

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: 236P333

Luminaire Tested: **HBI-632-W-UNV-EB82/PLUS-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P333
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBI-632-W-UNV-EB82/PLUS-U
Description: HBI SERIES, FULL BODY STEEL HOUSING, WITH SIX T8 LAMPS
WIDE DISTRIBUTION WHITE ALUM REFLECTOR NO UPLIGHT
Light Source: SIX T8 LINEAR FLUORESCENT LAMPS, F32T8 32W - 2850 LUMENS EA
Ballast/Driver: -

Summary

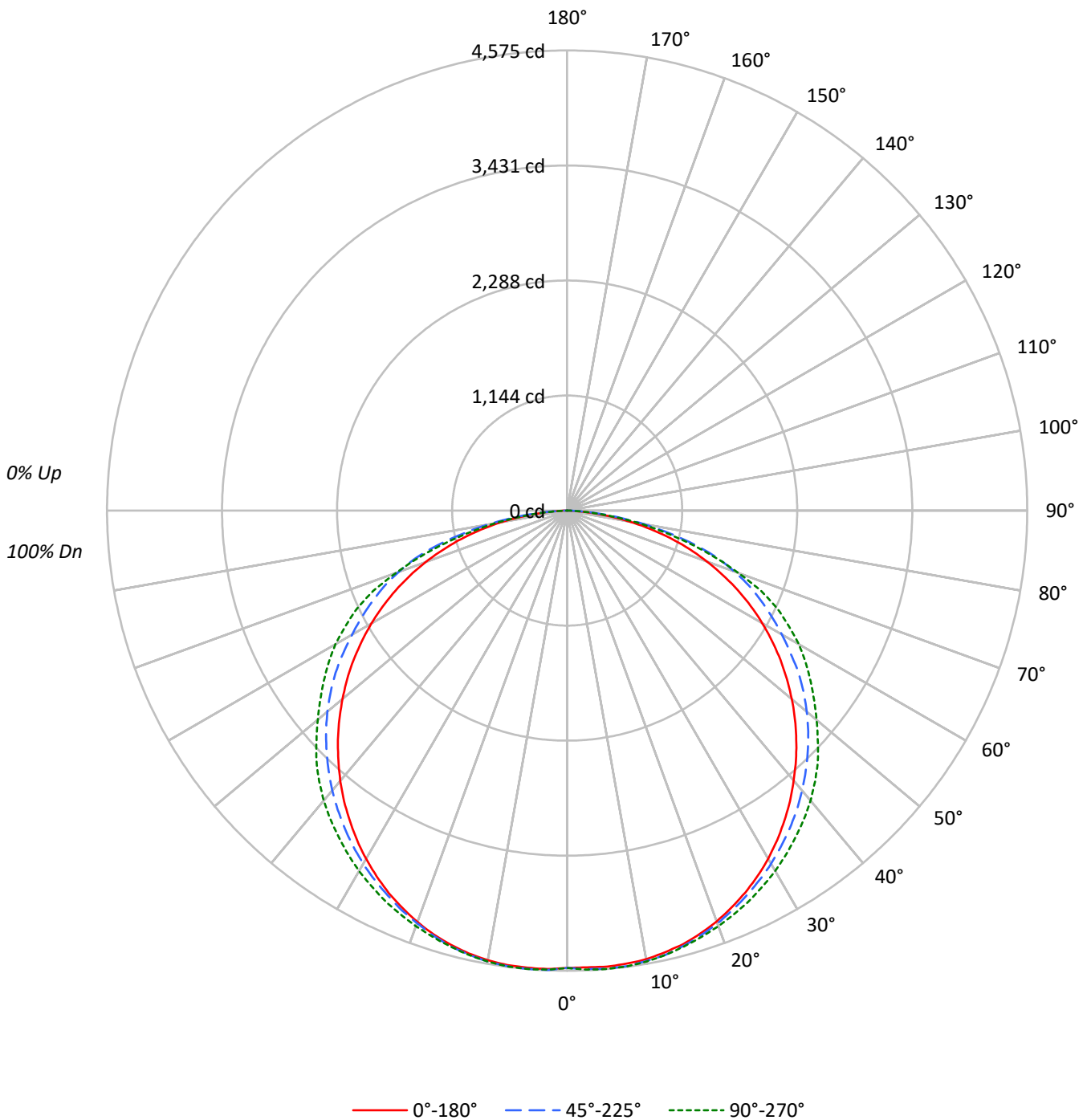
Lumens per Lamp: 2850 (6 lamps)
Luminaire Lumens: 14870.5 lumens
Efficiency: 87.0%
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.35 / 1.45
Luminous Opening: Rectangular (W 1.23' x L: 3.92' x H: 0')
CIE Type: Direct

Input Watts (W): 210.5
Input Voltage (V): NR
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	104	104	104	104	101	101	101	101	97	97	97	93	93	93	89	89	89	87
1	94	89	86	82	92	87	84	81	84	81	78	80	78	76	77	75	73	71
2	85	77	71	66	83	76	70	65	72	68	63	70	65	62	67	64	60	59
3	77	67	60	54	75	66	59	53	63	57	52	61	56	52	59	54	51	49
4	70	59	51	45	68	58	51	45	56	49	44	54	48	44	52	47	43	41
5	64	53	45	39	63	52	44	38	50	43	38	48	42	38	46	41	37	35
6	59	47	39	33	58	46	39	33	45	38	33	43	37	33	42	37	32	31
7	55	43	35	29	53	42	35	29	41	34	29	39	33	29	38	33	29	27
8	51	39	31	26	50	38	31	26	37	31	26	36	30	26	35	30	25	24
9	48	36	28	23	46	35	28	23	34	28	23	33	27	23	32	27	23	21
10	45	33	26	21	44	32	26	21	32	25	21	31	25	21	30	25	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	10166	10166	10166
5°	10214	10268	10239
10°	10285	10335	10305
15°	10328	10386	10344
20°	10343	10462	10357
25°	10337	10564	10351
30°	10319	10683	10322
35°	10276	10811	10282
40°	10227	10986	10242
45°	10188	11146	10194
50°	10143	11259	10139
55°	10092	11515	10112
60°	10021	11899	10052
65°	9904	12195	9957
70°	9662	11852	9786
75°	9209	10876	9425
80°	8112	9335	8562
85°	5285	6157	6182



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	435.3	2.9	2.5	0°	4547	4547	4547	4547	4547	
10°-20°	1264.6	8.5	7.4	5°	4551	4571	4575	4573	4562	434
20°-30°	1951.1	13.1	11.4	15°	4462	4480	4487	4483	4469	1259
30°-40°	2414.5	16.2	14.1	25°	4190	4223	4282	4222	4196	1932
40°-50°	2601.4	17.5	15.2	35°	3765	3857	3961	3856	3767	2356
50°-60°	2486.7	16.7	14.5	45°	3222	3384	3525	3383	3224	2486
60°-70°	2081.0	14.0	12.2	55°	2589	2806	2954	2811	2594	2313
70°-80°	1300.0	8.7	7.6	65°	1872	2129	2305	2138	1882	1848
80°-90°	336.0	2.3	2.0	75°	1066	1314	1259	1339	1091	1119
90°-100°	0.0	0.0	0.0	85°	206	273	240	296	241	269
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°	3651.0	24.6	21.4							
0°-40°	6065.5	40.8	35.5							
0°-60°	11153.6	75.0	65.2							
0°-90°	14870.5	100.0	87.0							
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°	14870.5	100.0	87.0							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	4547	4547	4547	4547	4547	4547	4547	4547	4547
2.5°	4545	4551	4563	4563	4568	4569	4572	4568	4562
5°	4551	4558	4571	4569	4575	4575	4573	4570	4562
7.5°	4543	4553	4567	4565	4570	4566	4569	4559	4557
10°	4530	4535	4547	4550	4552	4554	4552	4544	4539
12.5°	4497	4508	4523	4522	4525	4521	4522	4512	4510
15°	4462	4470	4480	4485	4487	4483	4483	4472	4469
17.5°	4409	4416	4426	4437	4444	4437	4429	4422	4418
20°	4347	4354	4369	4384	4397	4384	4365	4356	4353
22.5°	4272	4283	4298	4325	4341	4325	4299	4283	4278
25°	4190	4198	4223	4263	4282	4261	4222	4201	4196
27.5°	4099	4106	4142	4192	4211	4190	4142	4105	4100
30°	3997	4004	4055	4115	4138	4114	4055	4002	3998
32.5°	3885	3890	3958	4028	4053	4025	3959	3891	3887
35°	3765	3772	3857	3934	3961	3933	3856	3772	3767
37.5°	3641	3648	3752	3835	3867	3831	3747	3648	3643
40°	3504	3513	3633	3731	3764	3725	3633	3517	3509
42.5°	3368	3379	3511	3619	3649	3617	3509	3381	3366
45°	3222	3237	3384	3494	3525	3492	3383	3242	3224
47.5°	3073	3091	3250	3359	3380	3357	3252	3096	3072
50°	2916	2943	3110	3209	3237	3211	3111	2951	2915
52.5°	2753	2789	2963	3058	3095	3057	2965	2797	2758
55°	2589	2630	2806	2910	2954	2911	2811	2641	2594
57.5°	2416	2465	2632	2762	2813	2763	2640	2479	2421
60°	2241	2296	2464	2612	2661	2614	2471	2309	2248
62.5°	2059	2121	2296	2450	2483	2454	2305	2138	2068
65°	1872	1941	2129	2268	2305	2271	2138	1959	1882
67.5°	1675	1749	1961	2078	2085	2084	1971	1768	1693
70°	1478	1550	1768	1830	1813	1842	1783	1573	1497
72.5°	1275	1345	1571	1553	1535	1563	1587	1372	1296
75°	1066	1149	1314	1277	1259	1288	1339	1179	1091
77.5°	850	963	1039	1000	981	1011	1061	997	877
80°	630	773	770	738	725	746	795	806	665
82.5°	414	550	511	477	466	489	535	579	447
85°	206	308	273	250	240	260	296	337	241
87.5°	54	108	77	61	60	64	98	129	72
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)