

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: P411996

Luminaire Tested: **LHB-24-UNV-L840-CD-U**

Issue Date: 09/28/2020

Test Information

Test Method: LM-79-08
Report Number: P411996
Test Lab: BAY AREA COMPLIANCE LABS
Issue Date: 09/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: LHB-24-UNV-L840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26530.2 lumens
Efficiency: N/A
Efficacy: 154.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.4
Luminous Opening: Rectangular (W 0.99' x L: 1.92' x H: 0')
CIE Type: Direct

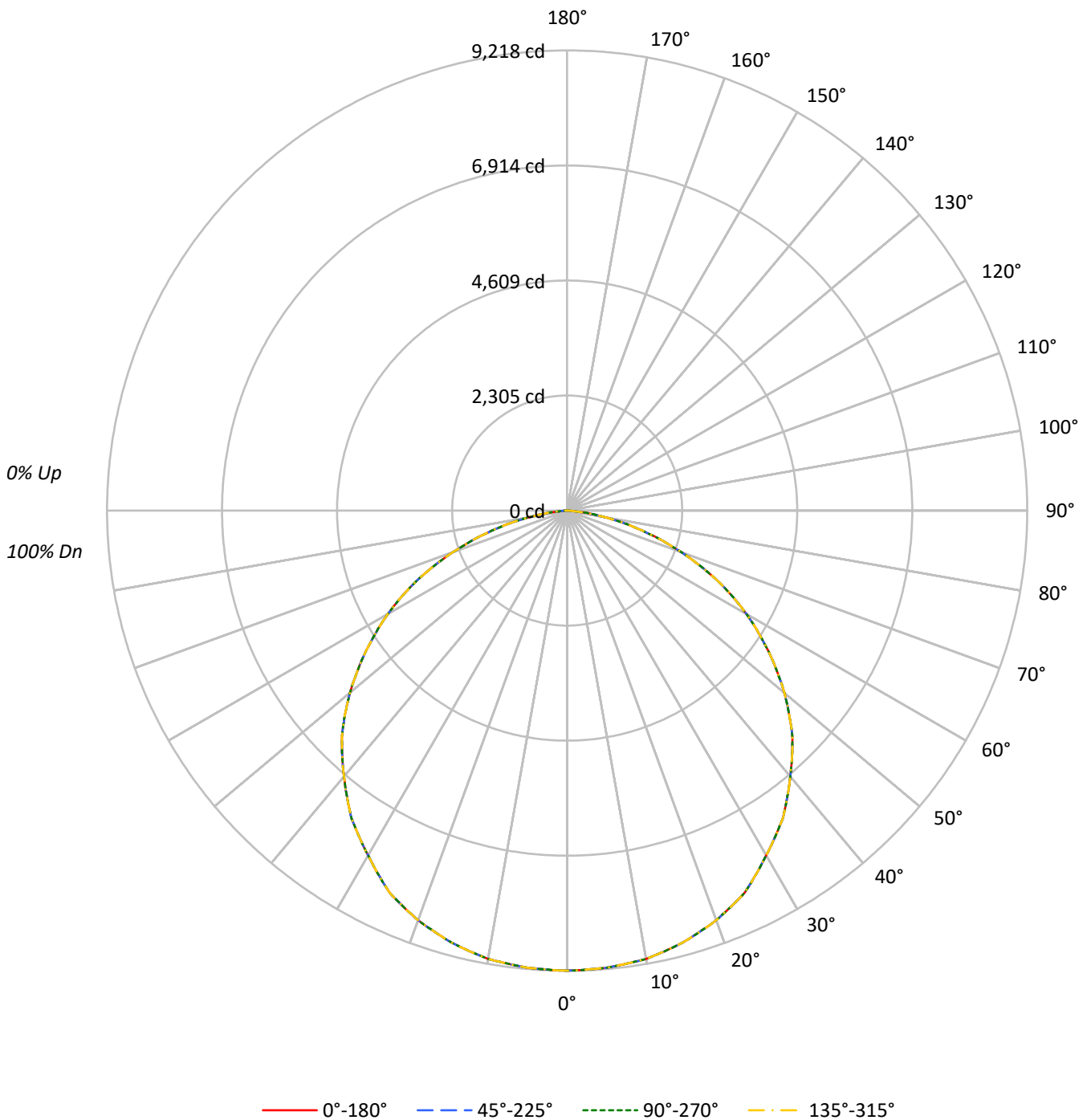
Input Watts (W): 171.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	52251	52251	52251	52251
5°	52290	52290	52290	52290
10°	52487	52487	52487	52487
15°	52578	52578	52578	52578
20°	52681	52681	52681	52681
25°	52760	52760	52760	52760
30°	52200	52200	52200	52200
35°	52107	52107	52107	52107
40°	51471	51471	51471	51471
45°	51156	51156	51156	51156
50°	50098	50098	50098	50098
55°	48717	48717	48717	48717
60°	47043	47043	47043	47043
65°	44610	44610	44610	44610
70°	40220	40220	40220	40220
75°	34204	34204	34204	34204
80°	25345	25345	25345	25345
85°	9769	9769	9769	9769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	875.0	3.3
10°-20°	2530.5	9.5
20°-30°	3877.4	14.6
30°-40°	4700.0	17.7
40°-50°	4906.8	18.5
50°-60°	4405.6	16.6
60°-70°	3273.9	12.3
70°-80°	1668.1	6.3
80°-90°	292.9	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°	7282.9	27.5
0°-40°	11982.9	45.2
0°-60°	21295.3	80.3
0°-90°	26530.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	26530.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	9218	9218	9218	9218	9218	
5°	9190	9190	9190	9190	9190	875
15°	8959	8959	8959	8959	8959	2530
25°	8435	8435	8435	8435	8435	3877
35°	7530	7530	7530	7530	7530	4700
45°	6381	6381	6381	6381	6381	4907
55°	4930	4930	4930	4930	4930	4406
65°	3326	3326	3326	3326	3326	3274
75°	1562	1562	1562	1562	1562	1668
85°	150	150	150	150	150	283
90°	0	0	0	0	0	21
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°	9217.6	9217.6	9217.6	9217.6	9217.6	9217.6	9217.6	9217.6	9217.6	9217.6	9217.6
5°	9189.5	9189.5	9189.5	9189.5	9189.5	9189.5	9189.5	9189.5	9189.5	9189.5	9189.5
10°	9118.6	9118.6	9118.6	9118.6	9118.6	9118.6	9118.6	9118.6	9118.6	9118.6	9118.6
15°	8959.4	8959.4	8959.4	8959.4	8959.4	8959.4	8959.4	8959.4	8959.4	8959.4	8959.4
20°	8733.1	8733.1	8733.1	8733.1	8733.1	8733.1	8733.1	8733.1	8733.1	8733.1	8733.1
25°	8435.4	8435.4	8435.4	8435.4	8435.4	8435.4	8435.4	8435.4	8435.4	8435.4	8435.4
30°	7975.0	7975.0	7975.0	7975.0	7975.0	7975.0	7975.0	7975.0	7975.0	7975.0	7975.0
35°	7529.9	7529.9	7529.9	7529.9	7529.9	7529.9	7529.9	7529.9	7529.9	7529.9	7529.9
40°	6955.7	6955.7	6955.7	6955.7	6955.7	6955.7	6955.7	6955.7	6955.7	6955.7	6955.7
45°	6381.3	6381.3	6381.3	6381.3	6381.3	6381.3	6381.3	6381.3	6381.3	6381.3	6381.3
50°	5680.9	5680.9	5680.9	5680.9	5680.9	5680.9	5680.9	5680.9	5680.9	5680.9	5680.9
55°	4929.5	4929.5	4929.5	4929.5	4929.5	4929.5	4929.5	4929.5	4929.5	4929.5	4929.5
60°	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5
65°	3325.9	3325.9	3325.9	3325.9	3325.9	3325.9	3325.9	3325.9	3325.9	3325.9	3325.9
70°	2426.7	2426.7	2426.7	2426.7	2426.7	2426.7	2426.7	2426.7	2426.7	2426.7	2426.7
75°	1561.7	1561.7	1561.7	1561.7	1561.7	1561.7	1561.7	1561.7	1561.7	1561.7	1561.7
80°	776.4	776.4	776.4	776.4	776.4	776.4	776.4	776.4	776.4	776.4	776.4
85°	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2	150.2
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°	9217.6	9217.6	9217.6	9217.6	9217.6	9217.6
5°	9189.5	9189.5	9189.5	9189.5	9189.5	9189.5
10°	9118.6	9118.6	9118.6	9118.6	9118.6	9118.6
15°	8959.4	8959.4	8959.4	8959.4	8959.4	8959.4
20°	8733.1	8733.1	8733.1	8733.1	8733.1	8733.1
25°	8435.4	8435.4	8435.4	8435.4	8435.4	8435.4
30°	7975.0	7975.0	7975.0	7975.0	7975.0	7975.0
35°	7529.9	7529.9	7529.9	7529.9	7529.9	7529.9
40°	6955.7	6955.7	6955.7	6955.7	6955.7	6955.7
45°	6381.3	6381.3	6381.3	6381.3	6381.3	6381.3
50°	5680.9	5680.9	5680.9	5680.9	5680.9	5680.9
55°	4929.5	4929.5	4929.5	4929.5	4929.5	4929.5
60°	4149.5	4149.5	4149.5	4149.5	4149.5	4149.5
65°	3325.9	3325.9	3325.9	3325.9	3325.9	3325.9
70°	2426.7	2426.7	2426.7	2426.7	2426.7	2426.7
75°	1561.7	1561.7	1561.7	1561.7	1561.7	1561.7
80°	776.4	776.4	776.4	776.4	776.4	776.4
85°	150.2	150.2	150.2	150.2	150.2	150.2
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)