

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: P417734

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

Issue Date: 11/17/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P417734  
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-L740-CD-U-LEVEL1  
Description: VHB LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS  
Light Source: 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20085.3 lumens  
Efficiency: N/A  
Efficacy: 160.0 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

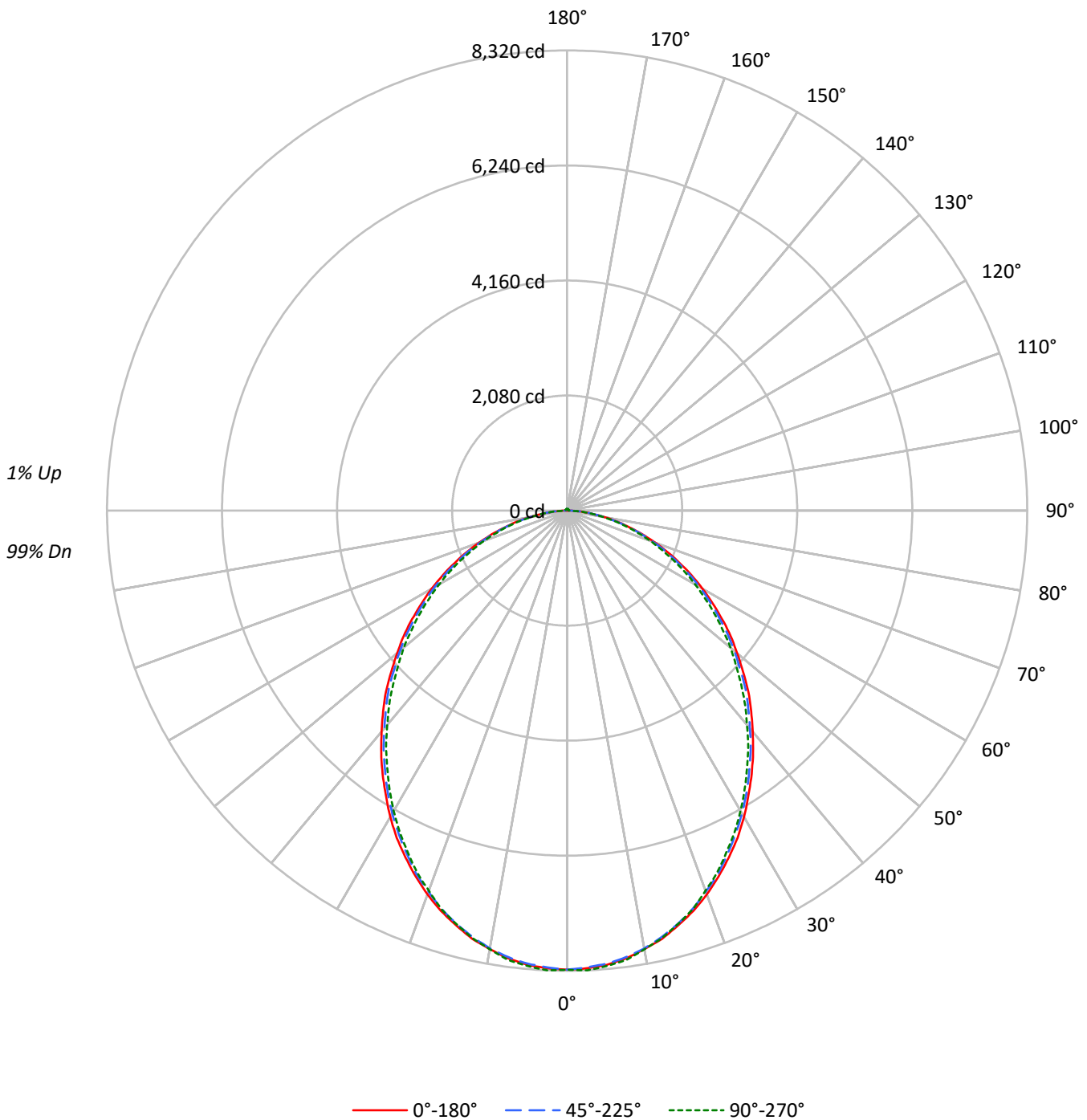
Input Watts (W): 125.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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°	51054	51054	51054
5°	50900	50771	51029
10°	50288	50190	50301
15°	49427	49260	49287
20°	48350	48001	47871
25°	46945	46527	46250
30°	45424	44904	44541
35°	43667	43102	42584
40°	41902	41255	40617
45°	40319	39684	38692
50°	38363	37772	36892
55°	36669	35873	34898
60°	34773	34002	32896
65°	32726	31936	30795
70°	30324	29759	28725
75°	27627	27254	26310
80°	24699	24292	23438
85°	20953	20953	20438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	780.4	3.9
10°-20°	2179.9	10.9
20°-30°	3158.5	15.7
30°-40°	3592.6	17.9
40°-50°	3503.2	17.4
50°-60°	2990.8	14.9
60°-70°	2171.2	10.8
70°-80°	1212.4	6.0
80°-90°	340.4	1.7
90°-100°	24.2	0.1
100°-110°	23.9	0.1
110°-120°	23.5	0.1
120°-130°	22.5	0.1
130°-140°	21.3	0.1
140°-150°	18.4	0.1
150°-160°	12.9	0.1
160°-170°	7.1	0.0
170°-180°	2.1	0.0
0°-30°	6118.9	30.5
0°-40°	9711.5	48.4
0°-60°	16205.5	80.7
0°-90°	19929.5	99.2
90°-120°	71.6	0.4
90°-150°	133.8	0.7
90°-180°	156.0	0.8
0°-180°	20085.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8300	8300	8300	8300	8300	
5°	8244	8225	8223	8251	8265	781
15°	7762	7748	7736	7735	7740	2187
25°	6917	6893	6856	6830	6815	3185
35°	5816	5797	5740	5687	5671	3637
45°	4635	4591	4562	4477	4448	3567
55°	3420	3405	3345	3275	3254	3059
65°	2249	2232	2194	2143	2116	2230
75°	1162	1169	1147	1119	1107	1243
85°	297	303	297	288	290	325
90°	21	23	27	32	30	25
95°	9	16	23	27	28	9
105°	18	18	22	27	29	19
115°	21	21	23	26	28	20
125°	22	24	24	27	27	20
135°	25	27	28	28	28	19
145°	24	28	30	32	32	15
155°	23	25	29	30	30	11
165°	19	22	25	28	28	6
175°	21	21	22	23	24	2
180°	21	21	21	21	21	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8300.4	8300.4	8300.4	8300.4	8300.4
2.5°	8283.6	8261.7	8265.9	8293.0	8320.2
5°	8243.9	8225.1	8223.0	8251.2	8264.8
7.5°	8166.6	8146.7	8145.6	8178.1	8193.7
10°	8051.6	8046.3	8035.9	8057.8	8053.7
12.5°	7931.3	7902.1	7896.8	7914.6	7915.7
15°	7762.0	7748.4	7735.9	7734.8	7740.0
17.5°	7588.5	7559.2	7551.9	7547.7	7558.1
20°	7386.7	7354.3	7333.4	7329.2	7313.5
22.5°	7157.8	7137.9	7118.0	7083.5	7086.7
25°	6917.3	6893.3	6855.6	6830.5	6814.9
27.5°	6671.7	6634.0	6594.3	6571.3	6557.7
30°	6395.7	6372.7	6322.5	6279.6	6271.3
32.5°	6103.0	6087.3	6037.1	5999.5	5974.4
35°	5815.5	5796.7	5740.2	5686.9	5671.2
37.5°	5522.8	5499.8	5451.7	5404.6	5378.5
40°	5218.6	5201.8	5138.1	5081.6	5058.6
42.5°	4924.8	4902.9	4845.4	4776.4	4762.8
45°	4635.2	4591.3	4562.1	4477.4	4448.1
47.5°	4314.3	4302.8	4240.1	4172.1	4139.7
50°	4009.1	4001.7	3947.4	3871.1	3855.4
52.5°	3728.9	3699.6	3649.4	3580.4	3544.9
55°	3419.5	3404.8	3345.2	3275.2	3254.3
57.5°	3116.3	3116.3	3052.5	2992.9	2957.4
60°	2826.7	2809.0	2764.0	2706.5	2674.1
62.5°	2535.1	2520.4	2481.7	2424.2	2395.0
65°	2248.6	2231.9	2194.3	2143.0	2115.9
67.5°	1974.7	1954.9	1930.8	1863.9	1846.2
70°	1686.2	1682.0	1654.8	1608.8	1597.3
72.5°	1427.0	1422.8	1391.4	1350.6	1338.1
75°	1162.5	1168.7	1146.8	1118.6	1107.1
77.5°	932.5	926.2	905.3	888.6	868.7
80°	697.3	695.2	685.8	662.8	661.7
82.5°	481.9	490.3	483.0	466.2	460.0
85°	296.9	303.2	296.9	288.5	289.6
87.5°	132.8	134.9	127.5	115.0	106.6
90°	20.9	23.0	27.2	32.4	30.3
92.5°	7.3	15.7	23.0	27.2	28.2
95°	9.4	15.7	23.0	27.2	28.2
97.5°	13.6	15.7	23.0	27.2	29.3
100°	15.7	16.7	23.0	27.2	29.3
102.5°	16.7	16.7	23.0	27.2	29.3
105°	17.8	17.8	22.0	27.2	29.3
107.5°	18.8	17.8	22.0	27.2	29.3
110°	18.8	18.8	22.0	27.2	28.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	19.9	19.9	23.0	26.1	28.2
115°	20.9	20.9	23.0	26.1	28.2
117.5°	20.9	22.0	23.0	27.2	28.2
120°	22.0	23.0	23.0	27.2	27.2
122.5°	22.0	24.0	24.0	27.2	27.2
125°	22.0	24.0	24.0	27.2	27.2
127.5°	23.0	25.1	24.0	27.2	27.2
130°	24.0	25.1	26.1	27.2	27.2
132.5°	24.0	26.1	27.2	28.2	27.2
135°	25.1	27.2	28.2	28.2	28.2
137.5°	26.1	27.2	29.3	29.3	29.3
140°	26.1	28.2	29.3	30.3	30.3
142.5°	24.0	28.2	29.3	31.4	31.4
145°	24.0	28.2	30.3	32.4	32.4
147.5°	23.0	27.2	29.3	32.4	32.4
150°	23.0	26.1	29.3	31.4	31.4
152.5°	24.0	25.1	29.3	30.3	31.4
155°	23.0	25.1	29.3	30.3	30.3
157.5°	22.0	24.0	28.2	30.3	31.4
160°	20.9	24.0	27.2	30.3	30.3
162.5°	19.9	23.0	26.1	29.3	30.3
165°	18.8	22.0	25.1	28.2	28.2
167.5°	18.8	22.0	24.0	26.1	27.2
170°	19.9	20.9	23.0	24.0	25.1
172.5°	20.9	20.9	23.0	23.0	23.0
175°	20.9	20.9	22.0	23.0	24.0
177.5°	22.0	20.9	20.9	23.0	23.0
180°	20.9	20.9	20.9	20.9	20.9

(END OF REPORT)