

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: 236P254

Luminaire Tested: **HBE-854T5-M-UNV-EBT2-UPL-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P254
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBE-854T5-M-UNV-EBT2-UPL-U
Description: OPEN HIGH BAY LUMINAIRE WITH SIDE ENCLOSURES AND MATTE REFLECTOR, MEDIUM DISTRIBUTION WITH UPLIGHT
Light Source: EIGHT 54 WATT T5HO - 4400 LUMENS EA
Ballast/Driver: -

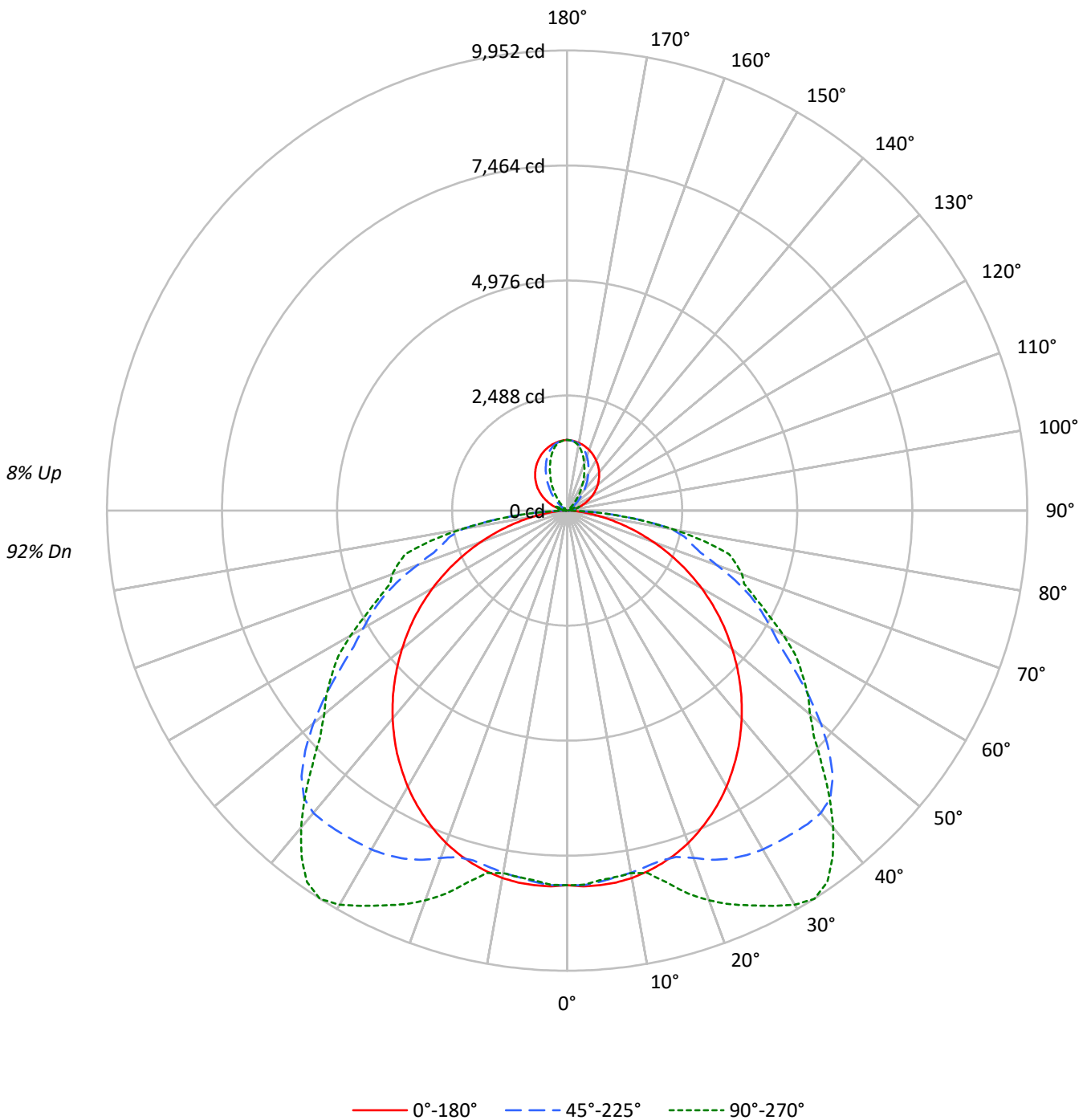
Summary

Lumens per Lamp: 4400 (8 lamps)
Luminaire Lumens: 33125.9 lumens
Efficiency: 94.1%
Efficacy: 71.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.67 / 1.64
Luminous Opening: Rectangular (W 2.08' x L: 3.75' x H: 0')
CIE Type: Direct

Input Watts (W): 463
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	110	110	110	110	107	107	107	107	101	101	101		95	95	95		89	89	89	87
1	100	95	90	87	96	92	88	84	87	83	80		82	79	77		77	75	73	71
2	90	82	75	69	87	79	73	68	75	70	65		71	66	63		67	63	60	58
3	82	71	63	57	79	69	62	56	65	59	54		62	56	52		58	54	50	48
4	74	63	54	47	72	61	53	47	57	51	45		54	49	44		52	47	42	40
5	68	55	47	40	66	54	46	40	51	44	39		49	42	37		46	41	36	34
6	63	50	41	35	60	48	40	34	46	39	33		44	37	32		41	36	32	29
7	58	45	36	30	56	44	36	30	42	34	29		40	33	28		38	32	28	26
8	54	41	32	27	52	40	32	26	38	31	26		36	30	25		34	29	25	23
9	50	37	29	24	48	36	29	24	35	28	23		33	27	23		32	26	22	20
10	47	34	26	21	45	33	26	21	32	25	21		31	25	20		29	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11161	11161	11161
5°	11251	11147	11103
10°	11287	11128	11139
15°	11273	11174	11878
20°	11221	11718	13153
25°	11108	12631	14322
30°	10968	13466	15661
35°	10786	14325	16495
40°	10559	15354	16097
45°	10302	15831	15186
50°	9997	15349	14695
55°	9666	14410	14936
60°	9253	14026	14894
65°	8701	14263	14670
70°	7988	13878	16218
75°	7032	14772	19281
80°	5792	18162	18479
85°	4126	15287	14591



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	767.4	2.3	2.2	0°	8101	8101	8101	8101	8101	
10°-20°	2272.0	6.9	6.5	5°	8135	8105	8060	8031	8028	774
20°-30°	3819.8	11.5	10.9	15°	7903	7799	7834	8128	8327	2230
30°-40°	5149.8	15.5	14.6	25°	7307	7233	8309	9131	9421	3366
40°-50°	5573.1	16.8	15.8	35°	6413	6819	8517	9630	9807	4008
50°-60°	5128.4	15.5	14.6	45°	5287	6371	8125	7949	7794	4075
60°-70°	4122.7	12.4	11.7	55°	4024	5666	5999	6141	6218	3594
70°-80°	2837.8	8.6	8.1	65°	2669	4222	4375	4455	4500	2642
80°-90°	949.3	2.9	2.7	75°	1321	2289	2775	3437	3622	1407
90°-100°	69.4	0.2	0.2	85°	261	889	967	950	923	310
100°-110°	158.6	0.5	0.5	90°	7	12	13	13	12	19
110°-120°	143.7	0.4	0.4	95°	35	62	66	55	38	53
120°-130°	235.9	0.7	0.7	105°	233	38	139	240	246	246
130°-140°	376.8	1.1	1.1	115°	484	168	49	53	55	480
140°-150°	492.6	1.5	1.4	125°	744	445	135	58	52	664
150°-160°	503.5	1.5	1.4	135°	972	749	408	217	163	750
160°-170°	382.7	1.2	1.1	145°	1170	1044	742	551	485	731
170°-180°	142.4	0.4	0.4	155°	1328	1277	1087	926	873	612
0°-30°	6859.2	20.7	19.5	165°	1445	1433	1373	1301	1272	408
0°-40°	12009.0	36.3	34.1	175°	1513	1512	1507	1504	1504	144
0°-60°	22710.5	68.6	64.5	180°	1528	1528	1528	1528	1528	
0°-90°	30620.3	92.4	87.0							
90°-120°	371.7	1.1	1.1							
90°-150°	1477.0	4.5	4.2							
90°-180°	2506.0	7.6	7.1							
0°-180°	33125.9	100.0	94.1							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8101	8101	8101	8101	8101
2.5°	8135	8126	8111	8096	8099
5°	8135	8105	8060	8031	8028
7.5°	8113	8059	7999	7991	7995
10°	8068	7989	7954	7949	7962
12.5°	7998	7898	7886	7949	8026
15°	7903	7799	7834	8128	8327
17.5°	7790	7686	7853	8447	8684
20°	7653	7545	7992	8722	8971
22.5°	7488	7393	8175	8948	9216
25°	7307	7233	8309	9131	9421
27.5°	7111	7084	8403	9286	9638
30°	6894	6966	8464	9459	9844
32.5°	6658	6882	8493	9604	9952
35°	6413	6819	8517	9630	9807
37.5°	6146	6745	8544	9414	9436
40°	5871	6646	8537	9018	8950
42.5°	5584	6518	8426	8512	8393
45°	5287	6371	8125	7949	7794
47.5°	4977	6205	7680	7353	7240
50°	4664	6029	7161	6818	6856
52.5°	4346	5845	6592	6444	6566
55°	4024	5666	5999	6141	6218
57.5°	3692	5453	5470	5789	5873
60°	3358	5153	5090	5444	5405
62.5°	3016	4733	4745	4980	4922
65°	2669	4222	4375	4455	4500
67.5°	2325	3668	3924	4045	4143
70°	1983	3108	3445	3765	4026
72.5°	1647	2644	3029	3639	3829
75°	1321	2289	2775	3437	3622
77.5°	1015	1881	2594	3009	3011
80°	730	1482	2289	2334	2329
82.5°	473	1208	1635	1646	1618
85°	261	889	967	950	923
87.5°	86	351	338	308	292
90°	7	12	13	13	12
92.5°	42	66	68	48	26
95°	35	62	66	55	38
97.5°	77	79	97	83	72
100°	122	45	147	135	128
102.5°	171	39	176	198	191
105°	233	38	139	240	246
107.5°	293	46	60	252	275
110°	355	71	47	148	241



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	419	112	48	65	107
115°	484	168	49	53	55
117.5°	551	231	52	54	52
120°	615	299	66	52	51
122.5°	679	371	92	52	51
125°	744	445	135	58	52
127.5°	806	522	192	75	60
130°	865	598	261	108	80
132.5°	918	673	331	154	113
135°	972	749	408	217	163
137.5°	1026	827	491	294	234
140°	1074	901	570	373	309
142.5°	1124	974	655	461	396
145°	1170	1044	742	551	485
147.5°	1213	1106	827	641	578
150°	1255	1169	914	736	676
152.5°	1292	1225	1001	831	772
155°	1328	1277	1087	926	873
157.5°	1363	1324	1170	1025	974
160°	1393	1366	1248	1123	1076
162.5°	1421	1404	1318	1219	1180
165°	1445	1433	1373	1301	1272
167.5°	1467	1460	1423	1374	1356
170°	1486	1482	1462	1434	1424
172.5°	1502	1500	1489	1477	1474
175°	1513	1512	1507	1504	1504
177.5°	1522	1523	1521	1519	1520
180°	1528	1528	1528	1528	1528

(END OF REPORT)