

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: P412001

Luminaire Tested: **LHB-36-UNV-L850-CD-U**

Issue Date: 09/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412001  
Test Lab: BAY AREA COMPLIANCE LABS  
Issue Date: 09/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: LHB-36-UNV-L850-CD-U  
Description: High Bay Luminaires for Commercial and Industrial Buildings  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( RKS180330001-10)  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 41570.4 lumens  
Efficiency: N/A  
Efficacy: 156.8 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 0.99' x L: 3.76' x H: 0')  
CIE Type: Direct

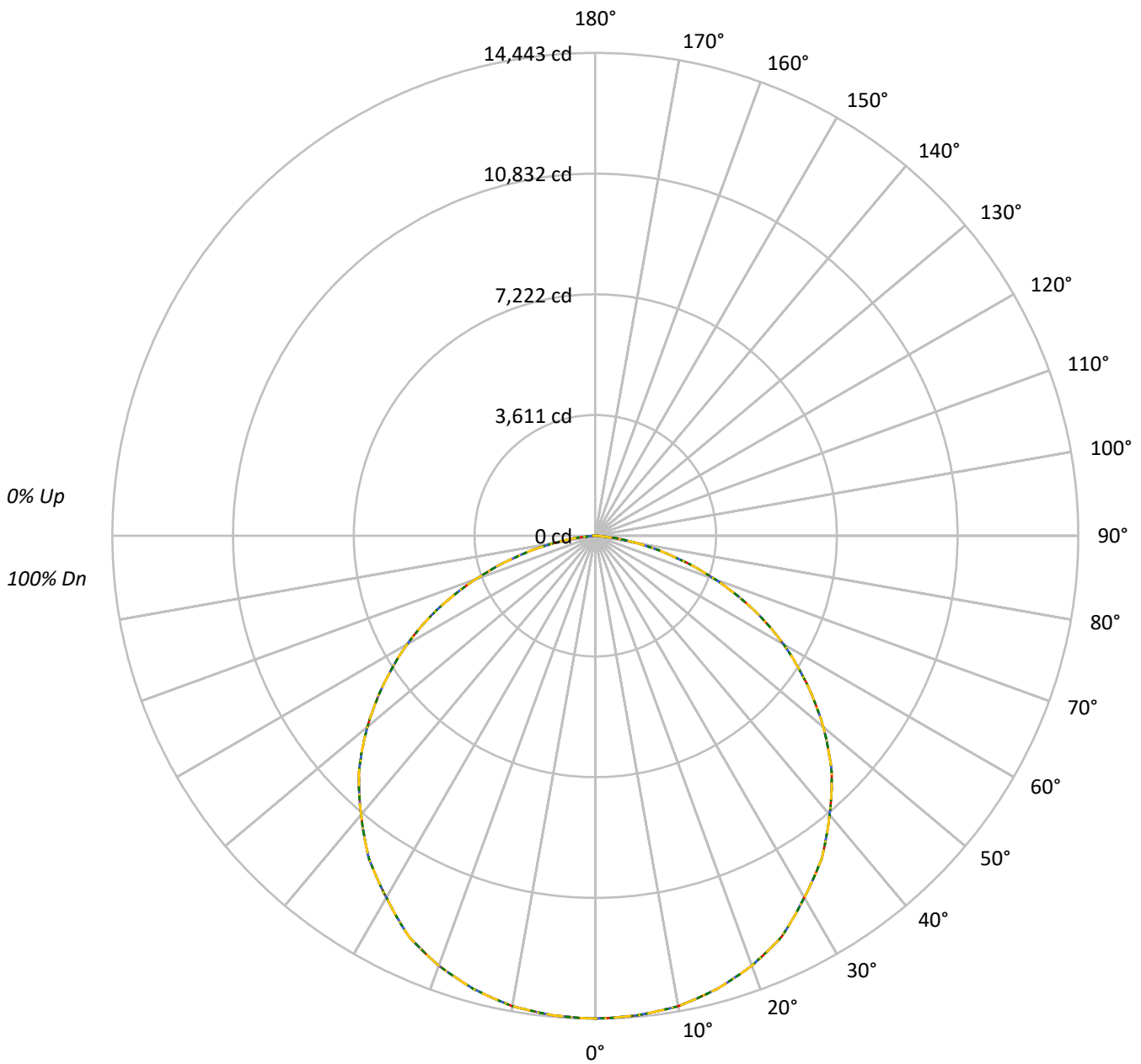
Input Watts (W): 265.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    ···· 90°-270°    - · - · 135°-315°



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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	102	102	102	100
1	109	104	100	97	106	102	98	95	98	95	92	94	92	89	90	88	87	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	62	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	47	41	54	47	41	52	46	41	51	45	40	38
7	65	52	43	37	63	51	42	36	49	42	36	48	41	36	46	40	36	34
8	61	47	38	33	59	46	38	33	45	38	32	44	37	32	43	36	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

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

	0°	90°	180°	270°
0°	41807	41807	41807	41807
5°	41838	41838	41838	41838
10°	41996	41996	41996	41996
15°	42069	42069	42069	42069
20°	42152	42152	42152	42152
25°	42214	42214	42214	42214
30°	41767	41767	41767	41767
35°	41692	41692	41692	41692
40°	41183	41183	41183	41183
45°	40931	40931	40931	40931
50°	40085	40085	40085	40085
55°	38980	38980	38980	38980
60°	37640	37640	37640	37640
65°	35693	35693	35693	35693
70°	32181	32181	32181	32181
75°	27368	27368	27368	27368
80°	20278	20278	20278	20278
85°	7818	7818	7818	7818



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1371.0	3.3
10°-20°	3965.0	9.5
20°-30°	6075.5	14.6
30°-40°	7364.5	17.7
40°-50°	7688.5	18.5
50°-60°	6903.2	16.6
60°-70°	5129.8	12.3
70°-80°	2613.8	6.3
80°-90°	459.0	1.1
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°	11411.6	27.5
0°-40°	18776.1	45.2
0°-60°	33367.8	80.3
0°-90°	41570.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	41570.4	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	14443	14443	14443	14443	14443	
5°	14399	14399	14399	14399	14399	###
15°	14038	14038	14038	14038	14038	3965
25°	13218	13218	13218	13218	13218	6076
35°	11799	11799	11799	11799	11799	7364
45°	9999	9999	9999	9999	9999	7688
55°	7724	7724	7724	7724	7724	6903
65°	5211	5211	5211	5211	5211	5130
75°	2447	2447	2447	2447	2447	2614
85°	235	235	235	235	235	443
90°	0	0	0	0	0	32
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	14443.1	14443.1	14443.1	14443.1	14443.1	14443.1	14443.1	14443.1	14443.1	14443.1	14443.1
5°	14399.0	14399.0	14399.0	14399.0	14399.0	14399.0	14399.0	14399.0	14399.0	14399.0	14399.0
10°	14288.0	14288.0	14288.0	14288.0	14288.0	14288.0	14288.0	14288.0	14288.0	14288.0	14288.0
15°	14038.5	14038.5	14038.5	14038.5	14038.5	14038.5	14038.5	14038.5	14038.5	14038.5	14038.5
20°	13684.0	13684.0	13684.0	13684.0	13684.0	13684.0	13684.0	13684.0	13684.0	13684.0	13684.0
25°	13217.5	13217.5	13217.5	13217.5	13217.5	13217.5	13217.5	13217.5	13217.5	13217.5	13217.5
30°	12496.1	12496.1	12496.1	12496.1	12496.1	12496.1	12496.1	12496.1	12496.1	12496.1	12496.1
35°	11798.6	11798.6	11798.6	11798.6	11798.6	11798.6	11798.6	11798.6	11798.6	11798.6	11798.6
40°	10898.9	10898.9	10898.9	10898.9	10898.9	10898.9	10898.9	10898.9	10898.9	10898.9	10898.9
45°	9998.9	9998.9	9998.9	9998.9	9998.9	9998.9	9998.9	9998.9	9998.9	9998.9	9998.9
50°	8901.5	8901.5	8901.5	8901.5	8901.5	8901.5	8901.5	8901.5	8901.5	8901.5	8901.5
55°	7724.0	7724.0	7724.0	7724.0	7724.0	7724.0	7724.0	7724.0	7724.0	7724.0	7724.0
60°	6501.8	6501.8	6501.8	6501.8	6501.8	6501.8	6501.8	6501.8	6501.8	6501.8	6501.8
65°	5211.3	5211.3	5211.3	5211.3	5211.3	5211.3	5211.3	5211.3	5211.3	5211.3	5211.3
70°	3802.5	3802.5	3802.5	3802.5	3802.5	3802.5	3802.5	3802.5	3802.5	3802.5	3802.5
75°	2447.1	2447.1	2447.1	2447.1	2447.1	2447.1	2447.1	2447.1	2447.1	2447.1	2447.1
80°	1216.5	1216.5	1216.5	1216.5	1216.5	1216.5	1216.5	1216.5	1216.5	1216.5	1216.5
85°	235.4	235.4	235.4	235.4	235.4	235.4	235.4	235.4	235.4	235.4	235.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	14443.1	14443.1	14443.1	14443.1	14443.1	14443.1
5°	14399.0	14399.0	14399.0	14399.0	14399.0	14399.0
10°	14288.0	14288.0	14288.0	14288.0	14288.0	14288.0
15°	14038.5	14038.5	14038.5	14038.5	14038.5	14038.5
20°	13684.0	13684.0	13684.0	13684.0	13684.0	13684.0
25°	13217.5	13217.5	13217.5	13217.5	13217.5	13217.5
30°	12496.1	12496.1	12496.1	12496.1	12496.1	12496.1
35°	11798.6	11798.6	11798.6	11798.6	11798.6	11798.6
40°	10898.9	10898.9	10898.9	10898.9	10898.9	10898.9
45°	9998.9	9998.9	9998.9	9998.9	9998.9	9998.9
50°	8901.5	8901.5	8901.5	8901.5	8901.5	8901.5
55°	7724.0	7724.0	7724.0	7724.0	7724.0	7724.0
60°	6501.8	6501.8	6501.8	6501.8	6501.8	6501.8
65°	5211.3	5211.3	5211.3	5211.3	5211.3	5211.3
70°	3802.5	3802.5	3802.5	3802.5	3802.5	3802.5
75°	2447.1	2447.1	2447.1	2447.1	2447.1	2447.1
80°	1216.5	1216.5	1216.5	1216.5	1216.5	1216.5
85°	235.4	235.4	235.4	235.4	235.4	235.4
90°	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)