

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: P417707

Luminaire Tested: **VHB-1824-N-UNV-L835-CD-U-LEVEL2**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417707
Test Lab: INNOVATION CENTER(G3)
Issue Date: 11/17/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB-1824-N-UNV-L835-CD-U-LEVEL2
Description: VHB 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: 21887.3 lumens
Efficiency: N/A
Efficacy: 138.3 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 0.74 / 0.88
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

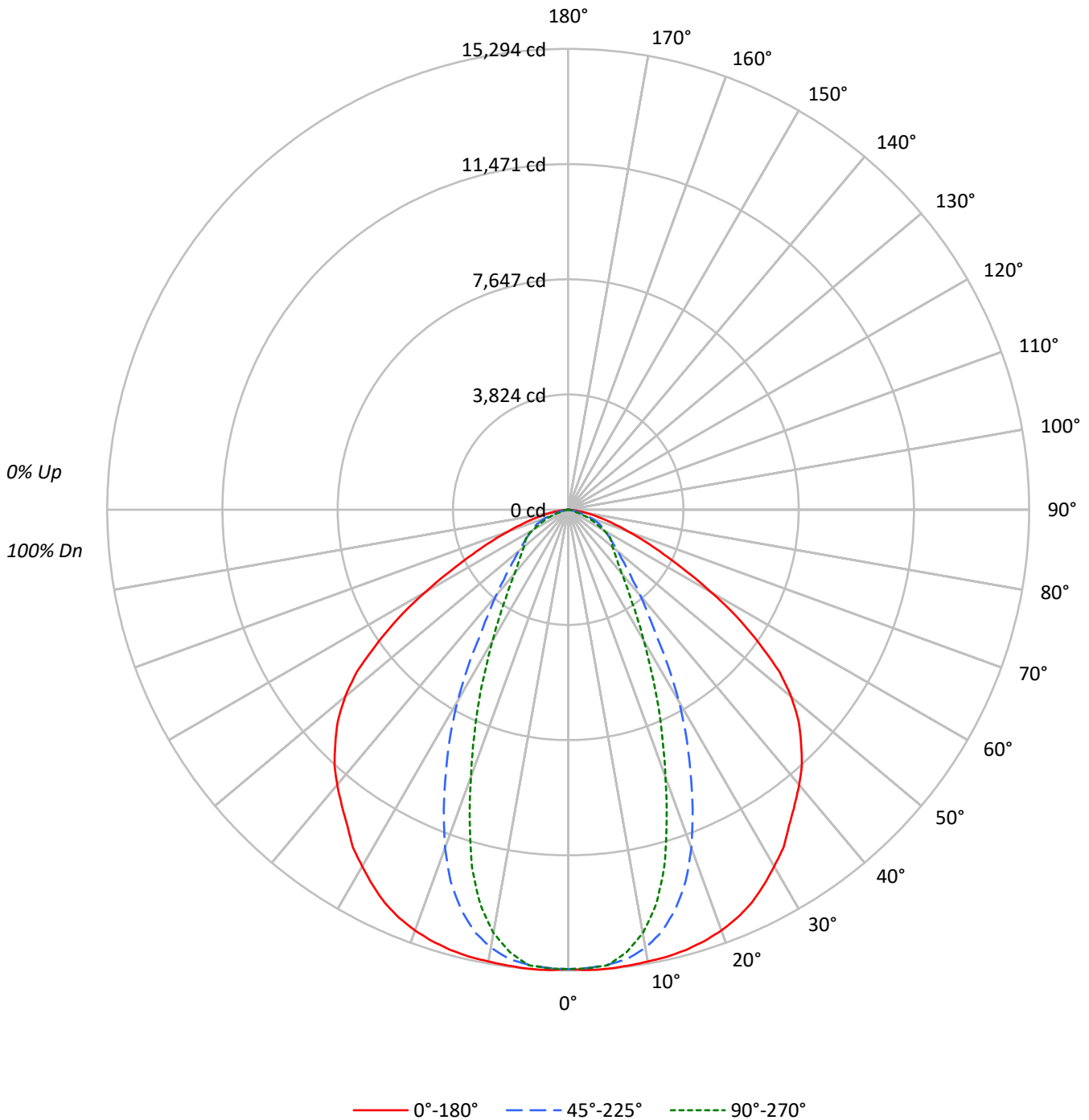
Input Watts (W): 158.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	66	58	53	64	57	53	62	57	52	61	56	52	50				50
7	73	61	54	48	71	61	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°	93791	93791	93791
5°	94427	93586	93689
10°	95097	92182	89097
15°	96293	87429	78369
20°	97267	78207	61684
25°	97715	65081	47531
30°	97060	52089	35581
35°	95952	38320	27237
40°	95717	29905	22153
45°	95039	24061	19640
50°	92466	20506	18319
55°	82890	18446	18483
60°	67356	17342	16628
65°	50810	16810	13518
70°	38539	13934	9245
75°	29167	10473	4955
80°	21065	5161	4070
85°	13543	4432	3430



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1434.8	6.6
10°-20°	3813.1	17.4
20°-30°	4664.6	21.3
30°-40°	4185.1	19.1
40°-50°	3244.8	14.8
50°-60°	2408.3	11.0
60°-70°	1452.6	6.6
70°-80°	579.4	2.6
80°-90°	104.6	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°	9912.4	45.3
0°-40°	14097.5	64.4
0°-60°	19750.7	90.2
0°-90°	21887.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	21887.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15249	15249	15249	15249	15249	
5°	15294	15198	15157	15114	15174	###
15°	15122	14708	13730	12709	12307	4273
25°	14398	12811	9590	7608	7004	6622
35°	12779	9392	5103	3899	3627	8020
45°	10926	4934	2766	2316	2258	8409
55°	7730	2637	1720	1662	1724	6868
65°	3491	1463	1155	986	929	3562
75°	1227	712	441	232	208	1346
85°	192	79	63	53	49	252
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	15248.6	15248.6	15248.6	15248.6	15248.6
2.5°	15292.5	15201.2	15223.7	15223.7	15228.5
5°	15293.6	15197.7	15157.4	15113.6	15174.0
7.5°	15259.3	15147.9	15036.6	14850.6	14811.5
10°	15226.1	15063.8	14759.4	14402.8	14265.4
12.5°	15192.9	14945.4	14349.5	13675.4	13438.5
15°	15121.9	14708.4	13729.9	12708.8	12307.2
17.5°	15011.7	14374.4	12949.2	11479.1	10861.9
20°	14860.1	13959.7	11948.2	10103.8	9423.8
22.5°	14661.0	13466.9	10781.4	8788.8	8158.6
25°	14398.1	12810.6	9589.6	7607.7	7003.6
27.5°	14048.6	12076.2	8471.3	6506.0	5905.4
30°	13666.0	11281.3	7334.1	5463.5	5009.8
32.5°	13290.4	10415.3	6190.9	4586.9	4262.3
35°	12778.7	9391.8	5103.4	3898.6	3627.4
37.5°	12343.9	8288.9	4325.1	3357.3	3161.8
40°	11921.0	7117.3	3724.5	2935.5	2759.0
42.5°	11475.6	5957.5	3168.9	2576.6	2472.3
45°	10925.9	4934.0	2766.1	2316.0	2257.9
47.5°	10360.8	4178.2	2398.9	2119.3	2074.3
50°	9663.1	3539.7	2143.0	1925.0	1914.4
52.5°	8826.7	3039.8	1907.3	1780.5	1803.0
55°	7729.7	2637.0	1720.1	1662.0	1723.6
57.5°	6656.5	2280.4	1554.2	1572.0	1624.1
60°	5475.4	1960.6	1409.7	1440.5	1351.7
62.5°	4389.1	1702.3	1284.1	1196.5	1123.0
65°	3491.1	1463.0	1155.0	985.6	928.8
67.5°	2747.2	1247.4	975.0	806.7	735.7
70°	2143.0	1052.0	774.8	627.9	514.1
72.5°	1634.8	879.0	613.6	380.3	304.5
75°	1227.3	712.0	440.7	232.2	208.5
77.5°	879.0	534.3	257.1	169.4	159.9
80°	594.7	349.5	145.7	124.4	114.9
82.5°	370.8	193.1	99.5	87.7	81.7
85°	191.9	79.4	62.8	53.3	48.6
87.5°	67.5	35.5	28.4	22.5	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)