

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: P411995

Luminaire Tested: **LHB-18-UNV-L840-CD-U**

Issue Date: 09/28/2020

Test Information

Test Method: LM-79-08
Report Number: P411995
Test Lab: BAY AREA COMPLIANCE LABS
Issue Date: 09/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: LHB-18-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: 20044.2 lumens
Efficiency: N/A
Efficacy: 151.6 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

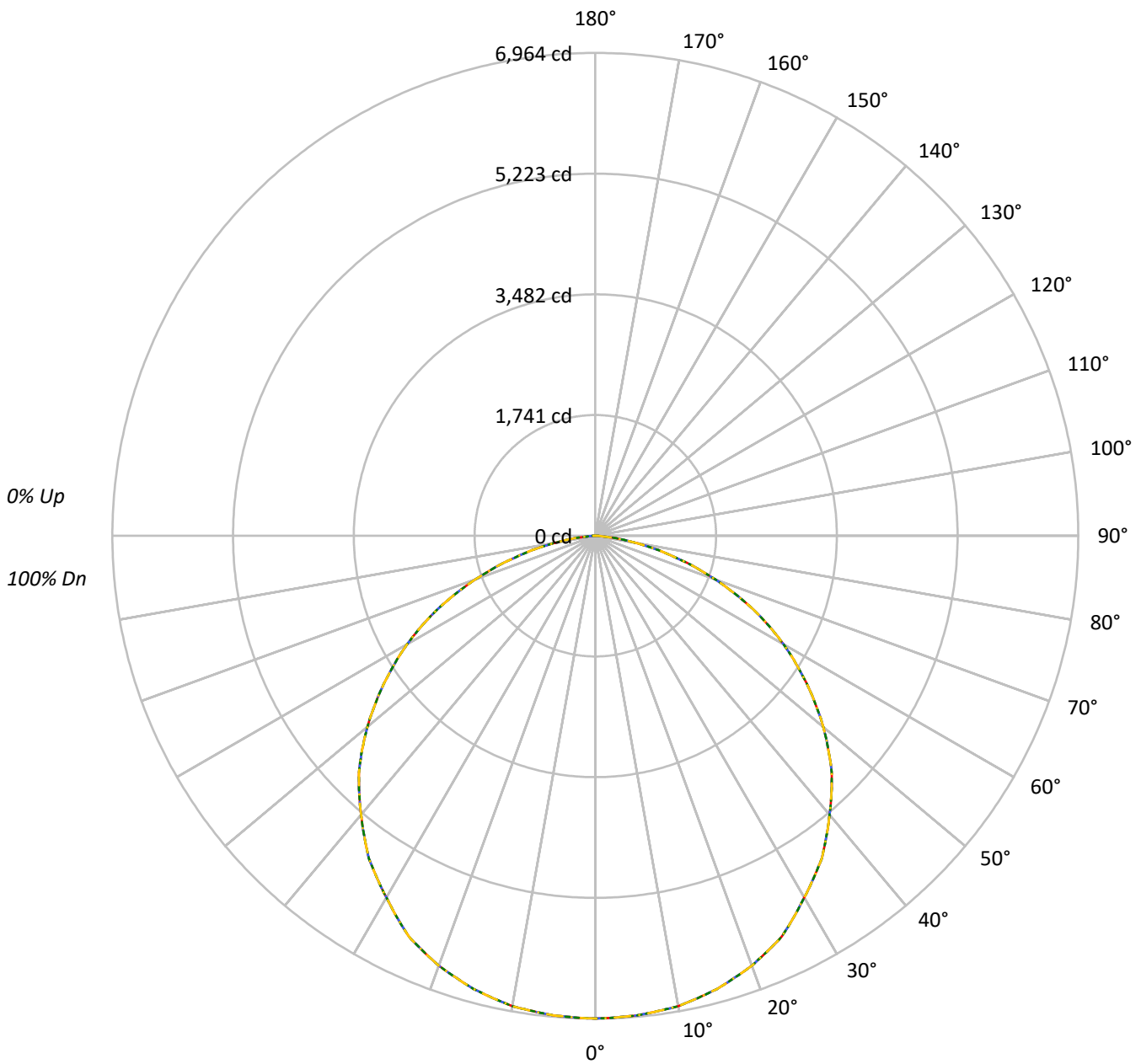
Input Watts (W): 132.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot



0% Up
100% Dn

— 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°	39476	39476	39476	39476
5°	39506	39506	39506	39506
10°	39655	39655	39655	39655
15°	39724	39724	39724	39724
20°	39802	39802	39802	39802
25°	39862	39862	39862	39862
30°	39439	39439	39439	39439
35°	39368	39368	39368	39368
40°	38887	38887	38887	38887
45°	38649	38649	38649	38649
50°	37851	37851	37851	37851
55°	36807	36807	36807	36807
60°	35542	35542	35542	35542
65°	33704	33704	33704	33704
70°	30388	30388	30388	30388
75°	25842	25842	25842	25842
80°	19149	19149	19149	19149
85°	7382	7382	7382	7382



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	661.1	3.3
10°-20°	1911.8	9.5
20°-30°	2929.5	14.6
30°-40°	3551.0	17.7
40°-50°	3707.2	18.5
50°-60°	3328.5	16.6
60°-70°	2473.5	12.3
70°-80°	1260.3	6.3
80°-90°	221.3	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°	5502.4	27.5
0°-40°	9053.4	45.2
0°-60°	16089.1	80.3
0°-90°	20044.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20044.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	6964	6964	6964	6964	6964	
5°	6943	6943	6943	6943	6943	661
15°	6769	6769	6769	6769	6769	1912
25°	6373	6373	6373	6373	6373	2929
35°	5689	5689	5689	5689	5689	3551
45°	4821	4821	4821	4821	4821	3707
55°	3724	3724	3724	3724	3724	3329
65°	2513	2513	2513	2513	2513	2474
75°	1180	1180	1180	1180	1180	1260
85°	114	114	114	114	114	214
90°	0	0	0	0	0	16
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°	6964.1	6964.1	6964.1	6964.1	6964.1	6964.1	6964.1	6964.1	6964.1	6964.1	6964.1
5°	6942.8	6942.8	6942.8	6942.8	6942.8	6942.8	6942.8	6942.8	6942.8	6942.8	6942.8
10°	6889.3	6889.3	6889.3	6889.3	6889.3	6889.3	6889.3	6889.3	6889.3	6889.3	6889.3
15°	6769.0	6769.0	6769.0	6769.0	6769.0	6769.0	6769.0	6769.0	6769.0	6769.0	6769.0
20°	6598.1	6598.1	6598.1	6598.1	6598.1	6598.1	6598.1	6598.1	6598.1	6598.1	6598.1
25°	6373.2	6373.2	6373.2	6373.2	6373.2	6373.2	6373.2	6373.2	6373.2	6373.2	6373.2
30°	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3
35°	5689.0	5689.0	5689.0	5689.0	5689.0	5689.0	5689.0	5689.0	5689.0	5689.0	5689.0
40°	5255.2	5255.2	5255.2	5255.2	5255.2	5255.2	5255.2	5255.2	5255.2	5255.2	5255.2
45°	4821.2	4821.2	4821.2	4821.2	4821.2	4821.2	4821.2	4821.2	4821.2	4821.2	4821.2
50°	4292.1	4292.1	4292.1	4292.1	4292.1	4292.1	4292.1	4292.1	4292.1	4292.1	4292.1
55°	3724.3	3724.3	3724.3	3724.3	3724.3	3724.3	3724.3	3724.3	3724.3	3724.3	3724.3
60°	3135.0	3135.0	3135.0	3135.0	3135.0	3135.0	3135.0	3135.0	3135.0	3135.0	3135.0
65°	2512.8	2512.8	2512.8	2512.8	2512.8	2512.8	2512.8	2512.8	2512.8	2512.8	2512.8
70°	1833.5	1833.5	1833.5	1833.5	1833.5	1833.5	1833.5	1833.5	1833.5	1833.5	1833.5
75°	1179.9	1179.9	1179.9	1179.9	1179.9	1179.9	1179.9	1179.9	1179.9	1179.9	1179.9
80°	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6
85°	113.5	113.5	113.5	113.5	113.5	113.5	113.5	113.5	113.5	113.5	113.5
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°	6964.1	6964.1	6964.1	6964.1	6964.1	6964.1
5°	6942.8	6942.8	6942.8	6942.8	6942.8	6942.8
10°	6889.3	6889.3	6889.3	6889.3	6889.3	6889.3
15°	6769.0	6769.0	6769.0	6769.0	6769.0	6769.0
20°	6598.1	6598.1	6598.1	6598.1	6598.1	6598.1
25°	6373.2	6373.2	6373.2	6373.2	6373.2	6373.2
30°	6025.3	6025.3	6025.3	6025.3	6025.3	6025.3
35°	5689.0	5689.0	5689.0	5689.0	5689.0	5689.0
40°	5255.2	5255.2	5255.2	5255.2	5255.2	5255.2
45°	4821.2	4821.2	4821.2	4821.2	4821.2	4821.2
50°	4292.1	4292.1	4292.1	4292.1	4292.1	4292.1
55°	3724.3	3724.3	3724.3	3724.3	3724.3	3724.3
60°	3135.0	3135.0	3135.0	3135.0	3135.0	3135.0
65°	2512.8	2512.8	2512.8	2512.8	2512.8	2512.8
70°	1833.5	1833.5	1833.5	1833.5	1833.5	1833.5
75°	1179.9	1179.9	1179.9	1179.9	1179.9	1179.9
80°	586.6	586.6	586.6	586.6	586.6	586.6
85°	113.5	113.5	113.5	113.5	113.5	113.5
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)