

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: ITL47960

Luminaire Tested: **SN-1BX40**

Issue Date: 3/3/2020



**Test Information**

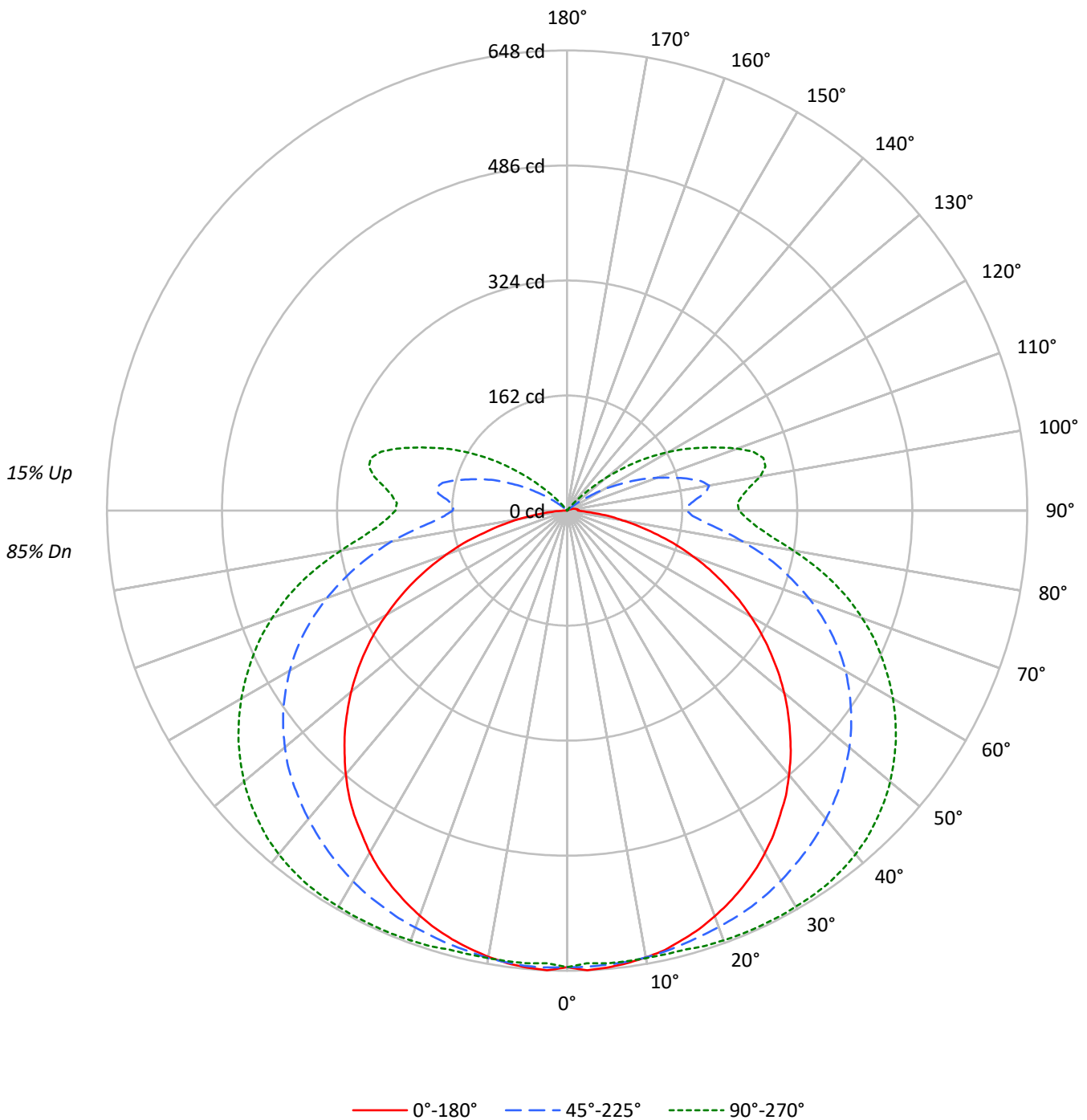
Test Method: LM-41-14  
Report Number: ITL47960  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: SN-1BX40  
Description: WHITE PAINTED FABRICATED METAL STRIP BALLAST HOUSING, OPEN SIDES AND BOTTOM.  
Light Source: ONE 40-WATT SINGLE ENDED TWIN TUBE FLUORESCENT, G.E. F40BX/SPX35/RS. LAMP HORIZONTAL WITH TUBES HORIZONTAL.  
Ballast/Driver: MAGNETEK B240I120HP

**Summary**

Lumens per Lamp: 3150 (1 lamp)  
Luminaire Lumens: 3089.8 lumens  
Efficiency: 98.1%  
Efficacy: 72.7 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.52 / 1.57  
Luminous Opening: Rectangular w/ Sides (W: 0.24' x L: 2' x H: 0.11')  
CIE Type: Semi-Direct  
  
Input Watts (W): 42.5  
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	109	109	109	109	101	101	101	93	93	93	86	86	86	83
1	100	95	90	85	96	91	86	82	84	80	77	77	74	72	72	69	67	64
2	90	81	73	67	86	78	71	65	72	66	61	66	61	57	61	57	54	51
3	81	70	61	54	78	67	59	52	62	55	50	57	52	47	53	48	44	41
4	74	61	52	45	70	59	50	44	54	47	41	50	44	39	46	41	37	34
5	68	54	45	38	64	52	43	37	48	41	35	45	38	33	41	36	32	29
6	62	48	39	33	59	47	38	32	43	36	30	40	34	29	37	32	27	25
7	58	44	35	28	55	42	34	28	39	32	26	36	30	25	34	28	24	22
8	53	40	31	25	51	38	30	24	36	29	23	33	27	22	31	25	21	19
9	50	36	28	22	48	35	27	22	33	26	21	31	24	20	29	23	19	17
10	47	33	25	20	44	32	25	20	30	23	19	28	22	18	26	21	17	15

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	14443	14443	14443
5°	14493	13851	14493
10°	14429	13462	14406
15°	14337	13192	14314
20°	14237	13112	14213
25°	14122	13071	14097
30°	13984	13089	13959
35°	13788	13167	13788
40°	13597	13224	13569
45°	13340	13237	13310
50°	13052	13221	12986
55°	12670	13146	12597
60°	12220	13022	12015
65°	11549	12830	11313
70°	10724	12544	10270
75°	9438	12060	8651
80°	7713	11254	6736
85°	5606	10720	3738



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	61.2	2.0	1.9	0°	643	643	643	643	643	
10°-20°	179.0	5.8	5.7	5°	646	642	640	644	646	61
20°-30°	283.7	9.2	9.0	15°	626	632	640	633	625	177
30°-40°	365.5	11.8	11.6	25°	585	615	645	615	584	270
40°-50°	414.5	13.4	13.2	35°	523	586	641	586	523	328
50°-60°	422.3	13.7	13.4	45°	444	545	616	545	443	343
60°-70°	385.8	12.5	12.2	55°	350	488	565	488	348	313
70°-80°	304.5	9.9	9.7	65°	244	411	489	409	239	242
80°-90°	197.8	6.4	6.3	75°	132	310	387	307	121	140
90°-100°	170.6	5.5	5.4	85°	36	195	269	192	24	39
100°-110°	160.0	5.2	5.1	90°	15	168	242	161	1	9
110°-120°	96.0	3.1	3.0	95°	15	182	248	169	0	12
120°-130°	40.8	1.3	1.3	105°	10	174	286	164	0	10
130°-140°	7.9	0.3	0.3	115°	2	96	209	93	0	3
140°-150°	0.2	0.0	0.0	125°	0	26	119	28	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	33	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	1	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	523.9	17.0	16.6	165°	0	0	0	0	0	0
0°-40°	889.4	28.8	28.2	175°	0	0	0	0	0	0
0°-60°	1726.2	55.9	54.8	180°	0	0	0	0	0	0
0°-90°	2614.2	84.6	83.0							
90°-120°	426.6	13.8	13.5							
90°-150°	475.6	15.4	15.1							
90°-180°	476.0	15.4	15.1							
0°-180°	3089.8	100.0	98.1							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	643	643	643	643	643	643	643	643	643
2.5°	648	646	643	637	638	638	644	646	648
5°	646	644	642	638	640	639	644	645	646
7.5°	643	642	641	638	640	638	642	643	643
10°	639	639	639	637	640	637	640	639	638
12.5°	634	634	636	636	640	636	636	634	632
15°	626	629	632	635	640	636	633	629	625
17.5°	618	621	628	636	643	636	629	621	617
20°	608	613	624	636	644	636	625	613	607
22.5°	597	604	620	635	645	636	621	603	596
25°	585	593	615	634	645	635	615	592	584
27.5°	572	581	609	632	645	633	610	581	571
30°	557	569	602	630	644	630	603	568	556
32.5°	541	556	594	627	643	628	595	555	539
35°	523	542	586	623	641	624	586	540	523
37.5°	506	527	577	619	637	619	577	525	505
40°	486	511	567	613	632	613	567	509	485
42.5°	466	494	556	606	625	606	556	493	464
45°	444	477	545	596	616	597	545	476	443
47.5°	422	458	532	586	606	586	533	457	420
50°	399	440	519	573	594	573	519	439	397
52.5°	375	421	504	559	580	559	504	419	373
55°	350	401	488	544	565	544	488	399	348
57.5°	325	381	471	527	548	527	470	379	322
60°	299	361	453	509	530	508	451	358	294
62.5°	273	340	433	489	510	488	431	337	267
65°	244	320	411	467	489	466	409	316	239
67.5°	217	299	388	445	467	443	385	294	210
70°	189	277	363	421	442	420	360	272	181
72.5°	161	253	336	394	416	395	334	248	153
75°	132	229	310	366	387	366	307	223	121
77.5°	105	202	281	336	356	336	279	195	95
80°	79	172	251	303	323	304	251	166	69
82.5°	59	145	222	274	292	273	220	139	42
85°	36	117	195	248	269	248	192	111	24
87.5°	21	94	177	233	253	230	173	89	9
90°	15	86	168	223	242	220	161	76	1
92.5°	16	93	171	223	240	218	160	77	1
95°	15	104	182	231	248	225	169	85	0
97.5°	14	94	197	245	260	239	183	80	0
100°	13	78	203	260	276	252	187	68	0
102.5°	11	63	193	267	286	258	180	54	0
105°	10	48	174	262	286	254	164	42	0
107.5°	8	33	154	246	275	238	146	30	0
110°	6	21	135	224	255	218	129	19	0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	4	10	116	201	232	197	112	11	0
115°	2	3	96	181	209	177	93	5	0
117.5°	1	1	77	159	188	157	75	2	0
120°	0	0	59	137	165	135	58	0	0
122.5°	0	0	41	114	142	113	42	0	0
125°	0	0	26	92	119	91	28	0	0
127.5°	0	0	13	71	95	70	16	0	0
130°	0	0	5	50	73	50	7	0	0
132.5°	0	0	1	32	51	33	2	0	0
135°	0	0	0	17	33	18	0	0	0
137.5°	0	0	0	6	17	8	0	0	0
140°	0	0	0	2	7	2	0	0	0
142.5°	0	0	0	1	2	1	0	0	0
145°	0	0	0	0	1	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)