

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: P237888

Luminaire Tested: **4VRVT2-LD5-8-DR100-W-UNV-L840-CD1-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237888  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4VRVT2-LD5-8-DR100-W-UNV-L840-CD1-WL-U  
Description: METALUX VRVT2 LED LUMINAIRE  
INTERNAL PRISMATIC LENS/100% DR HIGH IMPACT ADDITIVE WIDE DISTRIBUTION  
4FT FIXTURE  
Light Source: (224) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7618.8 lumens  
Efficiency: N/A  
Efficacy: 130.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.58 / 1.57  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')  
CIE Type: Semi-Direct

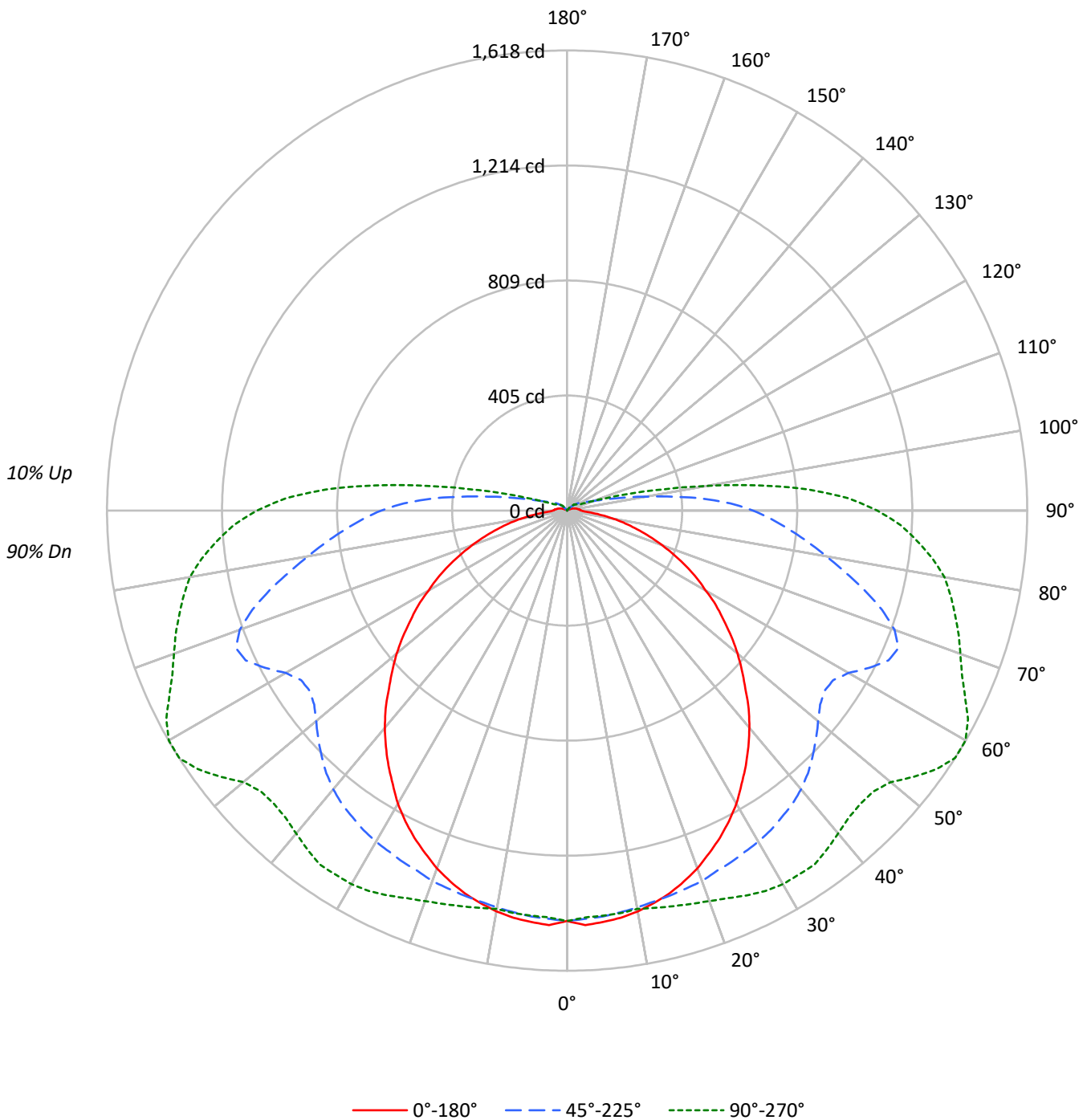
Input Watts (W): 58.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20										
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	50	30	10	50	30	10	0														
RCR																																						
0	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90																				
1	101	94	88	83	97	91	85	80	85	80	76	79	75	72	74	71	68	65																				
2	90	79	71	63	86	77	69	62	71	64	59	66	61	56	62	57	53	50																				
3	81	68	58	50	77	66	57	49	61	53	47	57	50	45	53	47	43	40																				
4	73	59	49	41	70	57	48	40	53	45	39	50	43	37	46	40	35	33																				
5	67	52	42	35	64	51	41	34	47	39	33	44	37	31	41	35	30	27																				
6	62	47	37	30	59	45	36	29	42	34	28	40	32	27	37	31	26	23																				
7	57	42	33	26	55	41	32	25	38	30	24	36	29	24	34	27	23	20																				
8	53	38	29	23	51	37	28	22	35	27	22	33	26	21	31	25	20	18																				
9	49	35	26	20	47	34	26	20	32	24	19	30	23	19	28	22	18	16																				
10	46	32	24	18	44	31	23	18	30	22	17	28	21	17	26	20	16	14																				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7456	7456	7456
5°	7504	7264	7206
10°	7455	7103	7046
15°	7372	6999	7071
20°	7257	6953	7164
25°	7107	6924	7366
30°	6939	6958	7590
35°	6718	7006	7763
40°	6506	7062	7811
45°	6225	7058	7990
50°	6000	7044	8543
55°	5726	7228	9673
60°	5441	8098	10594
65°	5179	9734	11001
70°	4832	10726	11599
75°	4429	10890	12561
80°	4026	11021	13866
85°	3458	11613	15233



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.9	1.8
10°-20°	399.5	5.2
20°-30°	634.8	8.3
30°-40°	820.6	10.8
40°-50°	926.0	12.2
50°-60°	1015.2	13.3
60°-70°	1083.3	14.2
70°-80°	1015.5	13.3
80°-90°	817.9	10.7
90°-100°	509.3	6.7
100°-110°	165.1	2.2
110°-120°	53.9	0.7
120°-130°	27.6	0.4
130°-140°	11.4	0.1
140°-150°	1.8	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1171.2	15.4
0°-40°	1991.8	26.1
0°-60°	3933.0	51.6
0°-90°	6849.8	89.9
90°-120°	728.3	9.6
90°-150°	769.0	10.1
90°-180°	769.0	10.1
0°-180°	7618.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1443	1443	1443	1443	1443	
5°	1452	1447	1433	1435	1430	138
15°	1393	1393	1401	1437	1440	393
25°	1270	1287	1364	1460	1493	585
35°	1095	1157	1316	1467	1518	685
45°	886	995	1221	1389	1458	686
55°	672	815	1105	1468	1585	602
65°	460	645	1247	1510	1543	455
75°	255	624	1083	1310	1412	272
85°	85	427	787	1115	1236	87
90°	49	319	654	971	1091	28
95°	43	222	481	753	852	34
105°	29	80	159	206	230	30
115°	14	36	72	64	55	15
125°	6	12	43	44	38	6
135°	2	0	17	26	25	2
145°	1	0	0	5	5	1
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P237888

CATALOG NUMBER: 4VRVT2-LD5-8-DR100-W-UNV-L840-CD1-WL-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1443	1443	1443	1443	1443	1443	1443	1443	1443	1443	1443
2.5°	1459	1455	1452	1452	1452	1451	1451	1450	1448	1442	1437
5°	1452	1450	1447	1447	1447	1447	1447	1445	1441	1437	1433
7.5°	1444	1442	1438	1439	1436	1437	1436	1434	1433	1430	1425
10°	1431	1429	1425	1426	1424	1425	1425	1426	1424	1421	1417
12.5°	1413	1412	1410	1409	1411	1413	1414	1412	1410	1409	1408
15°	1393	1391	1389	1390	1393	1393	1396	1396	1396	1397	1401
17.5°	1367	1366	1364	1366	1368	1369	1373	1375	1376	1384	1393
20°	1339	1337	1335	1337	1340	1344	1348	1354	1363	1376	1386
22.5°	1304	1303	1302	1304	1309	1315	1322	1335	1349	1363	1372
25°	1270	1268	1267	1271	1281	1287	1296	1313	1329	1347	1364
27.5°	1232	1226	1231	1235	1248	1256	1267	1289	1307	1327	1353
30°	1190	1187	1187	1196	1213	1225	1238	1263	1284	1312	1344
32.5°	1141	1142	1144	1156	1179	1193	1204	1233	1260	1295	1332
35°	1095	1093	1098	1115	1141	1157	1172	1203	1237	1276	1316
37.5°	1047	1045	1052	1072	1100	1117	1134	1173	1212	1256	1301
40°	997	997	1005	1027	1058	1076	1096	1140	1183	1231	1279
42.5°	945	943	953	983	1018	1036	1060	1106	1155	1203	1253
45°	886	894	904	934	970	995	1023	1072	1122	1173	1221
47.5°	834	840	854	886	928	951	981	1033	1087	1136	1187
50°	782	785	804	836	880	909	938	991	1044	1100	1152
52.5°	728	729	752	783	835	864	891	947	1004	1062	1121
55°	672	675	699	733	788	815	845	903	965	1031	1105
57.5°	621	624	647	684	741	770	799	862	930	1012	1109
60°	563	571	592	634	692	721	755	825	910	1019	1142
62.5°	514	516	540	586	647	679	716	801	913	1050	1197
65°	460	465	490	542	607	645	689	798	941	1104	1247
67.5°	406	414	444	501	576	622	678	819	986	1145	1261
70°	355	365	399	465	555	613	685	850	1017	1148	1225
72.5°	304	318	362	438	547	619	701	869	1010	1100	1161
75°	255	271	328	417	546	624	707	851	951	1026	1083
77.5°	211	230	296	400	539	612	679	790	873	943	1001
80°	166	191	268	378	505	563	618	711	786	857	925
82.5°	123	156	238	345	447	499	542	627	703	777	855
85°	85	123	202	294	382	427	469	550	625	703	787
87.5°	59	97	168	249	330	368	406	484	559	636	722
90°	49	77	140	211	283	319	355	426	500	574	654
92.5°	46	64	115	177	242	272	304	370	436	507	575
95°	43	51	91	141	196	222	249	301	361	419	481
97.5°	39	42	70	110	154	176	196	238	285	329	373
100°	36	36	53	84	119	135	152	187	218	251	282
102.5°	32	32	41	63	91	104	119	143	166	189	211
105°	29	28	33	49	69	80	91	111	129	144	159
107.5°	25	25	27	39	55	64	72	89	103	114	122
110°	21	21	22	31	45	52	60	73	84	93	98



TEST NUMBER: P237888

CATALOG NUMBER: 4VRVT2-LD5-8-DR100-W-UNV-L840-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	18	18	17	25	37	44	50	62	72	78	82
115°	14	14	14	19	30	36	42	53	63	69	72
117.5°	12	12	11	14	24	30	35	46	54	61	64
120°	9	9	9	9	18	24	29	39	47	53	56
122.5°	7	7	7	6	13	18	23	32	40	46	50
125°	6	5	5	5	8	12	17	25	32	39	43
127.5°	5	4	4	4	4	7	11	19	26	32	36
130°	4	3	3	3	2	4	7	13	20	25	29
132.5°	3	3	2	2	1	1	3	8	14	19	23
135°	2	2	2	1	1	0	0	4	9	13	17
137.5°	2	2	1	1	0	0	0	1	4	8	12
140°	2	1	1	1	0	0	0	0	1	4	7
142.5°	1	1	1	0	0	0	0	0	0	0	2
145°	1	1	1	0	0	0	0	0	0	0	0
147.5°	1	1	1	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P237888

CATALOG NUMBER: 4VRVT2-LD5-8-DR100-W-UNV-L840-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1443	1443	1443	1443	1443	1443	1443	1443	1443	1443
2.5°	1437	1438	1439	1439	1438	1438	1437	1435	1433	1432
5°	1430	1433	1435	1435	1435	1434	1434	1433	1431	1430
7.5°	1424	1429	1431	1430	1430	1430	1430	1431	1429	1428
10°	1418	1422	1426	1427	1428	1427	1427	1425	1424	1422
12.5°	1412	1419	1425	1430	1430	1430	1432	1435	1434	1431
15°	1407	1419	1426	1434	1437	1440	1441	1443	1440	1440
17.5°	1404	1420	1430	1438	1439	1443	1449	1452	1451	1450
20°	1399	1418	1432	1439	1444	1449	1457	1459	1461	1461
22.5°	1393	1414	1428	1444	1452	1457	1468	1474	1476	1475
25°	1388	1412	1433	1452	1460	1466	1480	1491	1493	1493
27.5°	1383	1411	1436	1461	1471	1478	1492	1503	1507	1508
30°	1378	1409	1439	1464	1476	1483	1499	1509	1517	1517
32.5°	1369	1407	1437	1464	1474	1486	1501	1512	1518	1517
35°	1360	1395	1429	1456	1467	1479	1497	1510	1514	1518
37.5°	1345	1382	1416	1443	1459	1469	1485	1495	1503	1501
40°	1325	1362	1397	1423	1437	1449	1467	1476	1483	1482
42.5°	1296	1338	1371	1399	1414	1426	1448	1456	1464	1465
45°	1267	1308	1345	1375	1389	1403	1430	1445	1455	1458
47.5°	1232	1278	1320	1361	1381	1399	1427	1448	1459	1461
50°	1203	1260	1312	1360	1385	1405	1443	1468	1480	1485
52.5°	1186	1255	1323	1385	1415	1440	1487	1515	1535	1537
55°	1189	1276	1361	1438	1468	1499	1542	1568	1585	1585
57.5°	1219	1323	1421	1492	1522	1546	1586	1603	1615	1618
60°	1273	1383	1468	1530	1550	1569	1591	1610	1615	1617
62.5°	1326	1420	1487	1530	1542	1558	1574	1585	1589	1589
65°	1354	1424	1465	1497	1510	1515	1532	1536	1545	1543
67.5°	1337	1382	1415	1442	1452	1462	1482	1492	1500	1502
70°	1279	1315	1350	1384	1397	1414	1438	1457	1466	1471
72.5°	1208	1251	1296	1337	1358	1374	1404	1429	1438	1443
75°	1135	1186	1238	1288	1310	1331	1367	1391	1407	1412
77.5°	1062	1124	1187	1244	1271	1293	1334	1360	1379	1381
80°	994	1068	1138	1199	1226	1252	1293	1323	1333	1347
82.5°	934	1011	1082	1146	1176	1199	1242	1273	1288	1296
85°	869	949	1021	1084	1115	1143	1183	1212	1233	1236
87.5°	803	883	957	1022	1053	1079	1121	1149	1168	1174
90°	733	809	880	945	971	998	1038	1070	1090	1091
92.5°	649	722	787	848	879	899	937	970	984	990
95°	542	609	671	722	753	771	808	832	848	852
97.5°	425	477	527	572	595	610	640	661	685	679
100°	320	349	385	414	431	441	463	477	491	499
102.5°	232	254	270	285	297	307	324	329	333	343
105°	170	181	190	201	206	209	216	221	221	230
107.5°	128	133	137	143	143	146	146	147	150	148
110°	101	102	103	102	103	102	101	100	100	99





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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	84	83	82	79	78	76	75	73	71	71
115°	72	71	69	66	64	62	61	58	56	55
117.5°	64	63	61	58	57	55	53	50	48	47
120°	58	58	56	53	52	51	48	46	44	43
122.5°	52	52	51	49	48	47	45	43	41	41
125°	45	46	46	45	44	43	42	40	39	38
127.5°	39	40	41	41	40	40	38	37	36	36
130°	32	35	36	36	36	36	35	34	33	33
132.5°	26	28	30	31	31	31	30	30	29	29
135°	20	22	24	25	26	26	26	26	25	25
137.5°	15	17	19	20	20	21	21	21	20	20
140°	9	12	13	14	15	15	16	16	15	15
142.5°	5	7	8	9	10	10	11	10	10	10
145°	1	2	4	5	5	5	5	6	5	5
147.5°	0	0	0	0	0	1	1	1	1	0
150°	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)