

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: P30374

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P30374
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-U
Description: HBI SERIES, FULL BODY STEEL HOUSING, WITH SIX T8 LAMPS,
NARROW DISTRIBUTION SPECULAR REFLECTOR AND CLEAR ACRYLIC LENS
IN DOORFRAME, NO UPLIGHT
Light Source: SIX T8 LINEAR FLUORESCENT LAMPS, F32T8 32W - 3100 LUMENS EA
Ballast/Driver: (2) GE ELECTRONIC BALLAST
GE432MAXULTRA,GE232MAXULTRA

Summary

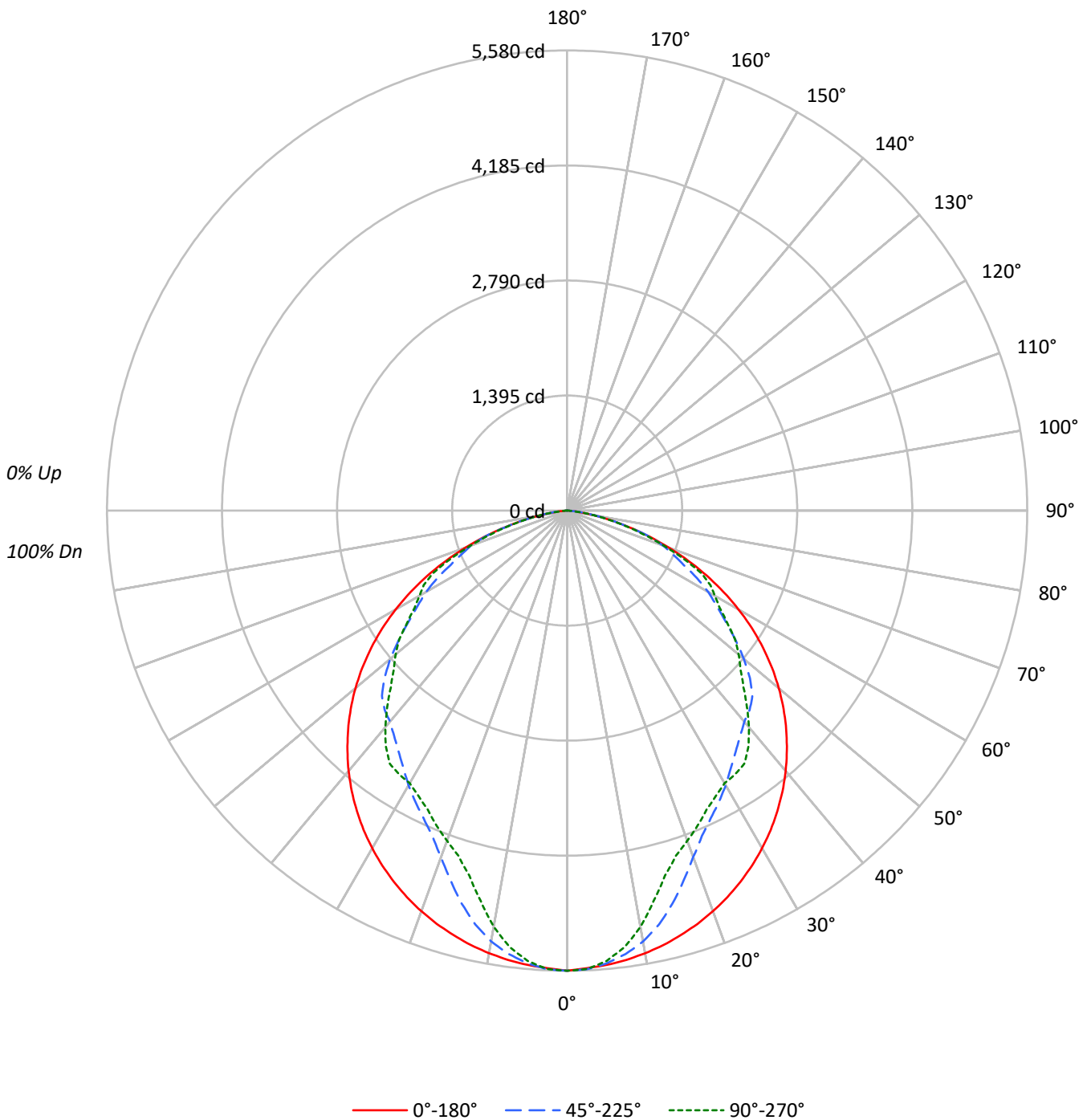
Lumens per Lamp: 3100 (6 lamps)
Luminaire Lumens: 13453.1 lumens
Efficiency: 72.3%
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.01 / 1.25
Luminous Opening: Rectangular (W 1.21' x L: 3.92' x H: 0')
CIE Type: Direct

Input Watts (W): 199.3
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	50	30	10	0	
RCR																						
0	86	86	86	86	84	84	84	84	80	80	80	77	77	77	74	74	74	72				
1	79	76	73	70	77	74	71	69	71	69	67	68	66	65	66	64	63	61				
2	72	66	61	57	70	65	61	57	62	59	55	60	57	54	58	55	53	51				
3	66	58	53	48	64	57	52	48	55	50	47	53	49	46	51	48	45	44				
4	60	52	46	41	59	51	45	40	49	44	40	47	43	39	46	42	39	37				
5	55	46	40	35	54	46	39	35	44	39	35	43	38	34	41	37	34	32				
6	51	42	35	31	50	41	35	31	40	34	30	39	34	30	37	33	30	28				
7	48	38	32	27	46	37	31	27	36	31	27	35	30	27	34	30	27	25				
8	44	35	29	24	43	34	28	24	33	28	24	32	27	24	31	27	24	22				
9	41	32	26	22	40	31	26	22	31	25	22	30	25	22	29	25	22	20				
10	39	29	24	20	38	29	24	20	28	23	20	28	23	20	27	23	20	18				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12691	12691	12691
5°	12625	12582	12514
10°	12587	12250	11836
15°	12550	11620	10794
20°	12513	10821	10311
25°	12470	10334	10041
30°	12420	10101	10027
35°	12344	9896	10406
40°	12241	9922	10190
45°	12084	10216	9720
50°	11857	9900	9603
55°	11495	9291	9386
60°	10931	8988	9398
65°	10048	8395	9649
70°	8725	8219	8319
75°	6854	6828	6635
80°	4335	4571	4322
85°	1540	1957	1644



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	519.0	3.9	2.8	0°	5580	5580	5580	5580	5580	
10°-20°	1392.4	10.4	7.5	5°	5530	5526	5511	5486	5481	525
20°-30°	1990.3	14.8	10.7	15°	5330	5224	4935	4661	4584	1505
30°-40°	2366.1	17.6	12.7	25°	4969	4626	4118	4027	4001	2291
40°-50°	2444.5	18.2	13.1	35°	4446	3793	3564	3687	3748	2781
50°-60°	2171.3	16.1	11.7	45°	3757	3067	3176	3070	3022	2896
60°-70°	1647.9	12.2	8.9	55°	2899	2343	2343	2384	2367	2586
70°-80°	801.9	6.0	4.3	65°	1867	1592	1560	1751	1793	1842
80°-90°	119.7	0.9	0.6	75°	780	690	777	757	755	837
90°-100°	0.0	0.0	0.0	85°	59	82	75	67	63	109
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°	3901.7	29.0	21.0							
0°-40°	6267.8	46.6	33.7							
0°-60°	10883.6	80.9	58.5							
0°-90°	13453.1	100.0	72.3							
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°	13453.1	100.0	72.3							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5580	5580	5580	5580	5580
2.5°	5553	5559	5566	5561	5564
5°	5530	5526	5511	5486	5481
7.5°	5495	5477	5424	5362	5339
10°	5450	5410	5304	5176	5125
12.5°	5397	5326	5141	4928	4849
15°	5330	5224	4935	4661	4584
17.5°	5255	5106	4702	4435	4388
20°	5170	4968	4471	4282	4260
22.5°	5074	4807	4270	4159	4136
25°	4969	4626	4118	4027	4001
27.5°	4854	4427	3983	3898	3904
30°	4729	4216	3846	3798	3818
32.5°	4593	4002	3697	3715	3792
35°	4446	3793	3564	3687	3748
37.5°	4290	3594	3446	3620	3609
40°	4123	3414	3342	3470	3432
42.5°	3944	3239	3277	3282	3228
45°	3757	3067	3176	3070	3022
47.5°	3560	2886	3005	2862	2852
50°	3351	2698	2798	2690	2714
52.5°	3131	2518	2570	2544	2565
55°	2899	2343	2343	2384	2367
57.5°	2658	2178	2147	2176	2193
60°	2403	2025	1976	2005	2066
62.5°	2139	1831	1777	1873	1960
65°	1867	1592	1560	1751	1793
67.5°	1588	1336	1384	1547	1528
70°	1312	1096	1236	1265	1251
72.5°	1039	888	1038	997	992
75°	780	690	777	757	755
77.5°	538	508	542	535	533
80°	331	363	349	337	330
82.5°	166	196	186	175	171
85°	59	82	75	67	63
87.5°	11	19	17	14	13
90°	0	0	0	0	0

(END OF REPORT)