

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: RKS180522019-10

Luminaire Tested: **LHB-18-UNV-L850-CD-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-41-14
Report Number: RKS180522019-10
Test Lab: BAY AREA COMPLIANCE LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: LHB-18-UNV-L850-CD-U
Description: High Bay Luminaires for Commercial and Industrial Buildings
Light Source: -
Ballast/Driver: -

Luminaire Equipment:	<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
	AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
	AS-5443-2	Good	REFLECTOR
	AS-5443-3	Good	DRIVER
	AS-5443-4	Good	UPPER MODULE
	AS-5443-5	Good	LENS
	AS-5443-6	Good	DRIVER 2
	AS-5443-7	Good	TRIM RING

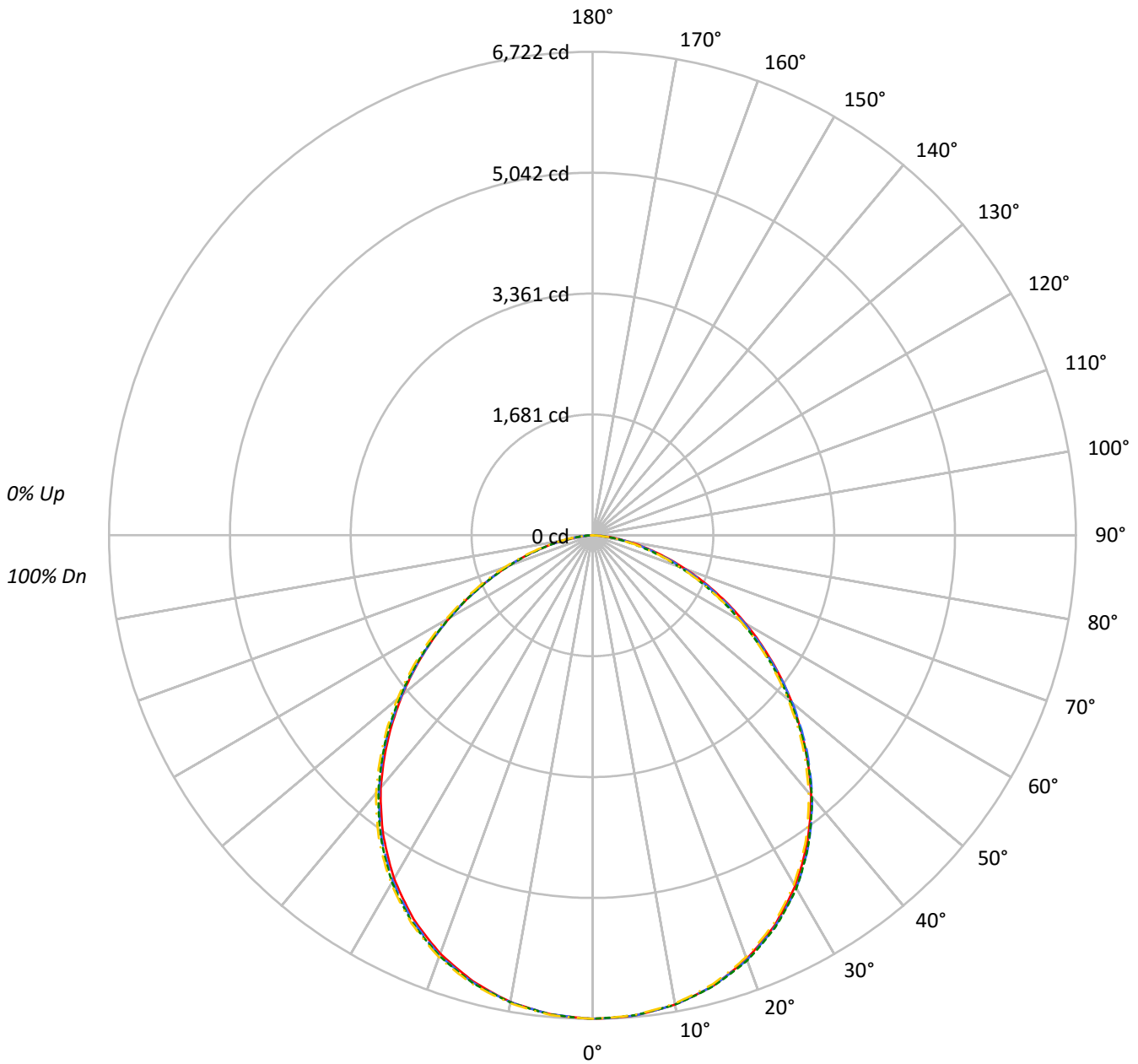
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17129.7 lumens
Efficiency: N/A
Efficacy: 130.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.24 / 1.33
Luminous Opening: Rectangular (W 0.99' x L: 1.92' x H: 0')
CIE Type: Direct

Input Watts (W): 131.77
Input Voltage (V): NR
Input Current (A_{in}): 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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	78	65	56	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	38101	38101	38101	38101
5°	38141	38108	38032	38048
10°	38121	38123	37911	37942
15°	38053	38083	37664	37802
20°	37811	37948	37329	37530
25°	37452	37615	36815	37131
30°	36869	37110	36090	36475
35°	36060	36253	35113	35507
40°	35008	35117	33890	34261
45°	33563	33524	32255	32687
50°	31947	31629	30426	30798
55°	30059	29437	28348	28553
60°	27873	26922	25972	26004
65°	25581	24279	23407	23322
70°	22883	21319	20427	20316
75°	19836	18054	17057	17004
80°	16328	14216	12960	13080
85°	11909	9080	7018	7857



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	636.1	3.7
10°-20°	1821.6	10.6
20°-30°	2742.0	16.0
30°-40°	3228.9	18.8
40°-50°	3179.8	18.6
50°-60°	2639.7	15.4
60°-70°	1795.2	10.5
70°-80°	890.2	5.2
80°-90°	196.2	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°	5199.7	30.4
0°-40°	8428.6	49.2
0°-60°	14248.1	83.2
0°-90°	17129.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17129.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	6722	6722	6722	6722	6722	
5°	6703	6697	6684	6687	6703	637
15°	6484	6489	6418	6442	6484	1828
25°	5988	6014	5886	5937	5988	2756
35°	5211	5239	5074	5131	5211	3256
45°	4187	4182	4024	4077	4187	3229
55°	3042	2979	2868	2889	3042	2720
65°	1907	1810	1745	1739	1907	1894
75°	906	824	779	776	906	974
85°	183	140	108	121	183	223
90°	0	0	0	0	0	25
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



TEST NUMBER: RKS180522019-10
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	6721.5	6721.5	6721.5	6721.5	6721.5	6721.5	6721.5	6721.5	6721.5	6721.5	6721.5
5°	6703.0	6703.5	6703.3	6697.9	6697.2	6691.6	6694.3	6692.1	6683.7	6682.2	6682.4
10°	6622.9	6619.6	6623.7	6620.2	6623.1	6612.6	6606.9	6602.5	6586.4	6585.7	6589.3
15°	6484.3	6477.7	6483.3	6482.9	6489.4	6473.2	6459.7	6448.2	6418.0	6425.0	6434.8
20°	6268.1	6271.4	6280.6	6276.8	6290.7	6262.3	6241.7	6227.2	6188.2	6197.1	6213.5
25°	5988.0	5995.0	6004.9	6009.8	6014.0	5981.9	5959.2	5937.6	5886.1	5896.4	5913.5
30°	5632.8	5646.5	5668.1	5659.9	5669.6	5629.5	5602.1	5567.1	5513.7	5525.3	5549.3
35°	5211.0	5226.2	5246.1	5237.4	5238.8	5206.3	5175.7	5141.6	5074.1	5083.4	5116.7
40°	4731.0	4739.1	4752.4	4749.1	4745.7	4705.1	4675.2	4654.9	4579.8	4588.7	4615.4
45°	4186.7	4205.3	4210.4	4198.1	4181.8	4158.8	4130.6	4106.3	4023.6	4040.0	4065.0
50°	3622.6	3627.5	3629.6	3612.0	3586.6	3559.0	3547.9	3536.8	3450.2	3462.5	3468.5
55°	3041.5	3043.6	3023.9	3011.9	2978.6	2958.5	2959.0	2952.9	2868.4	2878.4	2870.7
60°	2458.6	2458.9	2432.3	2411.8	2374.7	2360.8	2369.2	2372.8	2290.9	2288.9	2289.5
65°	1907.2	1904.2	1871.8	1833.5	1810.1	1798.0	1805.5	1822.2	1745.1	1741.3	1736.2
70°	1380.7	1374.4	1352.6	1313.8	1286.3	1272.2	1288.4	1300.7	1232.5	1241.5	1235.2
75°	905.7	900.9	876.8	849.0	824.3	815.2	825.6	833.6	778.8	786.7	785.1
80°	500.2	491.5	476.0	457.4	435.5	425.6	436.1	439.6	397.0	396.5	396.4
85°	183.1	183.5	172.5	157.5	139.6	136.7	136.3	145.0	107.9	121.9	116.8
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°	6721.5	6721.5	6721.5	6721.5	6721.5	6721.5
5°	6682.9	6686.6	6688.1	6694.5	6698.3	6703.0
10°	6592.8	6591.7	6602.1	6602.7	6608.8	6622.9
15°	6434.4	6441.5	6451.4	6457.8	6457.2	6484.3
20°	6217.9	6221.4	6237.9	6243.0	6243.7	6268.1
25°	5930.9	5936.6	5948.3	5952.8	5958.1	5988.0
30°	5567.5	5572.6	5597.8	5596.7	5597.3	5632.8
35°	5132.1	5131.1	5158.5	5174.5	5174.2	5211.0
40°	4631.2	4630.0	4660.3	4681.8	4685.5	4731.0
45°	4066.7	4077.4	4109.4	4124.0	4138.0	4186.7
50°	3477.9	3492.4	3524.4	3541.0	3564.7	3622.6
55°	2876.6	2889.2	2923.4	2949.0	2977.0	3041.5
60°	2291.1	2293.7	2317.0	2364.0	2398.8	2458.6
65°	1733.6	1738.8	1760.9	1808.7	1843.5	1907.2
70°	1222.4	1225.8	1252.4	1300.3	1322.9	1380.7
75°	772.3	776.4	801.3	830.7	860.8	905.7
80°	396.4	400.7	411.2	441.4	463.8	500.2
85°	118.2	120.8	134.5	147.1	163.6	183.1
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)