

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: P417698

Luminaire Tested: **VHB-1824-N-UNV-L740-CD-U-LEVEL1**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417698
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-L740-CD-U-LEVEL1
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS
Light Source: 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19696.6 lumens
Efficiency: N/A
Efficacy: 156.9 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

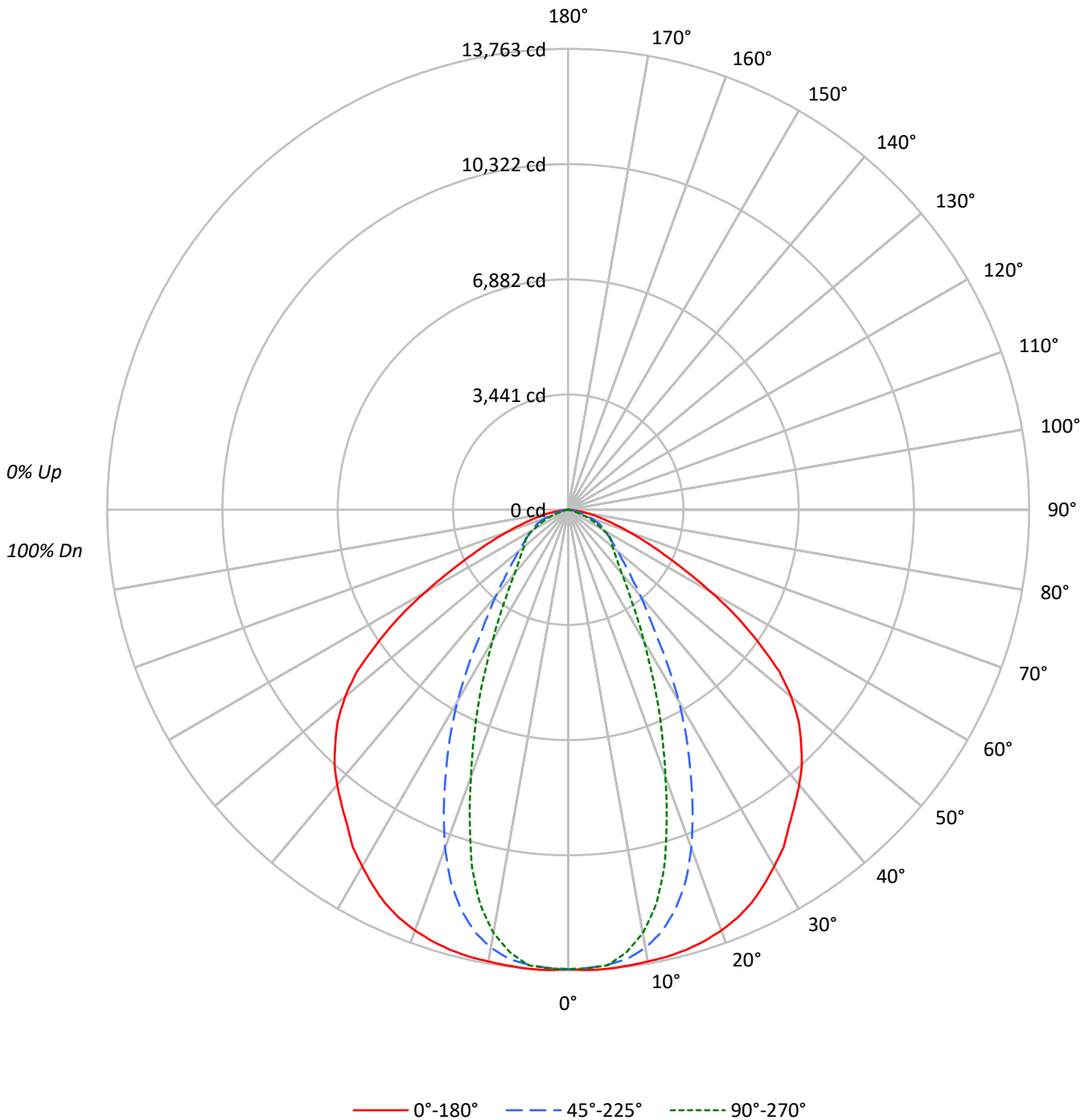
Input Watts (W): 125.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	84403	84403	84403
5°	84976	84219	84311
10°	85579	82956	80179
15°	86654	78678	70525
20°	87531	70380	55509
25°	87934	58567	42774
30°	87345	46875	32020
35°	86347	34485	24511
40°	86137	26912	19936
45°	85527	21653	17675
50°	83210	18454	16485
55°	74594	16599	16633
60°	60614	15606	14964
65°	45724	15127	12164
70°	34682	12538	8321
75°	26246	9425	4458
80°	18957	4644	3663
85°	12188	3987	3084



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1291.2	6.6
10°-20°	3431.4	17.4
20°-30°	4197.7	21.3
30°-40°	3766.2	19.1
40°-50°	2920.1	14.8
50°-60°	2167.3	11.0
60°-70°	1307.2	6.6
70°-80°	521.4	2.6
80°-90°	94.1	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°	8920.3	45.3
0°-40°	12686.4	64.4
0°-60°	17773.8	90.2
0°-90°	19696.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19696.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13722	13722	13722	13722	13722	
5°	13763	13676	13640	13601	13655	###
15°	13608	13236	12356	11437	11075	3845
25°	12957	11528	8630	6846	6303	5960
35°	11500	8452	4593	3508	3264	7217
45°	9832	4440	2489	2084	2032	7567
55°	6956	2373	1548	1496	1551	6180
65°	3142	1317	1039	887	836	3205
75°	1104	641	397	209	188	1211
85°	173	71	56	48	44	227
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13722.3	13722.3	13722.3	13722.3	13722.3
2.5°	13761.8	13679.7	13700.0	13700.0	13704.2
5°	13762.9	13676.5	13640.3	13600.8	13655.2
7.5°	13731.9	13631.7	13531.5	13364.2	13329.0
10°	13702.1	13556.0	13282.1	12961.2	12837.5
12.5°	13672.2	13449.4	12913.2	12306.6	12093.4
15°	13608.3	13236.2	12355.7	11436.7	11075.3
17.5°	13509.1	12935.6	11653.1	10330.1	9774.7
20°	13372.7	12562.5	10752.3	9092.4	8480.5
22.5°	13193.6	12119.0	9702.2	7909.1	7342.0
25°	12956.9	11528.4	8629.8	6846.2	6302.6
27.5°	12642.4	10867.4	7623.4	5854.8	5314.3
30°	12298.1	10152.1	6600.0	4916.7	4508.4
32.5°	11960.1	9372.8	5571.2	4127.8	3835.7
35°	11499.6	8451.7	4592.6	3508.4	3264.3
37.5°	11108.4	7459.2	3892.2	3021.2	2845.3
40°	10727.8	6404.9	3351.7	2641.7	2482.9
42.5°	10326.9	5361.2	2851.7	2318.7	2224.9
45°	9832.3	4440.1	2489.3	2084.2	2031.9
47.5°	9323.8	3760.0	2158.8	1907.2	1866.7
50°	8695.9	3185.4	1928.5	1732.4	1722.8
52.5°	7943.2	2735.5	1716.4	1602.3	1622.5
55°	6956.1	2373.1	1547.9	1495.7	1551.1
57.5°	5990.2	2052.2	1398.7	1414.7	1461.6
60°	4927.3	1764.3	1268.6	1296.3	1216.4
62.5°	3949.8	1531.9	1155.6	1076.7	1010.6
65°	3141.7	1316.6	1039.4	887.0	835.8
67.5°	2472.2	1122.6	877.4	726.0	662.0
70°	1928.5	946.7	697.2	565.0	462.7
72.5°	1471.2	791.0	552.2	342.2	274.0
75°	1104.4	640.7	396.6	208.9	187.6
77.5°	791.0	480.8	231.3	152.4	143.9
80°	535.2	314.5	131.1	111.9	103.4
82.5°	333.7	173.8	89.5	78.9	73.6
85°	172.7	71.4	56.5	48.0	43.7
87.5°	60.8	32.0	25.6	20.3	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)