

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: P417731

Luminaire Tested: **VHB-1824-W-UNV-L735-CD-U-LEVEL2**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417731
Test Lab: INNOVATION CENTER(G3)
Issue Date: 11/17/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB-1824-W-UNV-L735-CD-U-LEVEL2
Description: VHB LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24141.6 lumens
Efficiency: N/A
Efficacy: 152.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

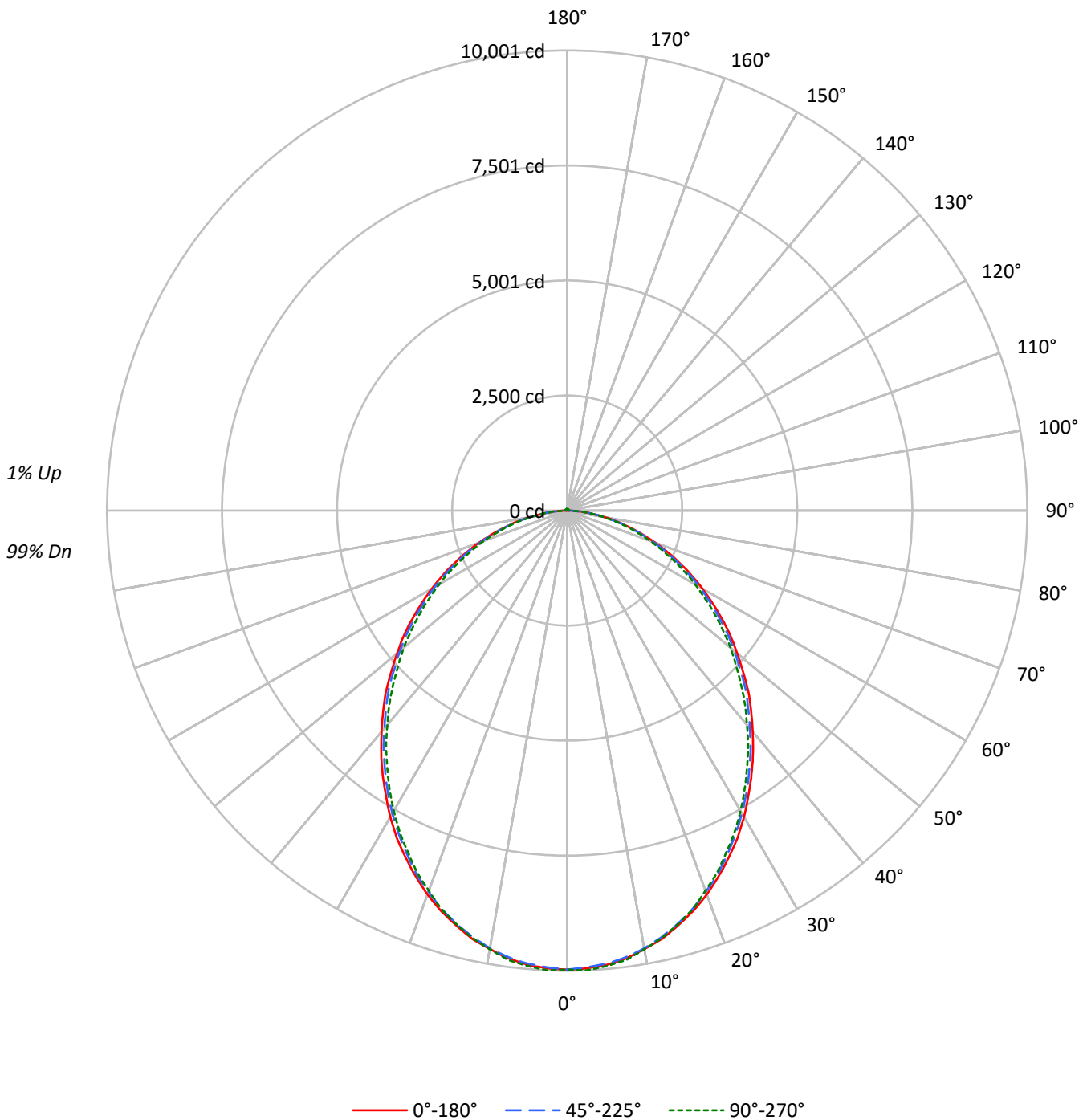
Input Watts (W): 158.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P417731

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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	100	92	85	79	97	90	84	78	86	81	76	83	78	75	79	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	84	72	63	57	81	71	63	57	68	61	56	66	60	55	63	58	54	52
5	77	65	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	46	42	40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	37	35
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	61365	61365	61365
5°	61180	61025	61335
10°	60443	60326	60459
15°	59409	59209	59241
20°	58115	57695	57539
25°	56426	55923	55591
30°	54598	53973	53536
35°	52486	51806	51184
40°	50364	49586	48820
45°	48463	47698	46506
50°	46110	45401	44342
55°	44074	43117	41945
60°	41796	40868	39539
65°	39337	38385	37014
70°	36448	35771	34527
75°	33204	32757	31621
80°	29686	29198	28174
85°	25180	25180	24566



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	938.0	3.9
10°-20°	2620.2	10.9
20°-30°	3796.4	15.7
30°-40°	4318.1	17.9
40°-50°	4210.7	17.4
50°-60°	3594.8	14.9
60°-70°	2609.7	10.8
70°-80°	1457.2	6.0
80°-90°	409.2	1.7
90°-100°	29.0	0.1
100°-110°	28.8	0.1
110°-120°	28.2	0.1
120°-130°	27.1	0.1
130°-140°	25.6	0.1
140°-150°	22.1	0.1
150°-160°	15.4	0.1
160°-170°	8.5	0.0
170°-180°	2.5	0.0
0°-30°	7354.7	30.5
0°-40°	11672.8	48.4
0°-60°	19478.3	80.7
0°-90°	23954.3	99.2
90°-120°	86.0	0.4
90°-150°	160.8	0.7
90°-180°	187.0	0.8
0°-180°	24141.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9977	9977	9977	9977	9977	
5°	9909	9886	9884	9918	9934	938
15°	9330	9313	9298	9297	9303	2629
25°	8314	8285	8240	8210	8191	3828
35°	6990	6967	6900	6835	6817	4371
45°	5571	5519	5483	5382	5346	4287
55°	4110	4092	4021	3937	3912	3676
65°	2703	2683	2637	2576	2543	2680
75°	1397	1405	1378	1344	1331	1494
85°	357	364	357	347	348	390
90°	25	28	33	39	36	30
95°	11	19	28	33	34	11
105°	21	21	26	33	35	22
115°	25	25	28	31	34	24
125°	26	29	29	33	33	24
135°	30	33	34	34	34	23
145°	29	34	36	39	39	18
155°	28	30	35	36	36	13
165°	23	26	30	34	34	7
175°	25	25	26	28	29	2
180°	25	25	25	25	25	



TEST NUMBER: P417731

CATALOG NUMBER: VHB-1824-W-UNV-L735-CD-U-LEVEL2

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9976.7	9976.7	9976.7	9976.7	9976.7
2.5°	9956.6	9930.2	9935.2	9967.9	10000.6
5°	9908.8	9886.2	9883.7	9917.6	9934.0
7.5°	9815.8	9792.0	9790.7	9829.7	9848.5
10°	9677.6	9671.3	9658.8	9685.2	9680.1
12.5°	9533.1	9497.9	9491.7	9513.0	9514.3
15°	9329.6	9313.2	9298.2	9296.9	9303.2
17.5°	9121.0	9085.8	9077.0	9072.0	9084.6
20°	8878.5	8839.5	8814.4	8809.4	8790.5
22.5°	8603.3	8579.4	8555.6	8514.1	8517.9
25°	8314.3	8285.4	8240.2	8210.0	8191.2
27.5°	8019.0	7973.8	7926.1	7898.4	7882.1
30°	7687.3	7659.7	7599.4	7547.8	7537.8
32.5°	7335.5	7316.7	7256.3	7211.1	7180.9
35°	6990.0	6967.3	6899.5	6835.4	6816.6
37.5°	6638.1	6610.5	6552.7	6496.2	6464.7
40°	6272.5	6252.4	6175.7	6107.9	6080.2
42.5°	5919.4	5893.0	5823.9	5741.0	5724.7
45°	5571.4	5518.6	5483.4	5381.6	5346.4
47.5°	5185.6	5171.8	5096.4	5014.7	4975.8
50°	4818.7	4809.9	4744.6	4652.9	4634.0
52.5°	4482.0	4446.8	4386.5	4303.5	4260.8
55°	4110.0	4092.4	4020.8	3936.6	3911.5
57.5°	3745.7	3745.7	3669.0	3597.4	3554.7
60°	3397.6	3376.2	3322.2	3253.1	3214.1
62.5°	3047.0	3029.4	2983.0	2913.8	2878.7
65°	2702.8	2682.6	2637.4	2575.8	2543.2
67.5°	2373.5	2349.7	2320.8	2240.4	2219.0
70°	2026.7	2021.7	1989.1	1933.8	1919.9
72.5°	1715.1	1710.1	1672.4	1623.4	1608.3
75°	1397.2	1404.8	1378.4	1344.5	1330.6
77.5°	1120.8	1113.3	1088.1	1068.0	1044.2
80°	838.1	835.6	824.3	796.6	795.4
82.5°	579.3	589.3	580.5	560.4	552.9
85°	356.8	364.4	356.8	346.8	348.1
87.5°	159.6	162.1	153.3	138.2	128.2
90°	25.1	27.6	32.7	39.0	36.4
92.5°	8.8	18.8	27.6	32.7	33.9
95°	11.3	18.8	27.6	32.7	33.9
97.5°	16.3	18.8	27.6	32.7	35.2
100°	18.8	20.1	27.6	32.7	35.2
102.5°	20.1	20.1	27.6	32.7	35.2
105°	21.4	21.4	26.4	32.7	35.2
107.5°	22.6	21.4	26.4	32.7	35.2
110°	22.6	22.6	26.4	32.7	33.9



TEST NUMBER: P417731

CATALOG NUMBER: VHB-1824-W-UNV-L735-CD-U-LEVEL2

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	23.9	23.9	27.6	31.4	33.9
115°	25.1	25.1	27.6	31.4	33.9
117.5°	25.1	26.4	27.6	32.7	33.9
120°	26.4	27.6	27.6	32.7	32.7
122.5°	26.4	28.9	28.9	32.7	32.7
125°	26.4	28.9	28.9	32.7	32.7
127.5°	27.6	30.2	28.9	32.7	32.7
130°	28.9	30.2	31.4	32.7	32.7
132.5°	28.9	31.4	32.7	33.9	32.7
135°	30.2	32.7	33.9	33.9	33.9
137.5°	31.4	32.7	35.2	35.2	35.2
140°	31.4	33.9	35.2	36.4	36.4
142.5°	28.9	33.9	35.2	37.7	37.7
145°	28.9	33.9	36.4	39.0	39.0
147.5°	27.6	32.7	35.2	39.0	39.0
150°	27.6	31.4	35.2	37.7	37.7
152.5°	28.9	30.2	35.2	36.4	37.7
155°	27.6	30.2	35.2	36.4	36.4
157.5°	26.4	28.9	33.9	36.4	37.7
160°	25.1	28.9	32.7	36.4	36.4
162.5°	23.9	27.6	31.4	35.2	36.4
165°	22.6	26.4	30.2	33.9	33.9
167.5°	22.6	26.4	28.9	31.4	32.7
170°	23.9	25.1	27.6	28.9	30.2
172.5°	25.1	25.1	27.6	27.6	27.6
175°	25.1	25.1	26.4	27.6	28.9
177.5°	26.4	25.1	25.1	27.6	27.6
180°	25.1	25.1	25.1	25.1	25.1

(END OF REPORT)