

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: ITL63249

Luminaire Tested: **HBI-454T5-W-UNV-EHT1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL63249
Test Lab: INDEPENDENT TESTING LABORATORIES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBI-454T5-W-UNV-EHT1-U
Description: HBI SERIES, FULL BODY STEEL HOUSING, WITH FOUR T5HO LAMPS
WIDE DISTRIBUTION WHITE ALUM REFLECTOR WITH UPLIGHT
Light Source: FOUR T5 HIGH OUTPUT LINEAR FLUORESCENT LAMPS, F54T5 54W - 4400 LUMENS EA
Ballast/Driver: -

Summary

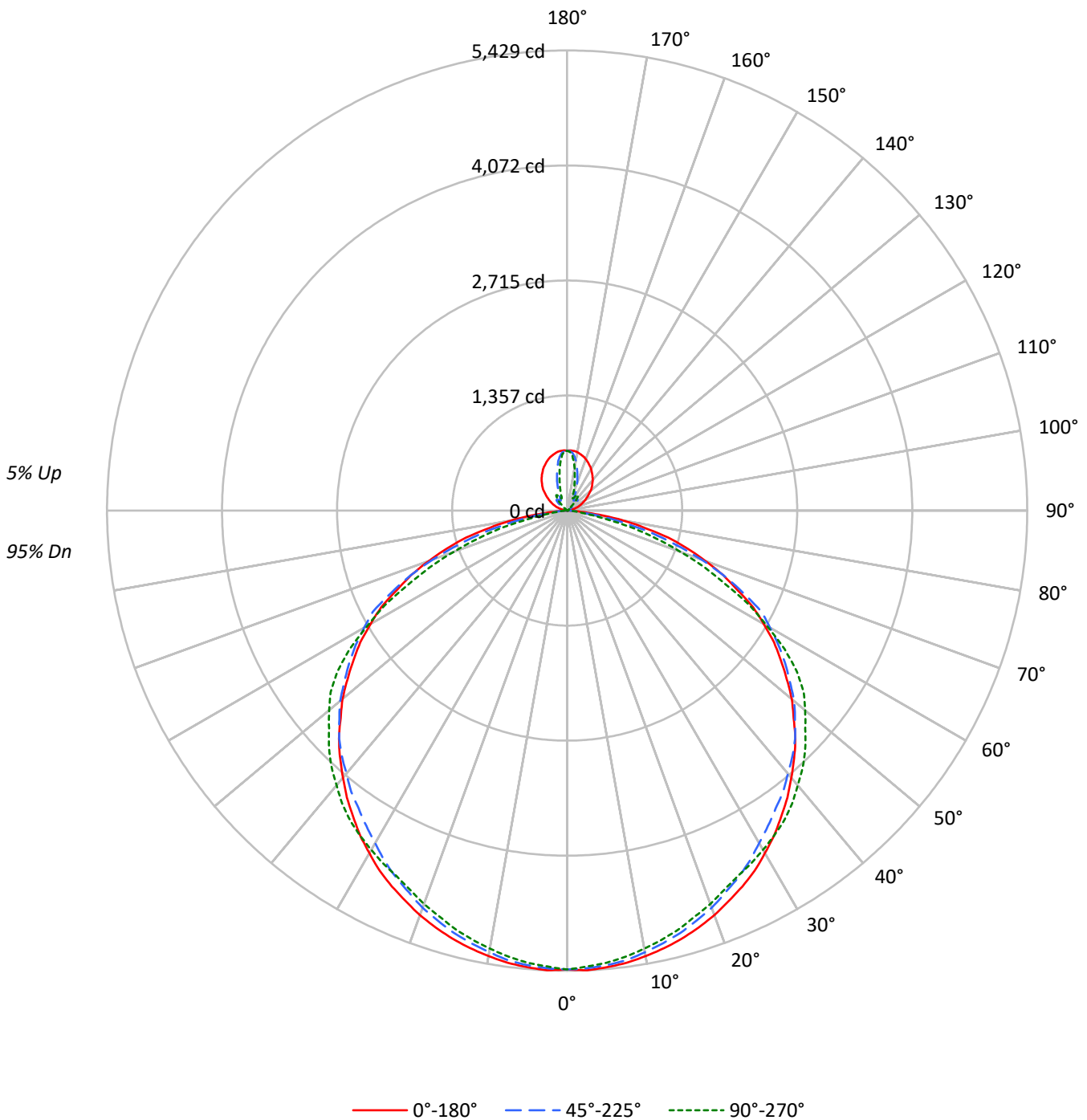
Lumens per Lamp: 4400 (4 lamps)
Luminaire Lumens: 16850.9 lumens
Efficiency: 95.7%
Efficacy: 70.5 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.28 / 1.41
Luminous Opening: Rectangular (W 1.3' x L: 3.99' x H: 0')
CIE Type: Direct

Input Watts (W): 239
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	104	104	104	99	99	99	94	94	94	91
1	103	99	95	91	100	96	93	89	91	88	86	87	84	82	83	81	79	77
2	94	86	79	74	91	84	78	73	80	75	70	76	72	68	72	69	66	64
3	85	75	67	61	82	73	66	60	70	64	59	67	61	57	64	59	55	53
4	78	66	58	51	75	65	57	51	62	55	50	59	53	48	56	51	47	45
5	71	59	50	44	69	58	50	44	55	48	43	53	47	42	51	45	41	39
6	66	53	44	38	64	52	44	38	50	42	37	48	41	36	46	40	36	34
7	61	48	39	34	59	47	39	33	45	38	33	43	37	32	42	36	32	30
8	57	44	35	30	55	43	35	30	41	34	29	40	33	29	38	32	28	26
9	53	40	32	27	51	39	32	27	38	31	26	36	30	26	35	30	25	24
10	50	37	29	24	48	36	29	24	35	28	24	34	28	23	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11218	11218	11218
5°	11249	11197	11138
10°	11229	11132	11042
15°	11217	11067	10962
20°	11199	10999	10891
25°	11184	10917	10880
30°	11166	10839	11059
35°	11138	10852	11292
40°	11128	10958	11447
45°	11159	11147	11642
50°	11154	11273	11818
55°	11119	11343	11939
60°	11098	11459	11272
65°	10865	11213	10134
70°	10511	10166	8633
75°	9879	8390	6589
80°	8031	5537	3091
85°	3851	2092	1783



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	511.1	3.0	2.9	0°	5414	5414	5414	5414	5414	
10°-20°	1457.8	8.7	8.3	5°	5408	5403	5383	5370	5355	514
20°-30°	2215.1	13.1	12.6	15°	5229	5210	5159	5123	5110	1476
30°-40°	2734.6	16.2	15.5	25°	4892	4837	4775	4744	4759	2256
40°-50°	2948.4	17.5	16.8	35°	4403	4334	4290	4420	4464	2758
50°-60°	2794.3	16.6	15.9	45°	3808	3673	3804	3938	3973	2933
60°-70°	2150.6	12.8	12.2	55°	3078	2927	3140	3307	3305	2754
70°-80°	1093.1	6.5	6.2	65°	2216	2119	2287	2183	2067	2200
80°-90°	166.0	1.0	0.9	75°	1234	1208	1048	900	823	1281
90°-100°	6.9	0.0	0.0	85°	162	138	88	84	75	243
100°-110°	21.6	0.1	0.1	90°	0	3	4	2	1	4
110°-120°	53.1	0.3	0.3	95°	7	5	7	7	5	15
120°-130°	79.0	0.5	0.4	105°	86	14	10	9	7	93
130°-140°	128.0	0.8	0.7	115°	192	72	23	20	18	189
140°-150°	152.0	0.9	0.9	125°	298	99	57	25	30	267
150°-160°	141.6	0.8	0.8	135°	417	128	176	119	80	320
160°-170°	135.2	0.8	0.8	145°	518	259	143	208	223	324
170°-180°	62.6	0.4	0.4	155°	606	432	233	160	157	279
0°-30°	4183.9	24.8	23.8	165°	675	602	463	373	338	190
0°-40°	6918.6	41.1	39.3	175°	709	698	687	669	663	67
0°-60°	12661.3	75.1	71.9	180°	705	705	705	705	705	
0°-90°	16071.0	95.4	91.3							
90°-120°	81.6	0.5	0.5							
90°-150°	440.5	2.6	2.5							
90°-180°	780.0	4.6	4.4							
0°-180°	16850.9	100.0	95.7							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5414	5414	5414	5414	5414
2.5°	5429	5421	5405	5389	5384
5°	5408	5403	5383	5370	5355
7.5°	5381	5372	5351	5317	5308
10°	5337	5331	5291	5262	5248
12.5°	5287	5278	5229	5197	5183
15°	5229	5210	5159	5123	5110
17.5°	5158	5136	5073	5040	5020
20°	5079	5049	4988	4949	4939
22.5°	4984	4956	4877	4852	4842
25°	4892	4837	4775	4744	4759
27.5°	4791	4733	4663	4668	4696
30°	4667	4595	4530	4582	4622
32.5°	4546	4471	4411	4504	4547
35°	4403	4334	4290	4420	4464
37.5°	4268	4172	4184	4318	4360
40°	4114	4019	4051	4206	4232
42.5°	3965	3843	3934	4073	4113
45°	3808	3673	3804	3938	3973
47.5°	3625	3492	3646	3787	3811
50°	3460	3295	3497	3619	3666
52.5°	3266	3115	3310	3466	3518
55°	3078	2927	3140	3307	3305
57.5°	2894	2738	2958	3074	3041
60°	2678	2527	2765	2771	2720
62.5°	2475	2327	2584	2493	2431
65°	2216	2119	2287	2183	2067
67.5°	1992	1884	1998	1827	1759
70°	1735	1661	1678	1531	1425
72.5°	1490	1432	1350	1192	1108
75°	1234	1208	1048	900	823
77.5°	932	943	725	624	479
80°	673	618	464	289	259
82.5°	382	360	178	147	133
85°	162	138	88	84	75
87.5°	26	35	37	42	44
90°	0	3	4	2	1
92.5°	0	4	5	3	2
95°	7	5	7	7	5
97.5°	28	6	7	7	5
100°	41	8	7	7	5
102.5°	60	11	7	7	6
105°	86	14	10	9	7
107.5°	117	15	13	10	7
110°	143	28	18	13	10



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	165	51	21	17	13
115°	192	72	23	20	18
117.5°	214	90	21	24	20
120°	242	98	22	29	26
122.5°	268	98	29	27	30
125°	298	99	57	25	30
127.5°	328	96	97	26	24
130°	358	100	129	40	26
132.5°	390	108	161	72	42
135°	417	128	176	119	80
137.5°	440	155	174	160	128
140°	470	188	166	194	174
142.5°	493	222	154	213	208
145°	518	259	143	208	223
147.5°	540	296	140	192	213
150°	567	343	156	171	191
152.5°	586	384	192	158	171
155°	606	432	233	160	157
157.5°	626	471	282	191	167
160°	645	519	338	246	213
162.5°	662	564	402	300	273
165°	675	602	463	373	338
167.5°	687	636	527	452	419
170°	698	667	596	529	508
172.5°	707	688	649	615	586
175°	709	698	687	669	663
177.5°	712	705	703	697	696
180°	705	705	705	705	705

(END OF REPORT)