

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: P470149

Luminaire Tested: **VHB2-24-N-UNV-L935-CD-U**

Issue Date: 01/20/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P470149  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: VHB2-24-N-UNV-L935-CD-U  
Description: VHB2 LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19236.9 lumens  
Efficiency: N/A  
Efficacy: 120.8 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 0.75 / 0.88  
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')  
CIE Type: Direct

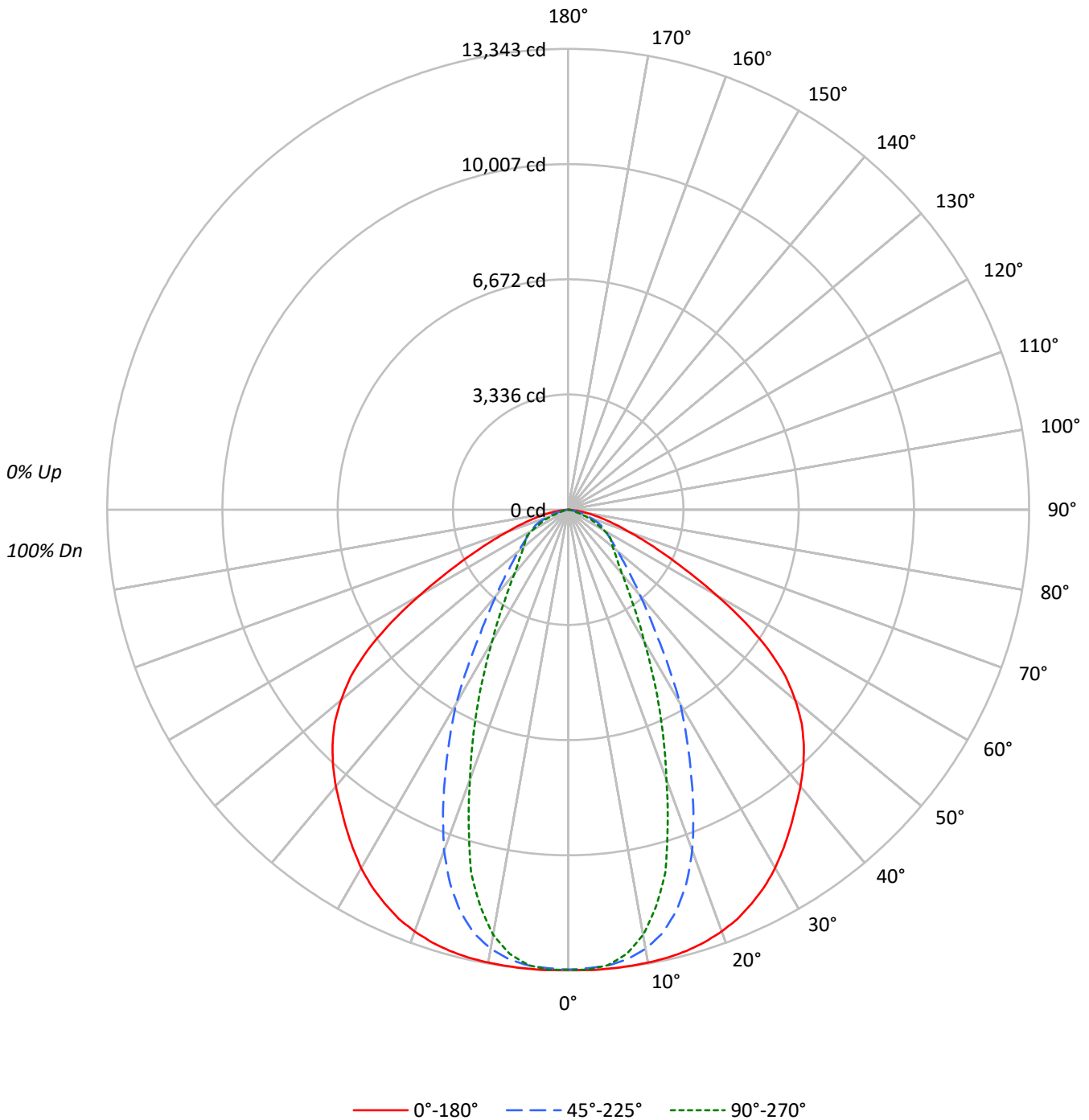
Input Watts (W): 159.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89					89			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55					55			
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	46					46			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42					42			
9	65	53	46	41	63	52	45	41	51	45	40	50	44	40	49	44	40	38					38			
10	61	49	42	38	60	49	42	38	48	42	37	47	41	37	46	41	37	36					36			

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

	0°	45°	90°
0°	81925	81925	81925
5°	82380	81779	81715
10°	83167	80610	78070
15°	84216	76739	69186
20°	85051	68724	54393
25°	85354	57063	41973
30°	85082	45946	31252
35°	84240	33797	23973
40°	83979	25951	19425
45°	83910	20970	17254
50°	82167	17998	16102
55°	75952	16110	16138
60°	60889	15212	14729
65°	45235	14838	11902
70°	33933	12202	8084
75°	25569	9240	4387
80°	18585	4509	3694
85°	11941	3860	2957



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1255.0	6.5
10°-20°	3344.1	17.4
20°-30°	4096.5	21.3
30°-40°	3678.9	19.1
40°-50°	2850.3	14.8
50°-60°	2132.9	11.1
60°-70°	1279.7	6.7
70°-80°	507.5	2.6
80°-90°	92.0	0.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
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0°-30°	8695.6	45.2
0°-40°	12374.5	64.3
0°-60°	17357.7	90.2
0°-90°	19236.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19236.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	13319	13319	13319	13319	13319	
5°	13342	13284	13245	13242	13235	###
15°	13225	12878	12051	11160	10865	3737
25°	12577	11260	8408	6723	6185	5794
35°	11219	8296	4501	3450	3193	7027
45°	9646	4322	2411	2032	1984	7417
55°	7083	2294	1502	1455	1505	6216
65°	3108	1273	1020	866	818	3184
75°	1076	622	389	204	185	1186
85°	169	68	55	47	42	224
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	13319.4	13319.4	13319.4	13319.4	13319.4
2.5°	13343.3	13294.6	13287.8	13321.1	13330.5
5°	13342.5	13283.5	13245.1	13241.6	13234.8
7.5°	13331.4	13253.6	13129.7	13031.4	12973.3
10°	13316.0	13179.3	12906.6	12623.8	12499.9
12.5°	13286.9	13063.0	12565.7	12021.3	11759.8
15°	13225.4	12878.4	12051.2	11159.9	10865.1
17.5°	13130.5	12601.6	11359.9	10071.2	9576.4
20°	12993.8	12252.0	10499.3	8928.6	8309.9
22.5°	12817.8	11801.7	9462.7	7706.6	7205.8
25°	12576.8	11259.9	8408.2	6722.9	6184.6
27.5°	12307.6	10650.6	7413.4	5692.3	5221.5
30°	11979.4	9909.7	6469.1	4789.9	4400.2
32.5°	11606.0	9146.5	5430.0	4022.5	3752.4
35°	11218.9	8296.2	4501.0	3449.9	3192.7
37.5°	10822.3	7331.4	3800.3	2958.5	2773.1
40°	10459.1	6255.5	3232.0	2567.1	2419.3
42.5°	10069.5	5245.4	2794.5	2254.4	2163.8
45°	9646.4	4322.4	2410.8	2032.2	1983.5
47.5°	9168.7	3646.5	2111.7	1862.1	1816.8
50°	8586.8	3097.0	1880.9	1685.2	1682.7
52.5°	7933.0	2665.4	1675.8	1557.0	1579.3
55°	7082.7	2293.7	1502.3	1455.3	1504.9
57.5°	6071.8	1990.3	1360.5	1376.7	1416.0
60°	4949.7	1716.8	1236.6	1250.2	1197.3
62.5°	3957.5	1477.6	1124.6	1052.8	985.3
65°	3108.1	1273.3	1019.5	865.7	817.8
67.5°	2423.6	1084.5	853.7	710.2	650.3
70°	1886.9	921.2	678.5	544.4	449.5
72.5°	1441.7	766.6	535.0	334.1	253.8
75°	1075.9	622.1	388.8	204.2	184.6
77.5°	781.1	465.7	217.1	149.6	139.3
80°	524.7	314.5	127.3	109.4	104.3
82.5°	334.1	164.9	88.0	76.9	70.9
85°	169.2	67.5	54.7	47.0	41.9
87.5°	59.0	32.5	24.8	19.7	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)