

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: P470187

Luminaire Tested: **VHB2-15-W-UNV-L850-CD-U**

Issue Date: 01/20/2021

Test Information

Test Method: LM-79-08
Report Number: P470187
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB2-15-W-UNV-L850-CD-U
Description: VHB2 LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

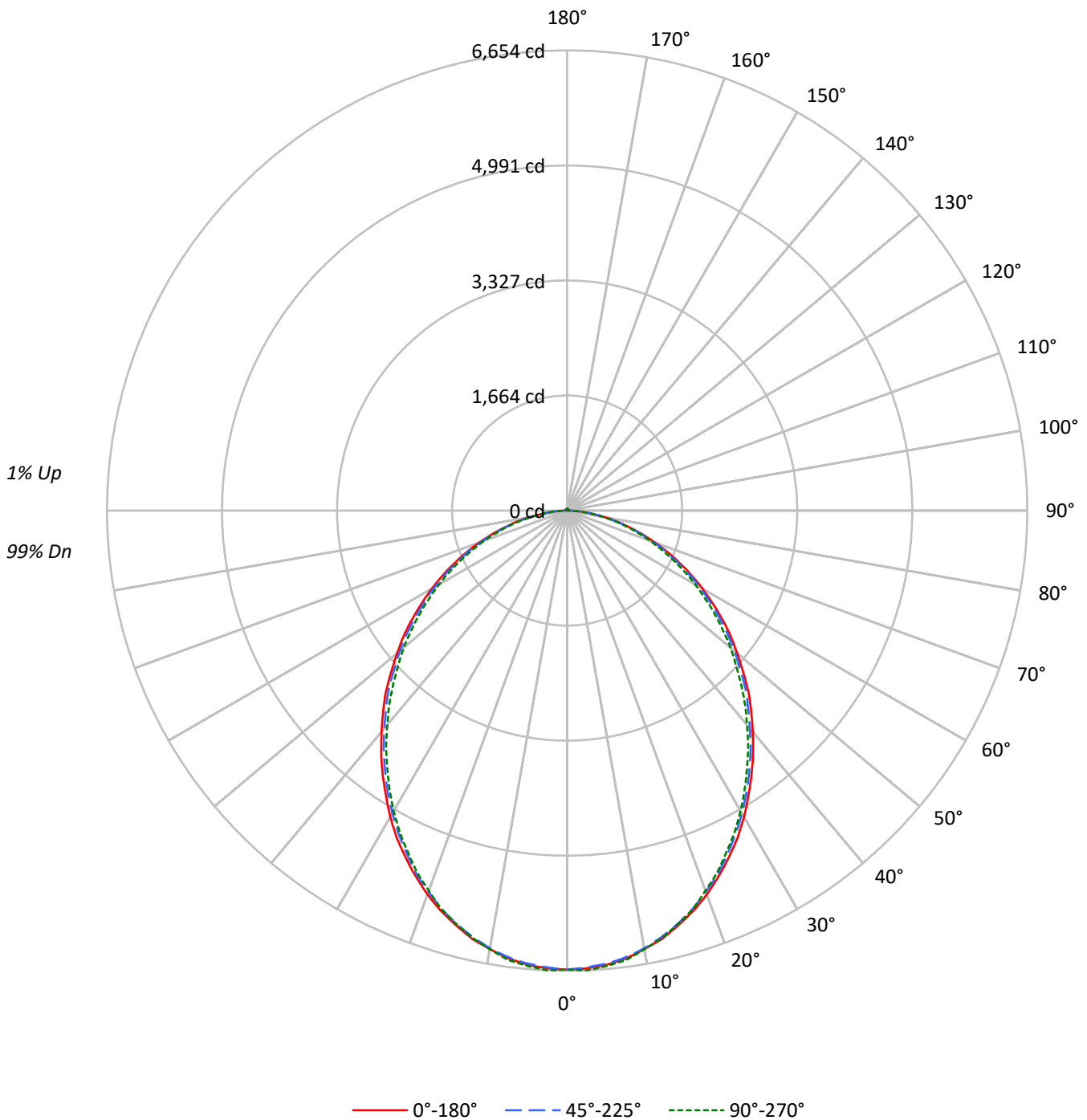
Lumens per Lamp: N/A
Luminaire Lumens: 16062.3 lumens
Efficiency: N/A
Efficacy: 145.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.14 / 1.25
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 110.6
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°	40828	40828	40828
5°	40705	40602	40809
10°	40215	40137	40226
15°	39527	39394	39415
20°	38666	38387	38283
25°	37542	37208	36987
30°	36326	35911	35620
35°	34921	34469	34054
40°	33509	32992	32482
45°	32244	31735	30942
50°	30679	30207	29503
55°	29325	28688	27908
60°	27809	27191	26307
65°	26171	25539	24627
70°	24251	23800	22972
75°	22092	21795	21039
80°	19751	19425	18745
85°	16754	16754	16345



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	624.1	3.9
10°-20°	1743.3	10.9
20°-30°	2525.9	15.7
30°-40°	2873.0	17.9
40°-50°	2801.5	17.4
50°-60°	2391.7	14.9
60°-70°	1736.4	10.8
70°-80°	969.5	6.0
80°-90°	272.2	1.7
90°-100°	19.3	0.1
100°-110°	19.1	0.1
110°-120°	18.8	0.1
120°-130°	18.0	0.1
130°-140°	17.0	0.1
140°-150°	14.7	0.1
150°-160°	10.3	0.1
160°-170°	5.7	0.0
170°-180°	1.7	0.0
0°-30°	4893.4	30.5
0°-40°	7766.4	48.4
0°-60°	12959.7	80.7
0°-90°	15937.8	99.2
90°-120°	57.2	0.4
90°-150°	106.9	0.7
90°-180°	125.0	0.8
0°-180°	16062.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6638	6638	6638	6638	6638	
5°	6593	6578	6576	6599	6610	624
15°	6207	6196	6186	6186	6190	1749
25°	5532	5513	5482	5462	5450	2547
35°	4651	4636	4590	4548	4535	2908
45°	3707	3672	3648	3581	3557	2852
55°	2735	2723	2675	2619	2602	2446
65°	1798	1785	1755	1714	1692	1783
75°	930	935	917	894	885	994
85°	237	242	237	231	232	260
90°	17	18	22	26	24	20
95°	8	12	18	22	23	8
105°	14	14	18	22	23	15
115°	17	17	18	21	23	16
125°	18	19	19	22	22	16
135°	20	22	23	23	23	16
145°	19	23	24	26	26	12
155°	18	20	23	24	24	8
165°	15	18	20	23	23	4
175°	17	17	18	18	19	2
180°	17	17	17	17	17	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6637.9	6637.9	6637.9	6637.9	6637.9
2.5°	6624.5	6606.9	6610.3	6632.0	6653.8
5°	6592.7	6577.7	6576.0	6598.6	6609.5
7.5°	6530.9	6515.0	6514.2	6540.1	6552.6
10°	6438.9	6434.7	6426.4	6443.9	6440.6
12.5°	6342.8	6319.4	6315.2	6329.4	6330.2
15°	6207.3	6196.5	6186.4	6185.6	6189.8
17.5°	6068.6	6045.2	6039.3	6036.0	6044.3
20°	5907.2	5881.3	5864.6	5861.2	5848.7
22.5°	5724.1	5708.2	5692.4	5664.8	5667.3
25°	5531.8	5512.6	5482.5	5462.5	5449.9
27.5°	5335.4	5305.3	5273.5	5255.1	5244.3
30°	5114.7	5096.3	5056.2	5021.9	5015.2
32.5°	4880.6	4868.1	4827.9	4797.8	4777.8
35°	4650.7	4635.6	4590.5	4547.9	4535.3
37.5°	4416.6	4398.2	4359.8	4322.1	4301.2
40°	4173.3	4160.0	4109.0	4063.8	4045.4
42.5°	3938.4	3920.9	3874.9	3819.7	3808.8
45°	3706.8	3671.7	3648.3	3580.6	3557.2
47.5°	3450.2	3441.0	3390.8	3336.5	3310.6
50°	3206.1	3200.2	3156.8	3095.7	3083.2
52.5°	2982.0	2958.6	2918.5	2863.3	2834.9
55°	2734.6	2722.9	2675.2	2619.2	2602.5
57.5°	2492.1	2492.1	2441.1	2393.5	2365.1
60°	2260.6	2246.3	2210.4	2164.4	2138.5
62.5°	2027.3	2015.6	1984.7	1938.7	1915.3
65°	1798.2	1784.9	1754.8	1713.8	1692.1
67.5°	1579.2	1563.3	1544.1	1490.6	1476.4
70°	1348.5	1345.1	1323.4	1286.6	1277.4
72.5°	1141.1	1137.8	1112.7	1080.1	1070.1
75°	929.6	934.7	917.1	894.5	885.3
77.5°	745.7	740.7	724.0	710.6	694.7
80°	557.6	555.9	548.4	530.0	529.2
82.5°	385.4	392.1	386.2	372.9	367.8
85°	237.4	242.4	237.4	230.7	231.6
87.5°	106.2	107.8	102.0	92.0	85.3
90°	16.7	18.4	21.7	25.9	24.2
92.5°	5.9	12.5	18.4	21.7	22.6
95°	7.5	12.5	18.4	21.7	22.6
97.5°	10.9	12.5	18.4	21.7	23.4
100°	12.5	13.4	18.4	21.7	23.4
102.5°	13.4	13.4	18.4	21.7	23.4
105°	14.2	14.2	17.6	21.7	23.4
107.5°	15.0	14.2	17.6	21.7	23.4
110°	15.0	15.0	17.6	21.7	22.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	15.9	15.9	18.4	20.9	22.6
115°	16.7	16.7	18.4	20.9	22.6
117.5°	16.7	17.6	18.4	21.7	22.6
120°	17.6	18.4	18.4	21.7	21.7
122.5°	17.6	19.2	19.2	21.7	21.7
125°	17.6	19.2	19.2	21.7	21.7
127.5°	18.4	20.1	19.2	21.7	21.7
130°	19.2	20.1	20.9	21.7	21.7
132.5°	19.2	20.9	21.7	22.6	21.7
135°	20.1	21.7	22.6	22.6	22.6
137.5°	20.9	21.7	23.4	23.4	23.4
140°	20.9	22.6	23.4	24.2	24.2
142.5°	19.2	22.6	23.4	25.1	25.1
145°	19.2	22.6	24.2	25.9	25.9
147.5°	18.4	21.7	23.4	25.9	25.9
150°	18.4	20.9	23.4	25.1	25.1
152.5°	19.2	20.1	23.4	24.2	25.1
155°	18.4	20.1	23.4	24.2	24.2
157.5°	17.6	19.2	22.6	24.2	25.1
160°	16.7	19.2	21.7	24.2	24.2
162.5°	15.9	18.4	20.9	23.4	24.2
165°	15.0	17.6	20.1	22.6	22.6
167.5°	15.0	17.6	19.2	20.9	21.7
170°	15.9	16.7	18.4	19.2	20.1
172.5°	16.7	16.7	18.4	18.4	18.4
175°	16.7	16.7	17.6	18.4	19.2
177.5°	17.6	16.7	16.7	18.4	18.4
180°	16.7	16.7	16.7	16.7	16.7

(END OF REPORT)