

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: P470165

Luminaire Tested: **VHB2-9-W-UNV-L740-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470165
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-9-W-UNV-L740-CD-U
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

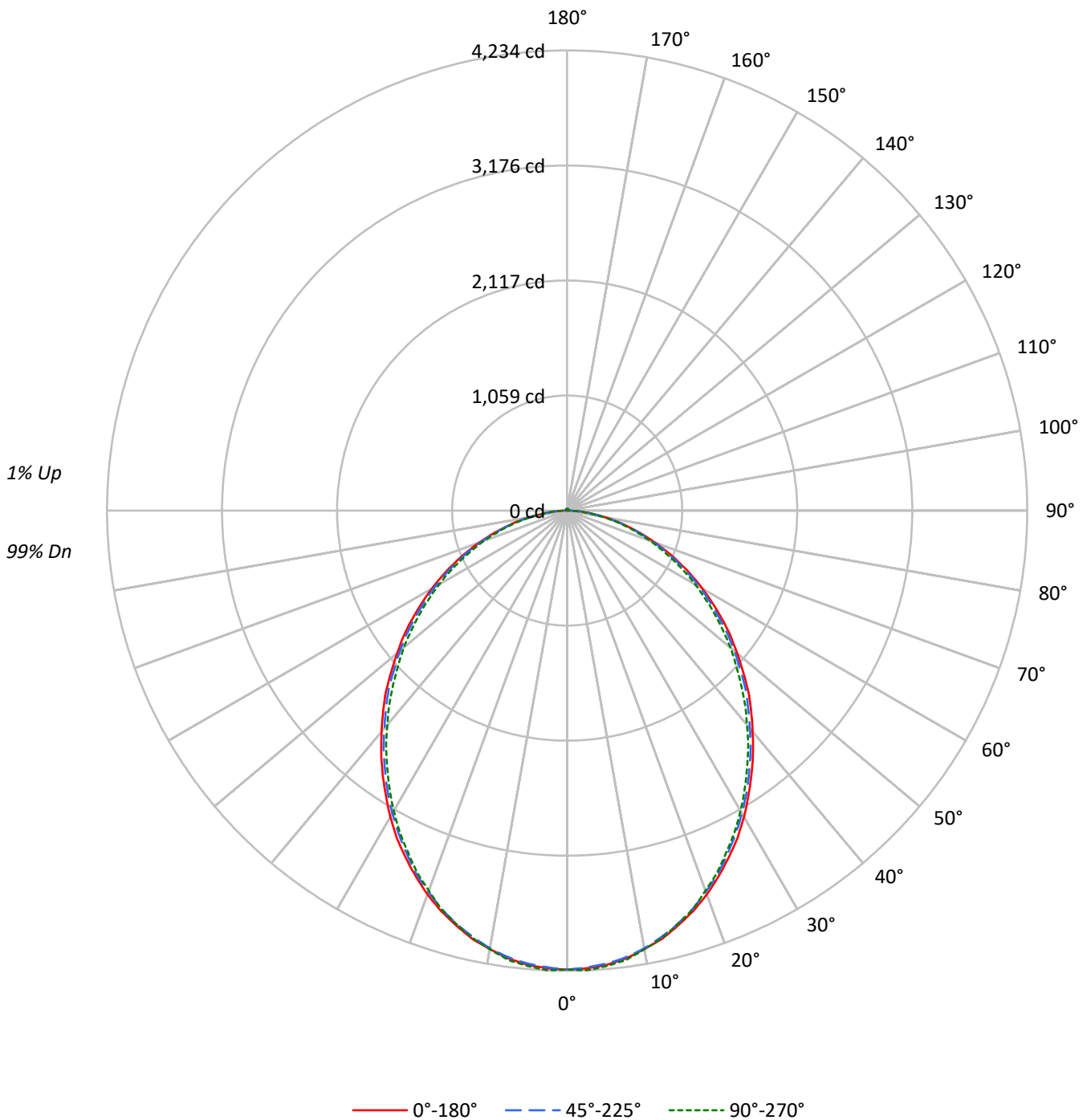
Lumens per Lamp: N/A
Luminaire Lumens: 10220.2 lumens
Efficiency: N/A
Efficacy: 159.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 64.2
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: 24 FT



TEST NUMBER: P470165
CATALOG NUMBER: VHB2-9-W-UNV-L740-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P470165

CATALOG NUMBER: VHB2-9-W-UNV-L740-CD-U

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	101	101	101	99
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	100	92	85	79	97	90	84	78	86	81	76	83	78	75	79	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	84	72	63	57	81	71	63	57	68	61	56	66	60	55	63	58	54	52
5	77	65	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	46	42	40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	37	35
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25978	25978	25978
5°	25901	25834	25966
10°	25589	25539	25595
15°	25150	25065	25079
20°	24603	24425	24359
25°	23888	23675	23534
30°	23114	22850	22664
35°	22220	21932	21669
40°	21321	20993	20667
45°	20516	20193	19688
50°	19521	19220	18772
55°	18659	18254	17757
60°	17695	17301	16739
65°	16653	16250	15669
70°	15430	15144	14617
75°	14057	13867	13387
80°	12567	12362	11926
85°	10663	10663	10395



TEST NUMBER: P470165

CATALOG NUMBER: VHB2-9-W-UNV-L740-CD-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	397.1	3.9
10°-20°	1109.2	10.9
20°-30°	1607.2	15.7
30°-40°	1828.1	17.9
40°-50°	1782.6	17.4
50°-60°	1521.8	14.9
60°-70°	1104.8	10.8
70°-80°	616.9	6.0
80°-90°	173.2	1.7
90°-100°	12.3	0.1
100°-110°	12.2	0.1
110°-120°	12.0	0.1
120°-130°	11.4	0.1
130°-140°	10.8	0.1
140°-150°	9.3	0.1
150°-160°	6.5	0.1
160°-170°	3.6	0.0
170°-180°	1.1	0.0
0°-30°	3113.6	30.5
0°-40°	4941.6	48.4
0°-60°	8246.0	80.7
0°-90°	10141.0	99.2
90°-120°	36.4	0.4
90°-150°	68.0	0.7
90°-180°	79.0	0.8
0°-180°	10220.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4224	4224	4224	4224	4224	
5°	4195	4185	4184	4199	4206	397
15°	3950	3943	3936	3936	3938	1113
25°	3520	3508	3488	3476	3468	1621
35°	2959	2950	2921	2894	2886	1851
45°	2359	2336	2321	2278	2263	1815
55°	1740	1732	1702	1667	1656	1556
65°	1144	1136	1116	1090	1077	1135
75°	592	595	584	569	563	632
85°	151	154	151	147	147	165
90°	11	12	14	16	15	13
95°	5	8	12	14	14	5
105°	9	9	11	14	15	9
115°	11	11	12	13	14	10
125°	11	12	12	14	14	10
135°	13	14	14	14	14	10
145°	12	14	15	16	16	8
155°	12	13	15	15	15	5
165°	10	11	13	14	14	3
175°	11	11	11	12	12	1
180°	11	11	11	11	11	



TEST NUMBER: P470165

CATALOG NUMBER: VHB2-9-W-UNV-L740-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4223.6	4223.6	4223.6	4223.6	4223.6
2.5°	4215.1	4203.9	4206.0	4219.9	4233.7
5°	4194.9	4185.3	4184.2	4198.6	4205.5
7.5°	4155.5	4145.4	4144.9	4161.3	4169.3
10°	4097.0	4094.3	4089.0	4100.2	4098.0
12.5°	4035.8	4020.9	4018.3	4027.3	4027.8
15°	3949.6	3942.7	3936.3	3935.8	3938.5
17.5°	3861.3	3846.4	3842.7	3840.6	3845.9
20°	3758.7	3742.2	3731.5	3729.4	3721.4
22.5°	3642.2	3632.1	3622.0	3604.4	3606.0
25°	3519.8	3507.6	3488.4	3475.7	3467.7
27.5°	3394.8	3375.7	3355.5	3343.8	3336.8
30°	3254.4	3242.7	3217.2	3195.3	3191.1
32.5°	3105.4	3097.5	3071.9	3052.8	3040.0
35°	2959.2	2949.6	2920.9	2893.7	2885.8
37.5°	2810.2	2798.5	2774.1	2750.1	2736.8
40°	2655.4	2646.9	2614.5	2585.7	2574.0
42.5°	2506.0	2494.8	2465.5	2430.4	2423.5
45°	2358.6	2336.3	2321.4	2278.3	2263.4
47.5°	2195.3	2189.5	2157.5	2123.0	2106.5
50°	2040.0	2036.3	2008.6	1969.8	1961.8
52.5°	1897.4	1882.5	1857.0	1821.9	1803.8
55°	1740.0	1732.5	1702.2	1666.6	1655.9
57.5°	1585.7	1585.7	1553.3	1522.9	1504.9
60°	1438.4	1429.3	1406.4	1377.2	1360.7
62.5°	1289.9	1282.5	1262.8	1233.6	1218.7
65°	1144.2	1135.7	1116.5	1090.5	1076.6
67.5°	1004.8	994.7	982.5	948.4	939.4
70°	858.0	855.9	842.1	818.7	812.8
72.5°	726.1	724.0	708.0	687.3	680.9
75°	591.5	594.7	583.5	569.2	563.3
77.5°	474.5	471.3	460.7	452.1	442.0
80°	354.8	353.7	349.0	337.2	336.7
82.5°	245.2	249.5	245.8	237.2	234.1
85°	151.1	154.3	151.1	146.8	147.3
87.5°	67.6	68.6	64.9	58.5	54.3
90°	10.6	11.7	13.8	16.5	15.4
92.5°	3.7	8.0	11.7	13.8	14.4
95°	4.8	8.0	11.7	13.8	14.4
97.5°	6.9	8.0	11.7	13.8	14.9
100°	8.0	8.5	11.7	13.8	14.9
102.5°	8.5	8.5	11.7	13.8	14.9
105°	9.0	9.0	11.2	13.8	14.9
107.5°	9.6	9.0	11.2	13.8	14.9
110°	9.6	9.6	11.2	13.8	14.4



TEST NUMBER: P470165

CATALOG NUMBER: VHB2-9-W-UNV-L740-CD-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	10.1	10.1	11.7	13.3	14.4
115°	10.6	10.6	11.7	13.3	14.4
117.5°	10.6	11.2	11.7	13.8	14.4
120°	11.2	11.7	11.7	13.8	13.8
122.5°	11.2	12.2	12.2	13.8	13.8
125°	11.2	12.2	12.2	13.8	13.8
127.5°	11.7	12.8	12.2	13.8	13.8
130°	12.2	12.8	13.3	13.8	13.8
132.5°	12.2	13.3	13.8	14.4	13.8
135°	12.8	13.8	14.4	14.4	14.4
137.5°	13.3	13.8	14.9	14.9	14.9
140°	13.3	14.4	14.9	15.4	15.4
142.5°	12.2	14.4	14.9	16.0	16.0
145°	12.2	14.4	15.4	16.5	16.5
147.5°	11.7	13.8	14.9	16.5	16.5
150°	11.7	13.3	14.9	16.0	16.0
152.5°	12.2	12.8	14.9	15.4	16.0
155°	11.7	12.8	14.9	15.4	15.4
157.5°	11.2	12.2	14.4	15.4	16.0
160°	10.6	12.2	13.8	15.4	15.4
162.5°	10.1	11.7	13.3	14.9	15.4
165°	9.6	11.2	12.8	14.4	14.4
167.5°	9.6	11.2	12.2	13.3	13.8
170°	10.1	10.6	11.7	12.2	12.8
172.5°	10.6	10.6	11.7	11.7	11.7
175°	10.6	10.6	11.2	11.7	12.2
177.5°	11.2	10.6	10.6	11.7	11.7
180°	10.6	10.6	10.6	10.6	10.6

(END OF REPORT)