

SPECIFICATION SHEET

UR3A**3-1/2" Series****Round Adjustable Trim**

Project _____

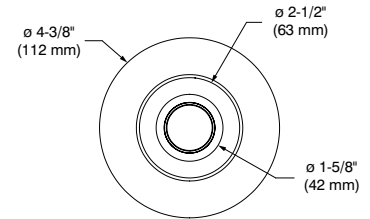
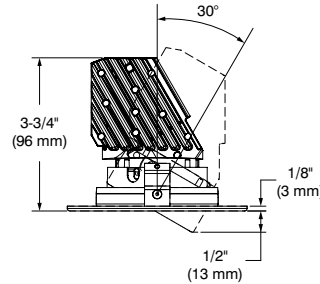
Notes _____

Fixture Type _____

Date _____



UR3A-12BR (illustrated)



SPECIFICATIONS

LED MODULE

STANDARD (SOLID WHITE)

Lumileds Luxeon CoB 1203 GEN4

L₇₀ @ 50,000 hours of operation. 3-Step MacAdam ellipse (3 SDCM)

Color temperatures: 2,700K - 3,000K - 3,500K - 4,000K

CRI: 80+ (only 2,700K and 3,000K), 90+ ()

Delivered Lumens: Performance 1 (10W) - 1,099 lumens @ 3,000K, 110 lm/W
 Performance 2 (15W) - 1,432 lumens @ 3,000K, 95 lm/W
 Performance 3 (24W) - 2,148 lumens @ 3,000K, 90 lm/W

Power supply (*determined by the choice of housing*): 120V, 277V or 120V/277V

Several driver models available in three performances (10W, 15W and 24W) offered in two dimming options:

ELV: 120V only 0-10V: 120V / 277V

Consult housing specification sheet for more details.

WARM DIMMING (WD)

LTF LED Module mimicking the halogen lamp dimming conditions by lowering color temperature from 3,050K at full intensity down to 1,800K at low-end while ensuring 90+ CRI throughout the whole process.

L₇₀ @ 50,000 hours of operation. 3-Step MacAdam ellipse (3 SDCM)

Color Temperature: 3,050K to 1,800K

CRI: 90+ (over the entire dimming range)

Delivered Lumens: Performance 1 (10W) - up to 650 lumens
 Performance 2 (15W) - up to 850 lumens
 Performance 3 (24W) - up to 1,250 lumens

Power supply (*determined by the choice of housing*): 120V, 277V or 120V/277V

Several driver models available in three performances (10W, 15W and 24W) offered in two dimming options:

ELV: 120V only 0-10V: 120V / 277V

Consult housing specification sheet for more details.

CEILING CUTOUT

ø 3-3/4" (95 mm)

ADJUSTABILITY

Tilt: 30°

CERTIFICATION

- cULus **E343977** for damp locations
- Certified under California Energy Commission according to reference joint Appendix 8 (JA8-2016)

WARRANTY

1 year limited warranty on components against manufacturing defects
 5-year limited warranty on LED arrays and drivers

CONTRASTE2020-10
Revision 6

PRINTED IN CANADA

1009, rue du Parc Industriel
 Lévis (Québec) G6Z 1C5 Canada
 Tel.: 1-888-839-4624
 Fax.: 1-877-839-7057
 contrastlighting.com
 info@contrastlighting.com

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SPECIFICATION SHEET

UR3A

3-1/2" Series

Round Adjustable Trim

SPECIFICATIONS (CONT'D)

COMPATIBLE HOUSINGS

	Remodel Housings	New Construction Housings	IC Housings
Performance 1 10W Warm Dimming not compatible	IC Air Tight REUR3-120D1 REUR3-120E1 REUR3-277D1 REUR3-UV1	IC Air Tight NWUR3-120D1 NWUR3-120E1 NWUR3-277D1 NWUR3-UV1 Non-IC Air Tight Emergency Driver NWUR3-120D1-EM NWUR3-120E1-EM NWUR3-277D1-EM NWUR3-UV1-EM	IC Air Tight ISUR3-120D1 ISUR3-120E1 ISUR3-277D1 ISUR3-UV1 IC Air Tight Chicago Plenum and Polyurethane ISUR3-120D1P ISUR3-120E1P ISUR3-277D1P ISUR3-UV1P
Performance 2 15W MAX	Non-IC Air Tight REUR3-120D2 REUR3-120E2 REUR3-120EB2 REUR3-2772 REUR3-277D2 REUR3-UV2	Non-IC Air Tight NWUR3-120D2 NWUR3-120E2 NWUR3-120EB2 NWUR3-2772 NWUR3-277D2 NWUR3-UV2 Non-IC Air Tight Emergency Driver NWUR3-120D2-EM NWUR3-120E2-EM NWUR3-120EB2-EM NWUR3-2772-EM NWUR3-277D2-EM NWUR3-UV2-EM	IC Air Tight ISUR3-120D2 ISUR3-120E2 ISUR3-120EB2 ISUR3-2772 ISUR3-277D2 ISUR3-UV2 IC Air Tight Chicago Plenum ISUR3-120D2P ISUR3-120E2P ISUR3-120EB2P ISUR3-2772P ISUR3-277D2P ISUR3-UV2P
Performance 3 24W MAX	N/A	Non-IC Non-Air Tight NWUR3-UV3 Non-IC Non-Air Tight Emergency Driver NWUR3-UV3-EM	N/A

For dimming, please visit our Web site frequently to find our suggested compatible dimmers list:
www.contrastlighting.com

Contraste suggests ordering
EB2 (ELV (+Value)/15W), D2 (0-10V/15W)
or
UV2 (ELV/0-10V/15W) and UV3 (ELV/0-10V/24W)
dimming type and performance to use with Warm Dimming

COMPATIBLE HOUSINGS



	Remodel Housings	New Construction Housings	IC Housings
Performance 1 10W	IC Air Tight REUR3-120D1	IC Air Tight NWUR3-120D1	IC Air Tight ISUR3-120D1
Performance 2 15W MAX	N/A	N/A	IC Air Tight ISUR3-120D2

For dimming, please visit our Web site frequently to find our suggested compatible dimmers list:
www.contrastlighting.com

Contraste suggests ordering
EB2 (ELV (+Value)/15W), D2 (0-10V/15W)
or
UV2 (ELV/0-10V/15W)
dimming type and performance to use with Warm Dimming

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SPECIFICATION SHEET

UR3A

3-1/2" Series

Round Adjustable Trim

SPECIFICATIONS (CONT'D)

TRIM	Powder coat painted or plated die-formed steel. Different finishes available: White (-01) , Brushed Chrome (-04BR) , Matte White (-11) , Brushed Nickel (-12BR) , Satin Nickel (-13) , Matte Black (-22) and Polar Grey (-25)						
HEAT SINK	High quality aluminum injected heat sink ensuring maximum heat dissipation						
OPTIC SYSTEM	Optical reflectors and lenses available to customize your lighting. Choice of available lenses: Standard (without lens) Clear (C) Frosted (F) Honeycomb (H): the honeycomb louver reduces glare Linear (L): the linear lens directs the lamp beam to create a strip of light Prismatic (P): the prismatic lens diffuses and spreads the light in an even overall pattern Solite (S): the solite lens softens the light in an even overall pattern Optical reflectors available: Spot, Narrow Flood, Flood						
	Standard						
	<table border="1"> <tr> <td>Spot (S)</td> <td>16°</td> </tr> <tr> <td>Narrow Flood (M)</td> <td>32°</td> </tr> <tr> <td>Flood (L)</td> <td>48°</td> </tr> </table>	Spot (S)	16°	Narrow Flood (M)	32°	Flood (L)	48°
Spot (S)	16°						
Narrow Flood (M)	32°						
Flood (L)	48°						
	* Average beams shown. Consult .ies files on our Website for more details.						
ACCESSORIES	<ul style="list-style-type: none"> • Goof Rings (see ordering code) • Opening Adaptor (see ordering code) 						

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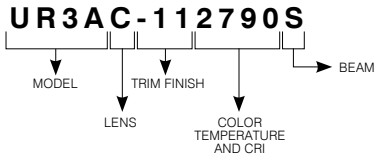
SPECIFICATION SHEET

UR3A

3-1/2" Series

Round Adjustable Trim

CODIFICATION EXAMPLE



JA8 certified trim available without lens (std) only.
Not available with Warm Dimming

Options in red may generate a longer production lead time.

ORDERING CODES

MODEL	LENSES	TRIM FINISHES	COLOR TEMPERATURE AND CRI	BEAMS
UR3A				
UR3A	Whitout lens (std)	-01 White	2780 2,700K (80+ CRI)	S Spot (16°) M Narrow Flood (32°) L Flood (48°) <i>Not available with Warm Dimming</i>
C	Clear	-04BR Brushed Chrome	3080 3,000K (80+ CRI)	
F	Frosted	-11 Matte White	2790 2,700K (90+ CRI)	
H	Honeycomb	-12BR Brushed Nickel	3090 3,000K (90+ CRI)	
L	Linear	-22 Matte Black	3590 3,500K (90+ CRI)	
P	Prismatic	-25 Polar Grey	4090 4,000K (90+ CRI)	
S	Solite	-13 <i>Satin Nickel</i>		
			WD90 Warm Dimming 3,050K to 1,800K (90+ CRI)	
Compatible with 15W and 24W drivers only (EB2, D2, UV2 and UV3)				

GOOF RINGS

Goof rings will help you fix larger than necessary or damaged ceiling cutouts.

Code: RR3-01 (white)
RR3-04BR (brushed chrome)
RR3-11 (matte white)
RR3-12BR (brushed nickel)
RR3-13 (satin nickel)
RR3-22 (matte black)
RR3-25 (polar grey)

Outside diameter: \varnothing 6-1/8" (156 mm)
 Inside diameter: \varnothing 3-11/16" (94 mm)

OPENING ADAPTOR

Can lip adaptor for 3-1/2" (89 mm) pot in a 4-1/4" (108 mm) opening.

Finish: Galvanized steel

Code: 312296

Outside diameter: \varnothing 4-5/16" (110 mm)
 Inside diameter: \varnothing 3-5/8" (92 mm)

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PHOTOMETRIC DATA



In order to obtain the accurate photometric data, multiply the lumens relative to your product selection by the applicable factor(s). Take note these factors also need to be implemented in the .ies files available on our website.

WITH PERFORMANCE 1 HOUSING (10W)

	Spot (16°)		Narrow Flood (32°)		Flood (48°)	
2,700K with 80+ CRI	870 lm	87.0 lm/W	1,074 lm	107.4 lm/W	1,074 lm	107.4 lm/W
3,000K with 80+ CRI	892 lm	89.2 lm/W	1,099 lm	109.9 lm/W	1,099 lm	109.9 lm/W

2,700K with 90+ CRI	724 lm	72.4 lm/W	892 lm	89.2 lm/W	892 lm	89.2 lm/W
3,000K with 90+ CRI	747 lm	74.7 lm/W	921 lm	92.1 lm/W	921 lm	92.1 lm/W
3,500K with 90+ CRI	789 lm	78.9 lm/W	973 lm	97.3 lm/W	973 lm	97.3 lm/W
4,000K with 90+ CRI	810 lm	81 lm/W	999 lm	99.9 lm/W	999 lm	99.9 lm/W
Warm Dimming with 90+ CRI	Not available		650 lm	65 lm/W	650 lm	65 lm/W



Performance 1 Housings Factors	
XXUR-120E1	0.90
XXUR-120D1 or XXUR-277D1	1

Lens Factors			
STD	1	F	0.68
C	0.97	H	0.54

WITH PERFORMANCE 2 HOUSING (15W)

	Spot (16°)		Narrow Flood (32°)		Flood (48°)	
2,700K with 80+ CRI	1,134 lm	75.6 lm/W	1,399 lm	93.3 lm/W	1,399 lm	93.3 lm/W
3,000K with 80+ CRI	1,161 lm	77.4 lm/W	1,432 lm	95.5 lm/W	1,432 lm	95.5 lm/W

2,700K with 90+ CRI	942 lm	62.8 lm/W	1,161 lm	77.4 lm/W	1,161 lm	77.4 lm/W
3,000K with 90+ CRI	973 lm	64.9 lm/W	1,200 lm	80.0 lm/W	1,200 lm	80.0 lm/W
3,500K with 90+ CRI	1,027 lm	68.5 lm/W	1,267 lm	84.5 lm/W	1,267 lm	84.5 lm/W
4,000K with 90+ CRI	1,055 lm	70.3 lm/W	1,301 lm	86.7 lm/W	1,301 lm	86.7 lm/W
Warm Dimming with 90+ CRI	Not available		850 lm	56.6 lm/W	850 lm	56.6 lm/W



Performance 2 Housings Factors	
XXUR-120E2	0.95
XXUR-120EB2, XXUR-120D2, XXUR-2772 or XXUR-277D2	1

Lens Factors			
STD	1	F	0.68
C	0.97	H	0.54

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Round Adjustable Trim

PHOTOMETRIC DATA



WITH PERFORMANCE 3 HOUSING (24W)

	Faisceau étroit (16°)		Faisceau moyen (32°)		Faisceau large (48°)	
2700K avec IRC de +80	1,701 lm	71 lm/W	2,098 lm	87 lm/W	2,098 lm	87 lm/W
3000K avec IRC de +80	1,742 lm	73 lm/W	2,148 lm	90 lm/W	2,148 lm	90 lm/W

2,700K with 90+ CRI	1,413 lm	59 lm/W	1,742 lm	73 lm/W	1,742 lm	73 lm/W
3,000K with 90+ CRI	1,460 lm	61 lm/W	1,800 lm	75 lm/W	1,800 lm	75 lm/W
3,500K with 90+ CRI	1,541 lm	64 lm/W	1,900 lm	79 lm/W	1,900 lm	79 lm/W
4,000K with 90+ CRI	1,583 lm	66 lm/W	1,952 lm	81 lm/W	1,952 lm	81 lm/W
Warm Dimming with 90+ CRI	Not available		1,250 lm	52 lm/W	1,250 lm	52 lm/W

Lens Factors			
STD	1	F	0.68
C	0.97	H	0.54

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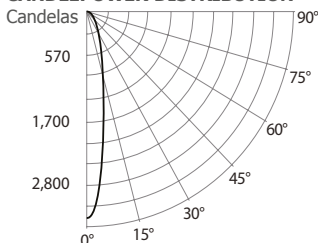
Round Adjustable Trim

PHOTOMETRIC DATA



3,000K, 90+ CRI, Spot, Performance 1

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	92.4	1.7'
08'	51.9	2.3'
10'	33.2	2.8'
12'	23.1	3.4'
14'	16.9	4.0'
16'	12.9	4.5'

Beam: 16.1°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 1 LED	3,000K Spot	
CBCP / Lumens	3,326 / 747.3	
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	74.7	
Spacing Criteria	0.28	

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30		
Wall Reflect %	50	30	50	30	50	30	50	30	50
RCR 0	119	119	111	111	106	106	106	106	106
2	104	100	99	96	96	94	94	94	94
4	92	87	89	85	87	84	84	84	84
6	83	78	81	77	80	76	76	76	76
8	76	71	75	70	74	70	70	70	70
10	70	65	69	65	68	64	64	64	64

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	572.7	76.6%
0-40	690.6	92.4%
0-60	724.1	96.9%
60-90	23.2	3.1%
0-90	747.3	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	32	0.39
6'	28	0.34
7'	20	0.25
8'	14	0.17
9'	14	0.17

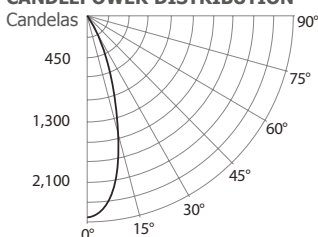
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	3,326	45	27
5	2,528	55	14
10	1,214	65	10
15	738	75	9
20	528	85	5
25	361	90	0
30	254		

3,000K, 90+ CRI, Narrow Flood, Performance 1

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	70.5	3.5'
08'	39.6	4.7'
10'	25.3	5.9'
12'	17.6	7.1'
14'	12.9	8.3'
16'	9.9	9.5'

Beam: 32.9°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 1 LED	3,000K Narrow Flood	
CBCP / Lumens	2,538 / 921.1	
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	92.1	
Spacing Criteria	0.56	

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30		
Wall Reflect %	50	30	50	30	50	30	50	30	50
RCR 0	119	119	111	111	106	106	106	106	106
2	106	103	102	99	99	97	97	97	97
4	96	92	93	90	91	88	88	88	88
6	88	83	86	82	85	81	81	81	81
8	81	76	80	76	79	75	75	75	75
10	75	71	74	70	73	70	70	70	70

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	849.8	92.3%
0-40	913.9	99.2%
0-60	921.1	100%
60-90	0.0	0%
0-90	921.1	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	29	0.28
6'	30	0.29
7'	26	0.25
8'	18	0.17
9'	18	0.17

38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	2,538
15	1,419
30	271
45	5
60	0
75	0
90	0

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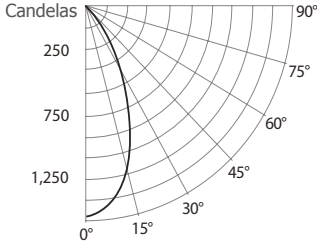
Round Adjustable Trim

PHOTOMETRIC DATA



3,000K, 90+ CRI, Flood, Performance 1

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	40.5	5.4'
08'	22.8	7.2'
10'	14.6	9.0'
12'	10.1	10.8'
14'	7.4	12.6'
16'	5.7	14.4'

Beam: 48.4°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 1 LED	3,000K Flood	
CBCP / Lumens	1,461	/ 921.7
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	92.2	
Spacing Criteria	0.82	

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80		50		30		
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	105	101	100	97	97	94
	4	93	88	89	85	87	84
	6	83	77	81	76	79	75
	8	75	69	73	68	72	68
	10	68	62	66	62	66	61

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	757.8	82.2%
0-40	888.1	96.3%
0-60	920.0	99.8%
60-90	1.8	0.2%
0-90	921.7	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	28	0.28
6'	30	0.29
7'	25	0.25
8'	18	0.17
9'	18	0.17

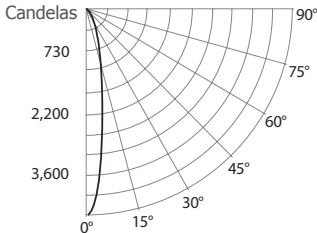
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	1,461
15	1,156
30	404
45	32
60	3
75	0
90	0

3,000K, 90+ CRI, Spot, Performance 2

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	120.3	1.7'
08'	67.6	2.3'
10'	43.3	2.8'
12'	30.0	3.4'
14'	22.1	4.0'
16'	16.9	4.5'

Beam: 16.1°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 2 LED	3,000K Spot	
CBCP / Lumens	4,331	/ 973.8
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	64.9	
Spacing Criteria	0.28	

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80		50		30		
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	104	100	99	96	96	94
	4	92	87	89	85	87	84
	6	83	78	81	77	80	76
	8	76	71	75	70	74	69
	10	70	65	69	64	68	64

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	745.8	76.6%
0-40	899.0	92.3%
0-60	943.1	96.8%
60-90	30.7	3.2%
0-90	973.8	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	30	0.42
6'	31	0.44
7'	27	0.37
8'	18	0.26
9'	18	0.26

38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	4,331	45	36
5	3,292	55	18
10	1,581	65	13
15	961	75	12
20	688	85	6
25	469	90	0
30	332		

UR3A

3-1/2" Series

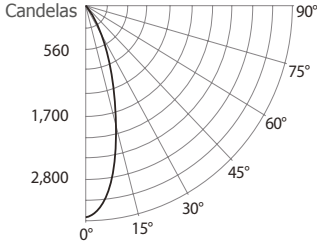
Round Adjustable Trim

PHOTOMETRIC DATA



3,000K, 90+ CRI, Narrow Flood, Performance 2

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	91.8	3.5'
08'	51.6	4.7'
10'	33.1	5.9'
12'	22.9	7.1'
14'	16.8	8.3'
16'	12.9	9.5'

Beam: 32.9°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 2 LED	3,000K Narrow Flood	
CBCP / Lumens	3,306 / 1,200.2	
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	80.0	
Spacing Criteria	0.56	

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	106	
2	106	103	102	099	99	97	97	97	
4	96	92	93	90	91	88	88	88	
6	88	83	86	82	85	81	81	81	
8	81	76	80	76	79	75	75	75	
10	75	71	74	70	73	70	70	70	

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,106.9	92.2%
0-40	1,190.3	99.2%
0-60	1,200.1	100%
60-90	0.2	0%
0-90	1,200.2	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	30	0.33
6'	33	0.36
7'	28	0.31
8'	23	0.26
9'	23	0.26

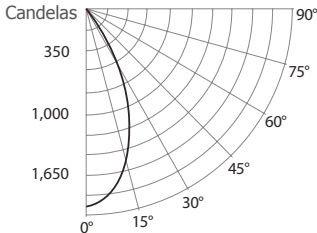
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	3,306
15	1,849
30	354
45	8
60	1
75	0
90	0

3,000K, 90+ CRI, Flood, Performance 2

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	52.8	5.4'
08'	29.7	7.2'
10'	19.0	9.0'
12'	13.2	10.8'
14'	9.7	12.6'
16'	7.4	14.4'

Beam: 48.4°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 2 LED	3,000K Flood	
CBCP / Lumens	1,903 / 1,200.4	
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	80.0	
Spacing Criteria	0.82	

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	106	
2	105	101	100	97	97	94	97	94	
4	93	88	89	85	87	84	87	84	
6	83	77	81	76	79	75	79	75	
8	75	69	73	68	72	68	72	68	
10	68	62	66	62	66	61	66	61	

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	987.3	82.2%
0-40	1,157.10	96.4%
0-60	1,198.50	99.8%
60-90	1.9	0.2%
0-90	1,200.4	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	29	0.33
6'	32	0.36
7'	33	0.37
8'	23	0.26
9'	23	0.26

38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	1,903
15	1,506
30	526
45	42
60	4
75	0
90	0

UR3A

3-1/2" Series

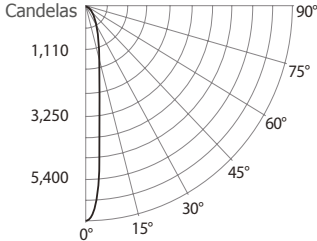
Round Adjustable Trim

PHOTOMETRIC DATA



3,000K, 90+ CRI, Spot, Performance 3

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	180.5	1.7'
08'	101.5	2.3'
10'	64.9	2.8'
12'	45.1	3.4'
14'	33.1	4.0'
16'	25.4	4.5'

Beam: 16.1°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 3 LED	3,000K Spot	
CBCP / Lumens	6,496	/ 1,460.8
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	60.9	
Spacing Criteria	0.28	

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80		50		30		
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	104	100	99	96	96	94
	4	92	87	89	85	87	84
	6	83	78	81	77	80	76
	8	76	71	75	70	74	69
	10	70	65	69	64	68	64

Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,118.7	76.6%
0-40	1,348.6	92.3%
0-60	1,414.7	96.8%
60-90	46.1	3.2%
0-90	1,460.8	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	27	0.40
6'	31	0.47
7'	33	0.50
8'	28	0.42
9'	28	0.42

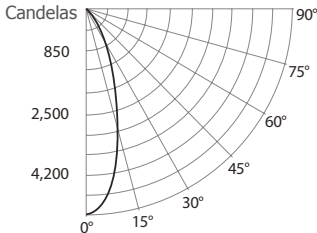
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	6,496	45	53
5	4,938	55	28
10	2,372	65	19
15	1,442	75	18
20	1,032	85	10
25	703	90	0
30	497		

3,000K, 90+ CRI, Narrow Flood, Performance 3

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	137.8	3.5'
08'	77.5	4.7'
10'	49.6	5.9'
12'	34.4	7.1'
14'	25.3	8.3'
16'	19.4	9.5'

Beam: 32.9°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 3 LED	3,000K Narrow Flood	
CBCP / Lumens	4,959	/ 1,800.3
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	75	
Spacing Criteria	0.56	

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80		50		30		
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	106	103	102	99	99	97
	4	96	92	93	90	91	88
	6	88	83	86	82	85	81
	8	81	76	80	76	79	75
	10	75	71	74	70	73	70

Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,660.3	92.2%
0-40	1,785.5	99.2%
0-60	1,800.1	100%
60-90	0.2	0%
0-90	1,800.3	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	33	0.40
6'	29	0.35
7'	33	0.40
8'	28	0.33
9'	28	0.33

38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	4,959		
15	2,773		
30	531		
45	11		
60	2		
75	0		
90	0		

UR3A

3-1/2" Series

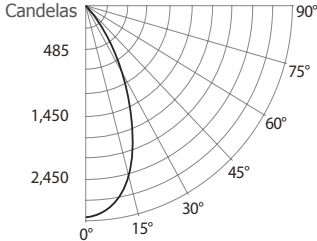
Round Adjustable Trim

PHOTOMETRIC DATA



3,000K, 90+ CRI, Flood, Performance 3

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	79.3	5.4'
08'	44.6	7.2'
10'	28.5	9.0'
12'	19.8	10.8'
14'	14.6	12.6'
16'	11.2	14.4'

Beam: 48.4°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 3 LED	3,000K Flood	
CBCP / Lumens	2,854	/ 1,800.6
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	75	
Spacing Criteria	0.82	

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80		50		30		
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	105	101	100	97	97	94
	4	93	88	89	85	87	84
	6	83	77	81	76	79	75
	8	75	69	73	68	72	68
	10	68	62	66	62	66	61

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,480.9	82.2%
0-40	1,735.6	96.4%
0-60	1,797.7	99.8%
60-90	2.9	0.2%
0-90	1,800.6	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	33	0.40
6'	29	0.35
7'	33	0.40
8'	27	0.33
9'	27	0.33

38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	2,854
15	2,258
30	789
45	63
60	6
75	0
90	0