

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: P470166

Luminaire Tested: **VHB2-12-W-UNV-L740-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470166
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-12-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

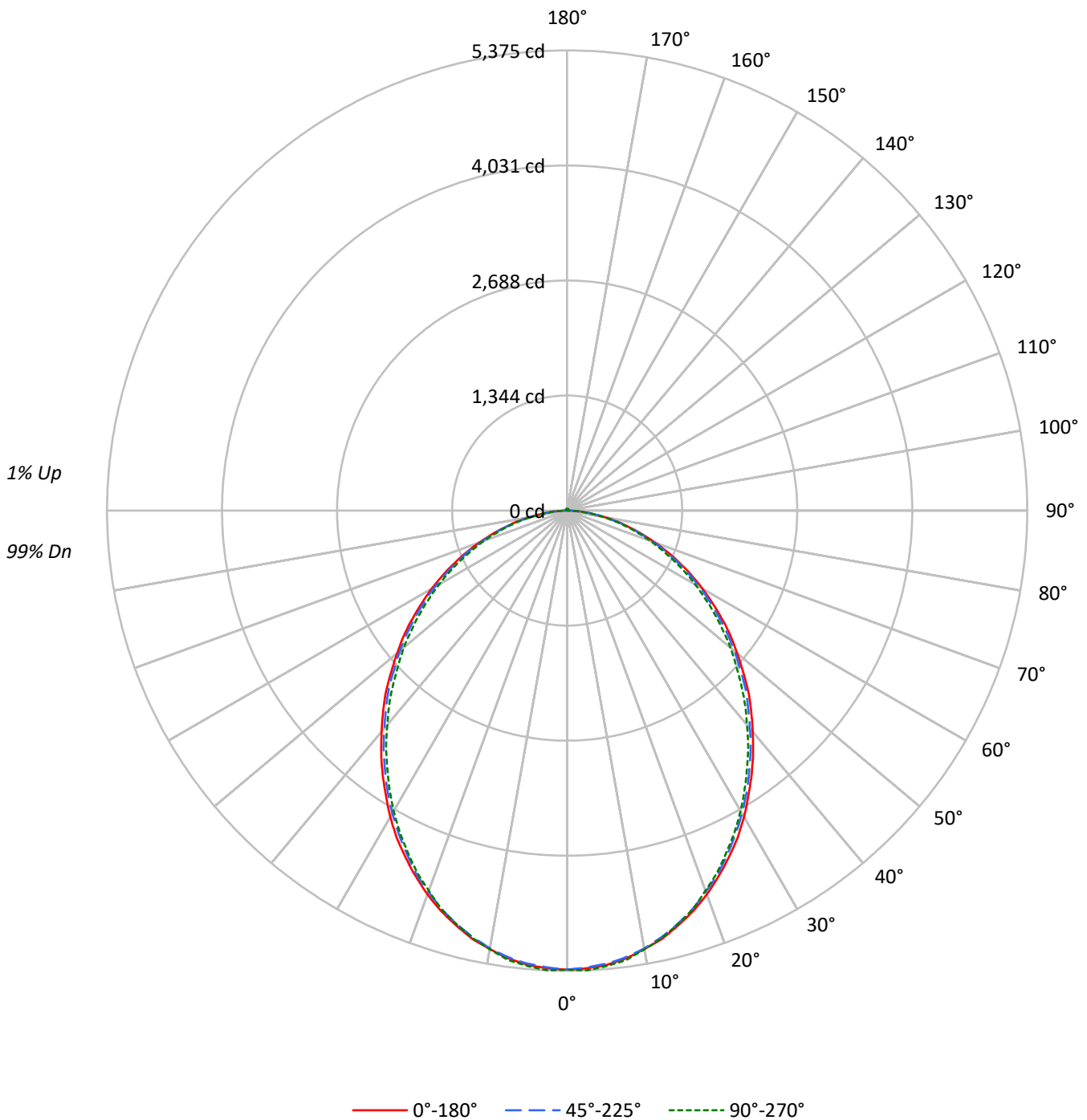
Lumens per Lamp: N/A
Luminaire Lumens: 12975.4 lumens
Efficiency: N/A
Efficacy: 159.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 81.4
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: P470166
CATALOG NUMBER: VHB2-12-W-UNV-L740-CD-U

Luminous Intensity Polar Plot





TEST NUMBER: P470166

CATALOG NUMBER: VHB2-12-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	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°	32982	32982	32982
5°	32882	32799	32966
10°	32486	32423	32495
15°	31931	31823	31840
20°	31235	31009	30925
25°	30327	30057	29878
30°	29345	29009	28774
35°	28210	27845	27510
40°	27069	26652	26239
45°	26047	25636	24996
50°	24783	24402	23832
55°	23688	23175	22544
60°	22464	21966	21251
65°	21141	20630	19894
70°	19590	19226	18557
75°	17847	17605	16997
80°	15954	15692	15142
85°	13536	13536	13204



TEST NUMBER: P470166

CATALOG NUMBER: VHB2-12-W-UNV-L740-CD-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	504.2	3.9
10°-20°	1408.3	10.9
20°-30°	2040.5	15.7
30°-40°	2320.9	17.9
40°-50°	2263.1	17.4
50°-60°	1932.1	14.9
60°-70°	1402.6	10.8
70°-80°	783.2	6.0
80°-90°	219.9	1.7
90°-100°	15.6	0.1
100°-110°	15.5	0.1
110°-120°	15.2	0.1
120°-130°	14.6	0.1
130°-140°	13.8	0.1
140°-150°	11.9	0.1
150°-160°	8.3	0.1
160°-170°	4.6	0.0
170°-180°	1.4	0.0
0°-30°	3952.9	30.5
0°-40°	6273.8	48.4
0°-60°	10469.0	80.7
0°-90°	12874.7	99.2
90°-120°	46.3	0.4
90°-150°	86.5	0.7
90°-180°	101.0	0.8
0°-180°	12975.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5362	5362	5362	5362	5362	
5°	5326	5314	5312	5330	5339	504
15°	5014	5006	4998	4997	5000	1413
25°	4469	4453	4429	4413	4402	2057
35°	3757	3745	3708	3674	3664	2349
45°	2994	2966	2947	2892	2874	2304
55°	2209	2200	2161	2116	2102	1976
65°	1453	1442	1418	1384	1367	1441
75°	751	755	741	723	715	803
85°	192	196	192	186	187	210
90°	14	15	18	21	20	16
95°	6	10	15	18	18	6
105°	12	12	14	18	19	12
115°	14	14	15	17	18	13
125°	14	16	16	18	18	13
135°	16	18	18	18	18	13
145°	16	18	20	21	21	10
155°	15	16	19	20	20	7
165°	12	14	16	18	18	4
175°	14	14	14	15	16	1
180°	14	14	14	14	14	



TEST NUMBER: P470166

CATALOG NUMBER: VHB2-12-W-UNV-L740-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5362.2	5362.2	5362.2	5362.2	5362.2
2.5°	5351.4	5337.2	5339.9	5357.4	5375.0
5°	5325.7	5313.5	5312.2	5330.4	5339.2
7.5°	5275.7	5262.9	5262.2	5283.1	5293.3
10°	5201.4	5198.1	5191.3	5205.5	5202.8
12.5°	5123.8	5104.9	5101.5	5113.0	5113.6
15°	5014.4	5005.6	4997.5	4996.8	5000.2
17.5°	4902.3	4883.3	4878.6	4875.9	4882.7
20°	4771.9	4751.0	4737.5	4734.8	4724.6
22.5°	4624.0	4611.2	4598.4	4576.1	4578.1
25°	4468.7	4453.2	4428.8	4412.6	4402.5
27.5°	4310.0	4285.7	4260.0	4245.2	4236.4
30°	4131.7	4116.8	4084.4	4056.7	4051.3
32.5°	3942.6	3932.5	3900.1	3875.7	3859.5
35°	3756.9	3744.7	3708.3	3673.8	3663.7
37.5°	3567.8	3552.9	3521.9	3491.5	3474.6
40°	3371.3	3360.5	3319.3	3282.8	3267.9
42.5°	3181.5	3167.3	3130.2	3085.6	3076.8
45°	2994.4	2966.1	2947.2	2892.5	2873.6
47.5°	2787.1	2779.7	2739.2	2695.3	2674.3
50°	2589.9	2585.2	2550.1	2500.8	2490.6
52.5°	2408.9	2390.0	2357.6	2313.0	2290.1
55°	2209.0	2199.6	2161.1	2115.8	2102.3
57.5°	2013.2	2013.2	1972.0	1933.5	1910.5
60°	1826.1	1814.6	1785.6	1748.4	1727.5
62.5°	1637.7	1628.2	1603.2	1566.1	1547.2
65°	1452.6	1441.8	1417.5	1384.4	1366.9
67.5°	1275.7	1262.9	1247.3	1204.1	1192.6
70°	1089.3	1086.6	1069.1	1039.3	1031.9
72.5°	921.8	919.1	898.9	872.5	864.4
75°	751.0	755.0	740.8	722.6	715.2
77.5°	602.4	598.3	584.8	574.0	561.2
80°	450.4	449.1	443.0	428.2	427.5
82.5°	311.3	316.7	312.0	301.2	297.1
85°	191.8	195.8	191.8	186.4	187.1
87.5°	85.8	87.1	82.4	74.3	68.9
90°	13.5	14.9	17.6	20.9	19.6
92.5°	4.7	10.1	14.9	17.6	18.2
95°	6.1	10.1	14.9	17.6	18.2
97.5°	8.8	10.1	14.9	17.6	18.9
100°	10.1	10.8	14.9	17.6	18.9
102.5°	10.8	10.8	14.9	17.6	18.9
105°	11.5	11.5	14.2	17.6	18.9
107.5°	12.2	11.5	14.2	17.6	18.9
110°	12.2	12.2	14.2	17.6	18.2



TEST NUMBER: P470166

CATALOG NUMBER: VHB2-12-W-UNV-L740-CD-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	12.8	12.8	14.9	16.9	18.2
115°	13.5	13.5	14.9	16.9	18.2
117.5°	13.5	14.2	14.9	17.6	18.2
120°	14.2	14.9	14.9	17.6	17.6
122.5°	14.2	15.5	15.5	17.6	17.6
125°	14.2	15.5	15.5	17.6	17.6
127.5°	14.9	16.2	15.5	17.6	17.6
130°	15.5	16.2	16.9	17.6	17.6
132.5°	15.5	16.9	17.6	18.2	17.6
135°	16.2	17.6	18.2	18.2	18.2
137.5°	16.9	17.6	18.9	18.9	18.9
140°	16.9	18.2	18.9	19.6	19.6
142.5°	15.5	18.2	18.9	20.3	20.3
145°	15.5	18.2	19.6	20.9	20.9
147.5°	14.9	17.6	18.9	20.9	20.9
150°	14.9	16.9	18.9	20.3	20.3
152.5°	15.5	16.2	18.9	19.6	20.3
155°	14.9	16.2	18.9	19.6	19.6
157.5°	14.2	15.5	18.2	19.6	20.3
160°	13.5	15.5	17.6	19.6	19.6
162.5°	12.8	14.9	16.9	18.9	19.6
165°	12.2	14.2	16.2	18.2	18.2
167.5°	12.2	14.2	15.5	16.9	17.6
170°	12.8	13.5	14.9	15.5	16.2
172.5°	13.5	13.5	14.9	14.9	14.9
175°	13.5	13.5	14.2	14.9	15.5
177.5°	14.2	13.5	13.5	14.9	14.9
180°	13.5	13.5	13.5	13.5	13.5

(END OF REPORT)