

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: P20003

Luminaire Tested: **HBI-654T5-W-UNV-EHT2-UPL-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P20003
Test Lab: COOPER LIGHTING PTC RESEARCH LAB
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBI-654T5-W-UNV-EHT2-UPL-U
Description: [HBI SERIES, FULL BODY STEEL HOUSING, WITH SIX T5HO LAMPS
WIDE DISTRIBUTION SPECULAR REFLECTOR WITH UPLIGHT
Light Source: SIX T5 HIGH OUTPUT LINEAR FLUORESCENT LAMPS, F54T5 54W - 4400 LUMENS EA
Ballast/Driver: -

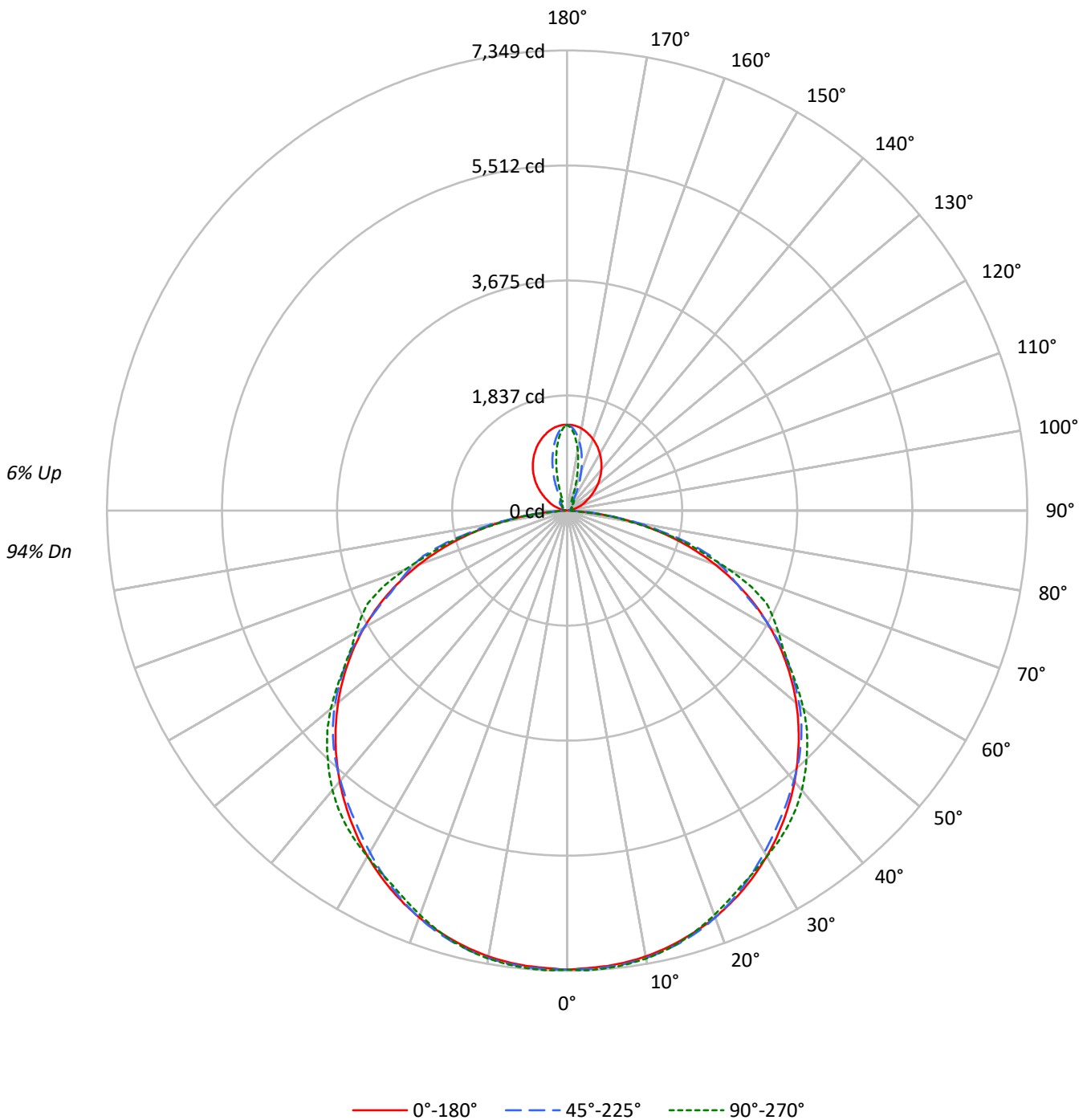
Summary

Lumens per Lamp: 4400 (6 lamps)
Luminaire Lumens: 24437.3 lumens
Efficiency: 92.6%
Efficacy: 70.4 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.3 / 1.43
Luminous Opening: Rectangular (W 1.42' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 347
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	109	109	109	109	106	106	106	106	100	100	100	95	95	95	90	90	90	87
1	99	94	90	87	96	92	88	85	87	84	81	82	80	78	78	76	74	72
2	90	82	75	70	87	79	73	68	75	70	66	71	67	64	68	65	62	59
3	81	71	63	57	79	69	62	56	66	60	55	63	57	53	60	55	52	49
4	74	63	54	48	72	61	53	47	58	52	46	55	50	45	53	48	44	42
5	68	56	47	41	66	55	47	41	52	45	40	50	44	39	47	42	38	36
6	63	50	42	36	61	49	41	35	47	40	35	45	39	34	43	37	33	31
7	58	45	37	31	56	44	37	31	42	35	30	41	34	30	39	33	29	27
8	54	41	33	28	52	40	33	28	39	32	27	37	31	27	36	30	26	24
9	50	38	30	25	49	37	30	25	36	29	24	34	28	24	33	27	23	22
10	47	35	27	22	46	34	27	22	33	26	22	32	26	22	30	25	21	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13927	13927	13927
5°	13921	13959	13990
10°	13947	13999	14013
15°	13954	14011	13984
20°	13974	13984	13891
25°	13982	13904	13835
30°	13987	13823	13987
35°	13990	13827	14256
40°	14012	13965	14461
45°	14049	14178	14560
50°	14114	14318	14566
55°	14181	14343	14366
60°	14235	14262	14809
65°	14199	13992	15808
70°	13951	14701	15273
75°	13357	14715	14143
80°	11803	12842	11256
85°	7541	8718	3988



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	696.7	2.9	2.6	0°	7332	7332	7332	7332	7332	
10°-20°	2008.2	8.2	7.6	5°	7301	7302	7321	7342	7337	695
20°-30°	3063.2	12.5	11.6	15°	7096	7107	7125	7127	7111	2004
30°-40°	3780.6	15.5	14.3	25°	6671	6675	6634	6609	6601	3076
40°-50°	4070.5	16.7	15.4	35°	6033	6000	5963	6103	6148	3777
50°-60°	3828.5	15.7	14.5	45°	5230	5115	5278	5391	5420	4037
60°-70°	3178.9	13.0	12.0	55°	4282	4122	4331	4349	4338	3826
70°-80°	1972.5	8.1	7.5	65°	3159	3041	3113	3400	3517	3116
80°-90°	473.3	1.9	1.8	75°	1820	1707	2005	1916	1927	1909
90°-100°	43.6	0.2	0.2	85°	346	434	400	241	183	441
100°-110°	69.2	0.3	0.3	90°	14	33	40	38	36	16
110°-120°	101.0	0.4	0.4	95°	24	30	41	41	41	33
120°-130°	132.6	0.5	0.5	105°	144	37	57	68	70	157
130°-140°	175.9	0.7	0.7	115°	313	66	63	75	78	312
140°-150°	222.3	0.9	0.8	125°	516	108	79	92	88	461
150°-160°	245.2	1.0	0.9	135°	741	192	161	121	100	571
160°-170°	256.3	1.0	1.0	145°	951	492	155	205	190	594
170°-180°	118.7	0.5	0.4	155°	1134	836	407	193	161	522
0°-30°	5768.1	23.6	21.8	165°	1277	1142	900	712	641	360
0°-40°	9548.7	39.1	36.2	175°	1362	1344	1294	1253	1236	129
0°-60°	17447.7	71.4	66.1	180°	1368	1368	1368	1368	1368	
0°-90°	23072.4	94.4	87.4							
90°-120°	213.9	0.9	0.8							
90°-150°	744.7	3.0	2.8							
90°-180°	1365.0	5.6	5.2							
0°-180°	24437.3	100.0	92.6							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7332	7332	7332	7332	7332
2.5°	7313	7313	7330	7353	7349
5°	7301	7302	7321	7342	7337
7.5°	7273	7279	7298	7316	7309
10°	7231	7238	7258	7273	7265
12.5°	7170	7179	7201	7211	7200
15°	7096	7107	7125	7127	7111
17.5°	7010	7022	7031	7019	6999
20°	6913	6923	6918	6894	6872
22.5°	6798	6806	6783	6753	6736
25°	6671	6675	6634	6609	6601
27.5°	6529	6528	6471	6469	6488
30°	6377	6366	6302	6346	6377
32.5°	6211	6191	6130	6225	6272
35°	6033	6000	5963	6103	6148
37.5°	5846	5794	5798	5961	6003
40°	5651	5578	5632	5803	5832
42.5°	5445	5350	5465	5611	5632
45°	5230	5115	5278	5391	5420
47.5°	5008	4872	5075	5165	5194
50°	4776	4622	4845	4927	4929
52.5°	4534	4371	4591	4646	4637
55°	4282	4122	4331	4349	4338
57.5°	4019	3869	4059	4041	4085
60°	3747	3613	3754	3795	3898
62.5°	3460	3336	3430	3598	3710
65°	3159	3041	3113	3400	3517
67.5°	2841	2722	2871	3179	3187
70°	2512	2395	2647	2797	2750
72.5°	2170	2066	2405	2346	2297
75°	1820	1707	2005	1916	1927
77.5°	1455	1395	1551	1534	1447
80°	1079	1134	1174	1045	1029
82.5°	701	784	708	753	729
85°	346	434	400	241	183
87.5°	72	138	86	89	87
90°	14	33	40	38	36
92.5°	18	34	46	49	48
95°	24	30	41	41	41
97.5°	47	31	42	47	46
100°	86	33	47	49	53
102.5°	103	34	51	54	54
105°	144	37	57	68	70
107.5°	189	44	57	64	70
110°	231	46	58	79	78



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	273	51	61	74	86
115°	313	66	63	75	78
117.5°	356	83	71	77	80
120°	405	98	80	79	82
122.5°	459	107	83	84	83
125°	516	108	79	92	88
127.5°	573	107	98	102	97
130°	630	117	122	101	106
132.5°	687	145	143	98	102
135°	741	192	161	121	100
137.5°	796	257	176	149	124
140°	849	330	177	172	151
142.5°	901	409	167	190	172
145°	951	492	155	205	190
147.5°	1000	579	164	201	203
150°	1046	667	213	184	192
152.5°	1092	754	299	169	171
155°	1134	836	407	193	161
157.5°	1174	918	526	281	211
160°	1210	996	650	412	327
162.5°	1245	1071	778	558	479
165°	1277	1142	900	712	641
167.5°	1306	1207	1016	868	810
170°	1331	1263	1122	1011	970
172.5°	1350	1310	1218	1142	1113
175°	1362	1344	1294	1253	1236
177.5°	1371	1367	1347	1332	1328
180°	1368	1368	1368	1368	1368

(END OF REPORT)