

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: 236P289

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P289
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBI-454T5-CL-UNV-EHT1
Description: HBI SERIES, FULL BODY STEEL HOUSING, WITH FOUR T5HO LAMPS,
NARROW DISTRIBUTION SPECULAR REFLECTOR AND CLEAR ACRYLIC LENS
IN DOORFRAME, NO UPLIGHT
Light Source: FOUR T5 HIGH OUTPUT LINEAR FLUORESCENT LAMPS - 4400 LUMENS EA
Ballast/Driver: -

Summary

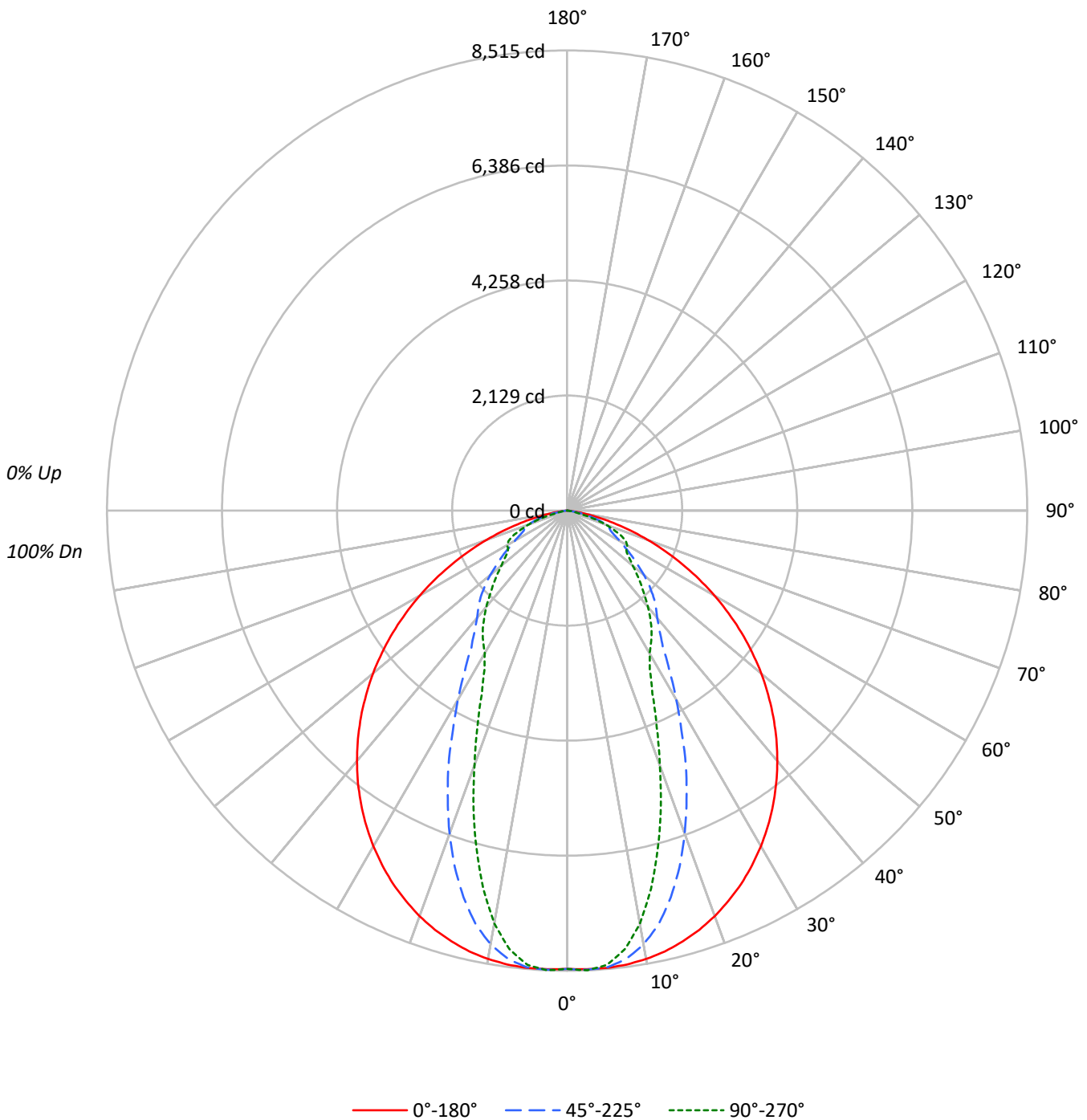
Lumens per Lamp: 4400 (4 lamps)
Luminaire Lumens: 13380.7 lumens
Efficiency: 76.0%
Efficacy: 66.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 0.72 / 0.89
Luminous Opening: Rectangular (W 1.23' x L: 3.92' x H: 0')
CIE Type: Direct

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

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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	91	91	91	91	88	88	88	88	84	84	84	81	81	81	78	78	78	76
1	84	81	78	76	82	79	77	75	76	74	72	73	72	70	71	69	68	67
2	78	72	68	64	76	71	67	63	68	65	62	66	63	61	64	61	59	58
3	72	65	59	55	70	64	59	55	61	57	54	59	56	53	58	55	52	50
4	66	58	53	48	65	57	52	48	56	51	47	54	50	47	52	49	46	44
5	62	53	47	43	60	52	47	42	51	46	42	49	45	41	48	44	41	40
6	58	48	42	38	56	48	42	38	46	41	38	45	41	37	44	40	37	36
7	54	45	39	34	53	44	38	34	43	38	34	42	37	34	41	37	34	32
8	50	41	35	31	49	41	35	31	40	35	31	39	34	31	38	34	31	29
9	47	38	32	29	46	38	32	29	37	32	28	36	32	28	35	31	28	27
10	45	36	30	26	44	35	30	26	34	30	26	34	29	26	33	29	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18962	18962	18962
5°	19066	19046	18940
10°	19128	18503	17611
15°	19106	17150	14997
20°	19004	15137	11918
25°	18803	12811	9209
30°	18511	10433	7869
35°	18140	8437	7441
40°	17661	7565	6792
45°	17062	7143	6106
50°	16314	6463	5527
55°	15347	5668	5235
60°	14086	5004	5742
65°	12475	4703	5851
70°	10381	5014	4949
75°	7688	4121	2851
80°	4455	1893	1210
85°	1360	641	590



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	797.6	6.0	4.5	0°	8481	8481	8481	8481	8481	
10°-20°	2062.4	15.4	11.7	5°	8495	8500	8486	8447	8439	809
20°-30°	2513.8	18.8	14.3	15°	8254	8085	7409	6748	6479	2329
30°-40°	2468.4	18.4	14.0	25°	7622	6922	5193	4076	3733	3509
40°-50°	2162.0	16.2	12.3	35°	6646	5169	3091	2787	2726	4153
50°-60°	1640.9	12.3	9.3	45°	5396	3268	2259	2016	1931	4156
60°-70°	1168.4	8.7	6.6	55°	3937	1816	1454	1346	1343	3512
70°-80°	508.7	3.8	2.9	65°	2358	1056	889	1087	1106	2334
80°-90°	58.5	0.4	0.3	75°	890	383	477	397	330	967
90°-100°	0.0	0.0	0.0	85°	53	41	25	26	23	108
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°	5373.9	40.2	30.5							
0°-40°	7842.3	58.6	44.6							
0°-60°	11645.2	87.0	66.2							
0°-90°	13380.7	100.0	76.0							
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°	13380.7	100.0	76.0							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8481	8481	8481	8481	8481
2.5°	8494	8500	8504	8506	8515
5°	8495	8500	8486	8447	8439
7.5°	8472	8469	8368	8237	8185
10°	8425	8388	8150	7879	7757
12.5°	8355	8263	7835	7352	7168
15°	8254	8085	7409	6748	6479
17.5°	8134	7862	6916	6065	5766
20°	7987	7594	6362	5381	5009
22.5°	7811	7281	5776	4668	4336
25°	7622	6922	5193	4076	3733
27.5°	7404	6522	4577	3517	3313
30°	7170	6106	4041	3172	3048
32.5°	6918	5651	3527	2939	2892
35°	6646	5169	3091	2787	2726
37.5°	6357	4706	2805	2617	2527
40°	6051	4234	2592	2421	2327
42.5°	5729	3736	2431	2220	2116
45°	5396	3268	2259	2016	1931
47.5°	5045	2855	2064	1816	1754
50°	4690	2432	1858	1642	1589
52.5°	4316	2073	1645	1477	1456
55°	3937	1816	1454	1346	1343
57.5°	3543	1601	1279	1232	1296
60°	3150	1429	1119	1191	1284
62.5°	2753	1254	990	1167	1224
65°	2358	1056	889	1087	1106
67.5°	1965	833	843	949	936
70°	1588	649	767	777	757
72.5°	1223	498	636	598	561
75°	890	383	477	397	330
77.5°	593	307	318	201	178
80°	346	224	147	105	94
82.5°	164	125	64	50	47
85°	53	41	25	26	23
87.5°	9	9	10	11	9
90°	0	0	0	0	0

(END OF REPORT)