

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: P237831

Luminaire Tested: **4VRVT2-LD5-6-DR100-W-UNV-L840-CD1-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P237831  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-20)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4VRVT2-LD5-6-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: (112) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5944.8 lumens  
Efficiency: N/A  
Efficacy: 117.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.58 / 1.57  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4.17' x H: 0.17')  
CIE Type: Semi-Direct

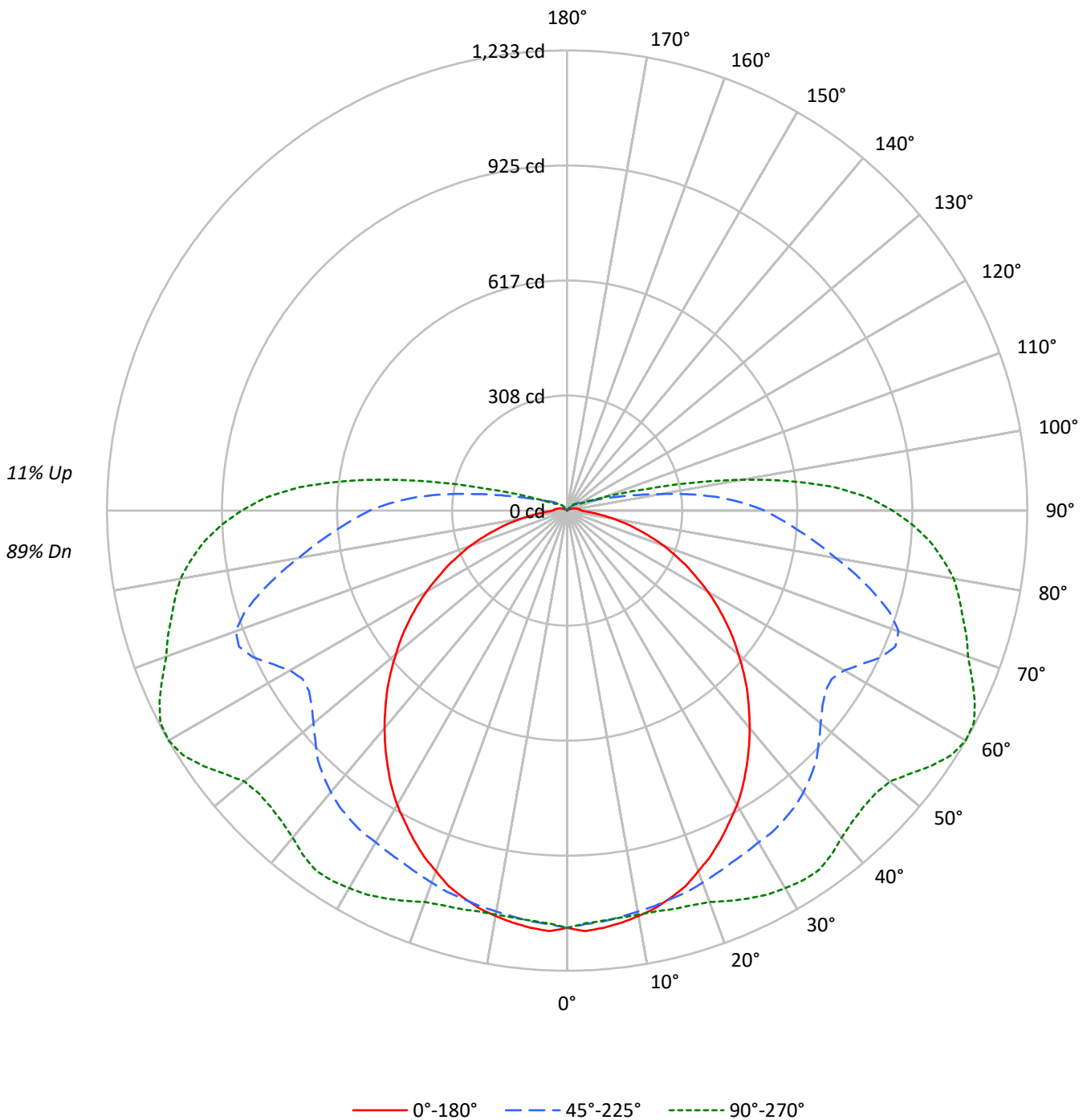
Input Watts (W): 50.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	101	94	88	82	97	91	85	80	84	80	75	78	74	71	73	70	67	64
2	90	79	70	63	86	76	68	61	71	64	58	66	60	55	61	56	52	49
3	81	68	58	50	77	65	56	49	61	53	47	56	50	44	52	47	42	39
4	73	59	49	41	70	57	48	40	53	45	38	49	42	37	46	40	35	32
5	67	52	42	35	64	50	41	34	47	39	32	44	37	31	41	35	30	27
6	62	47	37	30	59	45	36	29	42	34	28	39	32	27	37	30	26	23
7	57	42	32	26	54	41	32	25	38	30	24	36	29	23	33	27	22	20
8	53	38	29	23	51	37	28	22	35	27	21	32	26	21	30	24	20	18
9	49	35	26	20	47	34	25	20	32	24	19	30	23	18	28	22	18	16
10	46	32	24	18	44	31	23	18	29	22	17	28	21	17	26	20	16	14

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

	0°	45°	90°
0°	5776	5776	5776
5°	5799	5602	5559
10°	5746	5469	5446
15°	5684	5380	5426
20°	5571	5322	5472
25°	5445	5284	5659
30°	5312	5312	5844
35°	5142	5387	6014
40°	4966	5439	6029
45°	4792	5463	6154
50°	4596	5423	6495
55°	4414	5521	7274
60°	4213	6077	8077
65°	3986	7252	8591
70°	3757	8274	9013
75°	3387	8557	9759
80°	3032	8698	10829
85°	2766	9208	12053



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.6	1.8
10°-20°	307.0	5.2
20°-30°	486.9	8.2
30°-40°	631.2	10.6
40°-50°	712.0	12.0
50°-60°	771.3	13.0
60°-70°	829.7	14.0
70°-80°	789.9	13.3
80°-90°	647.6	10.9
90°-100°	428.7	7.2
100°-110°	154.2	2.6
110°-120°	46.8	0.8
120°-130°	22.8	0.4
130°-140°	9.5	0.2
140°-150°	1.6	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	899.5	15.1
0°-40°	1530.7	25.7
0°-60°	3014.0	50.7
0°-90°	5281.2	88.8
90°-120°	629.8	10.6
90°-150°	663.6	11.2
90°-180°	664.0	11.2
0°-180°	5944.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1118	1118	1118	1118	1118	
5°	1122	1117	1105	1107	1103	106
15°	1074	1072	1077	1099	1105	303
25°	973	987	1041	1124	1147	448
35°	838	884	1012	1135	1176	524
45°	682	763	945	1071	1123	526
55°	518	630	844	1100	1192	463
65°	354	494	929	1171	1205	350
75°	195	469	851	1027	1097	209
85°	68	340	624	884	978	68
90°	38	258	529	782	872	22
95°	33	184	407	631	719	26
105°	22	68	143	199	226	24
115°	11	30	60	57	53	11
125°	4	10	35	36	32	4
135°	2	0	14	21	21	1
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: P237831

CATALOG NUMBER: 4VRVT2-LD5-6-DR100-W-UNV-L840-CD1-WL-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1118	1118	1118	1118	1118	1118	1118	1118	1118	1118	1118
2.5°	1128	1126	1123	1122	1122	1122	1122	1120	1117	1113	1109
5°	1122	1120	1117	1117	1116	1117	1117	1115	1113	1109	1105
7.5°	1114	1113	1109	1107	1107	1107	1109	1107	1106	1102	1098
10°	1103	1101	1099	1099	1100	1100	1100	1101	1099	1094	1091
12.5°	1091	1088	1086	1086	1087	1087	1088	1088	1088	1085	1085
15°	1074	1073	1069	1070	1070	1072	1073	1074	1073	1076	1077
17.5°	1055	1054	1050	1050	1052	1053	1056	1060	1062	1066	1071
20°	1028	1028	1026	1028	1032	1034	1036	1043	1047	1055	1061
22.5°	1003	1001	1001	1003	1007	1012	1016	1026	1033	1043	1051
25°	973	972	971	976	982	987	994	1006	1016	1028	1041
27.5°	941	940	942	946	957	964	970	986	998	1017	1034
30°	911	908	910	916	930	940	946	964	981	1003	1026
32.5°	876	873	877	886	902	912	923	942	962	989	1022
35°	838	839	841	855	872	884	895	920	945	978	1012
37.5°	800	798	806	822	842	857	868	894	929	965	1001
40°	761	763	769	787	808	827	839	873	911	948	985
42.5°	721	726	732	753	779	794	812	849	889	928	966
45°	682	686	695	718	743	763	783	822	866	907	945
47.5°	641	645	657	681	709	731	752	794	839	881	915
50°	599	605	617	641	678	698	719	765	807	848	887
52.5°	560	563	582	605	643	666	686	733	773	819	862
55°	518	524	541	564	606	630	653	698	743	791	844
57.5°	477	482	500	526	571	594	616	665	711	771	840
60°	436	442	460	490	535	559	582	634	694	768	857
62.5°	393	403	416	453	499	523	551	611	690	784	890
65°	354	359	379	417	466	494	526	603	703	818	929
67.5°	313	320	342	384	439	472	512	611	733	855	952
70°	276	281	308	354	420	463	512	631	762	869	945
72.5°	235	243	276	332	412	464	522	652	768	850	906
75°	195	207	250	314	410	469	531	649	740	802	851
77.5°	162	177	225	302	406	464	521	614	687	746	792
80°	125	148	204	287	388	438	484	564	623	680	730
82.5°	95	121	182	264	351	393	429	500	562	616	677
85°	68	96	157	230	303	340	373	440	501	562	624
87.5°	47	75	133	197	262	292	324	388	448	507	575
90°	38	61	111	169	225	258	286	344	404	466	529
92.5°	36	51	93	143	195	222	248	301	357	415	471
95°	33	41	73	116	160	184	205	255	302	353	407
97.5°	31	33	56	90	127	147	164	203	245	284	333
100°	28	29	43	70	97	114	128	160	190	221	254
102.5°	25	25	33	52	76	87	99	125	147	167	192
105°	22	22	26	40	57	68	76	95	112	127	143
107.5°	20	19	21	31	45	53	61	75	88	98	109
110°	16	16	17	25	37	43	50	61	72	79	85



TEST NUMBER: P237831

CATALOG NUMBER: 4VRVT2-LD5-6-DR100-W-UNV-L840-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	14	13	13	20	30	36	41	52	61	67	70
115°	11	11	10	15	24	30	34	44	52	57	60
117.5°	9	9	9	11	20	24	29	38	45	50	53
120°	7	7	7	7	15	19	24	32	39	44	47
122.5°	6	5	5	5	10	15	18	26	33	38	42
125°	4	4	4	3	7	10	14	21	27	32	35
127.5°	3	3	3	3	3	6	9	16	22	27	30
130°	3	3	2	2	1	3	5	11	16	21	25
132.5°	2	2	2	1	1	1	2	7	12	16	19
135°	2	2	1	1	0	0	0	4	8	11	14
137.5°	1	1	1	1	0	0	0	1	4	7	10
140°	1	1	1	0	0	0	0	0	1	3	6
142.5°	1	1	1	0	0	0	0	0	0	1	2
145°	1	1	1	0	0	0	0	0	0	0	0
147.5°	1	1	0	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: P237831

CATALOG NUMBER: 4VRVT2-LD5-6-DR100-W-UNV-L840-CD1-WL-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1118	1118	1118	1118	1118	1118	1118	1118	1118	1118
2.5°	1109	1111	1111	1111	1111	1111	1109	1108	1107	1107
5°	1104	1106	1107	1107	1107	1107	1106	1105	1104	1103
7.5°	1098	1101	1103	1104	1104	1104	1103	1103	1101	1100
10°	1092	1095	1098	1100	1101	1101	1101	1101	1100	1099
12.5°	1088	1093	1097	1099	1099	1100	1102	1102	1101	1100
15°	1083	1091	1096	1099	1099	1101	1105	1105	1104	1105
17.5°	1079	1087	1095	1100	1102	1105	1108	1109	1110	1109
20°	1071	1084	1095	1101	1105	1106	1113	1118	1118	1116
22.5°	1068	1083	1096	1109	1111	1115	1124	1129	1132	1132
25°	1062	1082	1101	1117	1124	1129	1138	1146	1144	1147
27.5°	1059	1083	1102	1122	1132	1137	1150	1155	1158	1160
30°	1057	1084	1105	1127	1135	1145	1157	1165	1169	1168
32.5°	1054	1081	1108	1127	1139	1147	1159	1168	1174	1175
35°	1047	1078	1103	1126	1135	1145	1159	1164	1174	1176
37.5°	1038	1068	1092	1117	1126	1134	1151	1156	1160	1163
40°	1024	1052	1078	1102	1110	1119	1131	1139	1145	1144
42.5°	1006	1032	1057	1083	1089	1099	1114	1123	1129	1131
45°	977	1007	1036	1059	1071	1082	1099	1109	1116	1123
47.5°	949	986	1019	1045	1059	1070	1091	1106	1117	1121
50°	927	965	1003	1042	1057	1071	1095	1111	1123	1129
52.5°	909	955	1003	1051	1072	1089	1117	1137	1153	1158
55°	902	960	1021	1076	1100	1122	1154	1173	1189	1192
57.5°	914	992	1059	1116	1140	1158	1189	1205	1218	1220
60°	947	1029	1099	1148	1173	1189	1212	1224	1233	1233
62.5°	988	1062	1123	1164	1182	1194	1208	1222	1225	1229
65°	1019	1083	1125	1155	1171	1176	1191	1197	1205	1205
67.5°	1021	1072	1102	1126	1135	1142	1160	1167	1173	1174
70°	994	1029	1063	1084	1094	1108	1125	1136	1142	1143
72.5°	951	983	1017	1049	1063	1075	1097	1112	1118	1122
75°	899	934	975	1013	1027	1039	1070	1084	1096	1097
77.5°	843	885	933	974	992	1013	1038	1059	1068	1076
80°	787	841	890	938	955	979	1009	1033	1043	1052
82.5°	734	795	855	904	923	944	975	1002	1011	1017
85°	688	751	810	860	884	902	937	960	973	978
87.5°	639	703	761	815	835	853	889	914	926	929
90°	591	657	711	758	782	804	837	860	872	872
92.5°	530	593	650	693	716	734	770	787	807	807
95°	460	515	568	612	631	650	680	703	714	719
97.5°	381	423	471	507	533	539	572	595	607	603
100°	287	320	358	388	408	419	442	455	473	475
102.5°	214	238	260	277	293	298	314	327	335	344
105°	157	171	184	196	199	208	221	230	225	226
107.5°	117	124	131	135	140	146	149	149	154	156
110°	89	93	96	97	99	99	99	99	100	102





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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	71	73	73	73	72	72	71	70	68	70
115°	61	61	59	58	57	56	54	52	51	53
117.5°	54	53	52	49	48	47	45	44	42	41
120°	48	48	46	45	44	42	40	39	37	36
122.5°	43	43	42	41	40	39	37	36	34	34
125°	37	38	38	37	36	36	34	33	32	32
127.5°	32	33	34	34	33	33	32	31	30	29
130°	27	29	29	30	30	29	29	28	27	27
132.5°	22	24	25	25	26	26	26	25	25	24
135°	17	19	20	21	21	22	22	21	21	21
137.5°	13	14	16	17	17	17	17	17	17	17
140°	8	10	12	12	13	13	13	13	13	13
142.5°	4	6	7	8	8	9	9	9	9	9
145°	1	2	3	4	5	5	5	5	5	5
147.5°	0	0	0	0	1	1	1	1	1	1
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)