

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: P417730

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

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417730
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-LEVEL1
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: 19897.5 lumens
Efficiency: N/A
Efficacy: 158.5 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

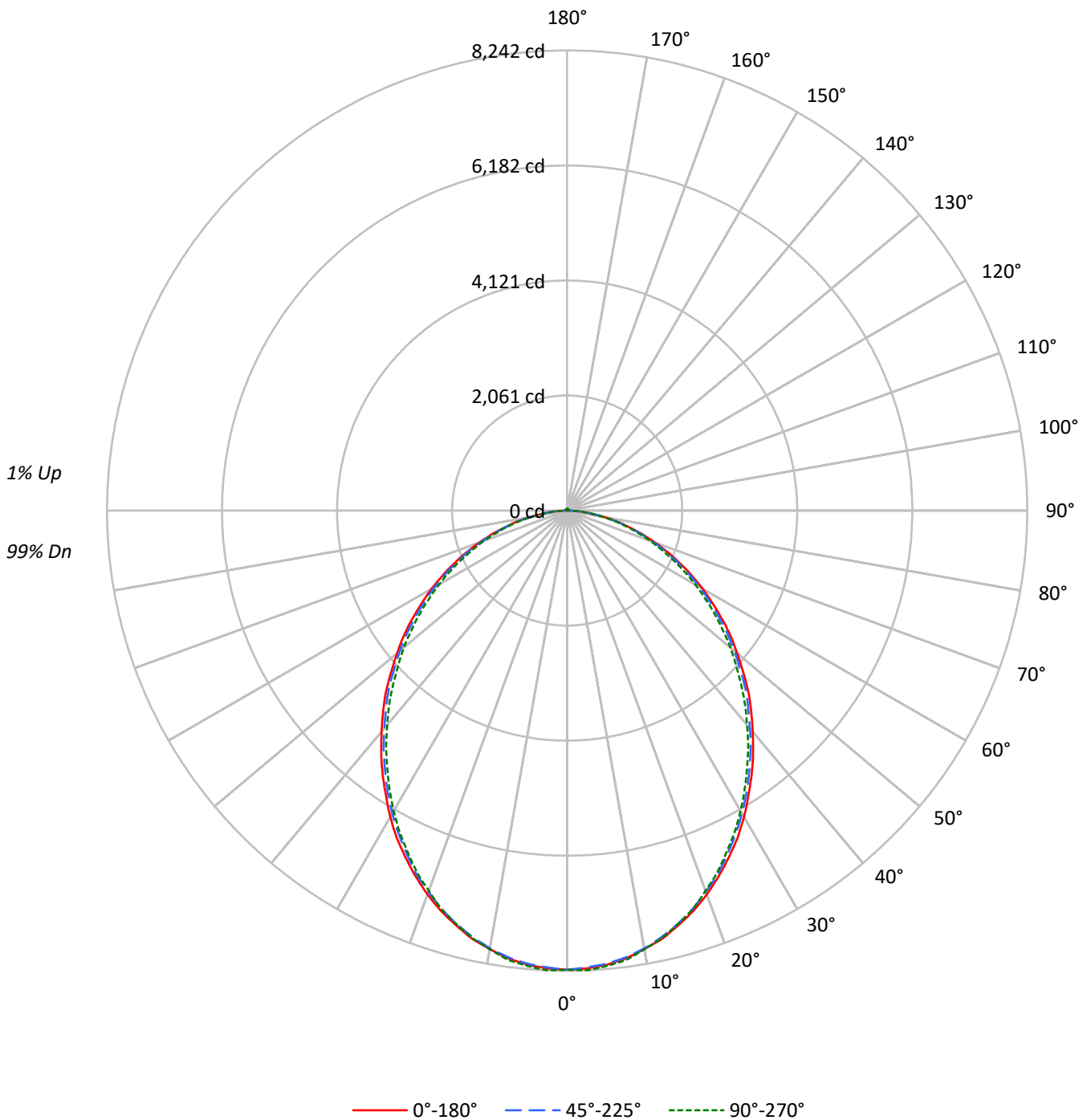
Input Watts (W): 125.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	50577	50577	50577
5°	50425	50297	50553
10°	49817	49721	49831
15°	48964	48800	48826
20°	47898	47552	47424
25°	46507	46092	45818
30°	45000	44485	44125
35°	43259	42699	42186
40°	41510	40870	40237
45°	39943	39312	38330
50°	38004	37419	36548
55°	36326	35538	34572
60°	34448	33684	32588
65°	32421	31638	30507
70°	30040	29482	28457
75°	27368	26999	26063
80°	24469	24065	23218
85°	20755	20755	20247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	773.1	3.9
10°-20°	2159.6	10.9
20°-30°	3129.0	15.7
30°-40°	3559.0	17.9
40°-50°	3470.4	17.4
50°-60°	2962.8	14.9
60°-70°	2151.0	10.8
70°-80°	1201.0	6.0
80°-90°	337.2	1.7
90°-100°	23.9	0.1
100°-110°	23.7	0.1
110°-120°	23.3	0.1
120°-130°	22.3	0.1
130°-140°	21.1	0.1
140°-150°	18.2	0.1
150°-160°	12.7	0.1
160°-170°	7.0	0.0
170°-180°	2.1	0.0
0°-30°	6061.7	30.5
0°-40°	9620.7	48.4
0°-60°	16054.0	80.7
0°-90°	19743.2	99.2
90°-120°	70.9	0.4
90°-150°	132.5	0.7
90°-180°	154.0	0.8
0°-180°	19897.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8223	8223	8223	8223	8223	
5°	8167	8148	8146	8174	8188	773
15°	7689	7676	7664	7662	7668	2167
25°	6853	6829	6792	6767	6751	3155
35°	5761	5742	5687	5634	5618	3603
45°	4592	4548	4519	4436	4406	3533
55°	3388	3373	3314	3245	3224	3030
65°	2228	2211	2174	2123	2096	2209
75°	1152	1158	1136	1108	1097	1231
85°	294	300	294	286	287	322
90°	21	23	27	32	30	25
95°	9	16	23	27	28	9
105°	18	18	22	27	29	18
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	10
165°	19	22	25	28	28	5
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°	8222.8	8222.8	8222.8	8222.8	8222.8
2.5°	8206.2	8184.5	8188.6	8215.5	8242.5
5°	8166.9	8148.2	8146.2	8174.1	8187.6
7.5°	8090.2	8070.6	8069.5	8101.6	8117.2
10°	7976.3	7971.1	7960.8	7982.5	7978.4
12.5°	7857.2	7828.2	7823.0	7840.6	7841.7
15°	7689.4	7676.0	7663.6	7662.5	7667.7
17.5°	7517.5	7488.5	7481.3	7477.1	7487.5
20°	7317.7	7285.6	7264.8	7260.7	7245.2
22.5°	7090.9	7071.2	7051.5	7017.3	7020.4
25°	6852.7	6828.8	6791.6	6766.7	6751.2
27.5°	6609.3	6572.0	6532.7	6509.9	6496.4
30°	6335.9	6313.1	6263.4	6220.9	6212.7
32.5°	6045.9	6030.4	5980.7	5943.4	5918.5
35°	5761.1	5742.5	5686.6	5633.7	5618.2
37.5°	5471.2	5448.4	5400.7	5354.1	5328.2
40°	5169.8	5153.2	5090.1	5034.1	5011.3
42.5°	4878.8	4857.0	4800.1	4731.7	4718.3
45°	4591.9	4548.4	4519.4	4435.5	4406.5
47.5°	4274.0	4262.6	4200.5	4133.1	4101.0
50°	3971.6	3964.3	3910.5	3834.9	3819.4
52.5°	3694.0	3665.0	3615.3	3547.0	3511.8
55°	3387.5	3373.0	3314.0	3244.6	3223.9
57.5°	3087.2	3087.2	3024.0	2965.0	2929.8
60°	2800.3	2782.7	2738.2	2681.2	2649.1
62.5°	2511.4	2496.9	2458.6	2401.6	2372.6
65°	2227.6	2211.0	2173.8	2123.0	2096.1
67.5°	1956.3	1936.6	1912.8	1846.5	1828.9
70°	1670.4	1666.3	1639.4	1593.8	1582.4
72.5°	1413.6	1409.5	1378.4	1338.0	1325.6
75°	1151.6	1157.8	1136.1	1108.1	1096.7
77.5°	923.8	917.6	896.8	880.3	860.6
80°	690.8	688.7	679.4	656.6	655.5
82.5°	477.4	485.7	478.5	461.9	455.7
85°	294.1	300.3	294.1	285.8	286.9
87.5°	131.5	133.6	126.3	113.9	105.6
90°	20.7	22.8	26.9	32.1	30.0
92.5°	7.2	15.5	22.8	26.9	28.0
95°	9.3	15.5	22.8	26.9	28.0
97.5°	13.5	15.5	22.8	26.9	29.0
100°	15.5	16.6	22.8	26.9	29.0
102.5°	16.6	16.6	22.8	26.9	29.0
105°	17.6	17.6	21.7	26.9	29.0
107.5°	18.6	17.6	21.7	26.9	29.0
110°	18.6	18.6	21.7	26.9	28.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	19.7	19.7	22.8	25.9	28.0
115°	20.7	20.7	22.8	25.9	28.0
117.5°	20.7	21.7	22.8	26.9	28.0
120°	21.7	22.8	22.8	26.9	26.9
122.5°	21.7	23.8	23.8	26.9	26.9
125°	21.7	23.8	23.8	26.9	26.9
127.5°	22.8	24.9	23.8	26.9	26.9
130°	23.8	24.9	25.9	26.9	26.9
132.5°	23.8	25.9	26.9	28.0	26.9
135°	24.9	26.9	28.0	28.0	28.0
137.5°	25.9	26.9	29.0	29.0	29.0
140°	25.9	28.0	29.0	30.0	30.0
142.5°	23.8	28.0	29.0	31.1	31.1
145°	23.8	28.0	30.0	32.1	32.1
147.5°	22.8	26.9	29.0	32.1	32.1
150°	22.8	25.9	29.0	31.1	31.1
152.5°	23.8	24.9	29.0	30.0	31.1
155°	22.8	24.9	29.0	30.0	30.0
157.5°	21.7	23.8	28.0	30.0	31.1
160°	20.7	23.8	26.9	30.0	30.0
162.5°	19.7	22.8	25.9	29.0	30.0
165°	18.6	21.7	24.9	28.0	28.0
167.5°	18.6	21.7	23.8	25.9	26.9
170°	19.7	20.7	22.8	23.8	24.9
172.5°	20.7	20.7	22.8	22.8	22.8
175°	20.7	20.7	21.7	22.8	23.8
177.5°	21.7	20.7	20.7	22.8	22.8
180°	20.7	20.7	20.7	20.7	20.7

(END OF REPORT)