

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: P417762

Luminaire Tested: **VHB-1824-W-UNV-L950-CD-U-LEVEL1**

Issue Date: 11/17/2020

Test Information

Test Method: LM-79-08
Report Number: P417762
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-L950-CD-U-LEVEL1
Description: VHB LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16894.1 lumens
Efficiency: N/A
Efficacy: 134.6 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

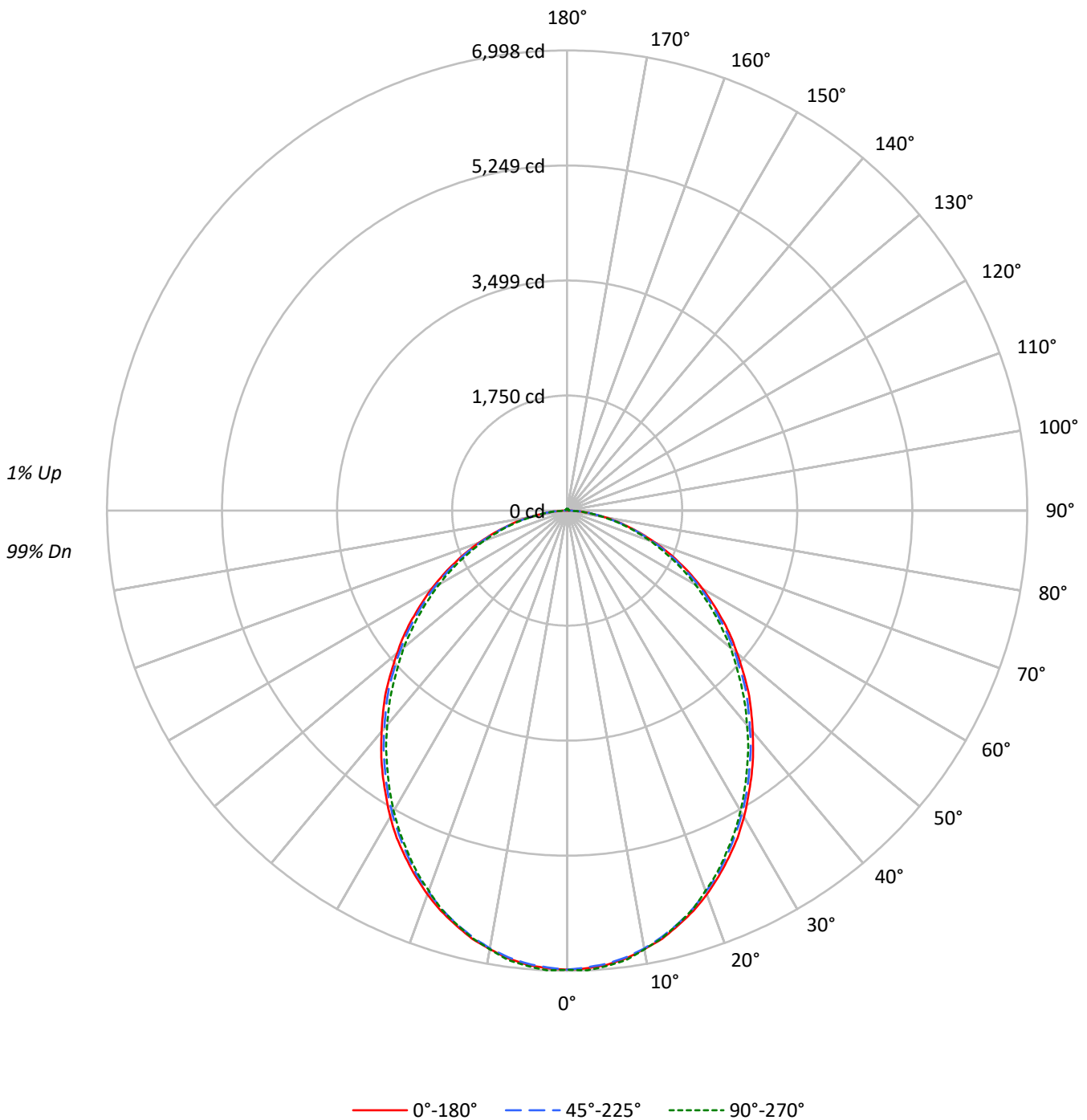
Input Watts (W): 125.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	42942	42942	42942
5°	42813	42704	42922
10°	42298	42216	42309
15°	41574	41434	41456
20°	40668	40375	40266
25°	39487	39135	38902
30°	38207	37770	37464
35°	36729	36254	35818
40°	35244	34700	34164
45°	33914	33378	32545
50°	32267	31771	31030
55°	30843	30173	29353
60°	29248	28600	27669
65°	27527	26861	25902
70°	25506	25032	24163
75°	23237	22924	22130
80°	20774	20431	19715
85°	17622	17622	17191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	656.4	3.9
10°-20°	1833.6	10.9
20°-30°	2656.7	15.7
30°-40°	3021.8	17.9
40°-50°	2946.6	17.4
50°-60°	2515.6	14.9
60°-70°	1826.3	10.8
70°-80°	1019.7	6.0
80°-90°	286.3	1.7
90°-100°	20.3	0.1
100°-110°	20.1	0.1
110°-120°	19.8	0.1
120°-130°	19.0	0.1
130°-140°	17.9	0.1
140°-150°	15.4	0.1
150°-160°	10.8	0.1
160°-170°	6.0	0.0
170°-180°	1.8	0.0
0°-30°	5146.7	30.5
0°-40°	8168.5	48.4
0°-60°	13630.7	80.7
0°-90°	16763.1	99.2
90°-120°	60.2	0.4
90°-150°	112.5	0.7
90°-180°	131.0	0.8
0°-180°	16894.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6982	6982	6982	6982	6982	
5°	6934	6918	6916	6940	6952	657
15°	6529	6517	6507	6506	6510	1840
25°	5818	5798	5766	5745	5732	2679
35°	4892	4876	4828	4783	4770	3059
45°	3899	3862	3837	3766	3741	3000
55°	2876	2864	2814	2755	2737	2573
65°	1891	1877	1846	1803	1780	1876
75°	978	983	965	941	931	1045
85°	250	255	250	243	244	273
90°	18	19	23	27	26	21
95°	8	13	19	23	24	8
105°	15	15	18	23	25	16
115°	18	18	19	22	24	17
125°	18	20	20	23	23	17
135°	21	23	24	24	24	16
145°	20	24	26	27	27	13
155°	19	21	25	26	26	9
165°	16	18	21	24	24	5
175°	18	18	18	19	20	2
180°	18	18	18	18	18	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6981.6	6981.6	6981.6	6981.6	6981.6
2.5°	6967.5	6949.1	6952.6	6975.5	6998.3
5°	6934.1	6918.3	6916.5	6940.3	6951.7
7.5°	6869.1	6852.4	6851.5	6878.7	6891.9
10°	6772.3	6767.9	6759.2	6777.6	6774.1
12.5°	6671.2	6646.6	6642.2	6657.2	6658.0
15°	6528.8	6517.3	6506.8	6505.9	6510.3
17.5°	6382.8	6358.2	6352.0	6348.5	6357.3
20°	6213.1	6185.8	6168.3	6164.7	6151.6
22.5°	6020.5	6003.8	5987.1	5958.1	5960.7
25°	5818.3	5798.1	5766.4	5745.3	5732.1
27.5°	5611.7	5580.0	5546.6	5527.3	5515.8
30°	5379.5	5360.2	5318.0	5281.9	5274.9
32.5°	5133.3	5120.1	5077.9	5046.3	5025.2
35°	4891.5	4875.7	4828.2	4783.4	4770.2
37.5°	4645.3	4626.0	4585.5	4546.0	4524.0
40°	4389.4	4375.4	4321.7	4274.3	4254.9
42.5°	4142.4	4123.9	4075.5	4017.5	4006.1
45°	3898.8	3861.9	3837.2	3766.0	3741.4
47.5°	3628.9	3619.2	3566.4	3509.3	3482.0
50°	3372.1	3365.9	3320.2	3256.0	3242.8
52.5°	3136.5	3111.8	3069.6	3011.6	2981.7
55°	2876.2	2863.9	2813.7	2754.8	2737.2
57.5°	2621.2	2621.2	2567.5	2517.4	2487.5
60°	2377.6	2362.7	2324.9	2276.5	2249.2
62.5°	2132.3	2120.0	2087.4	2039.1	2014.5
65°	1891.4	1877.3	1845.6	1802.6	1779.7
67.5°	1661.0	1644.3	1624.1	1567.8	1552.8
70°	1418.3	1414.8	1391.9	1353.2	1343.6
72.5°	1200.2	1196.7	1170.3	1136.1	1125.5
75°	977.8	983.1	964.6	940.8	931.2
77.5°	784.3	779.1	761.5	747.4	730.7
80°	586.5	584.7	576.8	557.5	556.6
82.5°	405.4	412.4	406.2	392.2	386.9
85°	249.7	255.0	249.7	242.7	243.6
87.5°	111.7	113.4	107.3	96.7	89.7
90°	17.6	19.3	22.9	27.3	25.5
92.5°	6.2	13.2	19.3	22.9	23.7
95°	7.9	13.2	19.3	22.9	23.7
97.5°	11.4	13.2	19.3	22.9	24.6
100°	13.2	14.1	19.3	22.9	24.6
102.5°	14.1	14.1	19.3	22.9	24.6
105°	14.9	14.9	18.5	22.9	24.6
107.5°	15.8	14.9	18.5	22.9	24.6
110°	15.8	15.8	18.5	22.9	23.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	16.7	16.7	19.3	22.0	23.7
115°	17.6	17.6	19.3	22.0	23.7
117.5°	17.6	18.5	19.3	22.9	23.7
120°	18.5	19.3	19.3	22.9	22.9
122.5°	18.5	20.2	20.2	22.9	22.9
125°	18.5	20.2	20.2	22.9	22.9
127.5°	19.3	21.1	20.2	22.9	22.9
130°	20.2	21.1	22.0	22.9	22.9
132.5°	20.2	22.0	22.9	23.7	22.9
135°	21.1	22.9	23.7	23.7	23.7
137.5°	22.0	22.9	24.6	24.6	24.6
140°	22.0	23.7	24.6	25.5	25.5
142.5°	20.2	23.7	24.6	26.4	26.4
145°	20.2	23.7	25.5	27.3	27.3
147.5°	19.3	22.9	24.6	27.3	27.3
150°	19.3	22.0	24.6	26.4	26.4
152.5°	20.2	21.1	24.6	25.5	26.4
155°	19.3	21.1	24.6	25.5	25.5
157.5°	18.5	20.2	23.7	25.5	26.4
160°	17.6	20.2	22.9	25.5	25.5
162.5°	16.7	19.3	22.0	24.6	25.5
165°	15.8	18.5	21.1	23.7	23.7
167.5°	15.8	18.5	20.2	22.0	22.9
170°	16.7	17.6	19.3	20.2	21.1
172.5°	17.6	17.6	19.3	19.3	19.3
175°	17.6	17.6	18.5	19.3	20.2
177.5°	18.5	17.6	17.6	19.3	19.3
180°	17.6	17.6	17.6	17.6	17.6

(END OF REPORT)