

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: P393511

Luminaire Tested: **24EN-LD2-45-UNV-L82765-W2A-1-U (5000K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393511  
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 (5000K)  
Description: 2X4 ENCOUNTER, 4500 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 3000K/5000K CCT, CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4399.5 lumens  
Efficiency: N/A  
Efficacy: 139.2 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

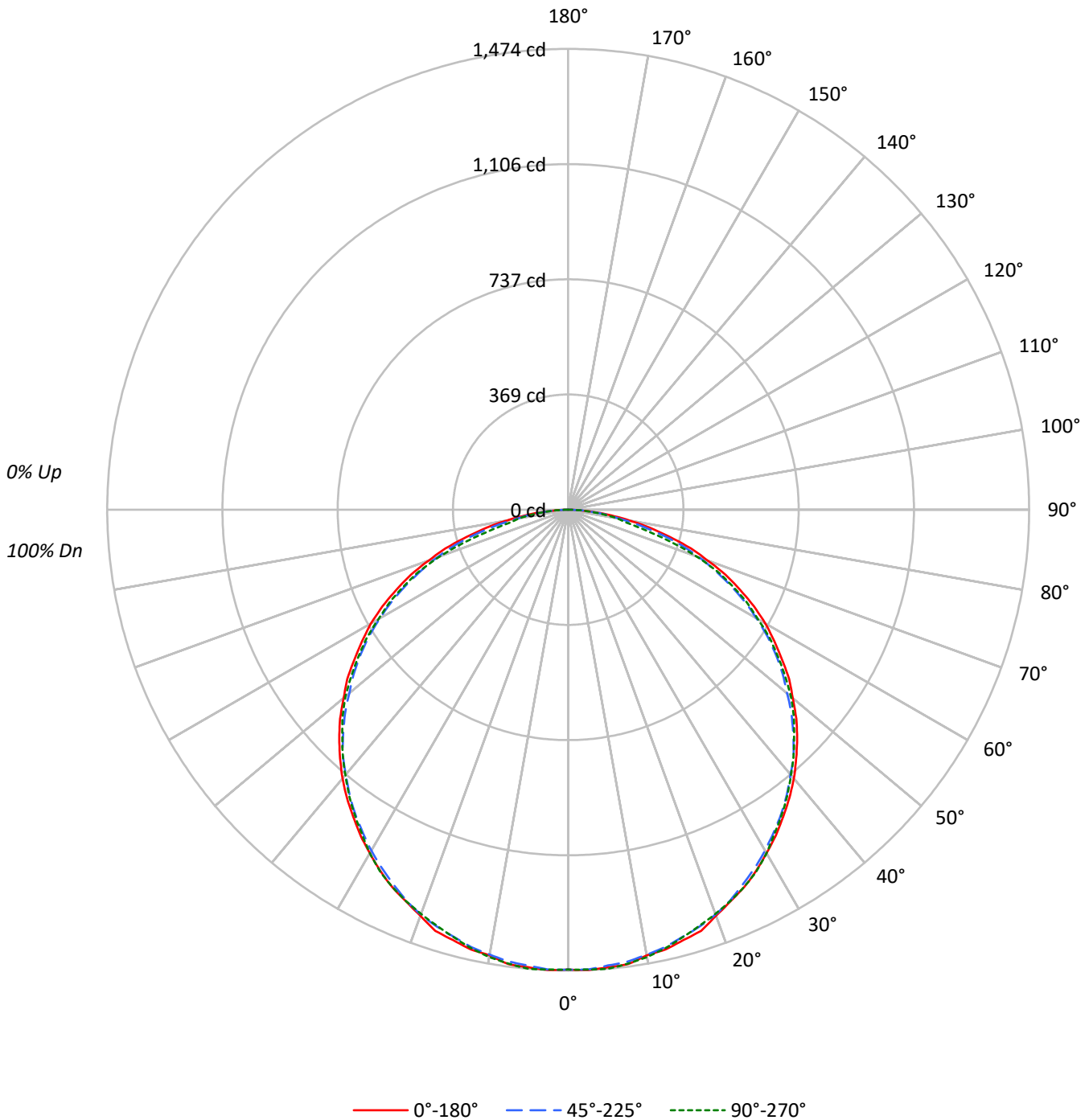
Input Watts (W): 31.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1979	1979	1979
5°	1984	1977	1991
10°	1977	1974	1985
15°	1985	1970	1972
20°	1979	1973	1970
25°	1977	1963	1976
30°	1971	1956	1971
35°	1968	1951	1956
40°	1972	1943	1946
45°	1970	1937	1944
50°	1962	1914	1946
55°	1958	1903	1919
60°	1959	1871	1886
65°	1929	1822	1853
70°	1862	1757	1715
75°	1742	1613	1343
80°	1540	1295	1243
85°	1260	1141	1037



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.4	3.2
10°-20°	400.4	9.1
20°-30°	610.9	13.9
30°-40°	745.2	16.9
40°-50°	788.8	17.9
50°-60°	731.5	16.6
60°-70°	575.1	13.1
70°-80°	322.3	7.3
80°-90°	86.0	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°	1150.6	26.2
0°-40°	1895.8	43.1
0°-60°	3416.1	77.6
0°-90°	4399.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4399.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1469	1466	1464	1462	1474	140
15°	1425	1419	1414	1417	1415	403
25°	1332	1325	1322	1323	1331	614
35°	1198	1195	1188	1188	1191	751
45°	1035	1028	1018	1015	1022	798
55°	834	825	811	812	818	747
65°	606	590	572	576	582	599
75°	335	328	310	272	258	356
85°	82	75	74	70	67	94
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1471.1	1471.1	1471.1	1471.1	1471.1
2.5°	1474.0	1469.2	1472.1	1466.3	1472.1
5°	1469.2	1466.3	1463.5	1462.5	1474.0
7.5°	1466.3	1460.6	1457.7	1454.8	1464.4
10°	1447.1	1449.1	1445.2	1446.2	1452.9
12.5°	1440.4	1434.6	1432.7	1432.7	1436.6
15°	1425.0	1419.3	1414.5	1417.4	1415.4
17.5°	1412.6	1397.2	1398.2	1398.2	1395.3
20°	1381.8	1375.1	1378.0	1373.2	1376.1
22.5°	1355.9	1352.1	1353.0	1348.2	1354.9
25°	1331.9	1325.2	1322.3	1323.3	1330.9
27.5°	1302.1	1295.4	1291.6	1290.6	1304.0
30°	1268.5	1263.7	1258.9	1258.9	1268.5
32.5°	1235.9	1229.1	1223.4	1222.4	1228.2
35°	1198.4	1194.6	1187.9	1187.9	1190.7
37.5°	1161.9	1154.2	1148.5	1149.4	1151.4
40°	1122.6	1114.9	1106.2	1106.2	1108.2
42.5°	1079.3	1072.6	1066.9	1063.0	1066.9
45°	1035.2	1028.5	1017.9	1015.0	1021.7
47.5°	989.1	980.4	968.0	969.9	978.5
50°	937.2	928.6	914.2	919.0	929.5
52.5°	890.2	879.6	864.2	869.0	873.8
55°	834.5	824.9	811.4	812.4	818.2
57.5°	780.7	770.1	755.7	754.8	763.4
60°	727.9	713.5	695.2	696.2	701.0
62.5°	669.3	653.9	635.7	635.7	644.3
65°	605.9	589.6	572.3	576.2	581.9
67.5°	544.5	523.3	508.0	509.9	516.6
70°	473.4	459.0	446.5	439.8	436.0
72.5°	411.0	390.8	381.2	357.2	349.5
75°	335.1	327.5	310.2	271.8	258.3
77.5°	267.9	260.2	237.2	195.9	188.2
80°	198.8	200.7	167.1	160.4	160.4
82.5°	139.2	133.5	122.0	116.2	113.3
85°	81.6	74.9	73.9	70.1	67.2
87.5°	26.9	30.7	29.8	30.7	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)