

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: P827159

Luminaire Tested: **OHBL-24SE-NL-UNV-L840-CD-UPL36**

Issue Date: 5/3/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P827159  
REPORT IS A COMBINATION OF REPORTS P826309 AND G3-2310-221-2  
Test Lab: INNOVATION CENTER  
Issue Date: 5/3/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: OHBL-24SE-NL-UNV-L840-CD-UPL36  
Description: 24000 LUMEN OHBL SE LED LUMINAIRE WITH 80CRI, 4000K LEDS AND NO LENS AND 3600 LUMEN UPLIGHT MODULE  
Light Source: -  
Ballast/Driver: -

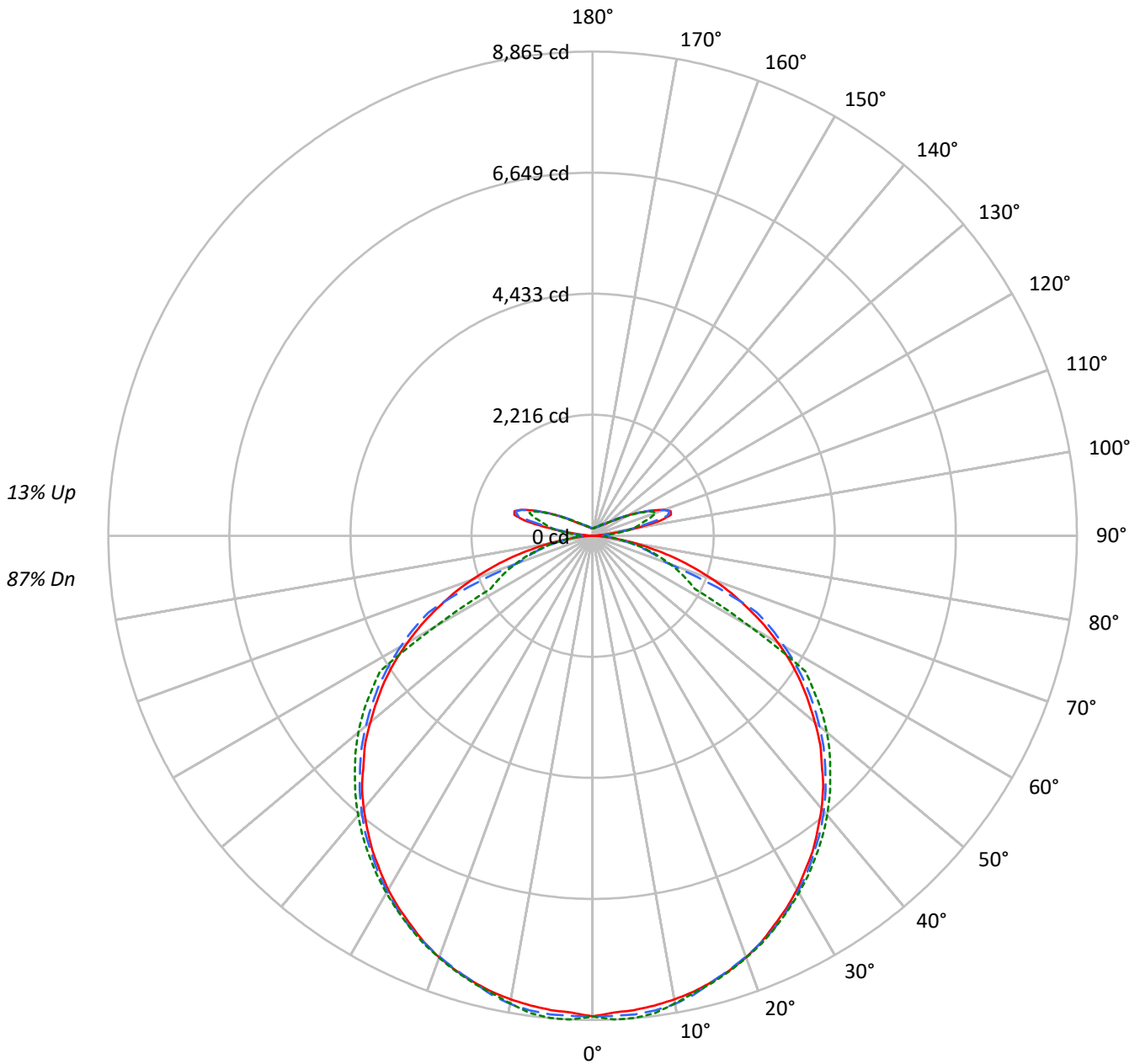
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28289.1 lumens  
Efficiency: N/A  
Efficacy: 169.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.67' x H: 0.1')  
CIE Type: Semi-Direct  
  
Input Watts (W): 166.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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									
RC	80									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	0																
RCR																																					
0	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87																			
1	106	102	98	94	102	98	95	91	92	89	86	86	83	81	80	78	77	74																			
2	97	89	83	77	93	86	80	75	80	76	71	75	71	68	70	67	65	62																			
3	88	78	71	64	85	76	69	63	71	65	60	67	62	57	62	58	55	52																			
4	81	69	61	54	78	67	59	53	63	56	51	59	54	49	56	51	47	45																			
5	74	62	53	47	71	60	52	46	56	50	44	53	47	43	50	45	41	39																			
6	69	56	47	41	66	54	46	40	51	44	39	48	42	37	45	40	36	34																			
7	64	50	42	36	61	49	41	35	46	39	34	44	38	33	41	36	32	30																			
8	59	46	38	32	57	45	37	31	42	35	30	40	34	30	38	33	29	27																			
9	55	42	34	29	53	41	33	28	39	32	27	37	31	27	35	30	26	24																			
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	32	27	23	22																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	15030	15030	15030
5°	14869	15002	15161
10°	14795	14932	15005
15°	14712	14705	14874
20°	14609	14581	14800
25°	14423	14489	14732
30°	14264	14328	14668
35°	14071	14137	14610
40°	13839	13957	14567
45°	13515	13705	14477
50°	13168	13420	14419
55°	12748	13059	14174
60°	12117	12525	10950
65°	11213	11840	7293
70°	10049	6087	6973
75°	8342	5501	6501
80°	5859	4602	5692
85°	2351	3687	4925



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	836.0	3.0
10°-20°	2393.8	8.5
20°-30°	3642.3	12.9
30°-40°	4428.6	15.7
40°-50°	4656.4	16.5
50°-60°	4251.9	15.0
60°-70°	2725.7	9.6
70°-80°	1287.6	4.6
80°-90°	364.7	1.3
90°-100°	369.7	1.3
100°-110°	1272.0	4.5
110°-120°	1038.5	3.7
120°-130°	488.1	1.7
130°-140°	247.1	0.9
140°-150°	144.5	0.5
150°-160°	84.7	0.3
160°-170°	44.1	0.2
170°-180°	13.4	0.0
0°-30°	6872.2	24.3
0°-40°	11300.8	39.9
0°-60°	20209.1	71.4
0°-90°	24587.1	86.9
90°-120°	2680.1	9.5
90°-150°	3559.8	12.6
90°-180°	3702.0	13.1
0°-180°	28289.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8800	8800	8800	8800	8800	
5°	8718	8752	8797	8845	8863	829
15°	8454	8517	8453	8465	8471	2387
25°	7867	7880	7907	7920	7914	3630
35°	7032	6990	7070	7157	7137	4395
45°	5931	5920	6020	6163	6152	4584
55°	4648	4612	4768	4927	4940	4145
65°	3132	3132	3314	1901	1907	3105
75°	1547	1577	1024	1078	1082	1631
85°	202	256	320	346	327	299
90°	8	136	205	240	238	14
95°	67	169	267	348	364	233
105°	1485	1491	1411	1056	954	1412
115°	1038	1027	1039	1042	1022	1047
125°	507	525	537	528	518	477
135°	300	307	315	318	319	237
145°	218	223	228	231	232	139
155°	176	179	182	184	184	82
165°	151	153	154	155	156	43
175°	138	138	139	139	140	13
180°	136	136	136	136	136	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8800.0	8800.0	8800.0	8800.0	<i>8800.0</i>
2.5°	<i>8738.2</i>	<i>8767.6</i>	<i>8800.0</i>	<i>8841.7</i>	<i>8864.7</i>
5°	8718.1	8752.1	8796.9	8844.8	<i>8863.3</i>
7.5°	8674.9	8722.7	8766.0	8800.0	<i>8810.8</i>
10°	8620.8	8678.0	8702.7	8699.6	<i>8691.9</i>
12.5°	8548.2	8608.6	8600.9	8565.2	<i>8571.5</i>
15°	8454.1	8517.3	8452.6	8464.9	<i>8471.1</i>
17.5°	8342.9	8404.7	8329.0	8353.7	<i>8355.3</i>
20°	8213.3	8259.5	8200.8	8220.9	<i>8220.9</i>
22.5°	8057.3	8089.7	8065.0	8078.9	<i>8082.0</i>
25°	7867.3	7879.6	7907.4	7919.8	<i>7913.6</i>
27.5°	7685.2	7669.7	7723.8	7753.1	<i>7737.5</i>
30°	7482.8	7458.1	7521.4	7569.3	<i>7550.8</i>
32.5°	7251.2	7235.8	7308.4	7365.5	<i>7354.7</i>
35°	7032.0	6990.3	7070.5	7157.0	<i>7136.9</i>
37.5°	6772.5	6747.8	6838.9	6930.1	<i>6919.3</i>
40°	6519.3	6477.6	6581.1	6689.1	<i>6678.3</i>
42.5°	6247.6	6198.0	6310.8	6440.6	<i>6428.2</i>
45°	5930.9	5920.1	6020.5	6162.6	<i>6151.8</i>
47.5°	5650.1	5595.9	5736.4	5873.9	<i>5886.3</i>
50°	5310.2	5290.2	5418.4	5585.2	<i>5597.4</i>
52.5°	4978.3	4964.4	5098.6	5267.0	<i>5288.6</i>
55°	4647.8	4612.3	4768.2	4927.3	<i>4939.7</i>
57.5°	4294.3	4257.2	4416.3	4589.2	<i>4615.4</i>
60°	3915.9	3880.4	4054.8	4215.5	<i>3352.3</i>
62.5°	3537.6	3512.9	3695.2	2617.3	<i>2109.4</i>
65°	3131.5	3131.5	3313.6	1900.8	<i>1907.0</i>
67.5°	2751.7	2727.0	2470.7	1707.7	<i>1707.7</i>
70°	2344.0	2353.3	1423.6	1496.3	<i>1497.8</i>
72.5°	1934.8	1968.8	1229.2	1287.7	<i>1290.8</i>
75°	1547.2	1576.6	1023.7	1077.8	<i>1082.4</i>
77.5°	1136.5	874.0	823.0	864.8	<i>866.3</i>
80°	798.3	551.3	630.1	670.1	<i>665.5</i>
82.5°	466.2	386.0	461.7	491.1	<i>489.5</i>
85°	202.2	256.3	319.6	345.9	<i>327.3</i>
87.5°	64.7	159.1	199.1	214.7	<i>213.0</i>
90°	8.0	135.5	205.1	240.2	<i>238.3</i>
92.5°	25.0	127.8	200.6	250.5	<i>258.0</i>
95°	66.6	168.8	267.0	347.5	<i>363.5</i>
97.5°	377.1	434.4	421.6	525.1	<i>552.2</i>
100°	806.1	850.2	686.9	721.2	<i>742.8</i>
102.5°	1265.7	1296.6	1037.3	883.4	<i>855.0</i>
105°	1484.7	1491.0	1410.7	1055.7	<i>954.2</i>



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1219.3	1225.4	1219.0	1210.4	<i>1167.5</i>
115°	1037.7	1026.8	1039.4	1041.8	<i>1022.5</i>
117.5°	881.0	871.0	879.0	875.0	<i>864.0</i>
120°	741.0	741.0	751.0	737.0	<i>729.0</i>
122.5°	614.0	628.0	635.0	625.0	<i>612.0</i>
125°	507.0	525.0	537.0	528.0	<i>518.0</i>
127.5°	435.0	441.0	455.0	450.0	<i>450.0</i>
130°	374.0	382.0	393.0	395.0	<i>393.0</i>
132.5°	332.0	340.0	350.0	353.0	<i>356.0</i>
135°	300.0	307.0	315.0	318.0	<i>319.0</i>
137.5°	274.0	280.0	286.0	291.0	<i>292.0</i>
140°	252.0	258.0	264.0	268.0	<i>268.0</i>
142.5°	234.0	240.0	245.0	248.0	<i>248.0</i>
145°	218.0	223.0	228.0	231.0	<i>232.0</i>
147.5°	206.0	210.0	215.0	216.0	<i>217.0</i>
150°	195.0	198.0	202.0	204.0	<i>205.0</i>
152.5°	185.0	188.0	192.0	193.0	<i>194.0</i>
155°	176.0	179.0	182.0	184.0	<i>184.0</i>
157.5°	168.0	171.0	174.0	175.0	<i>175.0</i>
160°	162.0	164.0	167.0	167.0	<i>168.0</i>
162.5°	156.0	158.0	160.0	161.0	<i>162.0</i>
165°	151.0	153.0	154.0	155.0	<i>156.0</i>
167.5°	147.0	148.0	149.0	150.0	<i>150.0</i>
170°	143.0	144.0	145.0	145.0	<i>146.0</i>
172.5°	140.0	141.0	142.0	142.0	<i>142.0</i>
175°	138.0	138.0	139.0	139.0	<i>140.0</i>
177.5°	136.0	137.0	137.0	137.0	<i>138.0</i>
180°	136.0	136.0	136.0	136.0	<i>136.0</i>



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	1498.7	1509.4	1479.6	1297.9	<i>1114.6</i>
110°	1385.3	1402.9	1384.5	1321.4	<i>1231.5</i>



(END OF REPORT)