

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: P393524

Luminaire Tested: **24EN-LD2-45-UNV-L92765-W2A-1-U (3500K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P393524  
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 (3500K)  
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: 3628.4 lumens  
Efficiency: N/A  
Efficacy: 114.5 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

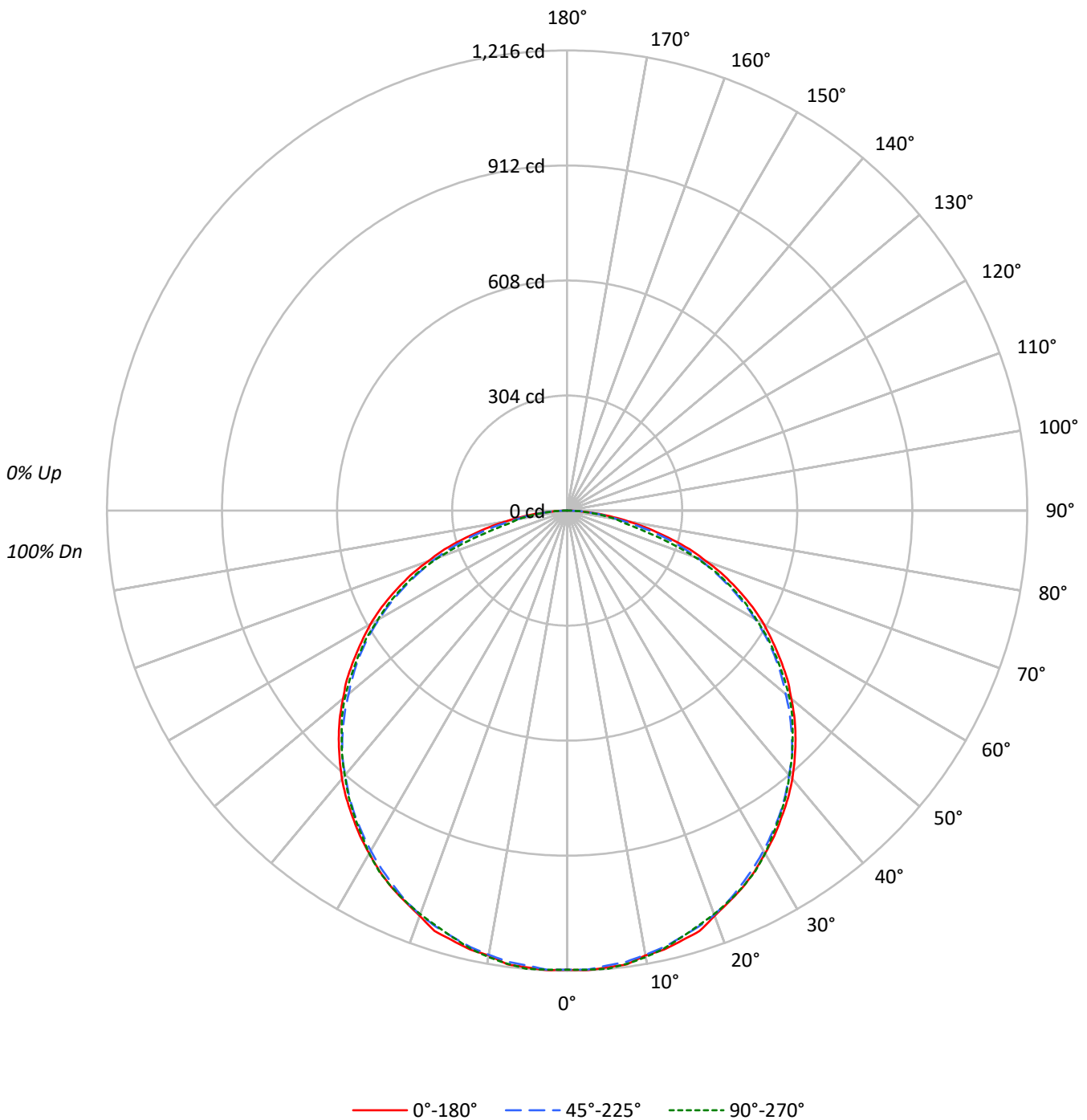
Input Watts (W): 31.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1632	1632	1632
5°	1637	1630	1642
10°	1631	1628	1637
15°	1637	1625	1626
20°	1632	1627	1625
25°	1631	1619	1629
30°	1625	1613	1625
35°	1623	1609	1613
40°	1626	1602	1605
45°	1624	1597	1603
50°	1618	1578	1605
55°	1614	1570	1583
60°	1615	1543	1556
65°	1591	1503	1528
70°	1536	1449	1414
75°	1437	1330	1107
80°	1270	1068	1025
85°	1039	942	855



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.0	3.2
10°-20°	330.2	9.1
20°-30°	503.8	13.9
30°-40°	614.6	16.9
40°-50°	650.5	17.9
50°-60°	603.3	16.6
60°-70°	474.3	13.1
70°-80°	265.8	7.3
80°-90°	71.0	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°	948.9	26.2
0°-40°	1563.5	43.1
0°-60°	2817.3	77.6
0°-90°	3628.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3628.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1213	1213	1213	1213	1213	
5°	1212	1209	1207	1206	1216	115
15°	1175	1170	1166	1169	1167	332
25°	1098	1093	1090	1091	1098	506
35°	988	985	980	980	982	619
45°	854	848	840	837	843	658
55°	688	680	669	670	675	616
65°	500	486	472	475	480	494
75°	276	270	256	224	213	294
85°	67	62	61	58	55	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1213.3	1213.3	1213.3	1213.3	1213.3
2.5°	1215.6	1211.7	1214.1	1209.3	1214.1
5°	1211.7	1209.3	1206.9	1206.1	1215.6
7.5°	1209.3	1204.6	1202.2	1199.8	1207.7
10°	1193.5	1195.1	1191.9	1192.7	1198.2
12.5°	1187.9	1183.2	1181.6	1181.6	1184.8
15°	1175.3	1170.5	1166.5	1168.9	1167.3
17.5°	1165.0	1152.3	1153.1	1153.1	1150.7
20°	1139.6	1134.1	1136.5	1132.5	1134.9
22.5°	1118.2	1115.1	1115.9	1111.9	1117.4
25°	1098.4	1092.9	1090.5	1091.3	1097.6
27.5°	1073.9	1068.3	1065.2	1064.4	1075.5
30°	1046.2	1042.2	1038.2	1038.2	1046.2
32.5°	1019.2	1013.7	1008.9	1008.2	1012.9
35°	988.4	985.2	979.6	979.6	982.0
37.5°	958.3	951.9	947.2	948.0	949.6
40°	925.8	919.5	912.3	912.3	913.9
42.5°	890.2	884.6	879.9	876.7	879.9
45°	853.7	848.2	839.5	837.1	842.6
47.5°	815.7	808.6	798.3	799.9	807.0
50°	772.9	765.8	753.9	757.9	766.6
52.5°	734.1	725.4	712.8	716.7	720.7
55°	688.2	680.3	669.2	670.0	674.7
57.5°	643.9	635.1	623.3	622.5	629.6
60°	600.3	588.4	573.4	574.2	578.1
62.5°	552.0	539.3	524.3	524.3	531.4
65°	499.7	486.3	472.0	475.2	479.9
67.5°	449.0	431.6	418.9	420.5	426.1
70°	390.4	378.6	368.3	362.7	359.5
72.5°	339.0	322.3	314.4	294.6	288.3
75°	276.4	270.1	255.8	224.1	213.0
77.5°	221.0	214.6	195.6	161.6	155.2
80°	163.9	165.5	137.8	132.3	132.3
82.5°	114.8	110.1	100.6	95.8	93.5
85°	67.3	61.8	61.0	57.8	55.4
87.5°	22.2	25.3	24.6	25.3	25.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)