

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: P30373

Luminaire Tested: **HBI-632-N-CL-UNV-EB82/PLUS-SDF-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P30373
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBI-632-N-CL-UNV-EB82/PLUS-SDF-U
Description: HBI SERIES, FULL BODY STEEL HOUSING, WITH SIX T8 LAMPS,
NARROW DISTRIBUTION SPECULAR REFLECTOR AND CLEAR ACRYLIC LENS
IN SLOTTED DOORFRAME, NO UPLIGHT
Light Source: SIX T8 LINEAR FLUORESCENT LAMPS, F32T8 32W - 3100 LUMENS EA
Ballast/Driver: (2) GE ELECTRONIC BALLAST
GE432MAXULTRA,GE232MAXULTRA

Summary

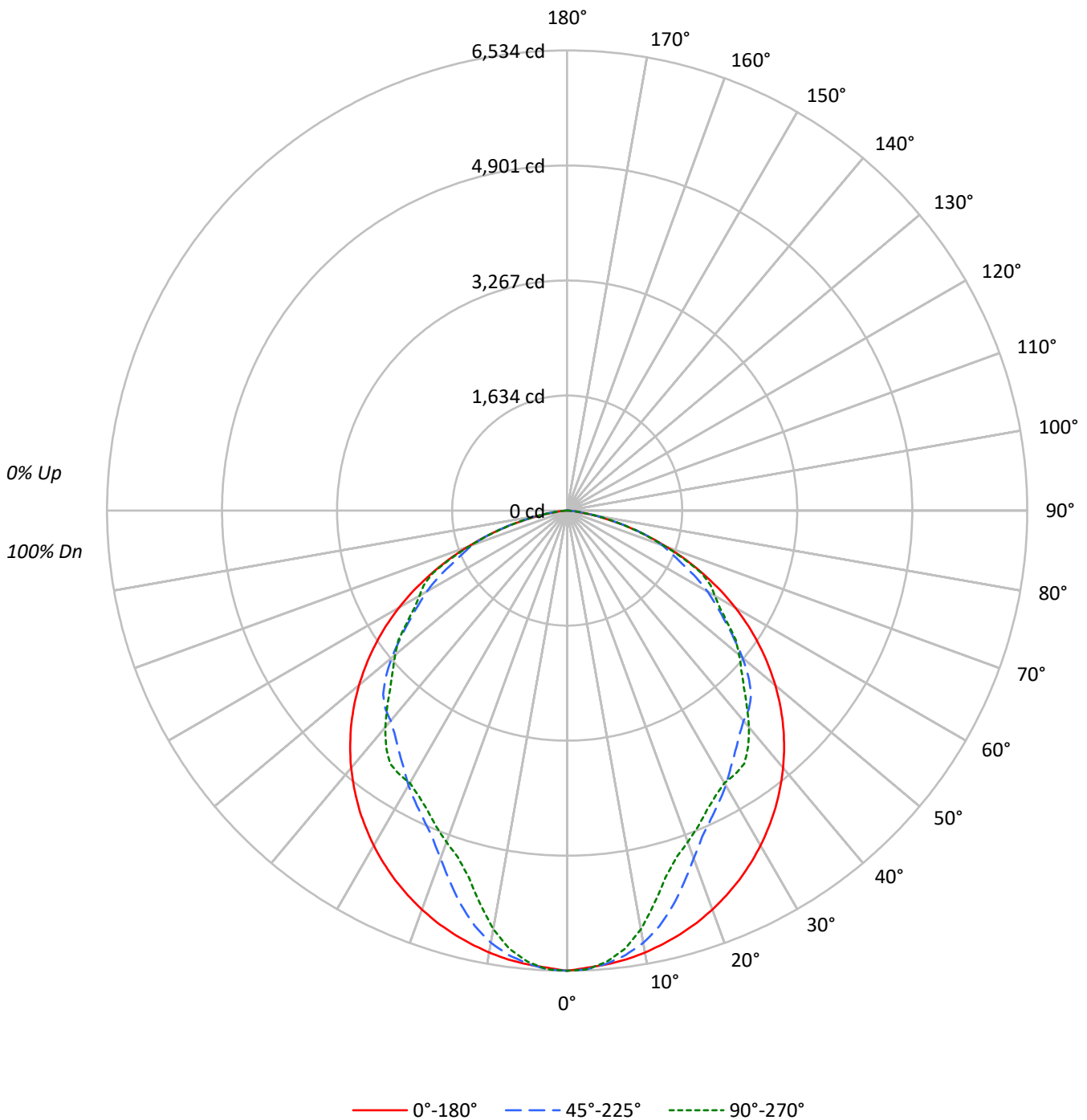
Lumens per Lamp: 3100 (6 lamps)
Luminaire Lumens: 15708.1 lumens
Efficiency: 84.5%
Efficacy: 68.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.01 / 1.25
Luminous Opening: Rectangular (W 1.21' x L: 3.71' x H: 0')
CIE Type: Direct

Input Watts (W): 230.4
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

TEST NUMBER: P30373

CATALOG NUMBER: HBI-632-N-CL-UNV-EB82/PLUS-SDF-U

Luminous Intensity Polar Plot





TEST NUMBER: P30373

CATALOG NUMBER: HBI-632-N-CL-UNV-EB82/PLUS-SDF-U

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	101	101	101	101	98	98	98	98	94	94	94		90	90	90		86	86	86	84
1	92	88	85	82	90	87	83	81	83	80	78		80	78	76		77	75	73	72
2	84	77	72	67	82	76	71	66	73	69	65		70	66	63		68	65	62	60
3	77	68	61	56	75	67	61	56	64	59	55		62	57	54		60	56	53	51
4	70	60	53	48	68	59	53	47	57	51	47		55	50	46		53	49	45	44
5	65	54	47	41	63	53	46	41	51	45	40		50	44	40		48	43	40	38
6	60	49	41	36	58	48	41	36	46	40	36		45	39	35		44	39	35	33
7	56	44	37	32	54	44	37	32	42	36	32		41	35	31		40	35	31	29
8	52	40	33	29	50	40	33	28	39	33	28		38	32	28		37	32	28	26
9	48	37	30	26	47	37	30	26	36	30	26		35	29	25		34	29	25	24
10	45	34	28	23	44	34	28	23	33	27	23		32	27	23		32	27	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15696	15696	15696
5°	15597	15570	15507
10°	15543	15201	14716
15°	15476	14437	13409
20°	15412	13434	12802
25°	15333	12802	12439
30°	15236	12499	12388
35°	15123	12217	12859
40°	14964	12220	12593
45°	14740	12556	12057
50°	14422	12153	11918
55°	13950	11463	11630
60°	13250	11074	11627
65°	12158	10311	11971
70°	10542	10093	10346
75°	8288	8400	8325
80°	5243	5727	5603
85°	1957	2618	2177



TEST NUMBER: P30373

CATALOG NUMBER: HBI-632-N-CL-UNV-EB82/PLUS-SDF-U

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	608.5	3.9	3.3	0°	6534	6534	6534	6534	6534	
10°-20°	1634.6	10.4	8.8	5°	6468	6467	6457	6435	6431	615
20°-30°	2330.5	14.8	12.5	15°	6223	6120	5805	5489	5392	1757
30°-40°	2761.8	17.6	14.8	25°	5785	5416	4830	4722	4693	2666
40°-50°	2849.0	18.1	15.3	35°	5157	4427	4166	4314	4385	3224
50°-60°	2526.6	16.1	13.6	45°	4339	3570	3696	3595	3549	3344
60°-70°	1914.7	12.2	10.3	55°	3331	2704	2737	2798	2777	2971
70°-80°	937.3	6.0	5.0	65°	2139	1830	1814	2047	2106	2112
80°-90°	145.0	0.9	0.8	75°	893	796	905	895	897	958
90°-100°	0.0	0.0	0.0	85°	71	100	95	84	79	128
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	4573.6	29.1	24.6							
0°-40°	7335.4	46.7	39.4							
0°-60°	12711.0	80.9	68.3							
0°-90°	15708.1	100.0	84.5							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	15708.1	100.0	84.5							



TEST NUMBER: P30373

CATALOG NUMBER: HBI-632-N-CL-UNV-EB82/PLUS-SDF-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6534	6534	6534	6534	6534
2.5°	6497	6506	6519	6517	6520
5°	6468	6467	6457	6435	6431
7.5°	6428	6410	6365	6299	6278
10°	6372	6333	6232	6093	6033
12.5°	6303	6238	6046	5802	5714
15°	6223	6120	5805	5489	5392
17.5°	6134	5984	5530	5214	5159
20°	6029	5823	5255	5037	5008
22.5°	5912	5631	5010	4887	4857
25°	5785	5416	4830	4722	4693
27.5°	5644	5181	4669	4565	4566
30°	5493	4934	4506	4440	4466
32.5°	5329	4678	4324	4345	4440
35°	5157	4427	4166	4314	4385
37.5°	4968	4191	4016	4231	4223
40°	4772	3980	3897	4053	4016
42.5°	4561	3777	3821	3837	3780
45°	4339	3570	3696	3595	3549
47.5°	4106	3352	3493	3360	3355
50°	3859	3128	3252	3159	3189
52.5°	3599	2914	2988	2989	3017
55°	3331	2704	2737	2798	2777
57.5°	3050	2513	2508	2550	2571
60°	2758	2336	2305	2349	2420
62.5°	2453	2107	2072	2191	2296
65°	2139	1830	1814	2047	2106
67.5°	1822	1543	1609	1816	1795
70°	1501	1269	1437	1484	1473
72.5°	1188	1029	1208	1174	1171
75°	893	796	905	895	897
77.5°	619	588	638	642	641
80°	379	422	414	409	405
82.5°	193	232	229	218	215
85°	71	100	95	84	79
87.5°	16	24	21	18	17
90°	0	0	0	0	0

(END OF REPORT)