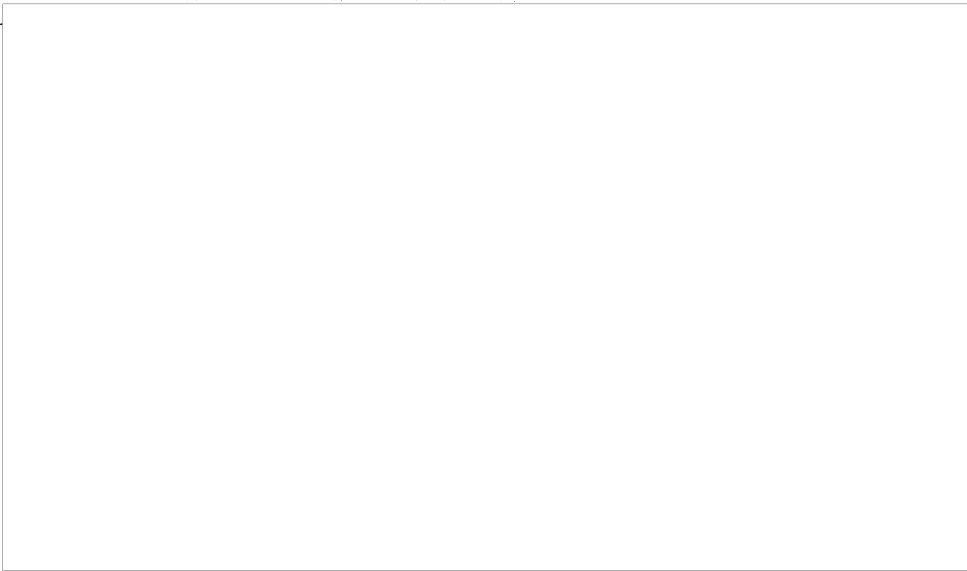


50X1-HUM



Branch Norms of Artificial

Incandescent Bulb Illumination

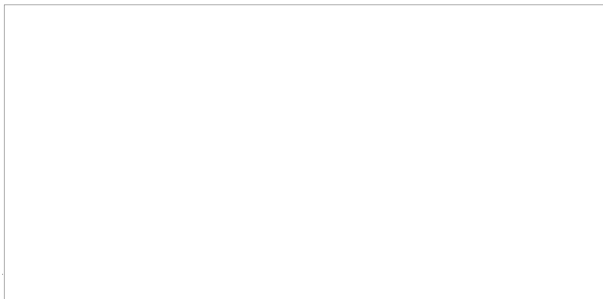
Ratsional'noye osveshcheniye

tekstil'nykh predpriyatiy;

N. Dmitriyevskaya, V. Zaychikova,

T. Zatevkova; Moscow, 1951

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BRANCH NORMS OF ARTIFICIAL INCANDESCENT BULB ILLUMINATION ~~ON THE WORK SURFACE~~
 A. Linen Mills

Item	Equipment and Nature of Operation	Work Surface	Category and Subcategory	Intensity of Illumination, in Luxes	Plane of Work Surface	Recommended System of Illumination
I. Spinning Mill						
1	Flax and Tow Storage	Floor	VII	5	Horizontal	General
	a) Storage	Zone of operation	II-b	75	"	"
	b) Sorting of flax	Floor	VII	5	"	"
	c) Tow storage					
2	Carding Department					
	a) Hand carding	Combs	III-c	20	"	"
	b) Flax carding machines	Surface of tables	VI	10	"	"
		Place of inspection	III-b	30	"	"
		Combs	III-c	20	"	"
3	Setting and Servicing (Opravka i obderzhka)	Machines	VI	10	Vertical	"
4	Opening Machines				"	"
5	Presses for Packing Tow	Press	VI	10	"	"
6	Tow Department					
	a) ^(vysogonnyy?) Cards	Machine	VI	10	Inclined-horizontal	"
		"	VI	10	Horizontal	"
	b) Shakers	"	VI	10	Inclined	"
	c) Willows (volchok)	"	VI	10	Horizontal	"
	d) Plucker	Zone of operation	VI	10	"	"
	e) Mixing of flax	Work bench	III-a	75	"	General and Place
	f) Combing workshop					

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7	Tow Preparing Division							
	a) Carding machines	Folding board of packer	V	20	Horizontal	General		
	b) Drawing frames	Sliver before packing	V	20	"	"		
	c) Roving frames							
	c) Roving frames	Rippling (mychka) of roving after drafting	V	20	"	"		
8	Flax Preparing Division							
	a) Spreaders	Linen, drawing-off rollers	V	20	Inclined	"		
		Sliver before packing	V	20	Horizontal	"		
	b) Drawing frames	Rippling of roving						
	c) Roving frames	after drafting	III-b	30	Inclined	"		
9	Spinning Department							
	a) Wet spinning frames	Threads in drafting pairs	II-b	75	"	"		
		"	II-b	75	"	"		
	b) Dry spinning frames	"	II-b	75	"	"		
	c) Roving-spinning frames	"	V	20	Horizontal	"		
	d) Selection of spools and bobbins	Zone of operation	V	20	"	"		
	e) Press for squeezing zhvakha(?)	Press	VI	10	"	"		
10	Twisting Division							
	a) Twisters	Threads in drawing-off apparatus	III-a	50	Inclined	"		
		Machine	VI	10	Horizontal	General		
	b) Softening machines							
11	Winding Division							
	a) Reeling machine	(krona) Cones with reels	II-b	75	Inclined	General and portable		
		"			All surfaces	General and portable		
	b) Dryers - drum, chamber	Zone of operation	VI	10	Vertical	General		
		Scale of scales	III-b	30	Horizontal	"		
	c) Weighing of yarn	Press	VI	10	"	"		
	d) Packing	Zone of inspection	II-b	150	"	General and place		
	e) Inspection of yarn							

12	Auxiliary Divisions of Spinning Department					
a)	Rolling room	Tables, benches	III-a	75	Horizontal	General and place
b)	Materials store room	Shelves	VI	10	"	General
c)	Twisting of twine	Twine	V	20	"	General and place
d)	Gear cutting machines	Machine tool	III-a	75	"	General
e)	Soldering division	Table	III-b	30		

II. Weaving Mill

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13	Preparatory Weaving Division					
a)	Winding-off machine	Cone (krona) with yarn	II-b	75	Vertical	General
b)	Warp machines	warper's beam	II-b	150	Horizontal	General and place
c)	Cop machines	Bobbin creels (shpulyarnik)	II-c	30	Vertical	General
d)	Bobbin machines (tsevochnaya mashina)	Cone (krona)	II-b	75	Inclined	"
e)	Storage of weft and yarn	Warp Bobbins	II-b	75	Vertical	"
f)	Sizing machines	Sorting zone	II-b	150	Horizontal	General and place
g)	Kettles for boiling sizing	Threads on warper's beams	II-b	75	"	General
h)	Storage of weaver's beams	Threads coming from drying drum	II-b	75	"	"
i)	Drawing-in frames	Kettle	VI	10	"	"
		Weaver's beam	VI	10	Inclined-vertical	General and place
		Reed, harnesses	II-a	300		

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14	Weaving Division					
a)	Looms - simple and Jacquard	Linen, warp	II-b	75	Horizontal	General
b)	Ribbon looms	Ribbon (linen), warp	II-b	75	"	"
		Bobbins with threads	II-c	30	"	"

15	Finishing of Unbleached Goods Division						
a)	Tables for cleaning goods	Table	II-b	75	Horizontal	General	
b)	Emerying machines	Machine	II-c	20	Vertical	"	
c)	Shearing machines	Machine	III-b and special instructions	50	Horizontal	"	
16	Storing and Folding Division						
a)	Folding machines	Machine	V	20	"	"	
b)	Measuring machines	Machine	V	20	"	"	
c)	Tables for inspection	Table	II-b	150	"	General and place	
17	Auxiliary Divisions						
a)	Knitting ^{Picking} department	Table	III-a	75	Horizontal	General and place	
b)	Harness department	Harnesses	III-a	75	Vertical	"	
c)	Reed department	Reed	II-b	150	"	"	
d)	Materials store room	Shelves	VI	10	"	General	
e)	Pattern (risoval'nyy) division	Table	II-a	300	Horizontal	General and place	
f)	Key card-cutting machine	Card	III-a	75	"	"	
g)	Drawing-in frames	Pattern	II-a	300	"	"	
h)	Card-cutting machine	Arkaty (?) Setting and vykhod (?) of card, Jacquard machine	III-b	30	Vertical	General and place	
i)	Testing machine	Reed Linen	III-b II-b	30 150	Vertical Horizontal	General place	

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 III. Finishing ~~1137~~

18	Bleaching Division					
a)	Inspection tables for yarn and cloth	Table	II-b	150	Horizontal	General and place
b)	Sewing machine	Stitch	II-b	150	"	"
c)	Singeing machine	Checking instruments	III-b	30	Vertical	General and portable
		Cloth	III-b	30	"	"
d)	Boiling kettles	Kettles	VI	10	Horizontal	"
e)	Mechanical packer	Zone of operation	VI	10	"	"
f)	Acid and alcohol baths	Baths	VI	10	"	"
g)	Shearing machines	Machines	VI	10	"	"
h)	Washing machines	Machines	VI	10	"	"
i)	Hydraulic presses	Press	VI	10	"	"
j)	Material'nyye (?) machines	Machines	VI	10	"	"
k)	Wringing machines	Machines	VI	10	"	"
l)	Rope expanders (zhgutoras-pravitel')	Rings, rope	VI	10	"	"
m)	Hydraulic mangles	Machine	VI	10	"	"
n)	Padding machines	Padding machine	VI	10	"	"
o)	Drying drum	Cloth	VI	10	"	"
p)	Self setting (samoklad) of drum	Cloth	II-b	150	Vertical	General and place
19	Dyeing Division (yarn and linen)					
a)	Yarn dye vat	Vat	V	20	Horizontal	General and portable
b)	Yarn dyeing apparatus	Apparatus	V	20	"	"
c)	Padding machines	Linon	V	20	"	"
d)	Roller dyeing machines	Cloth	V	20	"	"
e)	Prokhodnyy (?) apparatuses	Apparatus	V	20	"	"

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20	Finishing Division						
a)	Driers	Drum	VI	10	Horizontal- Vertical	General and portable	
b)	Belt tentering machines	Machine	III-b	30	"	"	
c)	Chain tentering machines	Place of straightening the weft	II-b	150	Horizontal	General and place	
d)	Self-setting (samoklad) of tentering machines	Cloth	II-b	150	Vertical	"	
e)	Hydraulic roller	Rollers	III-b	30	Horizontal	General	
f)	Self-setting of roller	Cloth	II-b	150	Vertical	General and place	
g)	Finishing calender	Rollers	III-b	30	Horizontal	General	
h)	Self-setting of calender	Cloth	II-b	150	Vertical	General and place	
21	Storing and Folding Division						
a)	Measuring machines	Machine	V	20	Horizontal	General	
b)	Doubling machines	Machine	V	20	"	"	
c)	Hydraulic presses	Press	V	20	"	"	
d)	Sewing machines	Stitch	II-b	150	"	General and place	
e)	Tables for inspection	Surface of table	II-b	150	"	"	

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BRANCH NORMS OF ARTIFICIAL INCANDESCENT BULB ILLUMINATION ~~OF SPINNING MILLS~~

B. Woolen Mills

Item	Equipment and Nature of Operation	Work Surface	Category and Subcategory	Intensity of Illumination, in Luxes	Plane of Work Surface	Recommended System of Illumination
1	<i>I Spinning Mill</i> Preparatory Division of Cloth Mills and Mills for Comb Spinning of Wool					
a)	Sorting of wool	Table	II-a	300	Horizontal or inclined	General and place
b)	Opening and cleaning machines	Feeder	VI	10	Horizontal	General
c)	Washing machine	Squeezing rollers	V	20	"	"
d)	Soap boiling kettles	Kettle	VI	10	"	"
e)	Centrifuge	Centrifuge	VI	10	"	"
f)	Dryer - chamber, drum	Zone of operation	VI	10	"	"
g)	opening and carding <i>Widens; opening and carding</i>	Feeders	VI	10	"	"
h)	Hand mixing	Zone of operation	III-b	30	"	"
i)	Carbonization	Wash drums, centrifuges	VI	10	"	"
j)	Carding and <i>for first carding</i> machines (zagonka, vatnoperedonnaya, ravnitel'naya secret ?)	Screens	V	20	"	General and place
k)	Sliver lap machine	Roving apparatus	III-a	75	"	"
l)	Double gill drawing frame	Sliver	V	20	"	General
m)	Single gill drawing frame	Sliver	V	20	"	General and portable
n)	Sliver carding machine	Sliver	V	20	"	"
o)	Can gill	Zone of operation	V	20	"	"
p)	Washing-pressing machine	Zone of operation	V	20	"	"
q)	Roving frames (coarse, medium, fine)	Roving	III-a	50	Horizontal and inclined	General
r)	Roving machines with round comb	Roving	III-a	50	Horizontal	"

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2	Spinning Division of Coarse Cloth Mills					
a)	Carriage spinning frame	Thread on length of stretch	III-a	50	Horizontal	General
b)	Spinning frame (flyer, cap, twist)	Thread in drafting pairs	III-a	50	Inclined	"
c)	Sorting of coes	Surface equal to 1 meter from floor	III-a	50	Horizontal	"
3	Spinning Division of Comb Spinning of Wool					
a)	Carriage spinning frame	Thread on length of stretch	II-b	75	"	"
b)	Spinning frame (ring, flyer, cap)	Thread in drafting pairs	II-a	125	Inclined	"
	II. Weaving Mill					
4	Preparatory Weaving Division of Cloth Mills and Comb Spinning Mills					
a)	Winding machine	Thread cleaning apparatus	II-a	125	Vertical	General
		Warp bobbins	II-a	125	Horizontal	"
		Warp roller	II-a	300	"	General and place
b)	Warp machine	Bobbin creel	II-c	30	Vertical	General
		Ryadok (?)	III-a	50	Horizontal	"
c)	Sectional warping machine	Bobbin creel	II-c	30	Vertical	"
		Kettle	VI	10	Horizontal	"
d)	Kettle for boiling sizing	Warper's beams, threads from			"	"
e)	Sizing machines	drying drum	II-a	125	Vertical	General and place
f)	Hand drawing-in	Reed, harnesses	II-a	300		

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5 Weaving Division

a) Loom, processing fabric of combed yarn	Fabric, warp	II-a	125	Horizontal	General
b) Loom (coarse cloth)	"	III-a	50	"	"
c) Sorting and inspecting fabric processed of combed yarn	Table	II-a	300	"	General and place

III. Dyeing and Finishing ^{Plant}

6 Finishing of wool fabric

a) Shearing machine	Machine	III-b and special instructions	50	"	General
b) Sponging machine	"	V	20	"	"
c) Napping machine	"	III-b	30	"	"
d) Bastoval'nyy (?) machine	"	III-b	30	"	"
e) Folding and measuring machine	"	V	20	Inclined	"
f) Presses	Press	VI	10	Horizontal	"
g) Inspection	Fabric	II-a	300	Vertical	General and place

7 Dyeing Division

a) Dye kettle	Kettle	V	20	Horizontal	General and portable
b) Mechanical dyeing apparatus	Apparatus	V	20	"	"
c) Washing tub	Tub	V	20	"	"
d) Dyeing, washing vat	Vat	V	20	"	"
e) Centrifuge	Centrifuge	VI	10	"	"
f) Dryer	Zone of operation	VI	10	Vertical	"
g) Rinsing machines	Machine	VI	10	Horizontal	"
h) Fulling machine	Fabric	III-b	30	"	"
i) Calenders	Squeezing rollers	III-a	50	"	"
j) Drying apparatus	Fabric	III-a	75	"	General and place
k) Padding machine	Rollers	V	20	Vertical	General
l) Prokhodnyy (?) apparatus	Apparatus	V	20	Horizontal	"

Source: Ratsional'noye osveshcheniye tekstil'nykh predpriyatiy, 1951