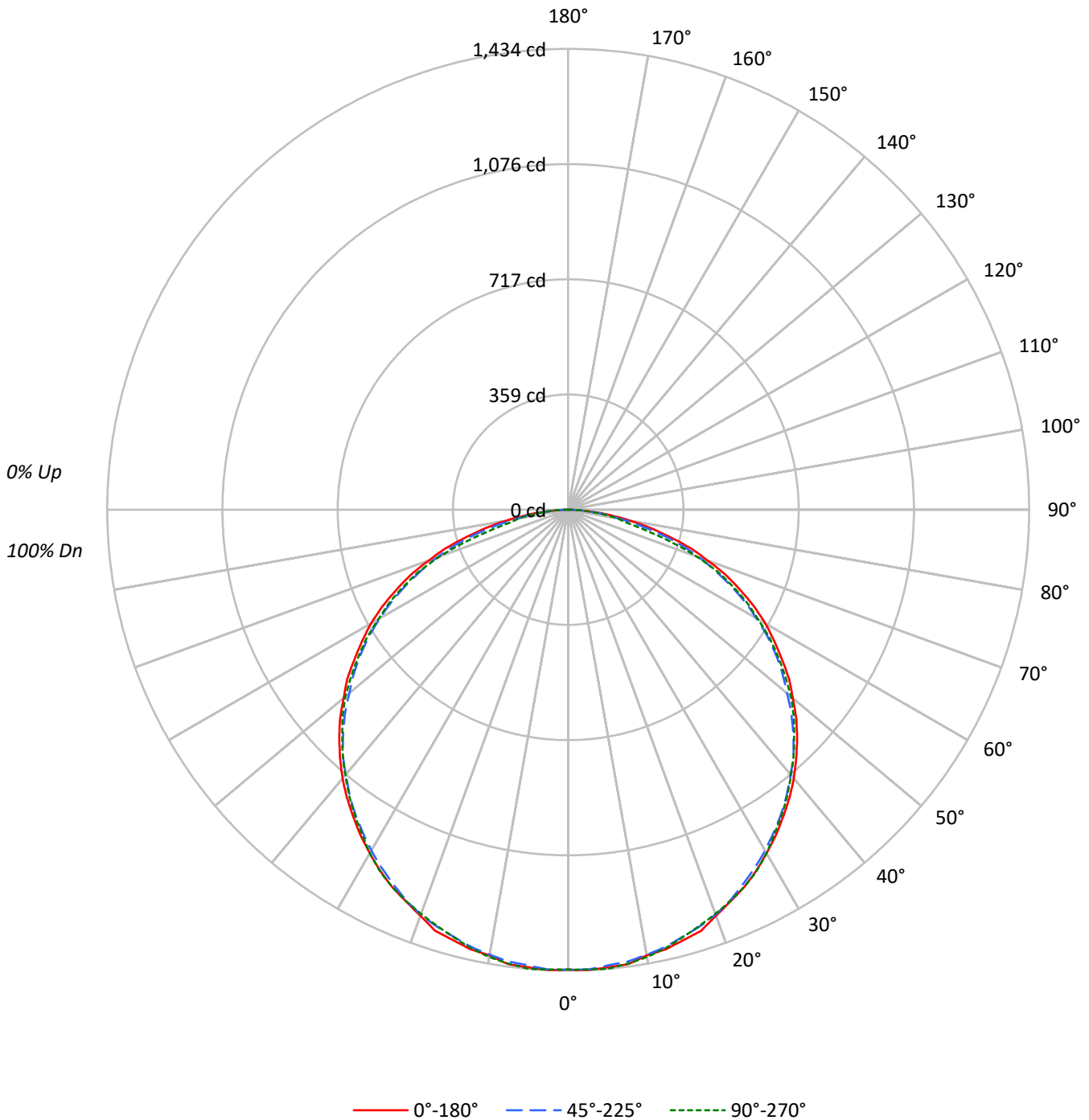
Input Watts (W): 31.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1926	1926	1926
5°	1930	1923	1937
10°	1923	1921	1931
15°	1931	1917	1918
20°	1925	1919	1917
25°	1924	1910	1922
30°	1917	1903	1917
35°	1915	1898	1903
40°	1918	1890	1893
45°	1916	1884	1891
50°	1908	1861	1893
55°	1904	1852	1867
60°	1905	1820	1835
65°	1876	1773	1802
70°	1812	1709	1668
75°	1695	1568	1306
80°	1499	1259	1209
85°	1226	1110	1010



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.6	3.2
10°-20°	389.5	9.1
20°-30°	594.2	13.9
30°-40°	724.9	16.9
40°-50°	767.3	17.9
50°-60°	711.6	16.6
60°-70°	559.4	13.1
70°-80°	313.5	7.3
80°-90°	83.7	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°	1119.3	26.2
0°-40°	1844.2	43.1
0°-60°	3323.2	77.6
0°-90°	4279.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4279.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1431	1431	1431	1431	1431	
5°	1429	1426	1424	1423	1434	136
15°	1386	1381	1376	1379	1377	392
25°	1296	1289	1286	1287	1295	597
35°	1166	1162	1156	1156	1158	730
45°	1007	1000	990	987	994	777
55°	812	802	789	790	796	727
65°	589	574	557	560	566	583
75°	326	318	302	264	251	346
85°	79	73	72	68	65	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1431.1	1431.1	1431.1	1431.1	1431.1
2.5°	1433.9	1429.2	1432.0	1426.4	1432.0
5°	1429.2	1426.4	1423.6	1422.7	1433.9
7.5°	1426.4	1420.8	1418.0	1415.2	1424.6
10°	1407.8	1409.6	1405.9	1406.8	1413.4
12.5°	1401.2	1395.6	1393.7	1393.7	1397.5
15°	1386.3	1380.7	1376.0	1378.8	1376.9
17.5°	1374.1	1359.2	1360.1	1360.1	1357.3
20°	1344.2	1337.7	1340.5	1335.8	1338.6
22.5°	1319.0	1315.3	1316.2	1311.5	1318.1
25°	1295.7	1289.1	1286.3	1287.3	1294.7
27.5°	1266.7	1260.2	1256.4	1255.5	1268.6
30°	1234.0	1229.3	1224.7	1224.7	1234.0
32.5°	1202.2	1195.7	1190.1	1189.2	1194.8
35°	1165.8	1162.1	1155.5	1155.5	1158.3
37.5°	1130.3	1122.8	1117.2	1118.2	1120.0
40°	1092.0	1084.5	1076.1	1076.1	1078.0
42.5°	1050.0	1043.4	1037.8	1034.1	1037.8
45°	1007.0	1000.5	990.2	987.4	993.9
47.5°	962.2	953.8	941.6	943.5	951.9
50°	911.7	903.3	889.3	894.0	904.3
52.5°	866.0	855.7	840.7	845.4	850.1
55°	811.8	802.4	789.4	790.3	795.9
57.5°	759.5	749.2	735.2	734.2	742.6
60°	708.1	694.1	676.3	677.3	681.9
62.5°	651.1	636.2	618.4	618.4	626.8
65°	589.4	573.6	556.8	560.5	566.1
67.5°	529.7	509.1	494.2	496.0	502.6
70°	460.5	446.5	434.4	427.8	424.1
72.5°	399.8	380.2	370.9	347.5	340.0
75°	326.0	318.5	301.7	264.4	251.3
77.5°	260.6	253.2	230.7	190.6	183.1
80°	193.4	195.2	162.5	156.0	156.0
82.5°	135.5	129.8	118.6	113.0	110.2
85°	79.4	72.9	71.9	68.2	65.4
87.5°	26.2	29.9	29.0	29.9	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)