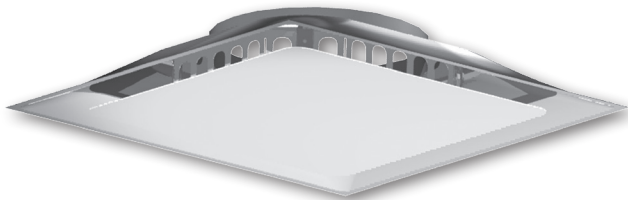




PLQIMP



PLQIMP, Angled View

Introduction: PLQIMP

The PLQIMP integrated multi-port architectural ceiling diffuser provides the building designer with the desired appearance and superior performance of a uniform radial discharge air pattern. A 360° horizontal pattern delivers even air throughout the space. The PLQIMP is designed with an integral multi-port diffusion ring to increase localized room air mixing and induction. The diffuser has a square faceplate made of one-piece, nonfolded material with rounded corners resulting in a clean appearance that is unobtrusive to ceiling systems. The single faceplate gives the diffuser reduced pressure drops and a quiet sound profile and is held in place by hooks that lock into the backpan. The one-piece, stamped backpan provides smooth, consistent corners, exacting dimensions, and performance tolerances. The removable faceplate offers easy duct and damper access.

MODELS

PLQIMP - Square Plaque-Style Ceiling Diffuser with Integrated Multi-port Ring

FEATURES

- Integral multi-port diffusion ring.
- Significantly increases room air mixing.
- Excellent choice for VAV applications.
- High induction at diffuser face.
- Low pressure drop ensures efficient system design.
- Easy removal of diffuser face for access to neck mounted dampers.

PANEL SIZE

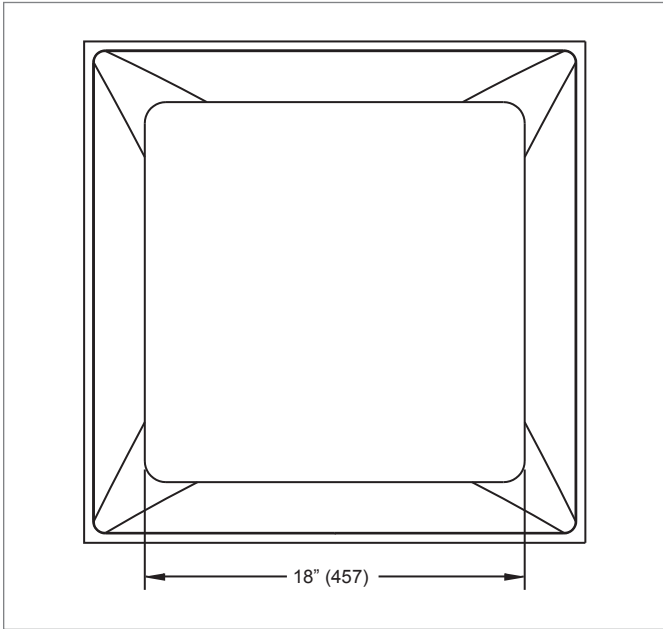
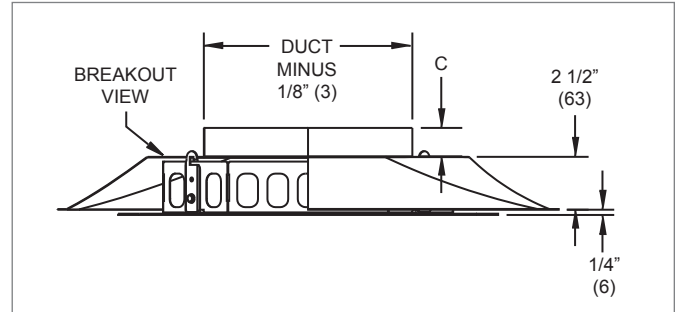
- 24"x24" (Plaque drops 1/4" below ceiling.)

ACCESSORIES

- Dampers
- Straightening Grid

FINISHES

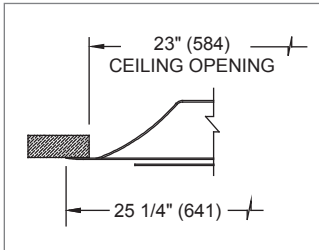
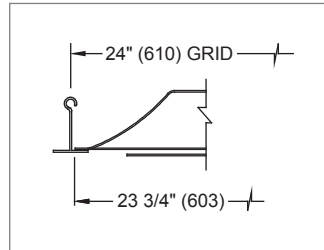
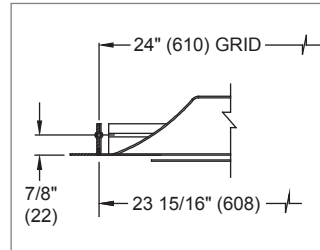
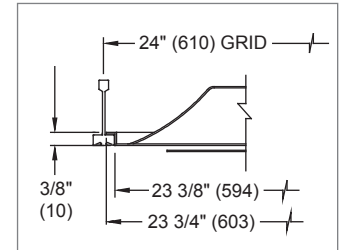
- Standard finish is #44 British White.
- Optional finishes available.

PLQIMP Dimensional Information
PLQIMP, FACE VIEW

PLQIMP, SIDE VIEW

PLQIMP, AVAILABLE NECK SIZES

24" x 24" Panel	
Nominal Duct Size	C
6" (152)	1 1/8" (29)
8" (203)	1 1/4" (32)
10" (254)	1 3/8" (35)
12" (305)	1 3/8" (35)
14" (356)	1 3/8" (35)

NOTE: Dimensions in parentheses are mm.

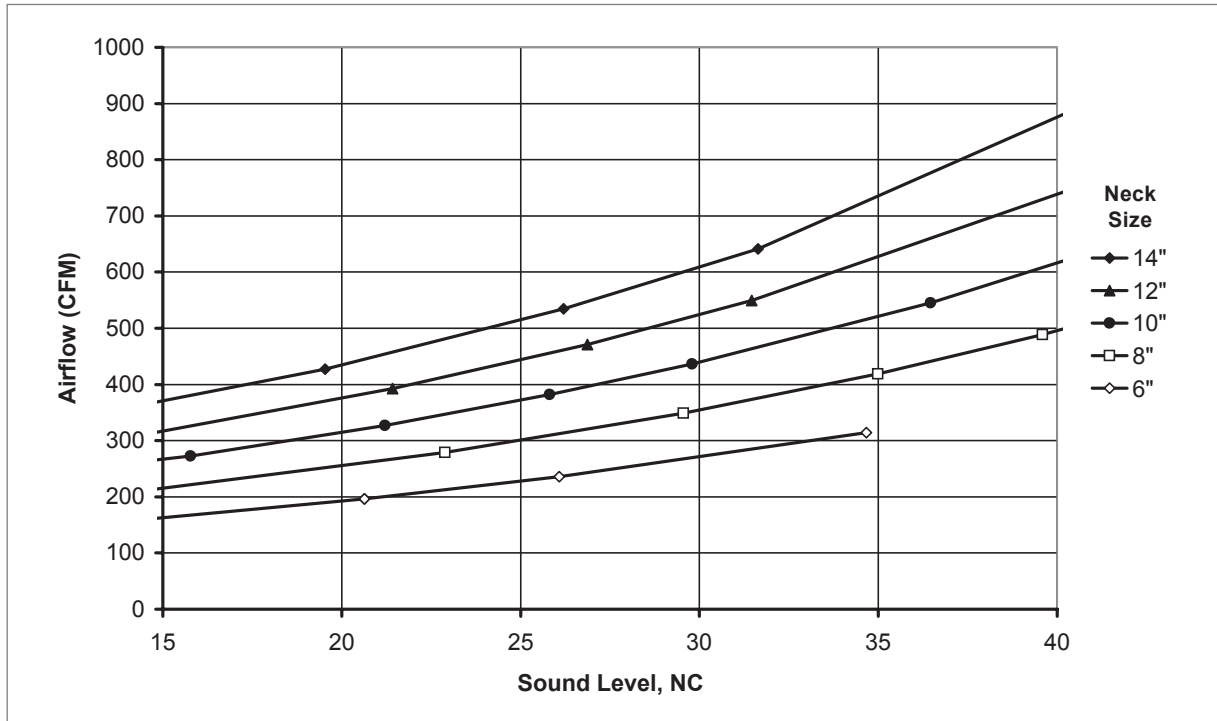
ARCHITECTURAL & PLAQUE DIFFUSERS

PLQIMP Frame Styles
**PLQIMP, FRAME 22,
24"x24" PANEL,
SURFACE MOUNT**

**PLQIMP, FRAME 23,
24"x24" PANEL,
LAY-IN T-BAR**

**PLQIMP, FRAME 24,
24"x24" PANEL,
SNAP-IN T-BAR**

**PLQIMP, FRAME 98,
24"x24" PANEL,
NARROW-T**


NOTE: Dimensions in parentheses are mm.

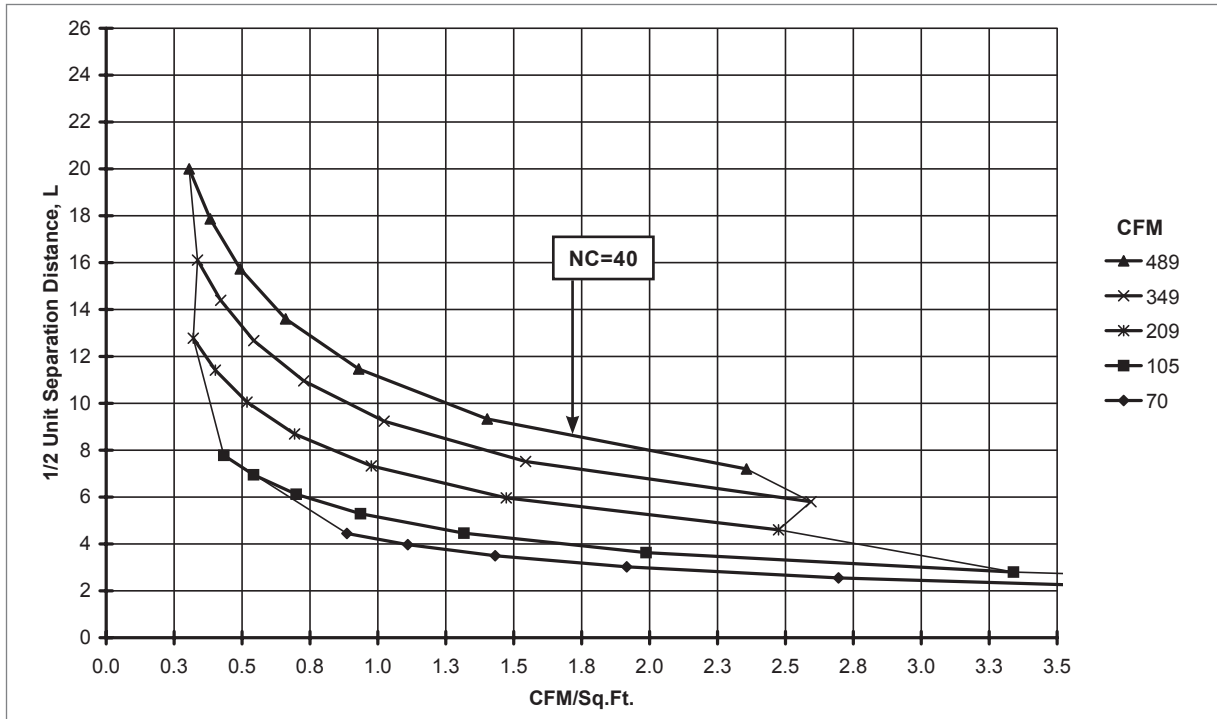
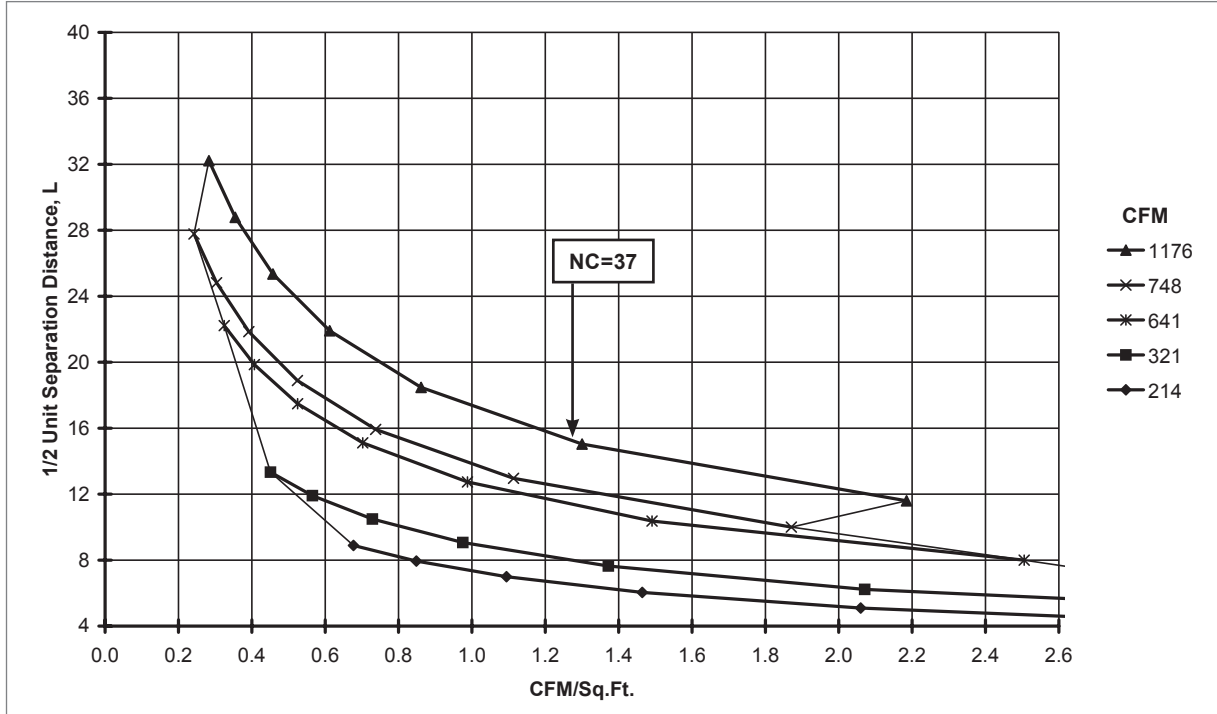
PLQIMP Reference Charts

AIRFLOW VS. NC LEVEL: PLQIMP, 24" x 24" PANEL (NO DAMPER)



ARCHITECTURAL & PLAQUE DIFFUSERS

PLQIMP

PLQIMP Reference Charts: Horizontal Throw
DIFFUSER SPACING FOR 80% ADPI: PLQIMP, 24"x24" PANEL, 8" NECK, 4-WAY (NO DAMPER)

DIFFUSER SPACING FOR 80% ADPI: PLQIMP, 24"x24" PANEL, 14" NECK, 4-WAY (NO DAMPER)


NOTES: Charts are at 20 BTUH/ft² loads. See the Engineering section of this catalog for instructions on how to read these charts and additional ADPI information.

PLQIMP | Integrated Multi-port Ring, Square Plaque Face

PLQIMP Performance Data: Horizontal Throw

IP/METRIC DATA: PLQIMP, 24"x24" PANEL, ROUND NECK (NO DAMPER)

ARCHITECTURAL & PLAQUE DIFFUSERS

	IP Data					NC	Metric Data					Octave Band, dB						
	Neck Vel	Air Flow	Pt	Ps	Throw		Neck Vel	Air Flow	Pt	Ps	Throw	2	3	4	5	6	7	
	FPM	CFM	"WG	"WG	ft		m/s	L/s	Pa	Pa	m							
6" Dia.	400	79	.017	0.007	0 - 0 - 0	-	2.03	37	4.2	1.8	0.0 - 0.0 - 0.1	20	14	-	-	-	-	
	500	98	.027	0.011	0 - 0 - 1	-	2.54	46	6.6	2.8	0.0 - 0.1 - 0.2	24	19	16	11	-	-	
	600	118	.038	0.016	0 - 0 - 1	-	3.05	56	9.6	4.0	0.0 - 0.1 - 0.3	28	24	21	17	-	-	
	700	137	.052	0.022	0 - 0 - 1	-	3.56	65	13.0	5.4	0.1 - 0.1 - 0.5	31	28	25	21	15	-	
	800	157	.068	0.028	0 - 0 - 2	14	4.06	74	17.0	7.1	0.1 - 0.1 - 0.6	34	31	29	25	19	-	
	1000	196	.107	0.044	0 - 1 - 3	21	5.08	93	26.5	11.0	0.1 - 0.2 - 0.9	38	37	35	32	26	17	
	1200	236	.154	0.064	0 - 1 - 4	26	6.10	111	38.2	15.9	0.1 - 0.3 - 1.3	42	42	40	37	32	22	
	1400	275	.209	0.087	1 - 1 - 6	31	7.11	130	52.0	21.6	0.2 - 0.5 - 1.8	45	46	45	42	36	27	
8" Dia.	200	70	.005	0.002	0 - 0 - 0	-	1.02	33	1.2	0.6	0.0 - 0.0 - 0.2	13	-	-	-	-	-	
	300	105	.011	0.005	0 - 0 - 1	-	1.52	49	2.7	1.3	0.0 - 0.1 - 0.3	21	15	-	-	-	-	
	500	175	.030	0.015	0 - 1 - 3	-	2.54	82	7.6	3.7	0.1 - 0.2 - 0.9	32	28	25	20	13	-	
	600	209	.044	0.021	0 - 1 - 4	14	3.05	99	10.9	5.3	0.2 - 0.3 - 1.4	36	32	30	25	19	-	
	700	244	.060	0.029	1 - 2 - 6	19	3.56	115	14.8	7.2	0.2 - 0.5 - 1.8	39	36	34	30	24	15	
	800	279	.078	0.038	1 - 2 - 7	23	4.06	132	19.4	9.4	0.3 - 0.6 - 2.3	41	40	38	34	28	19	
	1000	349	.121	0.059	1 - 3 - 9	30	5.08	165	30.2	14.7	0.4 - 0.9 - 2.8	46	45	44	41	35	26	
	1200	419	.175	0.085	2 - 4 - 11	35	6.10	198	43.6	21.2	0.6 - 1.4 - 3.4	50	50	49	46	40	32	
10" Dia.	200	109	.016	0.013	0 - 0 - 2	-	1.02	51	3.9	3.3	0.1 - 0.1 - 0.5	19	11	-	-	-	-	
	300	164	.035	0.030	0 - 1 - 4	-	1.52	77	8.8	7.4	0.1 - 0.3 - 1.2	28	21	17	11	-	-	
	500	273	.098	0.082	1 - 3 - 8	16	2.54	129	24.3	20.4	0.4 - 0.9 - 2.5	38	34	31	27	20	12	
	600	327	.141	0.118	2 - 4 - 10	21	3.05	154	35.0	29.4	0.5 - 1.2 - 3.0	42	39	36	32	26	18	
	700	382	.191	0.161	2 - 5 - 12	26	3.56	180	47.7	40.1	0.7 - 1.7 - 3.5	45	43	41	37	30	23	
	800	436	.250	0.210	3 - 7 - 13	30	4.06	206	62.3	52.3	1.0 - 2.0 - 4.0	47	46	44	41	35	27	
	900	491	.316	0.266	4 - 7 - 15	33	4.57	232	78.8	66.2	1.2 - 2.3 - 4.5	50	49	48	44	38	31	
	1000	545	.391	0.328	5 - 8 - 17	36	5.08	257	97.3	81.8	1.5 - 2.5 - 5.0	52	52	51	47	41	34	
12" Dia.	100	107	.011	0.010	2 - 4 - 7	-	0.51	50	2.8	2.6	0.7 - 1.1 - 2.2	14	-	-	-	-	-	
	200	214	.044	0.042	5 - 7 - 13	-	1.02	101	11.0	10.4	1.5 - 2.2 - 3.9	28	21	16	-	-	-	
	300	321	.100	0.094	7 - 11 - 16	11	1.52	151	24.8	23.5	2.2 - 3.4 - 4.8	37	31	27	22	14	-	
	400	428	.177	0.167	10 - 13 - 18	20	2.03	202	44.2	41.7	3.0 - 3.9 - 5.5	42	38	35	30	23	17	
	500	535	.277	0.262	12 - 14 - 20	26	2.54	252	69.0	65.1	3.6 - 4.4 - 6.2	47	44	41	37	30	24	
	600	641	.399	0.377	13 - 16 - 22	32	3.05	303	99.4	93.8	3.9 - 4.8 - 6.7	51	49	46	42	36	30	
	700	748	.543	0.513	14 - 17 - 24	36	3.56	353	135.3	127.7	4.2 - 5.2 - 7.3	54	53	51	47	41	35	
	800	855	.710	0.670	15 - 18 - 26	40	4.06	404	176.7	166.8	4.5 - 5.5 - 7.8	57	56	54	51	45	39	
14" Dia.	100	107	.011	0.010	2 - 4 - 7	-	0.51	50	2.8	2.6	0.7 - 1.1 - 2.2	14	-	-	-	-	-	
	200	214	.044	0.042	5 - 7 - 13	-	1.02	101	11.0	10.4	1.5 - 2.2 - 3.9	28	21	16	-	-	-	
	300	321	.100	0.094	7 - 11 - 16	11	1.52	151	24.8	23.5	2.2 - 3.4 - 4.8	37	31	27	22	14	-	
	400	428	.177	0.167	10 - 13 - 18	20	2.03	202	44.2	41.7	3.0 - 3.9 - 5.5	42	38	35	30	23	17	
	500	535	.277	0.262	12 - 14 - 20	26	2.54	252	69.0	65.1	3.6 - 4.4 - 6.2	47	44	41	37	30	24	
	600	641	.399	0.377	13 - 16 - 22	32	3.05	303	99.4	93.8	3.9 - 4.8 - 6.7	51	49	46	42	36	30	
	700	748	.543	0.513	14 - 17 - 24	36	3.56	353	135.3	127.7	4.2 - 5.2 - 7.3	54	53	51	47	41	35	
	800	855	.710	0.670	15 - 18 - 26	40	4.06	404	176.7	166.8	4.5 - 5.5 - 7.8	57	56	54	51	45	39	
16" Dia.	100	107	.011	0.010	2 - 4 - 7	-	0.51	50	2.8	2.6	0.7 - 1.1 - 2.2	14	-	-	-	-	-	
	200	214	.044	0.042	5 - 7 - 13	-	1.02	101	11.0	10.4	1.5 - 2.2 - 3.9	28	21	16	-	-	-	
	300	321	.100	0.094	7 - 11 - 16	11	1.52	151	24.8	23.5	2.2 - 3.4 - 4.8	37	31	27	22	14	-	
	400	428	.177	0.167	10 - 13 - 18	20	2.03	202	44.2	41.7	3.0 - 3.9 - 5.5	42	38	35	30	23	17	
	500	535	.277	0.262	12 - 14 - 20	26	2.54	252	69.0	65.1	3.6 - 4.4 - 6.2	47	44	41	37	30	24	
	600	641	.399	0.377	13 - 16 - 22	32	3.05	303	99.4	93.8	3.9 - 4.8 - 6.7	51	49	46	42	36	30	
	700	748	.543	0.513	14 - 17 - 24	36	3.56	353	135.3	127.7	4.2 - 5.2 - 7.3	54	53	51	47	41	35	
	800	855	.710	0.670	15 - 18 - 26	40	4.06	404	176.7	166.8	4.5 - 5.5 - 7.8	57	56	54	51	45	39	

NOTES: Throw values are given for isothermal conditions and terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Dash in space denotes a NC or dB value of less than 10. Nominal duct is duct width. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. See Krueger's selection software for performance data not shown, including octave band data.

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PLQIMP Suggested Specification & Configuration

1. **SERIES: (XXXXXX)**
 PLQIMP - Square Plaque-Style Ceiling Diffuser
 with Integrated Multi-port Ring
2. **NECK: (XX)**
 6"
 8"
 10"
 12"
 14"
3. **FRAME STYLE: (XXX)**
 F23 - Lay-in T-Bar
 F22 - Surface Mount
 F24 - Snap-in T-Bar
 F98 - Narrow-T
4. **PANEL: (XX)x(XX)**
 24"x24"
5. **DAMPER: (XX)**
 00 - No Damper
 03 - PR10
 04 - PRD10 *
 06 - PR12 *
 08 - PRN100
6. **ACCESSORIES: (XX)**
 00 - No Accessories
 R - Round Straightening Grid
 IB - Insulated Backpan
7. **FINISH: (XX)**
 01 - Mill
 10 - Alumican
 35 - Black
 44 - British White

* PR12 and PRD10 are provided with a #35 Black finish.

PLQIMP

The architectural square panel ceiling diffusers of the sizes and mounting types shown on the plans or outlet schedule shall be the Krueger model PLQIMP. The PLQIMP shall incorporate an integrated multi-port diffusion ring to increase localized room air mixing. The PLQIMP shall have a one piece square face plaque not exceeding 18"x18" for 24"x24" panel size and be constructed of 16 gage steel with rounded corners that have a minimum radius of 3/4". Face plaques that have a secondary wrapper or a plastic diffusion ring are not acceptable. The face plaque shall not extend below the ceiling more than 3/8" and shall be removable from the backpan for access to the optional damper. The diffuser backpan shall be one piece stamped construction of 22 gage steel and have an integrally drawn round neck.

Diffusers must discharge in the horizontal plane of the room.

Optional duct or neck mounted round damper shall be constructed of heavy gage steel. Damper shall be operable from the face of the diffuser.

PERFORMANCE

The manufacturer shall provide published performance data for the diffuser, including 2 thru 7 Octave Band data. The diffuser shall be tested in accordance to the data standards at the time of product introduction or ANSI/ASHRAE Standard 70.

FINISH

The paint finish shall be #44 British White and be an anodic acrylic paint, baked at 315°F for 30 minutes. The paint thickness shall be 0.8 – 1.0 mils, gloss at 60° per ASTM D523-89 of 50 – 85%, pencil hardness per ASTM D3363-92A of HB – H, crosshatch adhesion per ASTM D3359-83 of 4B – 5B, impact per ASTM D2794-93 of direct impact >100 in/lb and reverse impact >80 in/lb, salt spray per ASTM B117-9048 of 96 hours, humidity per ASTM D2247-92 of >500 hours and water soak per ASTM D870-92 of 250 hours.