

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: RKS180928008-10

Luminaire Tested: **LHB-36-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: RKS180928008-10
Test Lab: BAY AREA COMPLIANCE LABS
Issue Date: 3/3/2020
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
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

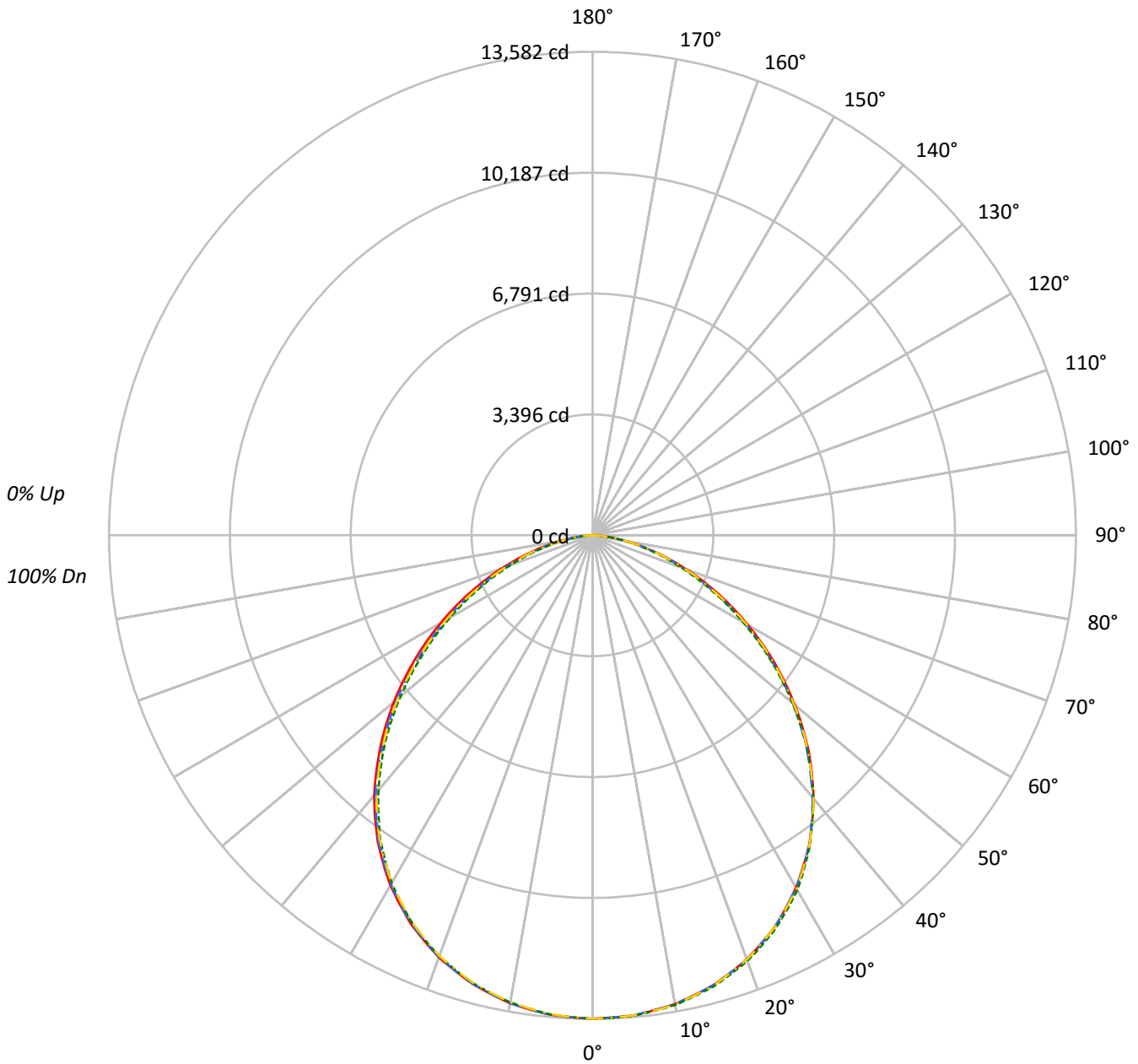
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35003.7 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.33
Luminous Opening: Rectangular (W 0.99' x L: 3.76' x H: 0')
CIE Type: Direct

Input Watts (W): 266.89
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	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61
4	84	73	64	58	82	71	63	57	69	62	56	66	60	56	64	59	55	53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	42	40
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	40	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	39313	39313	39313	39313
5°	39316	39350	39289	39249
10°	39288	39375	39234	39152
15°	39216	39327	39085	39014
20°	39052	39201	38868	38769
25°	38746	38917	38508	38338
30°	38213	38478	37964	37690
35°	37501	37619	37167	36738
40°	36507	36479	36056	35351
45°	35180	34972	34537	33728
50°	33454	33076	32813	31685
55°	31495	30853	30757	29325
60°	29208	28270	28460	26687
65°	26773	25558	25886	23853
70°	23818	22507	22820	20662
75°	20484	19250	19337	17155
80°	16503	15382	15152	12957
85°	11412	10389	9625	7317



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1285.6	3.7
10°-20°	3685.4	10.5
20°-30°	5563.3	15.9
30°-40°	6579.6	18.8
40°-50°	6509.8	18.6
50°-60°	5423.8	15.5
60°-70°	3699.3	10.6
70°-80°	1838.7	5.3
80°-90°	404.0	1.2
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°	1.4	0.0
150°-160°	5.4	0.0
160°-170°	5.5	0.0
170°-180°	1.9	0.0
0°-30°	10534.3	30.1
0°-40°	17113.9	48.9
0°-60°	29047.5	83.0
0°-90°	34989.6	100.0
90°-120°	0.0	0.0
90°-150°	1.4	0.0
90°-180°	14.0	0.0
0°-180°	35003.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	13582	13582	13582	13582	13582	
5°	13531	13543	13522	13508	13531	###
15°	13086	13124	13043	13019	13086	3693
25°	12132	12185	12057	12004	12132	5584
35°	10612	10646	10518	10397	10612	6629
45°	8594	8543	8437	8239	8594	6618
55°	6241	6114	6095	5811	6241	5581
65°	3909	3732	3779	3483	3909	3879
75°	1832	1721	1729	1534	1832	1969
85°	344	313	290	220	344	433
90°	0	0	0	0	0	47
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	2
155°	15	14	7	0	15	7
165°	18	22	13	20	18	5
175°	18	28	17	26	18	2
180°	0	0	0	0	0	



TEST NUMBER: RKS180928008-10
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	13581.5	13581.5	13581.5	13581.5	13581.5	13581.5	13581.5	13581.5	13581.5	13581.5	13581.5
5°	13531.0	13528.1	13530.8	13533.8	13542.7	13544.6	13537.5	13534.0	13521.7	13524.4	13520.7
10°	13366.7	13365.7	13369.7	13370.8	13396.2	13387.8	13382.4	13374.2	13348.4	13348.7	13342.1
15°	13086.5	13084.0	13089.0	13082.7	13123.5	13106.2	13100.3	13099.8	13042.6	13054.3	13040.3
20°	12677.8	12668.8	12682.2	12669.4	12726.0	12704.6	12681.3	12690.5	12618.0	12625.2	12609.3
25°	12131.7	12130.3	12137.3	12125.3	12185.0	12167.4	12138.4	12149.0	12057.0	12065.0	12034.3
30°	11432.8	11448.4	11436.4	11431.0	11512.1	11482.5	11461.5	11437.4	11358.4	11352.7	11323.6
35°	10612.5	10610.8	10620.0	10597.1	10646.0	10651.5	10624.4	10605.3	10518.2	10491.8	10473.6
40°	9661.6	9671.8	9620.3	9617.0	9654.1	9674.9	9668.9	9641.5	9542.1	9514.1	9477.3
45°	8594.0	8601.2	8521.6	8491.6	8543.2	8563.0	8557.2	8567.9	8436.9	8430.1	8334.9
50°	7429.0	7437.4	7353.0	7326.2	7345.0	7390.3	7395.1	7412.5	7286.6	7274.4	7175.8
55°	6240.8	6240.7	6144.9	6109.1	6113.7	6144.5	6192.4	6216.2	6094.7	6069.7	5930.7
60°	5045.3	5043.0	4944.1	4892.0	4883.2	4918.4	4986.0	5019.6	4916.1	4854.6	4737.0
65°	3908.9	3896.3	3788.3	3747.7	3731.5	3767.7	3823.0	3882.5	3779.4	3718.2	3598.0
70°	2814.3	2822.9	2736.2	2675.0	2659.4	2705.5	2765.6	2800.8	2696.4	2662.5	2557.0
75°	1831.6	1828.9	1787.2	1736.5	1721.2	1746.1	1803.0	1830.1	1729.0	1699.6	1625.1
80°	990.0	993.3	966.8	936.4	922.8	935.4	973.7	989.6	909.0	872.3	821.4
85°	343.6	347.8	342.7	316.9	312.8	316.4	347.8	348.2	289.8	275.8	244.4
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	8.4	0.0	0.0	0.0	0.0	10.3	0.0	0.0	0.0
150°	12.0	13.3	11.1	13.2	8.2	0.0	11.8	14.3	0.0	0.0	0.0
155°	14.9	11.3	17.1	10.5	14.3	13.2	14.8	16.0	7.0	10.7	7.4
160°	17.9	14.0	19.5	19.3	18.0	18.2	18.8	18.9	13.0	18.3	8.4
165°	18.3	16.0	21.5	21.0	21.8	22.3	23.2	21.6	13.3	17.7	17.8
170°	20.2	22.7	24.8	20.0	25.2	23.0	25.2	19.6	16.3	20.3	21.2
175°	18.3	19.3	24.8	28.4	27.5	24.0	24.5	24.2	17.3	17.0	19.5
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°	13581.5	13581.5	13581.5	13581.5	13581.5	13581.5
5°	13510.1	13507.7	13507.1	13504.9	13514.0	13531.0
10°	13330.2	13320.3	13324.6	13319.2	13335.6	13366.7
15°	13020.4	13019.1	13012.2	13006.6	13023.7	13086.5
20°	12585.9	12585.9	12579.8	12574.9	12588.5	12677.8
25°	12015.7	12003.7	11999.4	11989.6	12026.1	12131.7
30°	11292.0	11276.4	11295.5	11276.2	11317.5	11432.8
35°	10423.2	10396.8	10411.5	10423.3	10478.7	10612.5
40°	9409.4	9355.6	9397.7	9430.8	9506.3	9661.6
45°	8273.5	8239.3	8296.3	8317.4	8394.8	8594.0
50°	7065.8	7036.2	7092.8	7130.9	7241.4	7429.0
55°	5836.9	5810.8	5866.3	5926.8	6043.4	6240.8
60°	4640.8	4609.8	4641.5	4743.3	4864.8	5045.3
65°	3511.6	3482.6	3509.0	3611.1	3731.0	3908.9
70°	2467.3	2441.4	2485.1	2573.3	2658.3	2814.3
75°	1558.3	1533.9	1568.9	1638.2	1698.9	1831.6
80°	785.9	777.3	781.9	829.7	887.0	990.0
85°	223.5	220.3	229.2	247.1	284.4	343.6
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	7.4	9.7	9.0	12.0
155°	8.1	0.0	14.2	14.1	13.6	14.9
160°	15.6	13.9	17.2	19.5	21.9	17.9
165°	20.3	20.4	22.6	18.5	23.9	18.3
170°	21.0	20.7	23.3	19.8	22.9	20.2
175°	24.7	26.2	27.0	24.2	22.9	18.3
180°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)