

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: P417719

Luminaire Tested: **VHB-1824-N-UNV-L935-CD-U-LEVEL2**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417719
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-L935-CD-U-LEVEL2
Description: VHB 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: 19207.3 lumens
Efficiency: N/A
Efficacy: 121.3 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

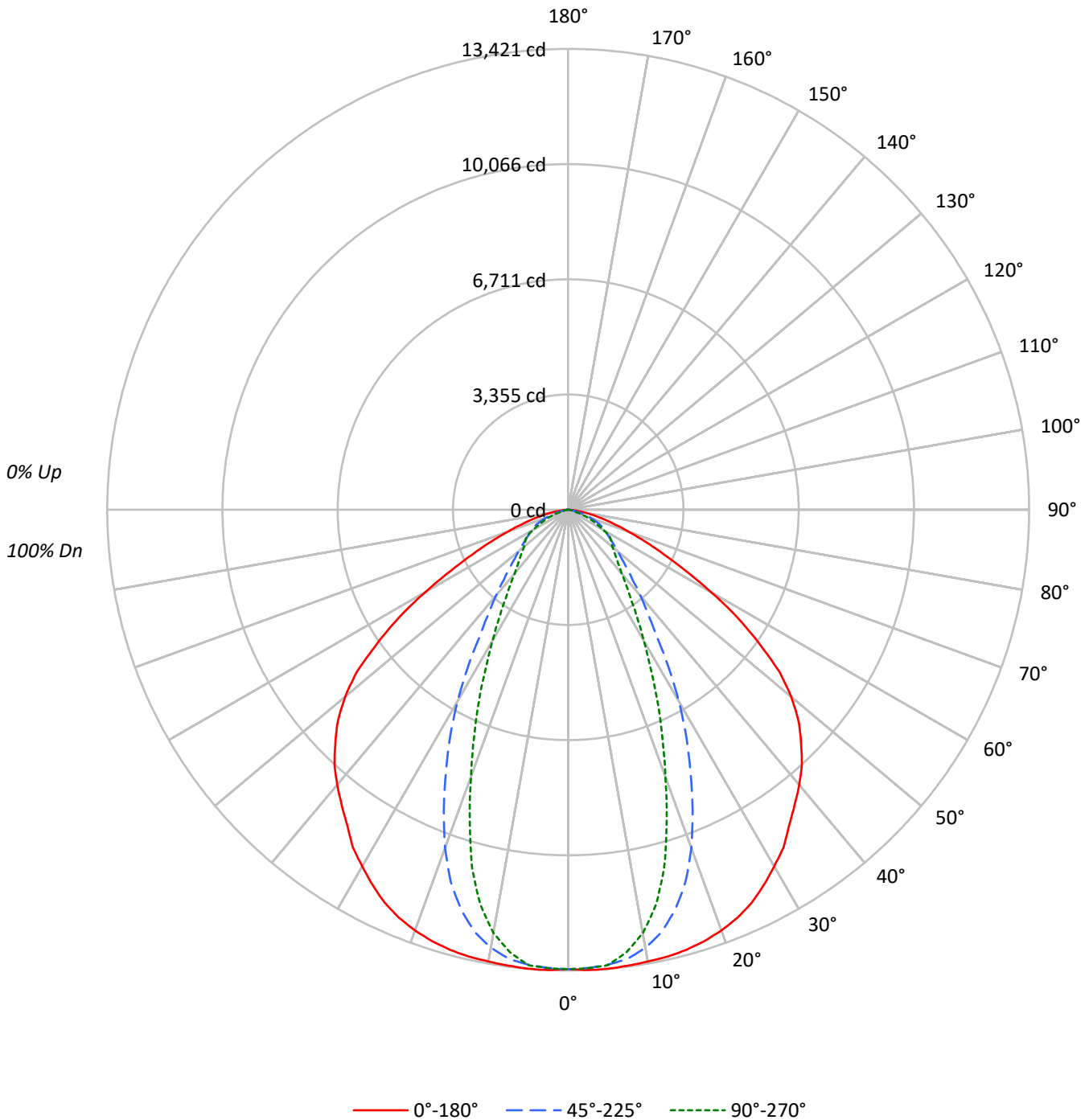
Input Watts (W): 158.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	82306	82306	82306
5°	82864	82127	82217
10°	83453	80895	78187
15°	84502	76723	68773
20°	85357	68631	54130
25°	85749	57112	41711
30°	85175	45711	31225
35°	84202	33628	23902
40°	83997	26243	19441
45°	83402	21115	17235
50°	81143	17995	16076
55°	72740	16187	16220
60°	59108	15218	14592
65°	44588	14752	11862
70°	33820	12227	8114
75°	25595	9190	4349
80°	18486	4530	3570
85°	11884	3889	3006



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1259.1	6.6
10°-20°	3346.2	17.4
20°-30°	4093.4	21.3
30°-40°	3672.6	19.1
40°-50°	2847.5	14.8
50°-60°	2113.5	11.0
60°-70°	1274.8	6.6
70°-80°	508.5	2.6
80°-90°	91.8	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°	8698.7	45.3
0°-40°	12371.3	64.4
0°-60°	17332.2	90.2
0°-90°	19207.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19207.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13381	13381	13381	13381	13381	
5°	13421	13337	13301	13263	13316	###
15°	13270	12907	12049	11153	10800	3750
25°	12635	11242	8415	6676	6146	5811
35°	11214	8242	4478	3421	3183	7038
45°	9588	4330	2427	2032	1981	7379
55°	6783	2314	1510	1458	1513	6027
65°	3064	1284	1014	865	815	3125
75°	1077	625	387	204	183	1181
85°	168	70	55	47	43	221
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13381.4	13381.4	13381.4	13381.4	13381.4
2.5°	13419.9	13339.9	13359.6	13359.6	13363.8
5°	13420.9	13336.7	13301.4	13262.9	13316.0
7.5°	13390.8	13293.1	13195.4	13032.1	12997.8
10°	13361.7	13219.3	12952.1	12639.2	12518.6
12.5°	13332.6	13115.3	12592.4	12000.9	11793.0
15°	13270.2	12907.4	12048.7	11152.6	10800.2
17.5°	13173.5	12614.2	11363.6	10073.5	9531.9
20°	13040.5	12250.4	10485.2	8866.6	8269.8
22.5°	12865.8	11817.9	9461.2	7712.6	7159.6
25°	12635.0	11242.0	8415.4	6676.2	6146.0
27.5°	12328.4	10597.5	7434.0	5709.4	5182.3
30°	11992.6	9899.9	6436.0	4794.5	4396.4
32.5°	11663.0	9140.0	5432.8	4025.2	3740.4
35°	11213.9	8241.8	4478.5	3421.3	3183.2
37.5°	10832.4	7273.9	3795.5	2946.2	2774.6
40°	10461.3	6245.8	3268.4	2576.1	2421.2
42.5°	10070.4	5228.0	2780.9	2261.1	2169.6
45°	9588.0	4329.8	2427.4	2032.4	1981.4
47.5°	9092.1	3666.6	2105.1	1859.8	1820.3
50°	8479.8	3106.3	1880.6	1689.3	1680.0
52.5°	7745.9	2667.6	1673.7	1562.5	1582.2
55°	6783.2	2314.1	1509.5	1458.5	1512.6
57.5°	5841.4	2001.2	1363.9	1379.5	1425.3
60°	4804.9	1720.5	1237.1	1264.1	1186.2
62.5°	3851.6	1493.9	1126.9	1050.0	985.5
65°	3063.6	1283.9	1013.6	864.9	815.0
67.5°	2410.8	1094.7	855.6	708.0	645.6
70°	1880.6	923.1	679.9	551.0	451.2
72.5°	1434.6	771.4	538.5	333.7	267.2
75°	1077.0	624.8	386.7	203.8	183.0
77.5°	771.4	468.8	225.6	148.7	140.3
80°	521.9	306.7	127.9	109.2	100.8
82.5°	325.4	169.5	87.3	76.9	71.7
85°	168.4	69.7	55.1	46.8	42.6
87.5°	59.3	31.2	24.9	19.8	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)