

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: P470134

Luminaire Tested: **VHB2-24-N-UNV-L835-CD-U**

Issue Date: 01/20/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P470134  
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-L835-CD-U  
Description: VHB2 LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21921.0 lumens  
Efficiency: N/A  
Efficacy: 137.7 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

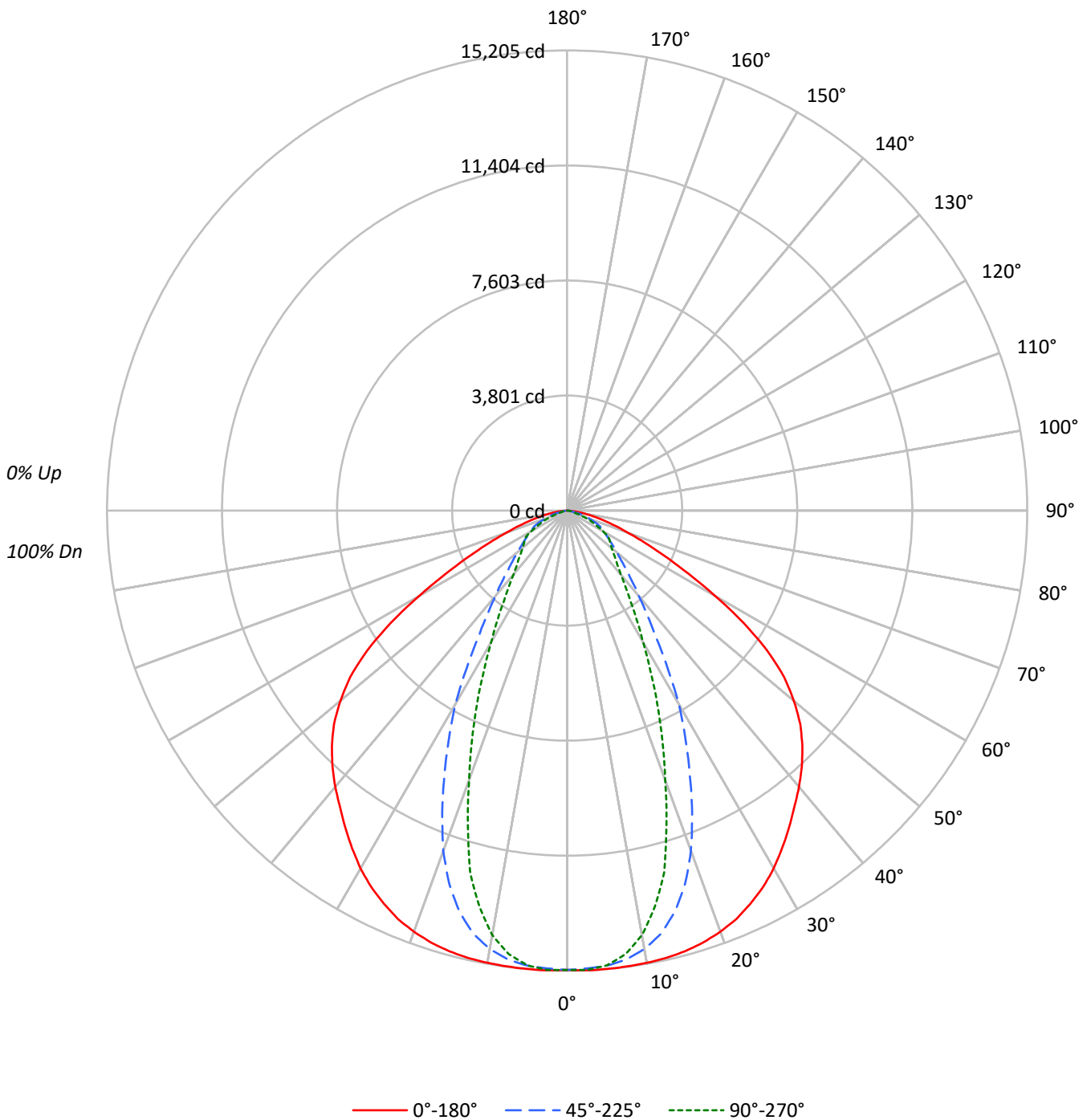
Input Watts (W): 159.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P470134

CATALOG NUMBER: VHB2-24-N-UNV-L835-CD-U

### Luminous Intensity Polar Plot





TEST NUMBER: P470134

CATALOG NUMBER: VHB2-24-N-UNV-L835-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	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°	93356	93356	93356
5°	93875	93190	93117
10°	94772	91859	88963
15°	95967	87447	78840
20°	96919	78313	61982
25°	97264	65026	47829
30°	96954	52357	35612
35°	95994	38513	27318
40°	95698	29572	22136
45°	95619	23896	19660
50°	93631	20510	18347
55°	86550	18359	18390
60°	69386	17334	16783
65°	51547	16909	13563
70°	38669	13905	9211
75°	29136	10530	4998
80°	21178	5140	4208
85°	13606	4397	3366



TEST NUMBER: P470134

CATALOG NUMBER: VHB2-24-N-UNV-L835-CD-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1430.1	6.5
10°-20°	3810.7	17.4
20°-30°	4668.1	21.3
30°-40°	4192.3	19.1
40°-50°	3248.0	14.8
50°-60°	2430.5	11.1
60°-70°	1458.3	6.7
70°-80°	578.2	2.6
80°-90°	104.9	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
0°-30°	9908.9	45.2
0°-40°	14101.2	64.3
0°-60°	19779.6	90.2
0°-90°	21921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	21921.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	15178	15178	15178	15178	15178	
5°	15204	15137	15093	15089	15082	###
15°	15071	14675	13733	12717	12381	4258
25°	14332	12831	9581	7661	7048	6602
35°	12784	9454	5129	3931	3638	8008
45°	10992	4926	2747	2316	2260	8452
55°	8071	2614	1712	1658	1715	7084
65°	3542	1451	1162	986	932	3628
75°	1226	709	443	233	210	1352
85°	193	77	62	54	48	256
90°	0	0	0	0	0	



TEST NUMBER: P470134

CATALOG NUMBER: VHB2-24-N-UNV-L835-CD-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	15177.9	15177.9	15177.9	15177.9	15177.9
2.5°	15205.2	15149.7	15141.9	15179.9	15190.6
5°	15204.2	15137.0	15093.2	15089.3	15081.5
7.5°	15191.6	15102.9	14961.7	14849.8	14783.5
10°	15174.0	15018.2	14707.6	14385.2	14244.0
12.5°	15140.9	14885.8	14319.0	13698.7	13400.7
15°	15070.8	14675.4	13732.8	12717.1	12381.1
17.5°	14962.7	14359.9	12945.0	11476.4	10912.6
20°	14806.9	13961.6	11964.3	10174.5	9469.4
22.5°	14606.3	13448.4	10783.1	8781.9	8211.2
25°	14331.7	12831.0	9581.4	7661.0	7047.5
27.5°	14024.9	12136.7	8447.9	6486.6	5950.0
30°	13651.0	11292.4	7371.8	5458.3	5014.2
32.5°	13225.4	10422.8	6187.6	4583.8	4276.0
35°	12784.3	9453.8	5129.1	3931.3	3638.2
37.5°	12332.4	8354.4	4330.6	3371.4	3160.0
40°	11918.6	7128.3	3683.0	2925.3	2756.9
42.5°	11474.5	5977.3	3184.4	2568.9	2465.7
45°	10992.5	4925.6	2747.1	2315.7	2260.2
47.5°	10448.1	4155.3	2406.3	2121.9	2070.3
50°	9784.9	3529.1	2143.4	1920.4	1917.4
52.5°	9040.0	3037.3	1909.7	1774.3	1799.6
55°	8071.0	2613.7	1712.0	1658.4	1714.9
57.5°	6919.0	2268.0	1550.3	1568.8	1613.6
60°	5640.4	1956.4	1409.1	1424.7	1364.3
62.5°	4509.8	1683.7	1281.5	1199.7	1122.8
65°	3541.8	1451.0	1161.8	986.5	931.9
67.5°	2761.7	1235.8	972.8	809.2	741.1
70°	2150.2	1049.8	773.2	620.3	512.2
72.5°	1642.8	873.5	609.6	380.8	289.2
75°	1226.0	708.9	443.1	232.7	210.3
77.5°	890.1	530.7	247.3	170.4	158.7
80°	597.9	358.4	145.1	124.6	118.8
82.5°	380.8	187.9	100.3	87.6	80.8
85°	192.8	76.9	62.3	53.6	47.7
87.5°	67.2	37.0	28.2	22.4	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)