

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: P417742

Luminaire Tested: **VHB-1824-W-UNV-L835-CD-U-LEVEL1**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417742
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-L835-CD-U-LEVEL1
Description: VHB LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18395.9 lumens
Efficiency: N/A
Efficacy: 146.6 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

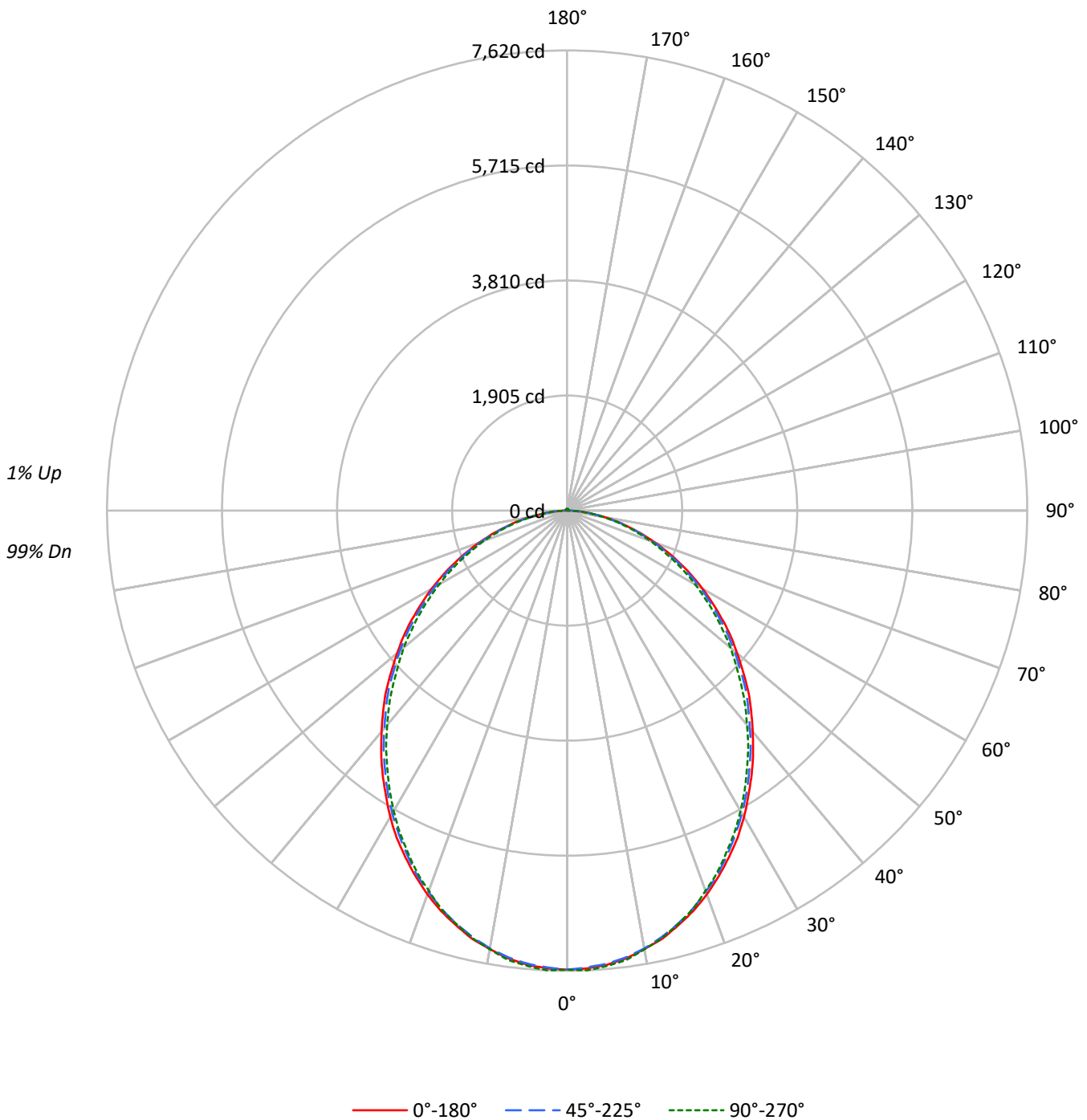
Input Watts (W): 125.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P417742

CATALOG NUMBER: VHB-1824-W-UNV-L835-CD-U-LEVEL1

Luminous Intensity Polar Plot





TEST NUMBER: P417742

CATALOG NUMBER: VHB-1824-W-UNV-L835-CD-U-LEVEL1

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°	46760	46760	46760
5°	46619	46500	46737
10°	46057	45968	46069
15°	45269	45117	45141
20°	44283	43964	43845
25°	42997	42613	42360
30°	41603	41127	40794
35°	39994	39476	39002
40°	38377	37785	37200
45°	36929	36345	35438
50°	35135	34596	33789
55°	33584	32856	31963
60°	31849	31141	30129
65°	29974	29249	28204
70°	27774	27258	26310
75°	25302	24960	24095
80°	22620	22248	21469
85°	19189	19189	18716



TEST NUMBER: P417742

CATALOG NUMBER: VHB-1824-W-UNV-L835-CD-U-LEVEL1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	714.8	3.9
10°-20°	1996.6	10.9
20°-30°	2892.9	15.7
30°-40°	3290.4	17.9
40°-50°	3208.5	17.4
50°-60°	2739.2	14.9
60°-70°	1988.6	10.8
70°-80°	1110.4	6.0
80°-90°	311.8	1.7
90°-100°	22.2	0.1
100°-110°	21.9	0.1
110°-120°	21.5	0.1
120°-130°	20.6	0.1
130°-140°	19.5	0.1
140°-150°	16.8	0.1
150°-160°	11.8	0.1
160°-170°	6.5	0.0
170°-180°	1.9	0.0
0°-30°	5604.2	30.5
0°-40°	8894.6	48.4
0°-60°	14842.4	80.7
0°-90°	18253.1	99.2
90°-120°	65.6	0.4
90°-150°	122.6	0.7
90°-180°	143.0	0.8
0°-180°	18395.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7602	7602	7602	7602	7602	
5°	7550	7533	7531	7557	7570	715
15°	7109	7097	7085	7084	7089	2003
25°	6336	6314	6279	6256	6242	2917
35°	5326	5309	5257	5209	5194	3331
45°	4245	4205	4178	4101	4074	3267
55°	3132	3118	3064	3000	2981	2801
65°	2060	2044	2010	1963	1938	2042
75°	1065	1070	1050	1024	1014	1138
85°	272	278	272	264	265	297
90°	19	21	25	30	28	23
95°	9	14	21	25	26	9
105°	16	16	20	25	27	17
115°	19	19	21	24	26	19
125°	20	22	22	25	25	18
135°	23	25	26	26	26	18
145°	22	26	28	30	30	14
155°	21	23	27	28	28	10
165°	17	20	23	26	26	5
175°	19	19	20	21	22	2
180°	19	19	19	19	19	



TEST NUMBER: P417742

CATALOG NUMBER: VHB-1824-W-UNV-L835-CD-U-LEVEL1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7602.2	7602.2	7602.2	7602.2	7602.2
2.5°	7586.9	7566.8	7570.6	7595.5	7620.4
5°	7550.5	7533.3	7531.3	7557.2	7569.6
7.5°	7479.6	7461.5	7460.5	7490.2	7504.5
10°	7374.3	7369.5	7360.0	7380.1	7376.2
12.5°	7264.2	7237.4	7232.6	7248.9	7249.9
15°	7109.1	7096.7	7085.2	7084.2	7089.0
17.5°	6950.2	6923.4	6916.7	6912.8	6922.4
20°	6765.4	6735.7	6716.6	6712.7	6698.4
22.5°	6555.7	6537.5	6519.3	6487.7	6490.6
25°	6335.5	6313.5	6279.0	6256.0	6241.7
27.5°	6110.5	6076.0	6039.6	6018.6	6006.1
30°	5857.7	5836.7	5790.7	5751.4	5743.8
32.5°	5589.6	5575.3	5529.3	5494.8	5471.9
35°	5326.3	5309.1	5257.4	5208.6	5194.2
37.5°	5058.2	5037.2	4993.1	4950.0	4926.1
40°	4779.6	4764.3	4705.9	4654.2	4633.1
42.5°	4510.6	4490.5	4437.8	4374.6	4362.2
45°	4245.4	4205.1	4178.3	4100.8	4074.0
47.5°	3951.4	3940.9	3883.4	3821.2	3791.5
50°	3671.8	3665.1	3615.4	3545.5	3531.1
52.5°	3415.2	3388.4	3342.5	3279.3	3246.7
55°	3131.8	3118.4	3063.9	2999.7	2980.6
57.5°	2854.2	2854.2	2795.8	2741.2	2708.6
60°	2589.0	2572.7	2531.5	2478.9	2449.2
62.5°	2321.8	2308.4	2273.0	2220.3	2193.5
65°	2059.5	2044.2	2009.7	1962.8	1937.9
67.5°	1808.6	1790.4	1768.4	1707.1	1690.9
70°	1544.4	1540.5	1515.7	1473.5	1463.0
72.5°	1306.9	1303.1	1274.4	1237.0	1225.5
75°	1064.7	1070.4	1050.3	1024.5	1013.9
77.5°	854.1	848.3	829.2	813.8	795.6
80°	638.6	636.7	628.1	607.0	606.1
82.5°	441.4	449.0	442.3	427.0	421.3
85°	271.9	277.7	271.9	264.3	265.2
87.5°	121.6	123.5	116.8	105.3	97.7
90°	19.1	21.1	24.9	29.7	27.8
92.5°	6.7	14.4	21.1	24.9	25.9
95°	8.6	14.4	21.1	24.9	25.9
97.5°	12.4	14.4	21.1	24.9	26.8
100°	14.4	15.3	21.1	24.9	26.8
102.5°	15.3	15.3	21.1	24.9	26.8
105°	16.3	16.3	20.1	24.9	26.8
107.5°	17.2	16.3	20.1	24.9	26.8
110°	17.2	17.2	20.1	24.9	25.9



TEST NUMBER: P417742

CATALOG NUMBER: VHB-1824-W-UNV-L835-CD-U-LEVEL1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	18.2	18.2	21.1	23.9	25.9
115°	19.1	19.1	21.1	23.9	25.9
117.5°	19.1	20.1	21.1	24.9	25.9
120°	20.1	21.1	21.1	24.9	24.9
122.5°	20.1	22.0	22.0	24.9	24.9
125°	20.1	22.0	22.0	24.9	24.9
127.5°	21.1	23.0	22.0	24.9	24.9
130°	22.0	23.0	23.9	24.9	24.9
132.5°	22.0	23.9	24.9	25.9	24.9
135°	23.0	24.9	25.9	25.9	25.9
137.5°	23.9	24.9	26.8	26.8	26.8
140°	23.9	25.9	26.8	27.8	27.8
142.5°	22.0	25.9	26.8	28.7	28.7
145°	22.0	25.9	27.8	29.7	29.7
147.5°	21.1	24.9	26.8	29.7	29.7
150°	21.1	23.9	26.8	28.7	28.7
152.5°	22.0	23.0	26.8	27.8	28.7
155°	21.1	23.0	26.8	27.8	27.8
157.5°	20.1	22.0	25.9	27.8	28.7
160°	19.1	22.0	24.9	27.8	27.8
162.5°	18.2	21.1	23.9	26.8	27.8
165°	17.2	20.1	23.0	25.9	25.9
167.5°	17.2	20.1	22.0	23.9	24.9
170°	18.2	19.1	21.1	22.0	23.0
172.5°	19.1	19.1	21.1	21.1	21.1
175°	19.1	19.1	20.1	21.1	22.0
177.5°	20.1	19.1	19.1	21.1	21.1
180°	19.1	19.1	19.1	19.1	19.1

(END OF REPORT)