

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: P30615

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P30615
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBI-454T5-M-UNV-EHT1
Description: METALUX F-BAY HBI SERIES, FULL BODY STEEL HOUSING WITH
MEDIUM DISTRIBUTION, MICRO-MATTE REFLECTOR, NO DOOR, NO UPLIGHT
Light Source: (4) FOUR T5 HIGH OUTPUT LINEAR FLUORESCENT LAMP, F54T5 54W - 4400 LUMENS
EA
Ballast/Driver: -
ICN4554-90C-2SL-G

Summary

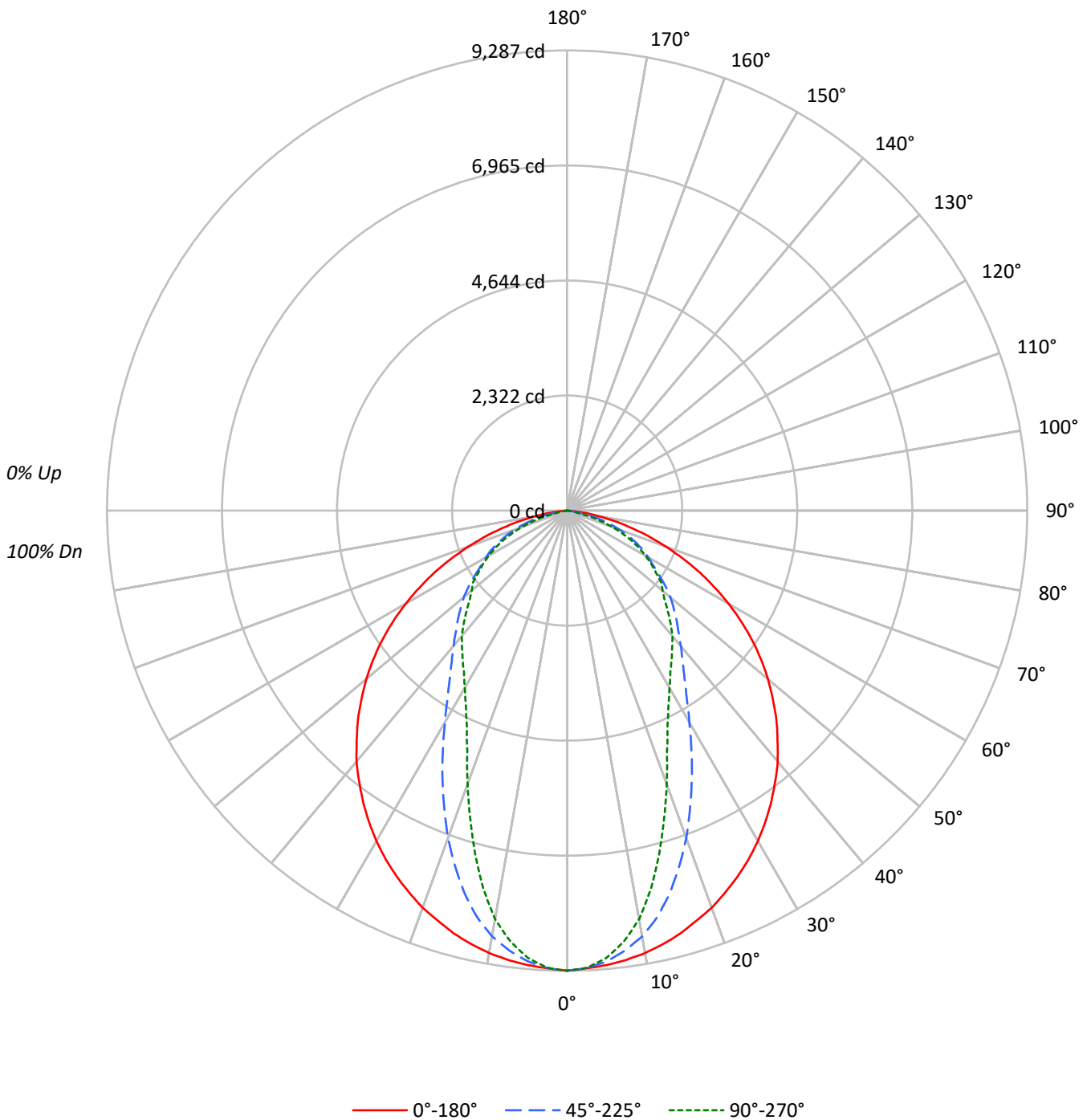
Lumens per Lamp: 4400 (4 lamps)
Luminaire Lumens: 16694.1 lumens
Efficiency: 94.9%
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 0.76 / 0.97
Luminous Opening: Rectangular (W 1.21' x L: 3.71' x H: 0')
CIE Type: Direct

Input Watts (W): 230.7
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	113	113	113	113	110	110	110	110	105	105	105	101	101	101	97	97	97	95
1	104	100	97	94	102	98	95	92	94	92	89	91	89	87	87	86	84	82
2	96	89	83	78	94	87	82	77	84	79	75	81	77	74	78	75	72	70
3	88	79	72	66	86	78	71	66	75	69	65	72	68	64	70	66	63	61
4	81	71	63	57	79	70	63	57	67	61	56	65	60	55	63	59	55	53
5	75	64	56	50	73	63	56	50	61	54	49	59	53	49	57	52	48	47
6	70	58	50	45	68	57	50	44	56	49	44	54	48	44	53	47	43	41
7	65	53	45	40	64	52	45	40	51	44	40	50	44	39	48	43	39	37
8	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	39	35	34
9	57	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31
10	54	42	35	30	53	42	35	30	41	34	30	40	34	30	39	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22309	22309	22309
5°	22199	22020	21854
10°	22117	21280	20419
15°	21972	19885	17841
20°	21803	17974	15013
25°	21591	15789	12693
30°	21355	13680	11450
35°	21053	12097	10774
40°	20734	11192	10370
45°	20295	10596	9760
50°	19762	10169	9391
55°	19085	9473	9163
60°	18069	9090	8787
65°	16768	8685	8111
70°	14827	7951	6792
75°	12307	6451	4604
80°	8950	3528	1010
85°	4079	138	358



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	858.8	5.1	4.9	0°	9287	9287	9287	9287	9287	
10°-20°	2235.8	13.4	12.7	5°	9206	9195	9132	9080	9063	874
20°-30°	2869.8	17.2	16.3	15°	8835	8600	7996	7404	7174	2491
30°-40°	2999.3	18.0	17.0	25°	8146	7466	5957	5015	4789	3753
40°-50°	2810.7	16.8	16.0	35°	7179	5835	4125	3741	3674	4490
50°-60°	2356.1	14.1	13.4	45°	5974	4062	3119	2961	2873	4602
60°-70°	1690.5	10.1	9.6	55°	4557	2656	2262	2246	2188	4064
70°-80°	785.8	4.7	4.5	65°	2950	1677	1528	1472	1427	2908
80°-90°	87.3	0.5	0.5	75°	1326	806	695	565	496	1423
90°-100°	0.0	0.0	0.0	85°	148	74	5	19	13	235
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°	5964.4	35.7	33.9							
0°-40°	8963.7	53.7	50.9							
0°-60°	14130.5	84.6	80.3							
0°-90°	16694.1	100.0	94.9							
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°	16694.1	100.0	94.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9287	9287	9287	9287	9287
2.5°	9245	9257	9241	9230	9233
5°	9206	9195	9132	9080	9063
7.5°	9145	9099	8955	8818	8772
10°	9067	8978	8724	8468	8371
12.5°	8959	8810	8405	7984	7815
15°	8835	8600	7996	7404	7174
17.5°	8676	8360	7522	6768	6504
20°	8529	8107	7031	6162	5873
22.5°	8338	7786	6484	5545	5262
25°	8146	7466	5957	5015	4789
27.5°	7932	7100	5432	4597	4426
30°	7699	6703	4932	4258	4128
32.5°	7447	6273	4488	3974	3877
35°	7179	5835	4125	3741	3674
37.5°	6896	5377	3824	3538	3484
40°	6612	4950	3569	3362	3307
42.5°	6286	4494	3325	3163	3090
45°	5974	4062	3119	2961	2873
47.5°	5631	3649	2914	2727	2668
50°	5288	3281	2721	2529	2513
52.5°	4931	2951	2502	2380	2399
55°	4557	2656	2262	2246	2188
57.5°	4165	2387	2056	2039	2012
60°	3761	2134	1892	1863	1829
62.5°	3355	1907	1732	1677	1638
65°	2950	1677	1528	1472	1427
67.5°	2521	1436	1333	1249	1198
70°	2111	1200	1132	1027	967
72.5°	1716	994	913	798	734
75°	1326	806	695	565	496
77.5°	980	617	481	329	210
80°	647	414	255	96	73
82.5°	373	232	50	37	22
85°	148	74	5	19	13
87.5°	19	10	0	8	0
90°	0	0	0	0	0

(END OF REPORT)