

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: P470198

Luminaire Tested: **VHB2-18-W-UNV-L940-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470198
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-18-W-UNV-L940-CD-U
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

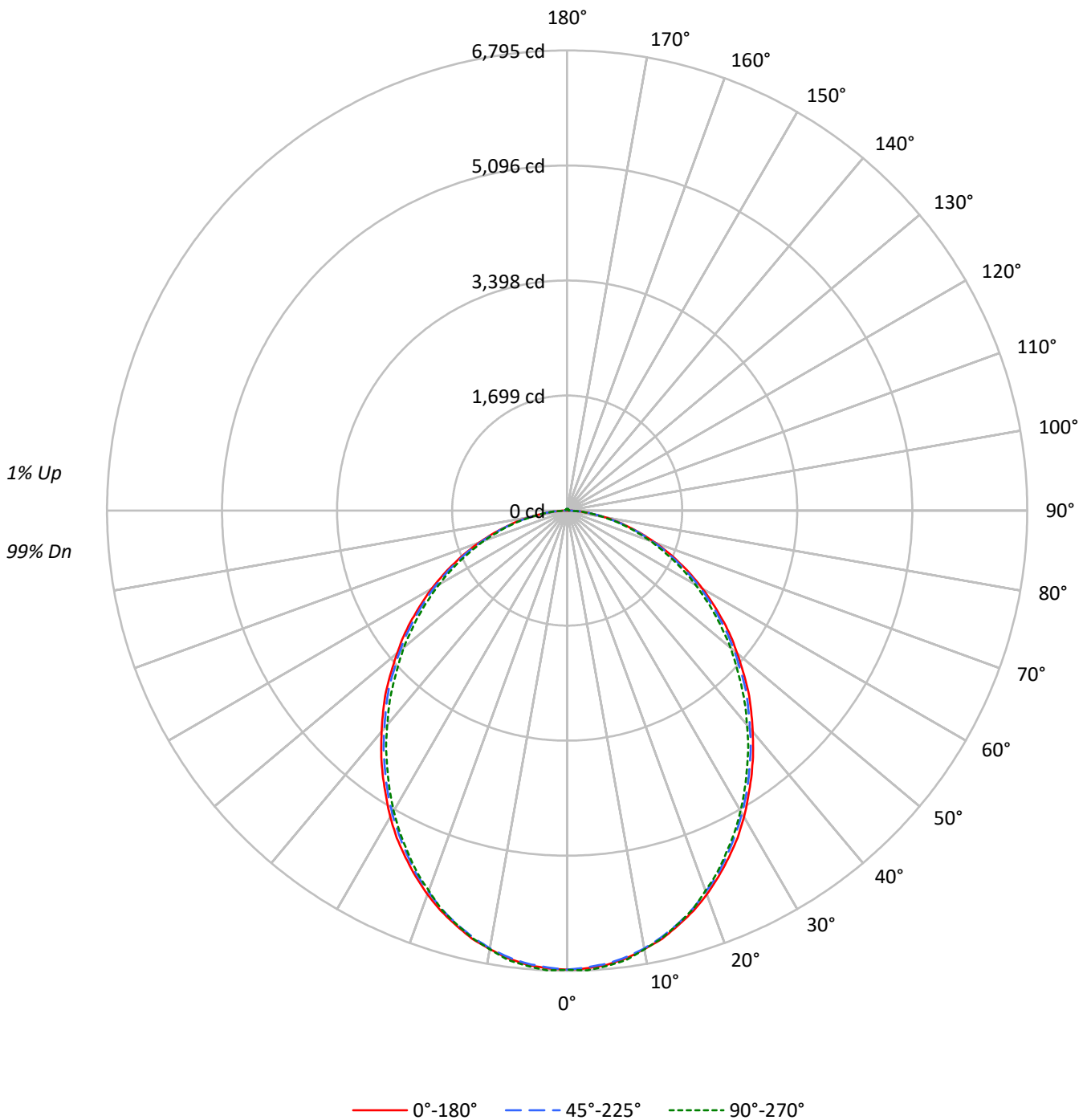
Lumens per Lamp: N/A
Luminaire Lumens: 16403.9 lumens
Efficiency: N/A
Efficacy: 134.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 122.3
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°	41696	41696	41696
5°	41571	41465	41676
10°	41070	40990	41081
15°	40367	40232	40253
20°	39488	39203	39096
25°	38340	37999	37773
30°	37098	36674	36377
35°	35663	35202	34778
40°	34222	33693	33172
45°	32929	32410	31600
50°	31331	30849	30130
55°	29948	29298	28501
60°	28399	27770	26867
65°	26728	26082	25149
70°	24765	24305	23462
75°	22562	22258	21488
80°	20172	19839	19142
85°	17114	17114	16690



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	637.4	3.9
10°-20°	1780.4	10.9
20°-30°	2579.6	15.7
30°-40°	2934.1	17.9
40°-50°	2861.1	17.4
50°-60°	2442.6	14.9
60°-70°	1773.3	10.8
70°-80°	990.1	6.0
80°-90°	278.0	1.7
90°-100°	19.7	0.1
100°-110°	19.5	0.1
110°-120°	19.2	0.1
120°-130°	18.4	0.1
130°-140°	17.4	0.1
140°-150°	15.0	0.1
150°-160°	10.5	0.1
160°-170°	5.8	0.0
170°-180°	1.7	0.0
0°-30°	4997.4	30.5
0°-40°	7931.5	48.4
0°-60°	13235.1	80.7
0°-90°	16276.6	99.2
90°-120°	58.5	0.4
90°-150°	109.3	0.7
90°-180°	127.0	0.8
0°-180°	16403.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6779	6779	6779	6779	6779	
5°	6733	6718	6716	6739	6750	638
15°	6339	6328	6318	6317	6321	1786
25°	5649	5630	5599	5579	5566	2601
35°	4750	4734	4688	4644	4632	2970
45°	3786	3750	3726	3657	3633	2913
55°	2793	2781	2732	2675	2658	2498
65°	1836	1823	1792	1750	1728	1821
75°	949	954	937	914	904	1015
85°	242	248	242	236	236	265
90°	17	19	22	26	25	20
95°	8	13	19	22	23	8
105°	14	14	18	22	24	15
115°	17	17	19	21	23	17
125°	18	20	20	22	22	16
135°	20	22	23	23	23	16
145°	20	23	25	26	26	12
155°	19	20	24	25	25	9
165°	15	18	20	23	23	5
175°	17	17	18	19	20	2
180°	17	17	17	17	17	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6779.0	6779.0	6779.0	6779.0	6779.0
2.5°	6765.3	6747.4	6750.8	6773.0	6795.2
5°	6732.9	6717.5	6715.8	6738.9	6750.0
7.5°	6669.7	6653.5	6652.6	6679.1	6691.9
10°	6575.8	6571.5	6563.0	6580.9	6577.5
12.5°	6477.6	6453.7	6449.4	6463.9	6464.8
15°	6339.3	6328.2	6318.0	6317.1	6321.4
17.5°	6197.6	6173.7	6167.7	6164.3	6172.8
20°	6032.8	6006.3	5989.2	5985.8	5973.0
22.5°	5845.8	5829.6	5813.4	5785.2	5787.8
25°	5649.4	5629.8	5599.1	5578.6	5565.8
27.5°	5448.8	5418.1	5385.6	5366.8	5355.7
30°	5223.4	5204.6	5163.6	5128.6	5121.8
32.5°	4984.4	4971.5	4930.6	4899.8	4879.3
35°	4749.6	4734.2	4688.1	4644.5	4631.7
37.5°	4510.5	4491.7	4452.4	4414.0	4392.7
40°	4262.1	4248.4	4196.3	4150.2	4131.4
42.5°	4022.1	4004.2	3957.3	3900.9	3889.8
45°	3785.6	3749.8	3725.9	3656.7	3632.8
47.5°	3523.5	3514.1	3462.9	3407.4	3381.0
50°	3274.2	3268.3	3223.9	3161.5	3148.7
52.5°	3045.4	3021.5	2980.5	2924.2	2895.2
55°	2792.7	2780.8	2732.1	2674.9	2657.8
57.5°	2545.1	2545.1	2493.0	2444.4	2415.3
60°	2308.6	2294.1	2257.4	2210.4	2184.0
62.5°	2070.4	2058.5	2026.9	1979.9	1956.0
65°	1836.5	1822.8	1792.1	1750.2	1728.0
67.5°	1612.8	1596.6	1576.9	1522.3	1507.8
70°	1377.1	1373.7	1351.5	1314.0	1304.6
72.5°	1165.4	1162.0	1136.4	1103.1	1092.8
75°	949.4	954.5	936.6	913.5	904.2
77.5°	761.6	756.4	739.4	725.7	709.5
80°	569.5	567.8	560.1	541.3	540.4
82.5°	393.6	400.4	394.4	380.8	375.7
85°	242.5	247.6	242.5	235.6	236.5
87.5°	108.4	110.1	104.2	93.9	87.1
90°	17.1	18.8	22.2	26.5	24.8
92.5°	6.0	12.8	18.8	22.2	23.1
95°	7.7	12.8	18.8	22.2	23.1
97.5°	11.1	12.8	18.8	22.2	23.9
100°	12.8	13.7	18.8	22.2	23.9
102.5°	13.7	13.7	18.8	22.2	23.9
105°	14.5	14.5	17.9	22.2	23.9
107.5°	15.4	14.5	17.9	22.2	23.9
110°	15.4	15.4	17.9	22.2	23.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	16.2	16.2	18.8	21.3	23.1
115°	17.1	17.1	18.8	21.3	23.1
117.5°	17.1	17.9	18.8	22.2	23.1
120°	17.9	18.8	18.8	22.2	22.2
122.5°	17.9	19.6	19.6	22.2	22.2
125°	17.9	19.6	19.6	22.2	22.2
127.5°	18.8	20.5	19.6	22.2	22.2
130°	19.6	20.5	21.3	22.2	22.2
132.5°	19.6	21.3	22.2	23.1	22.2
135°	20.5	22.2	23.1	23.1	23.1
137.5°	21.3	22.2	23.9	23.9	23.9
140°	21.3	23.1	23.9	24.8	24.8
142.5°	19.6	23.1	23.9	25.6	25.6
145°	19.6	23.1	24.8	26.5	26.5
147.5°	18.8	22.2	23.9	26.5	26.5
150°	18.8	21.3	23.9	25.6	25.6
152.5°	19.6	20.5	23.9	24.8	25.6
155°	18.8	20.5	23.9	24.8	24.8
157.5°	17.9	19.6	23.1	24.8	25.6
160°	17.1	19.6	22.2	24.8	24.8
162.5°	16.2	18.8	21.3	23.9	24.8
165°	15.4	17.9	20.5	23.1	23.1
167.5°	15.4	17.9	19.6	21.3	22.2
170°	16.2	17.1	18.8	19.6	20.5
172.5°	17.1	17.1	18.8	18.8	18.8
175°	17.1	17.1	17.9	18.8	19.6
177.5°	17.9	17.1	17.1	18.8	18.8
180°	17.1	17.1	17.1	17.1	17.1

(END OF REPORT)