

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: 236P290

Luminaire Tested: **HBI-454T5-A-UNV-EHT1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P290
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBI-454T5-A-UNV-EHT1
Description: HBI SERIES, FULL BODY STEEL HOUSING, WITH FOUR T5HO LAMPS,
NARROW DISTRIBUTION SPECULAR REFLECTOR AND PRISMATIC ACRYLIC LENS
IN DOORFRAME, NO UPLIGHT
Light Source: FOUR T5 HIGH OUTPUT LINEAR FLUORESCENT LAMPS - 4400 LUMENS EA
Ballast/Driver: -

Summary

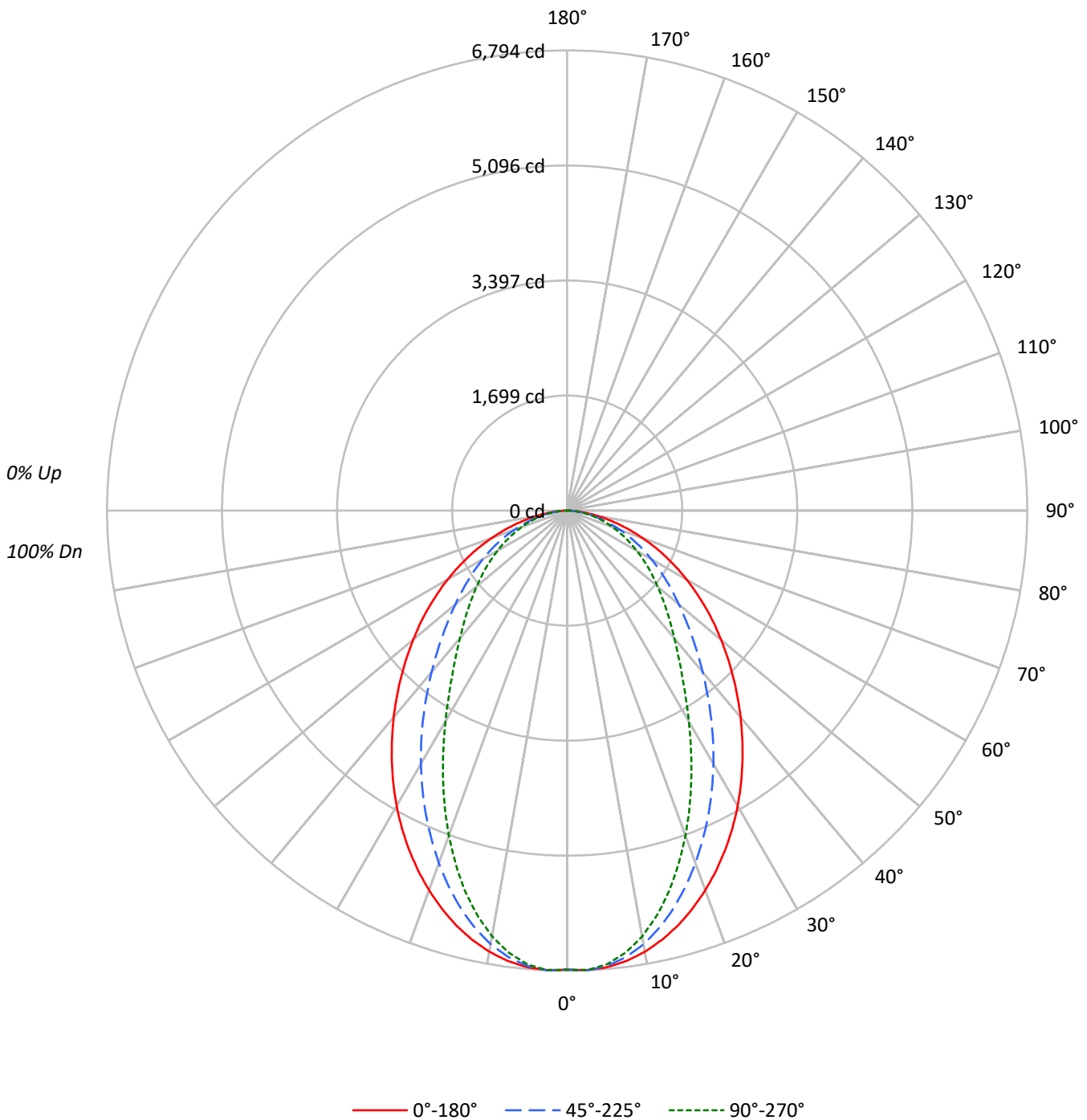
Lumens per Lamp: 4400 (4 lamps)
Luminaire Lumens: 12729.4 lumens
Efficiency: 72.3%
Efficacy: 63.6 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.9 / 1.08
Luminous Opening: Rectangular (W 1.23' x L: 3.92' x H: 0')
CIE Type: Direct

Input Watts (W): 200
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

TEST NUMBER: 236P290

CATALOG NUMBER: HBI-454T5-A-UNV-EHT1

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	50	30	10	0		
RCR																										
0	86	86	86	86	84	84	84	84	80	80	80	77	77	77	74	74	74	72	72	72	72	72	72	72		
1	79	76	74	71	78	75	72	70	72	70	68	69	67	66	66	65	64	62	62	62	62	62	62	62		
2	73	68	63	59	71	66	62	59	64	60	57	61	58	56	59	57	55	53	53	53	53	53	53	53		
3	67	60	55	50	65	59	54	50	57	53	49	55	51	48	53	50	47	46	46	46	46	46	46	46		
4	62	54	48	44	60	53	48	43	51	47	43	50	46	42	48	45	42	40	40	40	40	40	40	40		
5	57	49	43	38	56	48	42	38	47	42	38	45	41	37	44	40	37	35	35	35	35	35	35	35		
6	53	44	38	34	52	44	38	34	42	37	34	41	37	33	40	36	33	32	32	32	32	32	32	32		
7	50	41	35	31	49	40	34	30	39	34	30	38	33	30	37	33	30	28	28	28	28	28	28	28		
8	47	37	32	28	45	37	31	28	36	31	27	35	31	27	34	30	27	26	26	26	26	26	26	26		
9	44	35	29	25	43	34	29	25	33	28	25	33	28	25	32	28	25	24	24	24	24	24	24	24		
10	41	32	27	23	40	32	27	23	31	26	23	30	26	23	30	26	23	22	22	22	22	22	22	22		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15152	15152	15152
5°	15190	15145	15091
10°	15014	14759	14487
15°	14668	14067	13467
20°	14190	13174	12147
25°	13625	12187	10697
30°	13002	11148	9274
35°	12324	10088	8060
40°	11628	9083	7189
45°	10953	8205	6558
50°	10320	7489	6070
55°	9722	6923	5676
60°	9118	6430	5303
65°	8470	5952	4978
70°	7740	5426	4674
75°	6920	4820	4363
80°	5910	4133	3991
85°	4797	3412	3694



TEST NUMBER: 236P290

CATALOG NUMBER: HBI-454T5-A-UNV-EHT1

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	635.8	5.0	3.6	0°	6777	6777	6777	6777	6777	
10°-20°	1701.8	13.4	9.7	5°	6768	6762	6748	6727	6724	641
20°-30°	2265.0	17.8	12.9	15°	6337	6259	6077	5889	5818	1782
30°-40°	2325.8	18.3	13.2	25°	5523	5351	4940	4510	4336	2540
40°-50°	2086.6	16.4	11.9	35°	4515	4292	3696	3134	2953	2821
50°-60°	1695.2	13.3	9.6	45°	3464	3237	2595	2187	2074	2675
60°-70°	1196.4	9.4	6.8	55°	2494	2278	1776	1537	1456	2233
70°-80°	647.6	5.1	3.7	65°	1601	1433	1125	993	941	1587
80°-90°	175.2	1.4	1.0	75°	801	702	558	520	505	852
90°-100°	0.0	0.0	0.0	85°	187	154	133	143	144	222
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°	4602.6	36.2	26.2							
0°-40°	6928.4	54.4	39.4							
0°-60°	10710.2	84.1	60.9							
0°-90°	12729.4	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°	12729.4	100.0	72.3							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6777	6777	6777	6777	6777
2.5°	6790	6792	6794	6785	6791
5°	6768	6762	6748	6727	6724
7.5°	6706	6691	6649	6600	6585
10°	6613	6580	6501	6413	6381
12.5°	6488	6435	6308	6174	6121
15°	6337	6259	6077	5889	5818
17.5°	6159	6057	5816	5569	5471
20°	5964	5837	5537	5229	5105
22.5°	5751	5605	5242	4873	4725
25°	5523	5351	4940	4510	4336
27.5°	5284	5094	4629	4145	3955
30°	5036	4831	4318	3786	3592
32.5°	4775	4562	4004	3449	3253
35°	4515	4292	3696	3134	2953
37.5°	4246	4023	3395	2851	2692
40°	3984	3754	3112	2604	2463
42.5°	3720	3492	2844	2382	2258
45°	3464	3237	2595	2187	2074
47.5°	3213	2986	2365	2007	1903
50°	2967	2744	2153	1841	1745
52.5°	2731	2507	1957	1685	1596
55°	2494	2278	1776	1537	1456
57.5°	2263	2056	1603	1395	1318
60°	2039	1842	1438	1256	1186
62.5°	1817	1634	1279	1123	1062
65°	1601	1433	1125	993	941
67.5°	1388	1240	976	868	826
70°	1184	1051	830	746	715
72.5°	987	872	691	631	609
75°	801	702	558	520	505
77.5°	624	541	435	415	406
80°	459	394	321	314	310
82.5°	313	263	219	223	222
85°	187	154	133	143	144
87.5°	87	71	66	80	82
90°	0	0	0	0	0

(END OF REPORT)