

# INT20PA

4" Series

Project	
Notes	
Fixture Type	
Date	

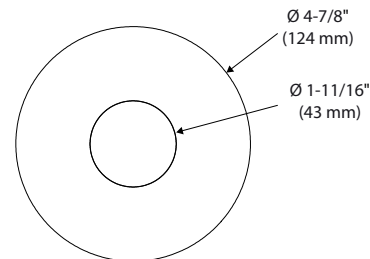
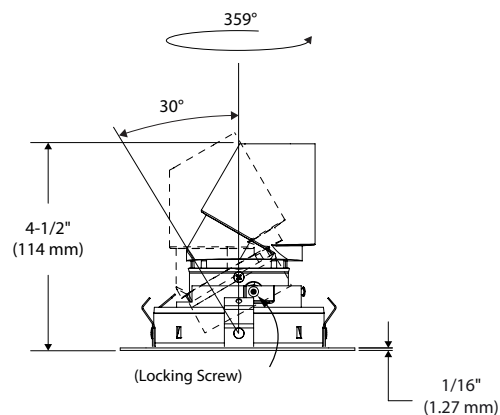
## Ultra-Thin Profile Round Adjustable Regressed Trim with Pinhole Aperture

### SPECIFICATIONS

COLOR TEMPERATURE	2,700K / 3,000K / 3,500K / 4,000K		
CRI	90+		
POWER SUPPLY	Several driver models available giving you 2 dimming options: ELV, 0-10V. Refer to the housing specifications sheet for more details.		
LED MODULE	Bridgelux Vero 18, delivers a lumen maintenance greater than 70% after 50,000 hours of operation (L <sub>70</sub> ). Provides a high quality true color and a clean white light without hot spots. Binning within 3 steps on MacAdam ellipse. Surpasses ANSI binning requirements.		
HOT LUMENS (Determined by the choice of housing)	<b>Performance 1:</b> 600 lumens <b>Performance 2:</b> 1,000 lumens		
TRIM	Powder coated paint or plated die-formed steel.		
OPTIC SYSTEM	Protection lens covered with a high-performance film 98% effective. Lens of 1/8" (3 mm) thick and 1.9" (49 mm) Ø. <b>Lens:</b> Clear <b>Optical Reflector:</b> <b>M:</b> Narrow Flood → 35°		
AJUSTABILITY	Swivel: 359° 30° tilt and with locking position. Choose aiming angle then tighten screws to lock into position.		
HEAT SINK	High quality aluminum injected heat sink ensuring maximum heat dissipation.		
REFLECTOR	Painted Black (02)		
CEILING CUTOUT	Ø 4-1/4" (108 mm)		
COMPATIBLE HOUSINGS		<b>Remodel Housing</b>	<b>New Construction Housing</b>
(Trims work with either performance 1 and 2 housings)			
	<b>Performance 1</b> (600 lumens)	Not Available	NWLD200LV1 NWLD200LD1
	<b>Performance 2</b> (1,000 lumens)	Not Available	NWLD200LV2 NWLD200LD2
			Insulated Housing
			Not Available
			Not Available
	For dimming, please consult frequently our Web site to find our dimmer compatibility list: <a href="http://www.contrastlighting.com">www.contrastlighting.com</a>		
CERTIFICATION	cULus E343977 for damp locations		
WARRANTY	1 year for standard finishes and 5 years on LED module.		



INT20PA-12BR (illustrated)



# CONTRASTE

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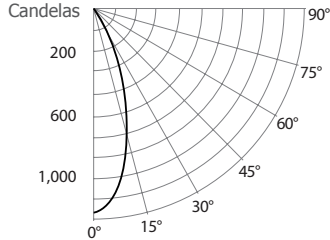
# INT20PA

## 4" Series

### PHOTOMETRIC DATA

#### 3,000K, 90 + of CRI, Narrow Flood with Performance 1 Housing

##### CANDLEPOWER DISTRIBUTION



##### LIGHT CONE

Distance	FC	DIA
06'	32.4	3.4
08'	18.2	4.6
10'	11.7	5.7
12'	8.1	6.9
14'	5.9	8.0
16'	4.6	9.2

Beam: 32°  
Beam Edge defined as 50% of Maximum Nadir Candle-power.

##### LUMINAIRE

Performance 1 LED	3,000K	Narrow Flood
<b>CBCP / Lumens</b>	1,165	/ 446.7
<b>Watts</b>	120V	277V
	16W	16.5W
<b>Operating AMPS</b>	0.13A	0.059A
<b>Lumen Maintenance</b>	L70 @ 50,000 Hrs	
<b>CRI</b>	+ 90	
<b>Lumens/Watt</b>	27.9	
<b>Spacing Criteria</b>	0.55	

##### COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30		
Wall Reflect %	50	30	50	30	50	30	50	30	
<b>RCR</b>	0	119	119	111	111	106	106	106	
	2	100	96	95	92	92	89	89	
	4	89	83	86	81	83	80	80	
	6	81	75	78	74	77	73	73	
	8	74	69	72	68	71	67	67	
	10	69	64	67	63	67	63	63	

Zonal Cavity Method  
Effective Floor Cavity Reflectance 20%

##### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	350.8	78.5%
0-40	366.4	82%
0-60	395.1	88.4%
60-90	47.8	10.7%
0-180	446.7	100%

##### MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	21	0.71
6'	12	0.4
7'	8	0.28
8'	8	0.28
9'	5	0.18

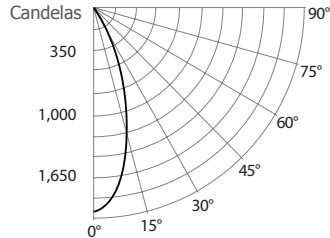
Local 38' x 38' x 10'. Workplan located 2-1/2' (30°).  
Reflection factor of 80%/50%/30%.

##### CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	1,165	45	20
5	1,086	55	16
10	901	65	15
15	653	75	17
20	369	85	16
25	141	90	14
35	23		

#### 3,000K, 90 + of CRI, Narrow Flood with Performance 2 Housing

##### CANDLEPOWER DISTRIBUTION



##### LIGHT CONE

Distance	FC	DIA
06'	53.4	3.6
08'	30.1	4.8
10'	19.2	6.0
12'	13.4	7.2
14'	9.8	8.3
16'	7.5	9.5

Beam: 33°  
Beam Edge defined as 50% of Maximum Nadir Candle-power.

##### LUMINAIRE

Performance 2 LED	3,000K	Narrow Flood
<b>CBCP / Lumens</b>	1,924	/ 740.5
<b>Watts</b>	120V	277V
	23W	23.5W
<b>Operating AMPS</b>	0.19A	0.084A
<b>Lumen Maintenance</b>	L70 @ 50,000 Hrs	
<b>CRI</b>	90 +	
<b>Lumens/Watt</b>	32.2	
<b>Spacing Criteria</b>	0.57	

##### COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30		
Wall Reflect %	50	30	50	30	50	30	50	30	
<b>RCR</b>	0	120	120	112	112	107	107	107	
	2	101	96	95	92	92	89	89	
	4	89	83	85	81	83	79	79	
	6	81	75	78	73	77	72	72	
	8	74	68	72	67	71	67	67	
	10	69	63	67	63	66	62	62	

Zonal Cavity Method  
Effective Floor Cavity Reflectance 20%

##### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	568.5	77.7%
0-40	592.7	80%
0-60	642.6	86.8%
60-90	90.7	0.40%
0-180	740.5	100%

##### MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	34	1.08
6'	19	0.61
7'	13	0.42
8'	13	0.42
9'	9	0.27

Local 38' x 38' x 10'. Workplan located 2-1/2' (30°).  
Reflection factor of 80%/50%/30%.

##### CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	1,924	45	31
5	1,788	55	29
10	1,505	65	30
15	1,114	75	30
20	640	85	29
25	253	90	26
35	35		



# INT20PA

4" Series

## INT20PA MODEL PHOTOMETRIC DATA

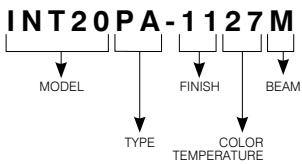
### With performance 1 housing

	Narrow Flood	
<b>2,700K with 90 CRI</b>	442 Lms	26 lm/W
<b>3,000K with 90 CRI</b>	445 Lms	28 lm/W
<b>3,500K with 90 CRI</b>	472 Lms	30 lm/W
<b>4,000K with 90 CRI</b>	480 Lms	30 lm/W

### With performance 2 housing

	Narrow Flood	
<b>2,700K with 90 CRI</b>	681 Lms	30 lm/W
<b>3,000K with 90 CRI</b>	718 Lms	31 lm/W
<b>3,500K with 90 CRI</b>	761 Lms	33 lm/W
<b>4,000K with 90 CRI</b>	775 Lms	34 lm/W

## CODIFICATION EXAMPLE



## ORDERING CODES

MODEL	TYPE	FINISH	COLOR TEMPERATURE	BEAM
<b>INT20</b>	<b>PA</b>			<b>M</b>
<b>INT20</b> Intermezzo Round	<b>PA</b> Ajustable Pinhole	<b>-11</b> Matte White <b>-12BR</b> Brushed Nickel <b>-22</b> Matte Black	<b>27</b> 2,700K <b>30</b> 3,000K <b>35</b> 3,500K <b>40</b> 4,000K	<b>M</b> Narrow Flood (35°)



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