

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: P470164

Luminaire Tested: **VHB2-24-W-UNV-L735-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470164
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-24-W-UNV-L735-CD-U
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

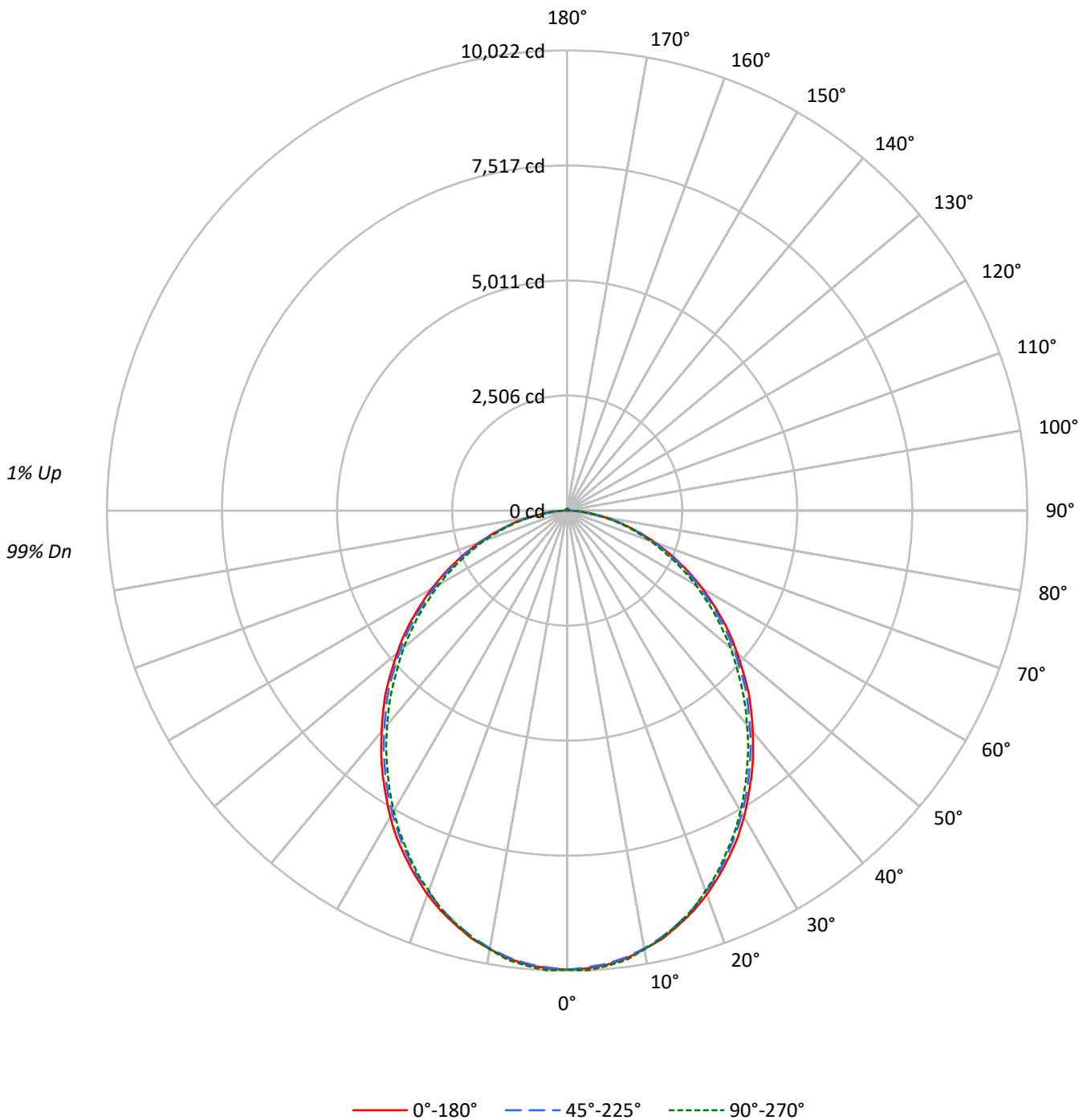
Lumens per Lamp: N/A
Luminaire Lumens: 24194.6 lumens
Efficiency: N/A
Efficacy: 152.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 159.2
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



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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	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°	61499	61499	61499
5°	61314	61159	61470
10°	60576	60458	60592
15°	59539	59339	59371
20°	58242	57822	57665
25°	56550	56046	55713
30°	54718	54091	53653
35°	52601	51920	51296
40°	50475	49696	48927
45°	48569	47802	46608
50°	46211	45500	44440
55°	44171	43213	42037
60°	41888	40958	39626
65°	39422	38469	37095
70°	36529	35849	34604
75°	33278	32829	31693
80°	29750	29261	28234
85°	25237	25237	24616



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	940.1	3.9
10°-20°	2626.0	10.9
20°-30°	3804.8	15.7
30°-40°	4327.6	17.9
40°-50°	4219.9	17.4
50°-60°	3602.7	14.9
60°-70°	2615.5	10.8
70°-80°	1460.4	6.0
80°-90°	410.0	1.7
90°-100°	29.1	0.1
100°-110°	28.8	0.1
110°-120°	28.3	0.1
120°-130°	27.1	0.1
130°-140°	25.7	0.1
140°-150°	22.1	0.1
150°-160°	15.5	0.1
160°-170°	8.5	0.0
170°-180°	2.6	0.0
0°-30°	7370.8	30.5
0°-40°	11698.4	48.4
0°-60°	19521.0	80.7
0°-90°	24007.0	99.2
90°-120°	86.2	0.4
90°-150°	161.1	0.7
90°-180°	188.0	0.8
0°-180°	24194.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9999	9999	9999	9999	9999	
5°	9931	9908	9905	9939	9956	941
15°	9350	9334	9319	9317	9324	2635
25°	8333	8304	8258	8228	8209	3836
35°	7005	6983	6915	6850	6832	4381
45°	5584	5531	5495	5393	5358	4296
55°	4119	4101	4030	3945	3920	3684
65°	2709	2688	2643	2582	2549	2686
75°	1400	1408	1381	1347	1334	1497
85°	358	365	358	348	349	391
90°	25	28	33	39	36	30
95°	11	19	28	33	34	11
105°	21	21	26	33	35	22
115°	25	25	28	32	34	25
125°	26	29	29	33	33	24
135°	30	33	34	34	34	23
145°	29	34	36	39	39	18
155°	28	30	35	36	36	13
165°	23	26	30	34	34	7
175°	25	25	26	28	29	2
180°	25	25	25	25	25	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9998.6	9998.6	9998.6	9998.6	9998.6
2.5°	9978.4	9952.0	9957.0	9989.8	10022.5
5°	9930.6	9907.9	9905.4	9939.4	9955.8
7.5°	9837.4	9813.5	9812.2	9851.2	9870.1
10°	9698.9	9692.6	9680.0	9706.4	9701.4
12.5°	9554.1	9518.8	9512.5	9533.9	9535.2
15°	9350.1	9333.7	9318.6	9317.3	9323.6
17.5°	9141.0	9105.8	9096.9	9091.9	9104.5
20°	8898.0	8858.9	8833.8	8828.7	8809.8
22.5°	8622.2	8598.3	8574.4	8532.8	8536.6
25°	8332.6	8303.6	8258.3	8228.1	8209.2
27.5°	8036.6	7991.3	7943.5	7915.8	7899.4
30°	7704.2	7676.5	7616.0	7564.4	7554.3
32.5°	7351.6	7332.7	7272.3	7226.9	7196.7
35°	7005.3	6982.6	6914.6	6850.4	6831.5
37.5°	6652.7	6625.0	6567.1	6510.4	6478.9
40°	6286.3	6266.1	6189.3	6121.3	6093.6
42.5°	5932.4	5906.0	5836.7	5753.6	5737.2
45°	5583.6	5530.7	5495.4	5393.4	5358.2
47.5°	5197.0	5183.1	5107.6	5025.7	4986.7
50°	4829.3	4820.5	4755.0	4663.1	4644.2
52.5°	4491.8	4456.5	4396.1	4313.0	4270.2
55°	4119.1	4101.4	4029.7	3945.3	3920.1
57.5°	3753.9	3753.9	3677.1	3605.3	3562.5
60°	3405.1	3383.7	3329.5	3260.2	3221.2
62.5°	3053.7	3036.1	2989.5	2920.2	2885.0
65°	2708.7	2688.5	2643.2	2581.5	2548.8
67.5°	2378.8	2354.8	2325.9	2245.3	2223.9
70°	2031.2	2026.2	1993.4	1938.0	1924.2
72.5°	1718.9	1713.9	1676.1	1627.0	1611.9
75°	1400.3	1407.9	1381.4	1347.4	1333.6
77.5°	1123.3	1115.7	1090.5	1070.4	1046.5
80°	839.9	837.4	826.1	798.4	797.1
82.5°	580.5	590.6	581.8	561.6	554.1
85°	357.6	365.2	357.6	347.6	348.8
87.5°	159.9	162.4	153.6	138.5	128.4
90°	25.2	27.7	32.7	39.0	36.5
92.5°	8.8	18.9	27.7	32.7	34.0
95°	11.3	18.9	27.7	32.7	34.0
97.5°	16.4	18.9	27.7	32.7	35.3
100°	18.9	20.1	27.7	32.7	35.3
102.5°	20.1	20.1	27.7	32.7	35.3
105°	21.4	21.4	26.4	32.7	35.3
107.5°	22.7	21.4	26.4	32.7	35.3
110°	22.7	22.7	26.4	32.7	34.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	23.9	23.9	27.7	31.5	34.0
115°	25.2	25.2	27.7	31.5	34.0
117.5°	25.2	26.4	27.7	32.7	34.0
120°	26.4	27.7	27.7	32.7	32.7
122.5°	26.4	29.0	29.0	32.7	32.7
125°	26.4	29.0	29.0	32.7	32.7
127.5°	27.7	30.2	29.0	32.7	32.7
130°	29.0	30.2	31.5	32.7	32.7
132.5°	29.0	31.5	32.7	34.0	32.7
135°	30.2	32.7	34.0	34.0	34.0
137.5°	31.5	32.7	35.3	35.3	35.3
140°	31.5	34.0	35.3	36.5	36.5
142.5°	29.0	34.0	35.3	37.8	37.8
145°	29.0	34.0	36.5	39.0	39.0
147.5°	27.7	32.7	35.3	39.0	39.0
150°	27.7	31.5	35.3	37.8	37.8
152.5°	29.0	30.2	35.3	36.5	37.8
155°	27.7	30.2	35.3	36.5	36.5
157.5°	26.4	29.0	34.0	36.5	37.8
160°	25.2	29.0	32.7	36.5	36.5
162.5°	23.9	27.7	31.5	35.3	36.5
165°	22.7	26.4	30.2	34.0	34.0
167.5°	22.7	26.4	29.0	31.5	32.7
170°	23.9	25.2	27.7	29.0	30.2
172.5°	25.2	25.2	27.7	27.7	27.7
175°	25.2	25.2	26.4	27.7	29.0
177.5°	26.4	25.2	25.2	27.7	27.7
180°	25.2	25.2	25.2	25.2	25.2

(END OF REPORT)