

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: P417694

Luminaire Tested: **VHB-1824-N-UNV-L735-CD-U-LEVEL1**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417694
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-L735-CD-U-LEVEL1
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS
Light Source: 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19512.5 lumens
Efficiency: N/A
Efficacy: 155.5 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

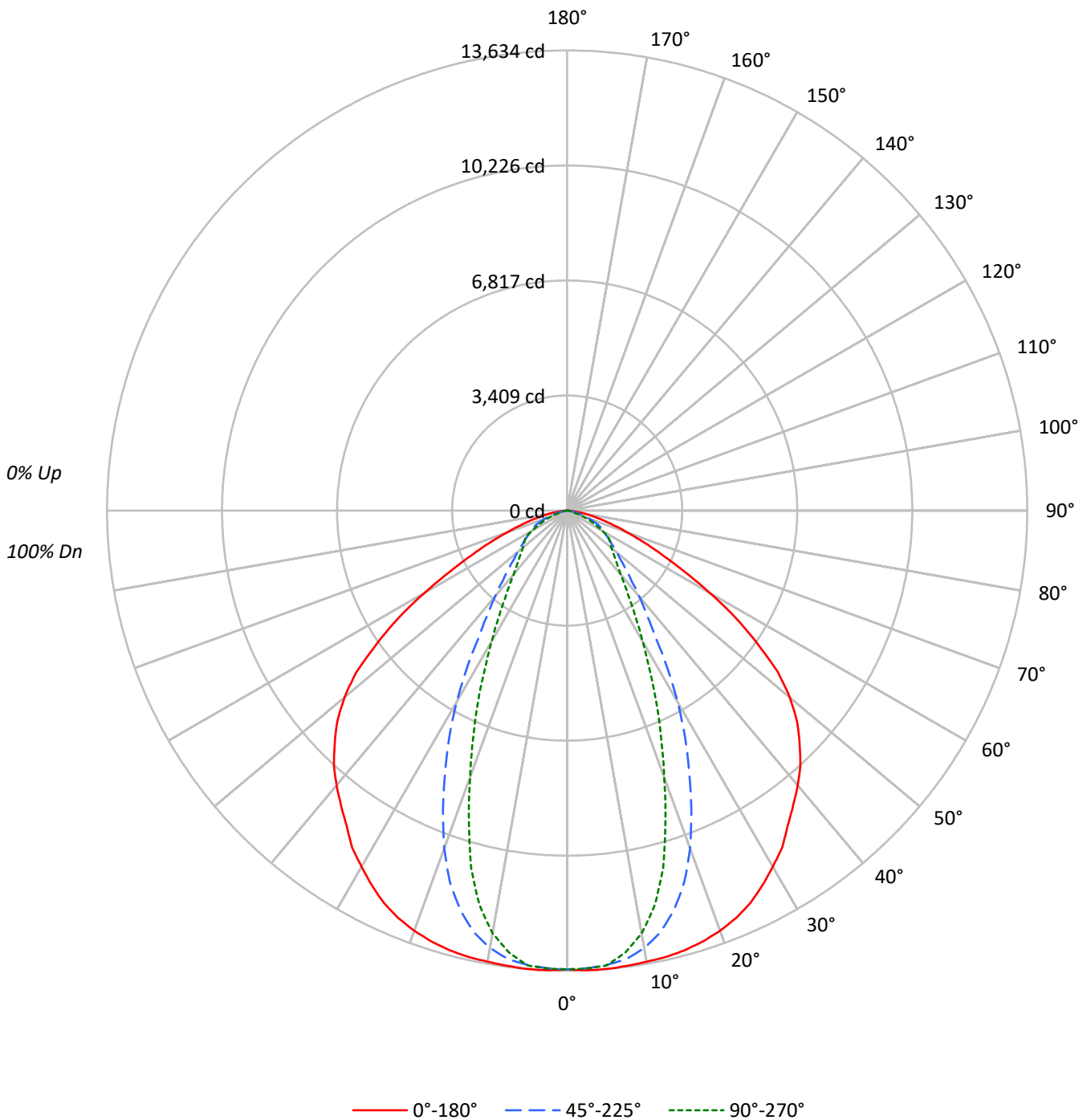
Input Watts (W): 125.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	83614	83614	83614
5°	84181	83432	83523
10°	84779	82180	79429
15°	85845	77943	69866
20°	86713	69722	54991
25°	87112	58020	42374
30°	86529	46437	31720
35°	85540	34162	24282
40°	85331	26660	19750
45°	84727	21451	17509
50°	82433	18281	16331
55°	73896	16445	16478
60°	60048	15461	14823
65°	45296	14986	12051
70°	34358	12421	8242
75°	26001	9337	4418
80°	18780	4601	3627
85°	12075	3952	3056



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1279.1	6.6
10°-20°	3399.3	17.4
20°-30°	4158.5	21.3
30°-40°	3731.0	19.1
40°-50°	2892.8	14.8
50°-60°	2147.0	11.0
60°-70°	1295.0	6.6
70°-80°	516.6	2.6
80°-90°	93.2	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°	8836.9	45.3
0°-40°	12567.9	64.4
0°-60°	17607.7	90.2
0°-90°	19512.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19512.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13594	13594	13594	13594	13594	
5°	13634	13549	13513	13474	13528	###
15°	13481	13112	12240	11330	10972	3809
25°	12836	11421	8549	6782	6244	5904
35°	11392	8373	4550	3476	3234	7150
45°	9740	4399	2466	2065	2013	7496
55°	6891	2351	1534	1482	1537	6123
65°	3112	1304	1030	879	828	3175
75°	1094	635	393	207	186	1199
85°	171	71	56	48	43	225
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13594.1	13594.1	13594.1	13594.1	13594.1
2.5°	13633.2	13551.9	13571.9	13571.9	13576.1
5°	13634.2	13548.7	13512.8	13473.7	13527.6
7.5°	13603.6	13504.3	13405.1	13239.3	13204.4
10°	13574.0	13429.4	13157.9	12840.0	12717.5
12.5°	13544.5	13323.7	12792.5	12191.6	11980.4
15°	13481.1	13112.5	12240.2	11329.8	10971.8
17.5°	13382.9	12814.7	11544.2	10233.6	9683.4
20°	13247.7	12445.1	10651.8	9007.5	8401.3
22.5°	13070.3	12005.7	9611.6	7835.2	7273.4
25°	12835.8	11420.7	8549.1	6782.3	6243.7
27.5°	12524.3	10765.9	7552.2	5800.1	5264.7
30°	12183.2	10057.2	6538.3	4870.7	4466.2
32.5°	11848.4	9285.2	5519.2	4089.2	3799.8
35°	11392.1	8372.8	4549.7	3475.6	3233.8
37.5°	11004.5	7389.5	3855.8	2993.0	2818.7
40°	10627.5	6345.0	3320.4	2617.0	2459.7
42.5°	10230.4	5311.1	2825.1	2297.0	2204.1
45°	9740.4	4398.7	2466.0	2064.7	2012.9
47.5°	9236.6	3724.9	2138.6	1889.4	1849.2
50°	8614.6	3155.6	1910.5	1716.2	1706.7
52.5°	7869.0	2709.9	1700.3	1587.3	1607.4
55°	6891.0	2350.9	1533.5	1481.7	1536.6
57.5°	5934.2	2033.0	1385.6	1401.4	1447.9
60°	4881.3	1747.8	1256.8	1284.2	1205.0
62.5°	3912.8	1517.6	1144.8	1066.7	1001.2
65°	3112.3	1304.3	1029.7	878.7	828.0
67.5°	2449.1	1112.1	869.2	719.2	655.8
70°	1910.5	937.8	690.7	559.7	458.3
72.5°	1457.4	783.6	547.1	339.0	271.4
75°	1094.1	634.7	392.9	207.0	185.9
77.5°	783.6	476.3	229.2	151.0	142.6
80°	530.2	311.5	129.9	110.9	102.4
82.5°	330.6	172.1	88.7	78.2	72.9
85°	171.1	70.8	56.0	47.5	43.3
87.5°	60.2	31.7	25.3	20.1	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)