

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: P417739

Luminaire Tested: **VHB-1824-W-UNV-L750-CD-U-LEVEL2**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417739
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-L750-CD-U-LEVEL2
Description: VHB LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24369.4 lumens
Efficiency: N/A
Efficacy: 153.9 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

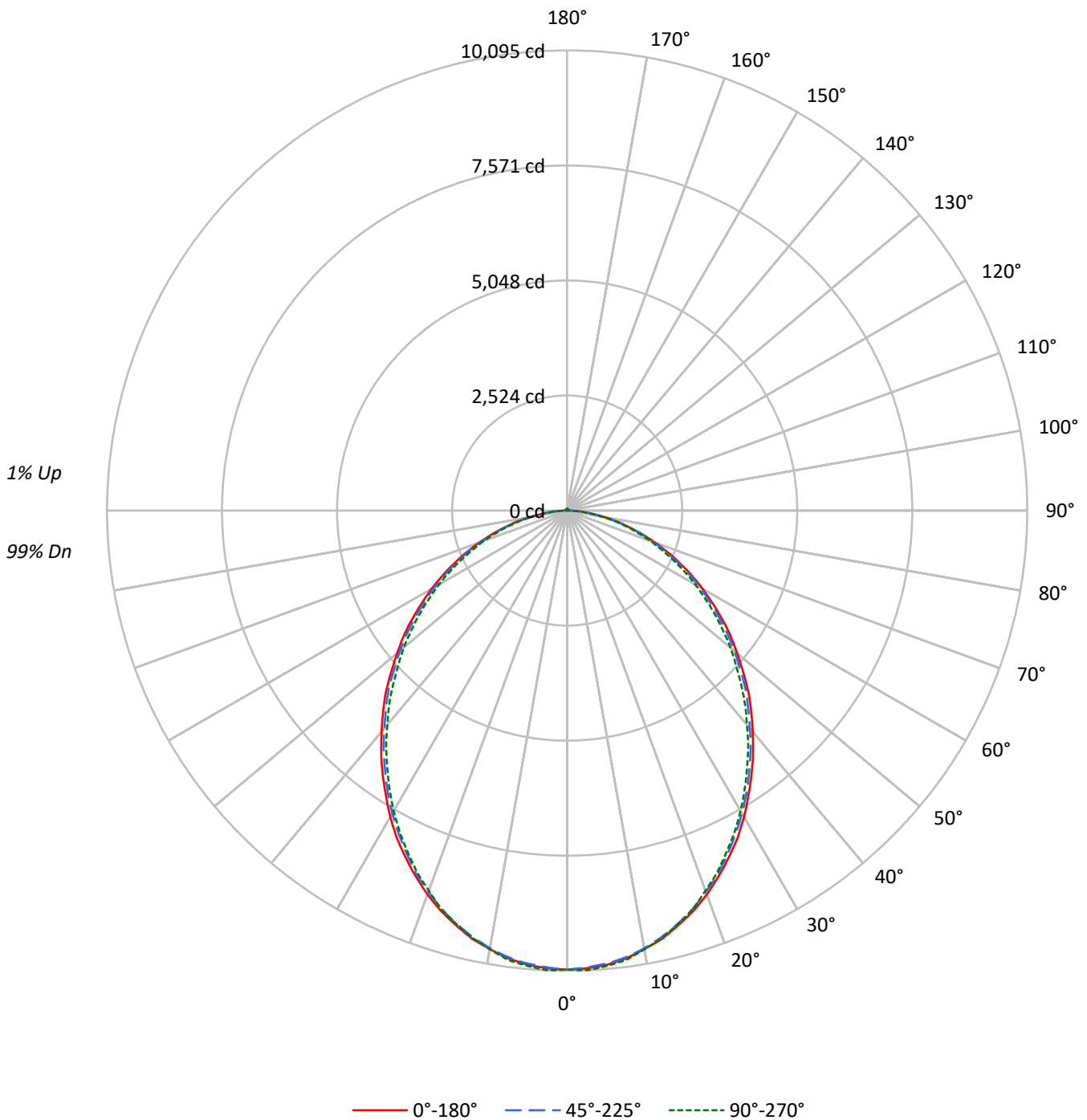
Input Watts (W): 158.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	61943	61943	61943
5°	61757	61600	61914
10°	61013	60895	61030
15°	59969	59767	59800
20°	58663	58240	58082
25°	56959	56451	56115
30°	55113	54483	54041
35°	52981	52295	51667
40°	50839	50055	49281
45°	48920	48147	46945
50°	46545	45828	44761
55°	44490	43525	42341
60°	42191	41255	39912
65°	39706	38747	37363
70°	36793	36108	34854
75°	33518	33066	31921
80°	29966	29470	28440
85°	25420	25420	24792



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	946.9	3.9
10°-20°	2644.9	10.9
20°-30°	3832.3	15.7
30°-40°	4358.9	17.9
40°-50°	4250.4	17.4
50°-60°	3628.7	14.9
60°-70°	2634.4	10.8
70°-80°	1470.9	6.0
80°-90°	413.0	1.7
90°-100°	29.3	0.1
100°-110°	29.0	0.1
110°-120°	28.5	0.1
120°-130°	27.3	0.1
130°-140°	25.8	0.1
140°-150°	22.3	0.1
150°-160°	15.6	0.1
160°-170°	8.6	0.0
170°-180°	2.6	0.0
0°-30°	7424.1	30.5
0°-40°	11782.9	48.4
0°-60°	19662.0	80.7
0°-90°	24180.3	99.2
90°-120°	86.8	0.4
90°-150°	162.3	0.7
90°-180°	189.0	0.8
0°-180°	24369.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10071	10071	10071	10071	10071	
5°	10002	9980	9977	10011	10028	947
15°	9418	9401	9386	9385	9391	2654
25°	8393	8364	8318	8288	8268	3864
35°	7056	7033	6965	6900	6881	4413
45°	5624	5571	5535	5432	5397	4327
55°	4149	4131	4059	3974	3948	3711
65°	2728	2708	2662	2600	2567	2706
75°	1410	1418	1391	1357	1343	1508
85°	360	368	360	350	351	394
90°	25	28	33	39	37	30
95°	11	19	28	33	34	11
105°	22	22	27	33	36	23
115°	25	25	28	32	34	25
125°	27	29	29	33	33	24
135°	30	33	34	34	34	24
145°	29	34	37	39	39	18
155°	28	30	36	37	37	13
165°	23	27	30	34	34	7
175°	25	25	27	28	29	2
180°	25	25	25	25	25	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10070.8	10070.8	10070.8	10070.8	10070.8
2.5°	10050.5	10023.9	10028.9	10061.9	10094.9
5°	10002.3	9979.5	9976.9	10011.2	10027.7
7.5°	9908.4	9884.4	9883.1	9922.4	9941.4
10°	9768.9	9762.6	9749.9	9776.5	9771.5
12.5°	9623.1	9587.6	9581.2	9602.8	9604.0
15°	9417.6	9401.1	9385.9	9384.6	9391.0
17.5°	9207.0	9171.5	9162.7	9157.6	9170.3
20°	8962.3	8922.9	8897.6	8892.5	8873.5
22.5°	8684.5	8660.4	8636.3	8594.4	8598.2
25°	8392.8	8363.6	8317.9	8287.5	8268.5
27.5°	8094.7	8049.0	8000.8	7972.9	7956.4
30°	7759.8	7731.9	7671.1	7619.1	7608.9
32.5°	7404.7	7385.7	7324.8	7279.1	7248.7
35°	7055.9	7033.1	6964.6	6899.9	6880.9
37.5°	6700.8	6672.9	6614.5	6557.4	6525.7
40°	6331.7	6311.4	6234.0	6165.5	6137.6
42.5°	5975.3	5948.6	5878.9	5795.1	5778.7
45°	5623.9	5570.6	5535.1	5432.4	5396.9
47.5°	5234.5	5220.6	5144.5	5062.0	5022.7
50°	4864.2	4855.3	4789.3	4696.7	4677.7
52.5°	4524.2	4488.7	4427.9	4344.1	4301.0
55°	4148.8	4131.1	4058.8	3973.8	3948.4
57.5°	3781.0	3781.0	3703.6	3631.3	3588.2
60°	3429.7	3408.1	3353.6	3283.8	3244.5
62.5°	3075.8	3058.0	3011.1	2941.3	2905.8
65°	2728.2	2708.0	2662.3	2600.1	2567.2
67.5°	2395.9	2371.8	2342.7	2261.5	2239.9
70°	2045.9	2040.8	2007.8	1952.0	1938.1
72.5°	1731.3	1726.2	1688.2	1638.7	1623.5
75°	1410.4	1418.0	1391.4	1357.1	1343.2
77.5°	1131.4	1123.8	1098.4	1078.1	1054.0
80°	846.0	843.5	832.0	804.1	802.9
82.5°	584.7	594.9	586.0	565.7	558.1
85°	360.2	367.8	360.2	350.1	351.3
87.5°	161.1	163.6	154.7	139.5	129.4
90°	25.4	27.9	33.0	39.3	36.8
92.5°	8.9	19.0	27.9	33.0	34.2
95°	11.4	19.0	27.9	33.0	34.2
97.5°	16.5	19.0	27.9	33.0	35.5
100°	19.0	20.3	27.9	33.0	35.5
102.5°	20.3	20.3	27.9	33.0	35.5
105°	21.6	21.6	26.6	33.0	35.5
107.5°	22.8	21.6	26.6	33.0	35.5
110°	22.8	22.8	26.6	33.0	34.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	24.1	24.1	27.9	31.7	34.2
115°	25.4	25.4	27.9	31.7	34.2
117.5°	25.4	26.6	27.9	33.0	34.2
120°	26.6	27.9	27.9	33.0	33.0
122.5°	26.6	29.2	29.2	33.0	33.0
125°	26.6	29.2	29.2	33.0	33.0
127.5°	27.9	30.4	29.2	33.0	33.0
130°	29.2	30.4	31.7	33.0	33.0
132.5°	29.2	31.7	33.0	34.2	33.0
135°	30.4	33.0	34.2	34.2	34.2
137.5°	31.7	33.0	35.5	35.5	35.5
140°	31.7	34.2	35.5	36.8	36.8
142.5°	29.2	34.2	35.5	38.1	38.1
145°	29.2	34.2	36.8	39.3	39.3
147.5°	27.9	33.0	35.5	39.3	39.3
150°	27.9	31.7	35.5	38.1	38.1
152.5°	29.2	30.4	35.5	36.8	38.1
155°	27.9	30.4	35.5	36.8	36.8
157.5°	26.6	29.2	34.2	36.8	38.1
160°	25.4	29.2	33.0	36.8	36.8
162.5°	24.1	27.9	31.7	35.5	36.8
165°	22.8	26.6	30.4	34.2	34.2
167.5°	22.8	26.6	29.2	31.7	33.0
170°	24.1	25.4	27.9	29.2	30.4
172.5°	25.4	25.4	27.9	27.9	27.9
175°	25.4	25.4	26.6	27.9	29.2
177.5°	26.6	25.4	25.4	27.9	27.9
180°	25.4	25.4	25.4	25.4	25.4

(END OF REPORT)