

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: P563282

Luminaire Tested: **VHB-24-N-UNV-L850-CD**

Issue Date: 6/3/2022



Test Information

Test Method: LM-79-08
Report Number: P563282
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P364424)
Test Lab: INNOVATION CENTER
Issue Date: 6/3/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB-24-N-UNV-L850-CD
Description: 24000 LUMEN, VHB LED LUMINAIRE WITH, NARROW LENS AND 80CRI, 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

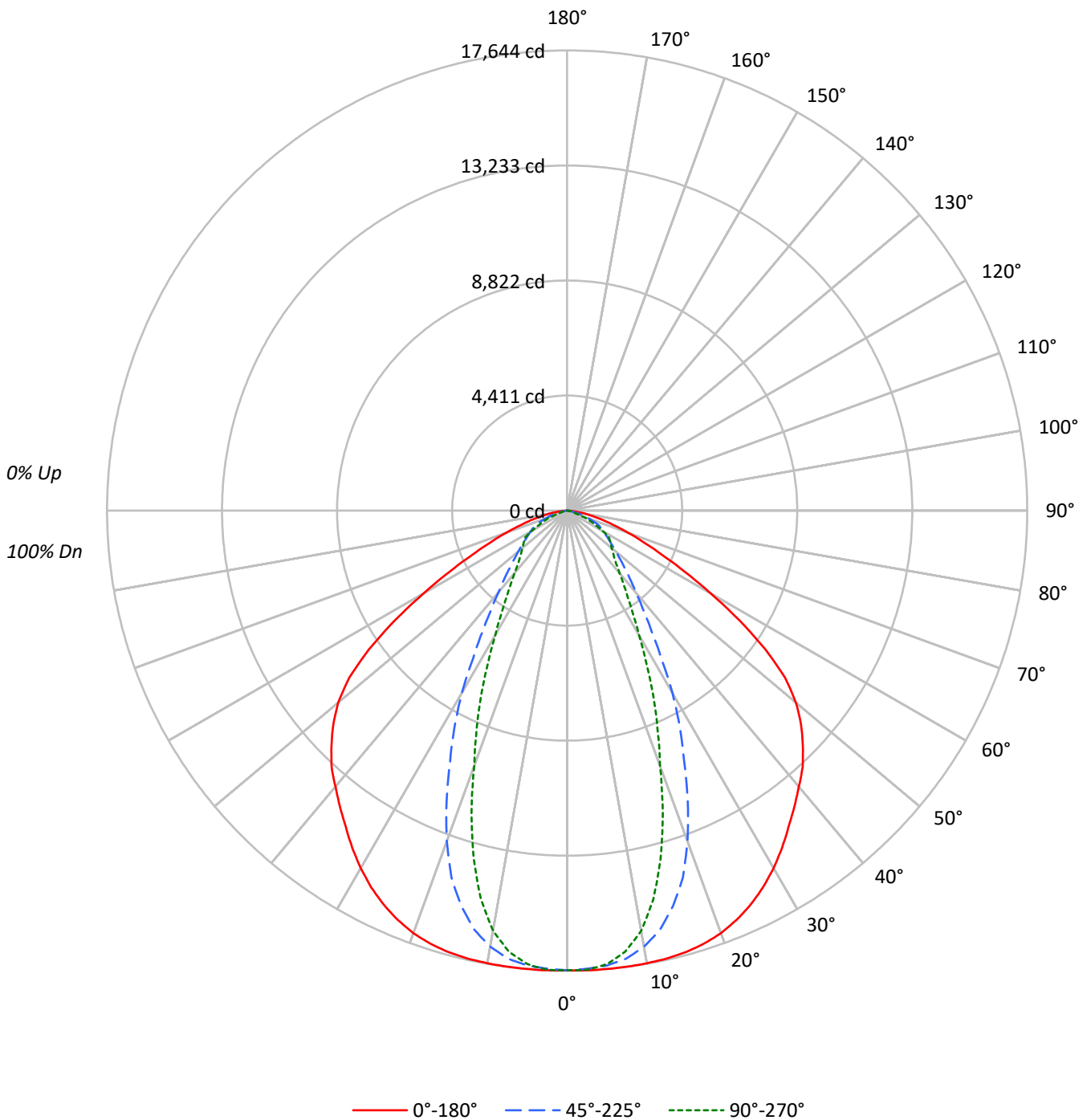
Lumens per Lamp: N/A
Luminaire Lumens: 24860.0 lumens
Efficiency: N/A
Efficacy: 150.7 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 0.72 / 0.86
Luminous Opening: Rectangular (W 1.17' x L: 1.58' x H: 0')
CIE Type: Direct

Input Watts (W): 165
Input Voltage (V): NR
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: 25 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	102	102	102	100					100			
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89					89			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	74	68	64	71	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	57	51	47	46					46			
8	69	57	49	44	67	56	49	44	55	49	44	54	48	44	53	47	44	42					42			
9	65	53	46	41	63	52	45	41	51	45	41	50	44	40	49	44	40	39					39			
10	61	49	42	38	60	49	42	38	48	42	38	47	41	37	46	41	37	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	102719	102719	102719
5°	103202	102419	102121
10°	104286	100455	96786
15°	105773	94647	83452
20°	106913	83615	64611
25°	107127	68278	50065
30°	106526	54228	37054
35°	105310	40184	28813
40°	105145	31205	23781
45°	105366	25680	21125
50°	103872	22210	20148
55°	94295	19799	20358
60°	74135	18921	18550
65°	55062	18338	13961
70°	42231	14681	8522
75°	32146	10469	4701
80°	23604	4873	3795
85°	14769	4185	3376



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1656.2	6.7
10°-20°	4359.7	17.5
20°-30°	5264.8	21.2
30°-40°	4707.4	18.9
40°-50°	3686.2	14.8
50°-60°	2785.2	11.2
60°-70°	1654.2	6.7
70°-80°	635.7	2.6
80°-90°	110.5	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	11280.7	45.4
0°-40°	15988.1	64.3
0°-60°	22459.6	90.3
0°-90°	24860.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	24860.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	17628	17628	17628	17628	17628	
5°	17643	17566	17509	17486	17458	###
15°	17533	16955	15689	14377	13833	4954
25°	16662	14702	10619	8372	7787	7671
35°	14804	10535	5649	4404	4050	9283
45°	12786	5448	3116	2633	2563	9842
55°	9282	2956	1949	1941	2004	8151
65°	3993	1660	1330	1109	1012	4115
75°	1428	798	465	230	209	1563
85°	221	77	63	55	50	294
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	17627.6	17627.6	17627.6	17627.6	17627.6
2.5°	17644.3	17586.0	17581.5	17618.9	17624.5
5°	17643.0	17566.1	17509.1	17486.0	17458.3
7.5°	17637.6	17521.2	17328.8	17144.1	17058.4
10°	17624.5	17417.8	16977.1	16557.2	16357.1
12.5°	17595.8	17233.1	16454.8	15683.2	15263.3
15°	17533.2	16955.0	15688.8	14377.3	13833.2
17.5°	17419.9	16571.3	14750.0	12899.0	12198.7
20°	17240.8	16083.4	13483.8	11212.9	10419.2
22.5°	16983.5	15445.9	12088.9	9694.8	9060.7
25°	16661.6	14701.8	10619.3	8372.5	7786.6
27.5°	16279.1	13833.2	9352.9	7141.4	6564.3
30°	15831.7	12818.7	8059.3	5978.4	5506.9
32.5°	15331.5	11750.3	6708.4	5091.4	4703.5
35°	14803.9	10534.7	5648.8	4404.4	4050.4
37.5°	14307.0	9233.1	4783.8	3796.7	3548.2
40°	13822.4	7865.8	4102.2	3316.3	3126.2
42.5°	13365.1	6557.9	3581.2	2914.0	2789.7
45°	12785.8	5447.6	3116.2	2632.6	2563.4
47.5°	12171.3	4597.8	2746.8	2403.8	2379.7
50°	11457.9	3916.5	2450.0	2205.0	2222.5
52.5°	10532.4	3377.8	2168.6	2064.2	2116.0
55°	9281.6	2955.8	1948.8	1941.1	2003.9
57.5°	7816.3	2552.3	1775.1	1823.6	1893.9
60°	6361.1	2228.1	1623.5	1693.8	1591.7
62.5°	5081.6	1930.3	1479.6	1350.8	1263.1
65°	3993.4	1659.7	1330.0	1109.2	1012.5
67.5°	3184.4	1408.0	1118.9	882.7	802.4
70°	2478.7	1183.8	861.7	662.8	500.2
72.5°	1899.5	989.4	672.6	377.1	284.7
75°	1427.8	798.0	465.0	229.8	208.8
77.5°	1017.9	592.5	248.3	166.0	153.9
80°	703.4	380.4	145.2	119.8	113.1
82.5°	436.3	183.6	99.0	85.7	80.3
85°	220.9	77.0	62.6	54.9	50.5
87.5°	73.6	37.4	28.5	26.4	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)