



ALSHARQA



LINEAR BAR GRILLES & REGISTERS

AIR OUTLETS
TECHNICAL CATALOGUE



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المصرية الخليجية لأعمال التكييف - الشارقة
*egyptian gulf for the work
of air conditioning*

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INTRODUCTION

Linear Bar Grilles / Registers are considered as one of the attractive air distribution devices used in wide range of applications in heating, ventilation, air conditioning systems.

They are designed to suit any kind of fixture.

LBG are specially constructed for mounting on side wall or sill, or at the junction of interior or exterior wall corners.

Frames and blades are made from superior quality aluminum profiles for maximum durability and ensures un-restricted air flow with greater efficiency.

Mullion bars across the blades provide additional strength and aesthetic value to the product.

LINEAR BAR GRILLES & REGISTERS

LINEAR BAR GRILLES & REGISTERS

DESCRIPTION

Linear Bar Grilles & Registers are Multi parallel fixed bar type in continuous modular section up to 5 meters long to Form linear type grilles. They are available in one way airflow pattern for zero degree bar deflection and in one or two way air flow pattern for (15°) & (30°) bar deflection. DLB (G,R) standard widths ranges from 3" to 12" (76mm-305mm). For quiet airflow, bars are equally spaced at 12.5mm (1/2") distance. Flat frames are standard but curved frames on request can be supplied for all models. Mullion bars across the blades provide additional strength. Mitered corners available in various arrangements to suit different installations.



Bar Grille DLBG - 30° - 2W

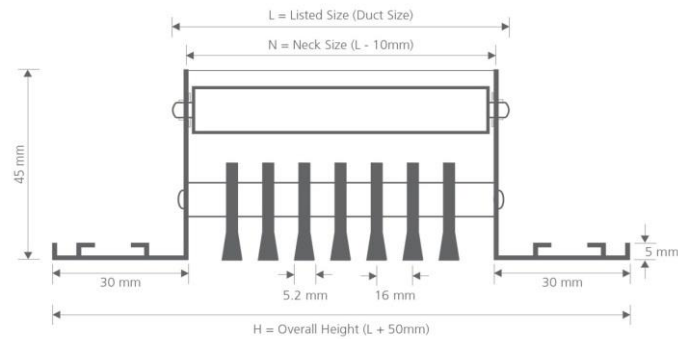


Mitered Corner (90° angle)

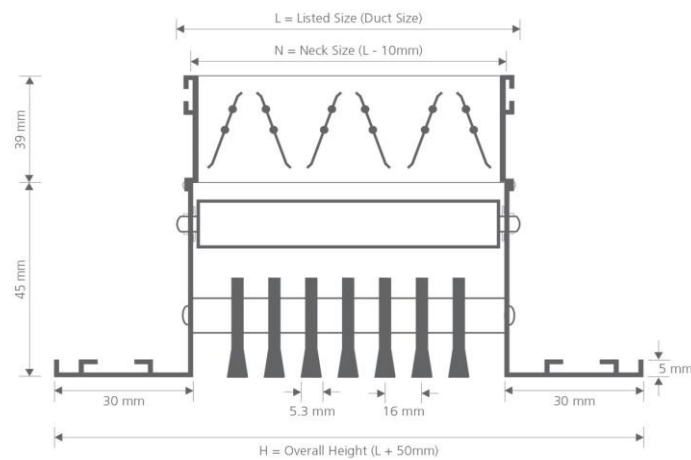


Mitered Corner (135° angle)

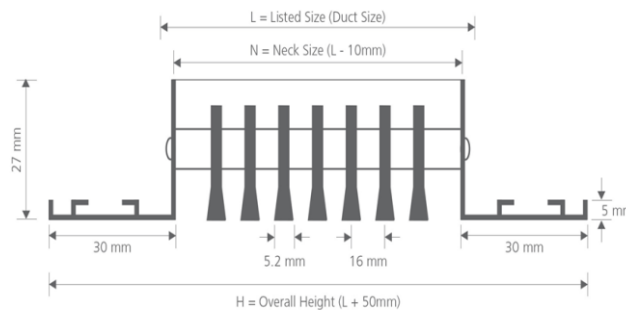
Supply Linear Bar Grille (SLBG)



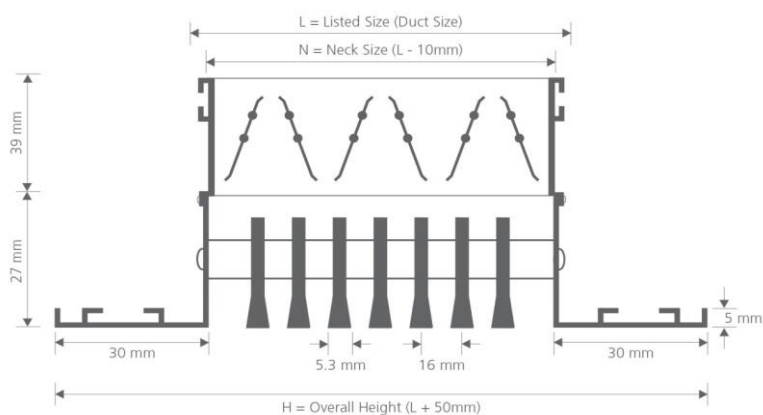
Supply Linear Bar Register (SLBR)



Return Linear Bar Grille (RLBG)



Return Linear Bar Register (RLBR)



LINEAR BAR GRILLES & REGISTERS

CURVED LINEAR BAR GRILLES

For architectural symmetry, our catalogue includes curved linear bar grilles. This type is more suitable in umbrella shaped roofs/ceilings.

Inward curved and outward curved linear grilles are available which creates an impressive visual impact for wall mounting.



Curved Bar Grille (Outside Grille)

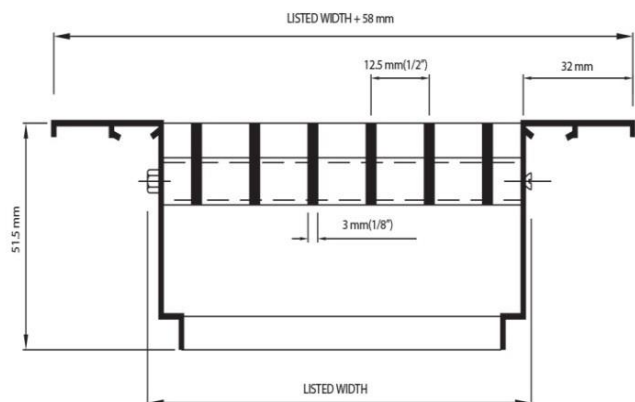


Curved Bar Grille (Inside Grille)

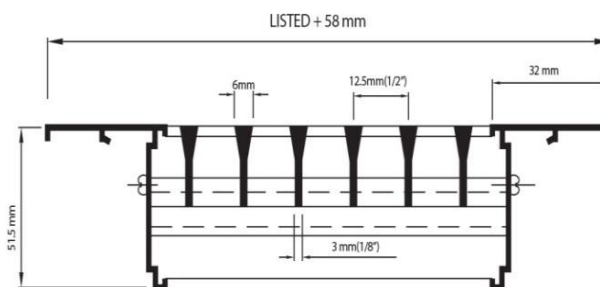
LINEAR BAR GRILLES & REGISTERS

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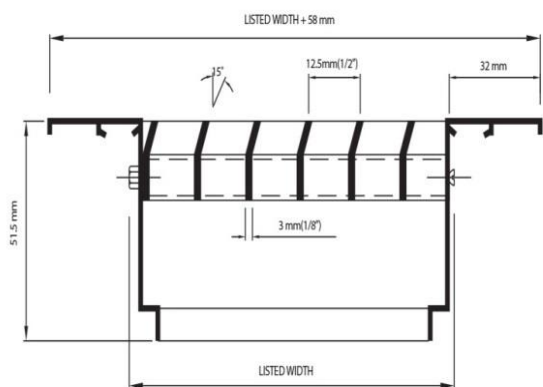
DIMENSIONAL DATA (linear bar grilles)



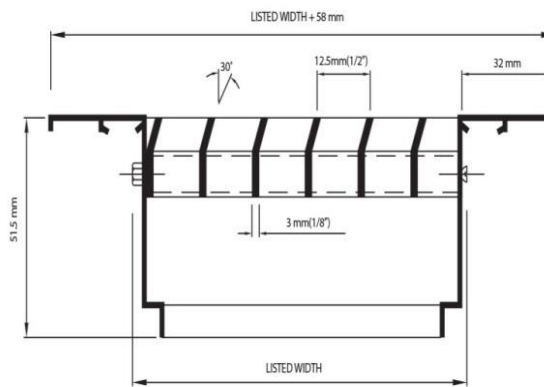
LBG - 0°
Linear Bar Grille with fixed bar 0° deflection



DLBG - 0°Y
Linear Bar Grille with fixed bar (special blade) 0° deflection



DLBG -15°W
Linear Bar Grille with fixed bar 15° one-way deflection

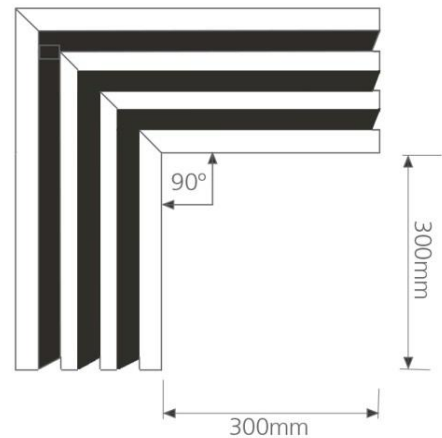


DLBG -30°-1W
Linear Bar Grille with fixed bar 30° one-way deflection

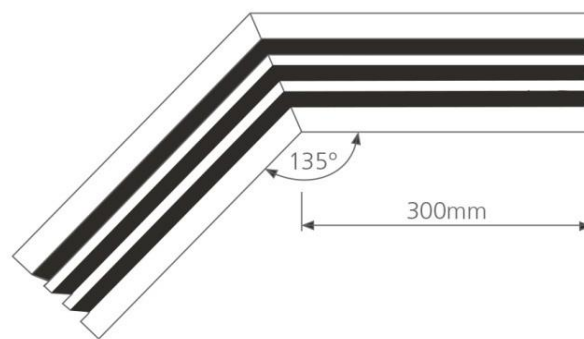
LINEAR BAR GRILLES ⊕ REGISTERS

MITERED CORNERS

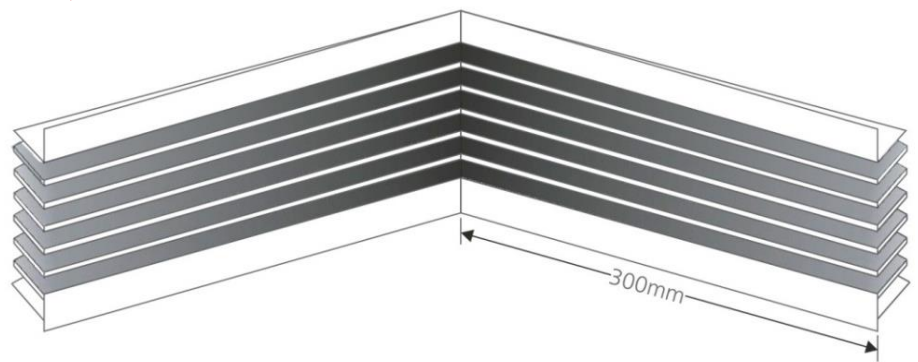
Wall Corner Fixing - Inside (90°)



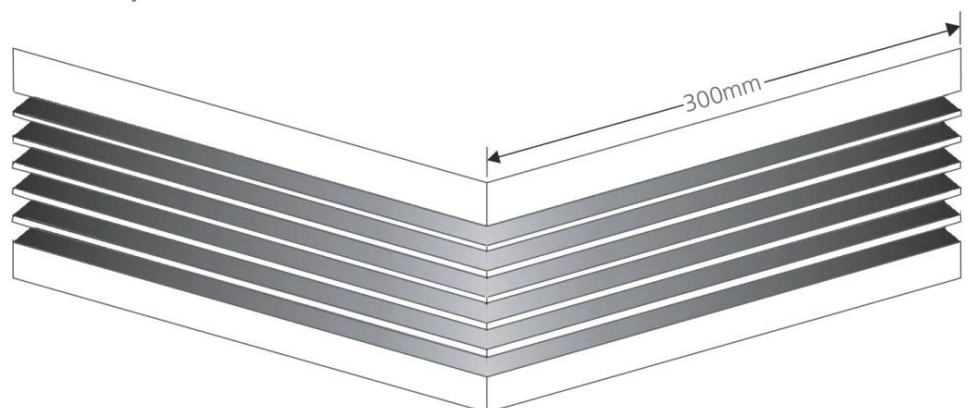
Ceiling Corner Fixing (135°)



Ceiling Corner Fixing (90°)



Wall Corner Fixing - Outside (90°)



BASIC PERFORMANCE DATA

Linear Bar Grille Model : LBG - 0°

WIDTH (inch)	Area Factor AK (Ft ² /Ft)	Velocity (fpm)	400	500	600	700	800	1000	1200	1400	1600
		Total Pressure (Inch W.G.)	0.009	0.014	0.021	0.028	0.036	0.056	0.08	0.11	0.146
3"	0.1	CFM/Ft	40	50	60	70	80	100	120	140	160
		Throw (Ft)	8-14	11-17	13-20	14-22	16-26	20-33	24-39	27-42	30-45
		NC	<20	<20	<20	<20	<20	25	28	31	34
4"	0.15	CFM/Ft	60	75	90	105	120	150	180	210	240
		Throw (Ft)	10-16	12-19	14-24	18-28	20-31	25-40	30-47	33-50	37-54
		NC	<20	<20	<20	<20	<20	26	29	33	36
5"	0.19	CFM/Ft	76	95	114	133	152	190	228	266	304
		Throw (Ft)	12-20	15-25	18-29	22-35	25-39	31-48	37-56	40-60	43-64
		NC	<20	<20	<20	<20	<20	26	29	34	37
6"	0.23	CFM/Ft	92	115	138	161	184	230	276	322	368
		Throw (Ft)	14-21	16-26	20-31	24-37	26-41	32-52	39-62	43-66	46-69
		NC	<20	<20	<20	<20	20	26	30	35	38
8"	0.31	CFM/Ft	124	155	186	217	248	310	372	434	496
		Throw (Ft)	16-24	18-29	22-33	26-39	27-43	35-55	41-65	46-69	50-73
		NC	<20	<20	<20	<20	21	27	31	35	39
10"	0.4	CFM/Ft	160	200	240	280	320	400	480	560	640
		Throw (Ft)	18-28	20-32	24-36	28-42	29-45	37-58	43-68	48-74	51-76
		NC	<20	<20	<20	<20	22	28	32	36	40
12"	0.48	CFM/Ft	192	240	288	336	384	480	576	672	768
		Throw (Ft)	20-30	22-35	26-39	30-45	31-48	39-61	45-69	50-78	55-80
		NC	<20	<20	<20	20	23	29	33	37	41

VELOCITY

:Is discharge velocity measured at face of grille in FPM .

NC

:Is for supply without damper and room effect of 8 dB.

TOTAL PRESSURE

:Is in inch W.G. for supply grille without damper .

THROW

:Is for 8' long supply grille without damper , for 100 and 50 FPM terminal velocities respectively.

Ak

:Is area factor in Ft²/Ft Run

LINEAR BAR GRILLES & REGISTERS

BASIC PERFORMANCE DATA

Linear Bar Grille Model : LBG - 0°Y

WIDTH (inch)	Area Factor AK (Ft ² /Ft)	Velocity (fpm)	400	500	600	700	800	1000	1200	1400	1600
		Total Pressure (Inch W.G.)	0.010	0.018	0.025	0.032	0.044	0.064	0.088	0.120	0.157
3"	0.97	CFM/Ft	35	44	53	62	71	88	106	124	142
		Throw (Ft)	6-11	9-14	10-16	11-18	13-22	17-27	20-31	23-35	26-39
		NC	<20	<20	<20	<20	<20	23	27	31	35
4"	0.145	CFM/Ft	51	64	77	90	103	129	155	181	206
		Throw (Ft)	7-13	9-16	11-20	14-23	16-26	20-32	24-40	27-43	30-47
		NC	<20	<20	<20	<20	20	24	28	32	36
5"	0.186	CFM/Ft	67	84	101	118	135	169	202	236	271
		Throw (Ft)	9-16	11-20	14-25	18-30	21-33	25-40	30-45	34-49	38-54
		NC	<20	<20	<20	<20	21	25	29	33	37
6"	0.225	CFM/Ft	83	104	125	146	167	209	251	292	335
		Throw (Ft)	11-17	13-22	16-27	20-33	22-37	27-44	30-48	34-53	38-57
		NC	<20	<20	<20	20	22	26	31	34	38
8"	0.30	CFM/Ft	119	149	179	208	239	298	359	419	478
		Throw (Ft)	13-19	14-24	18-28	22-34	24-38	27-44	31-49	35-52	39-58
		NC	<20	<20	<20	21	23	27	32	36	40
10"	0.398	CFM/Ft	151	189	227	265	303	379	455	530	607
		Throw (Ft)	15-22	16-22	19-29	22-35	25-38	30-45	33-49	37-54	40-59
		NC	<20	<20	20	22	25	29	33	37	41
12"	0.478	CFM/Ft	183	229	275	321	367	459	551	643	735
		Throw (Ft)	17-24	19-27	20-30	24-35	37-39	31-45	35-50	39-55	43-62
		NC	<20	<20	21	23	26	31	34	38	42

VELOCITY

:Is discharge velocity measured at face of grille in FPM .

NC

:Is for supply without damper and room effect of 8 dB.

TOTAL PRESSURE

:Is in inch W.G. for supply grille without damper .

THROW

:Is for 8' long supply grille without damper , for 100 and 50 FPM terminal velocities respectively.

Ak

:Is area factor in Ft²/Ft Run

BASIC PERFORMANCE DATA

Linear Bar Grille Model : LBG - 15°

WIDTH (inch)	Area Factor AK (Ft ² /Ft)	Velocity (fpm)	400	500	600	700	800	1000	1200	1400	1600
		Total Pressure (Inch W.G.)	0.009	0.014	0.021	0.028	0.036	0.056	0.08	0.11	0.146
3"	0.095	CFM/Ft	38	47	57	67	77	96	115	134	153
		Throw (Ft)	8-13	11-16	12-18	13-20	15-25	19-31	23-36	26-40	29-43
		NC	<20	<20	<20	<20	<20	25	28	31	35
4"	0.14	CFM/Ft	56	70	84	98	112	140	168	196	224
		Throw (Ft)	9-15	11-18	13-22	16-26	19-29	23-37	28-45	31-48	35-51
		NC	<20	<20	<20	<20	20	25	29	32	37
5"	0.18	CFM/Ft	72	90	108	126	144	180	216	252	288
		Throw (Ft)	11-19	14-23	19-28	21-33	24-38	30-46	35-53	38-57	41-61
		NC	<20	<20	<20	<20	21	26	30	34	38
6"	0.22	CFM/Ft	88	110	132	154	176	220	264	308	352
		Throw (Ft)	13-20	15-25	19-30	23-36	25-40	31-50	37-58	40-61	43-65
		NC	<20	<20	<20	<20	22	27	31	35	39
8"	0.3	CFM/Ft	122	153	184	214	244	304	364	425	486
		Throw (Ft)	15-22	17-28	21-32	25-38	26-42	33-53	38-60	42-64	46-68
		NC	<20	<20	<20	20	23	28	32	36	40
10"	0.39	CFM/Ft	156	195	234	273	312	390	468	546	624
		Throw (Ft)	17-26	19-30	22-34	27-40	28-43	35-55	40-63	44-66	48-70
		NC	<20	<20	<20	21	24	29	33	37	41
12"	0.47	CFM/Ft	188	235	282	329	376	470	564	658	752
		Throw (Ft)	19-28	21-32	24-36	29-42	30-46	37-56	42-63	46-69	50-75
		NC	<20	<20	20	22	25	30	35	38	42

VELOCITY

:Is discharge velocity measured at face of grille in FPM .

NC

:Is for supply without damper and room effect of 8 dB.

TOTAL PRESSURE

:Is in inch W.G. for supply grille without damper .

THROW

:Is for 8' long supply grille without damper , for 100 and 50 terminal velocities respectively.

FPM

Ak

:Is area factor in Ft²/Ft Run

LINEAR BAR GRILLES & REGISTERS

BASIC PERFORMANCE DATA

Linear Bar Grille Model : LBG - 30°

WIDTH	Area Factor AK	Velocity (fpm)	400	500	600	700	800	1000	1200	1400	1600
(inch)	(Ft ² /Ft)	Total Pressure (Inch W.G.)	0.009	0.014	0.021	0.028	0.036	0.056	0.08	0.11	0.146
3"	0.09	CFM/Ft	36	45	54	63	72	90	108	126	144
		Throw (Ft)	7-12	10-15	11-17	12-19	14-23	18-29	22-23	25-37	28-41
		NC	<20	<20	<20	<20	20	24	28	32	37
4"	0.13	CFM/Ft	52	65	78	91	104	130	156	182	208
		Throw (Ft)	8-14	10-17	12-21	15-24	17-27	22-35	26-42	29-46	32-49
		NC	<20	<20	<20	<20	20	25	29	33	38
5"	0.17	CFM/Ft	68	85	102	119	136	170	204	238	272
		Throw (Ft)	10-18	13-22	16-27	21-33	23-36	29-45	34-50	37-54	40-58
		NC	<20	<20	<20	<20	21	26	30	34	39
6"	0.21	CFM/Ft	84	105	126	147	168	210	252	294	336
		Throw (Ft)	12-19	14-24	18-29	22-35	24-39	30-47	34-52	38-57	41-60
		NC	<20	<20	<20	20	22	28	32	35	40
8"	0.29	CFM/Ft	120	150	180	210	240	300	360	420	480
		Throw (Ft)	14-21	16-26	20-30	24-36	25-40	31-49	35-53	39-58	42-61
		NC	<20	<20	<20	21	24	29	33	37	41
10"	0.38	CFM/Ft	152	190	228	266	304	380	456	532	608
		Throw (Ft)	16-24	18-27	21-31	25-38	27-41	33-50	36-54	40-59	43-62
		NC	<20	<20	20	22	26	30	34	38	42
12"	0.46	CFM/Ft	184	230	276	322	368	460	552	644	736
		Throw (Ft)	18-26	20-29	22-33	27-39	29-43	35-51	38-56	42-61	46-67
		NC	<20	<20	21	24	27	32	36	39	43

VELOCITY

:Is discharge velocity measured at face of grille in FPM .

NC

:Is for supply without damper and room effect of 8 dB.

TOTAL PRESSURE

:Is in inch W.G. for supply grille without damper .

THROW

:Is for 8' long supply grille without damper , for 100 and 50 terminal velocities respectively.

FPM

Ak

:Is area factor in Ft²/Ft Run

CONVERSION TABLE

Quantity	Imperial Unit	Metric Unit	From Imperial To Metric Multiply By	From Metric To Imperial Multiply By
Area	Square foot	Square meter (m ²)	0.0929	10.764
	Square inch	Square millimeter (mm ²)	645.16	0.00155
Density	Pounds per cubic foot	Kilograms per cubic meter (kg/m ³)	16.018	0.624
Length	inch	millimeter (mm)	25.4	0.0394
	foot	millimeter (mm)	304.8	0.00328
	foot	meter (m)	0.3048	3.2808
	yard	meter (m)	0.9144	1.0938
Pressure	inch of water column	Kilopascal (kPa)	0.2486	4.0219
	foot of water column	Kilopascal (kPa)	2.9837	0.3252
	inch of mercury column	Kilopascal (kPa)	3.3741	0.2964
	ounces per square inch	Kilopascal (kPa)	0.4309	2.3206
	pounds per square inch	Kilopascal (kPa)	6.8948	0.145
Temperature	fahrenheit	celcius (°C)	5/9 (°F-32)	(9/5 °C) +32
Velocity	feet per second	meters per second (m/s)	0.3048	3.2808
	feet per minute (fpm)	meters per second (m/s)	0.00508	196.85
	miles per hour	meters per second (m/s)	0.44704	2.2369
Volume Flow	Cubic feet per minute (cfm)	Liters per second (L/s)	0.4719	2.119
	Cubic feet per minute (cfm)	Cubic meters per second (m ³ /s)	0.0004719	2119.0
	Cubic feet per hour (cfh)	Milliliters per second(ml/s)	7.8658	0.127133
	Gallons per minute(U.S.)	Liters per second(L/s)	0.6309	15.850
	Gallons per minute(imperial)	Liters per second(L/s)	0.7577	13.198

LINEAR BAR GRILLES \oslash REGISTERS

NOTES

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This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting or typing. There are no margins, text, or other markings on the page.



Air Conditioning and Industries

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