

# INT20PA

4" Series

Project	
Notes	
Fixture Type	
Date	

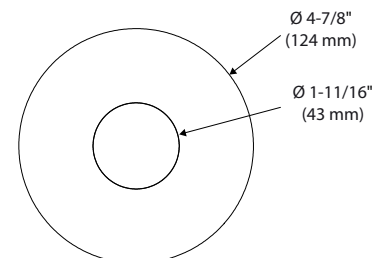
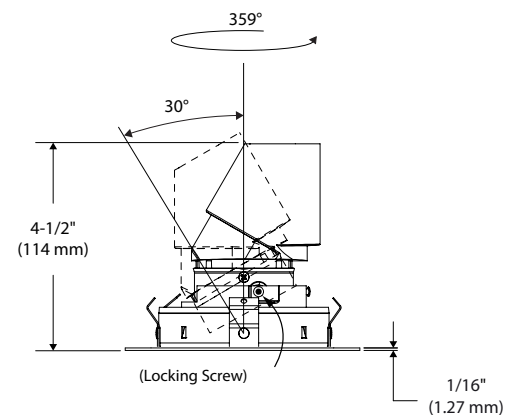
## Ultra-Thin Profile Round Adjustable Regressed Trim with Pinhole Aperture

### SPECIFICATIONS

COLOR TEMPERATURE	2,700K / 3,000K / 3,500K / 4,000K		
CRI	90+		
POWER SUPPLY	Several driver models available giving you 3 dimming options: ELV, 0-10V or Pulse Width Modulation (PWM).		
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 <b>(02)</b>		
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>Insulated Housing</b>
	<b>Performance 1</b> (600 lumens)	Not Available	NWLD200LE1 NWLD200LD1 NWLD200LA1
	<b>Performance 2</b> (1,000 lumens)	Not Available	NWLD200LE2 NWLD200LD2 NWLD200LA2
			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 <b>E343977</b> for <b>damp locations</b>		
WARRANTY	1 year for standard finishes and 5 years on LED module.		



INT20PA-12BR (illustrated)



# CONTRASTE

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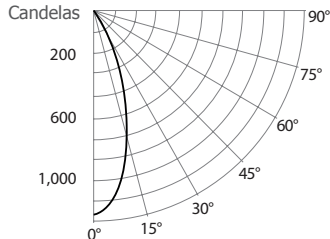
# INT20PA

## 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	
CBCP / Lumens	1,165 / 446.7	
Watts	120V	277V
	16W	16.5W
Operating AMPS	0.13A	0.059A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	+ 90	
Lumens/Watt	27.9	
Spacing Criteria	0.55	

##### COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30		
Wall Reflect %	50	30	50	30	50	30	50	30	
RCR	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

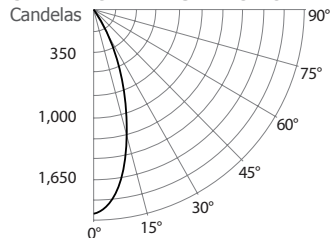
Local 38' x 38' x 10'. Workplan located 2-1/2' (30").  
Reflection factor of 80%/50%/30%.

##### 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	
CBCP / Lumens	1,924 / 740.5	
Watts	120V	277V
	23W	23.5W
Operating AMPS	0.19A	0.084A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90 +	
Lumens/Watt	32.2	
Spacing Criteria	0.57	

##### COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30		
Wall Reflect %	50	30	50	30	50	30	50	30	
RCR	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

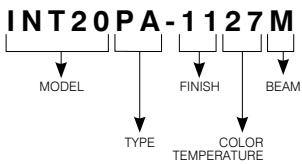
### With performance 1 housing

	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 CODE

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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