

SPECIFICATION SHEET

UR3D**3-1/2" Series**

Project _____

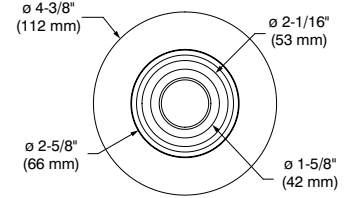
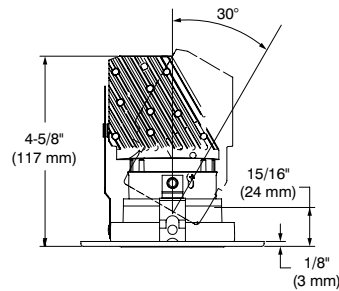
Notes _____

Fixture Type _____

Date _____

Round Adjustable Regressed Trim

UR3D-25AN (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) - 881 lumens @ 3,000K, 88.1 lm/W
 Performance 2 (15W) - 1,148 lumens @ 3,000K, 77 lm/W
 Performance 3 (24W) - 1,722 lumens @ 3,000K, 72 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 535 lumens
 Performance 2 (15W) - up to 700 lumens
 Performance 3 (24W) - up to 1000 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

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UR3D

3-1/2" Series

Round Adjustable Regressed Trim



SPECIFICATIONS (CONT'D)

COMPATIBLE HOUSINGS

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

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

SPECIFICATION SHEET

UR3D

3-1/2" Series

Round Adjustable Regressed 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)						
REFLECTORS	PAINTED Natural Anodized Aluminum (AN) Matte White (11) Matte Black (22)						
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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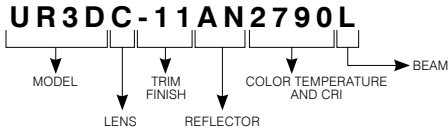
SPECIFICATION SHEET

UR3D

3-1/2" Series

Round Adjustable Regressed Trim

CODIFICATION EXAMPLE



JAB 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	REFLECTOR FINISHES	COLOR TEMPERATURE AND CRI	BEAMS
UR3D					
UR3D	Whitout lens (std)	-01 White	PAINTED	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	AN Natural Anodized Aluminum	3080 3,000K (80+ CRI)	
F	Frosted	-11 Matte White	11 Matte White	2790 2,700K (90+ CRI)	
H	Honeycomb	-12BR Brushed Nickel	22 Matte Black	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>			
		<i>(-25 finish perfectly matches with AN reflector)</i>		WD90 Warm Dimming 3,050K to 1,800K (90+ CRI)	
				<i>Compatible with 15W and 24W drivers only (EB2, D2, UV2 and UV3)</i>	

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 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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UR3D**3-1/2" Series****Round Adjustable Regressed Trim**

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	697 lm	70 lm/W	861 lm	86 lm/W	861 lm	86 lm/W
3,000K with 80+ CRI	715 lm	71 lm/W	881 lm	88 lm/W	881 lm	88 lm/W

2,700K with 90+ CRI	579 lm	58 lm/W	715 lm	71 lm/W	715 lm	71 lm/W
3,000K with 90+ CRI	599 lm	60 lm/W	739 lm	74 lm/W	739 lm	74 lm/W
3,500K with 90+ CRI	633 lm	63 lm/W	779 lm	78 lm/W	779 lm	78 lm/W
4,000K with 90+ CRI	649 lm	65 lm/W	801 lm	80 lm/W	801 lm	80 lm/W
Warm Dimming with 90+ CRI	Not available		535 lm	53.5 lm/W	535 lm	53.5 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

Reflector Factors	
11	1
22	0.97
25	0.99

WITH PERFORMANCE 2 HOUSING (15W)

	Spot (16°)		Narrow Flood (32°)		Flood (48°)	
2,700K with 80+ CRI	908 lm	61 lm/W	1,121 lm	75 lm/W	1,121 lm	75 lm/W
3,000K with 80+ CRI	931 lm	62 lm/W	1,148 lm	77 lm/W	1,148 lm	77 lm/W

2,700K with 90+ CRI	755 lm	50 lm/W	931 lm	62 lm/W	931 lm	62 lm/W
3,000K with 90+ CRI	780 lm	52 lm/W	962 lm	64 lm/W	962 lm	64 lm/W
3,500K with 90+ CRI	824 lm	55 lm/W	1,015 lm	68 lm/W	1,015 lm	68 lm/W
4,000K with 90+ CRI	846 lm	56 lm/W	1,043 lm	70 lm/W	1,043 lm	70 lm/W
Warm Dimming with 90+ CRI	Not available		700 lm	47 lm/W	700 lm	47 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

Reflector Factors	
11	1
22	0.97
25	0.99

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SPECIFICATION SHEET

UR3D

3-1/2" Series

Round Adjustable Regressed Trim

PHOTOMETRIC DATA



WITH PERFORMANCE 3 HOUSING (24W)

	Spot (16°)		Narrow Flood (32°)		Flood (48°)	
	lm	lm/W	lm	lm/W	lm	lm/W
2,700K with 80+ CRI	1,362	57	1,682	70	1,682	70
3,000K with 80+ CRI	1,396	58	1,722	72	1,722	72

2,700K with 90+ CRI	1,132	47	1,396	58	1,396	58
3,000K with 90+ CRI	1,170	49	1,443	60	1,443	60
3,500K with 90+ CRI	1,236	52	1,523	63	1,523	63
4,000K with 90+ CRI	1,268	53	1,565	65	1,565	65
Warm Dimming with 90+ CRI	Not available		1,000	42	1,000	42

Lens Factors			
STD	1	F	0.68
C	0.97	H	0.54

Reflector Factors	
11	1
22	0.97
25	0.99

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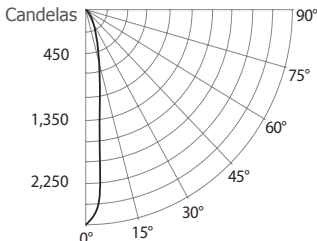
Round Adjustable Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	74.1	1.7'
08'	41.7	2.3'
10'	26.7	2.8'
12'	18.5	3.4'
14'	13.6	4.0'
16'	10.4	4.5'

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

LUMINAIRE

Performance 1 LED	3,000K Spot	
CBCP / Lumens	2,668	/ 601.2
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	60.1	
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	74	70	73	69
	10	70	65	69	64	68	64

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	459.3	76.4%
0-40	553.7	92.1%
0-60	581.1	96.7%
60-90	20.1	3.3%
0-90	601.2	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	29	0.44
6'	22	0.34
7'	16	0.25
8'	11	0.17
9'	11	0.17

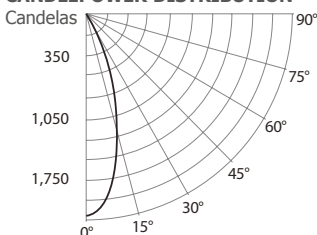
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	2,668	45	22
5	2,027	55	12
10	974	65	9
15	592	75	8
20	424	85	4
25	289	90	0
30	204		

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	56.5	3.5'
08'	31.8	4.7'
10'	20.4	5.9'
12'	14.1	7.1'
14'	10.4	8.3'
16'	7.9	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	2,035	/ 738.3
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	73.8	
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	681.2	92.3%
0-40	732.6	99.2%
0-60	738.3	100%
60-90	0.0	0%
0-90	738.3	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	32	0.39
6'	28	0.34
7'	21	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
0	2,035
15	1,138
30	218
45	4
60	0
75	0
90	0

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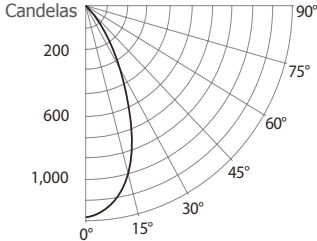
Round Adjustable Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	32.6	5.4'
08'	18.3	7.2'
10'	11.7	9.0'
12'	8.2	10.8'
14'	5.9	12.6'
16'	4.6	14.4'

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

LUMINAIRE

Performance 1 LED	3,000K Flood	
CBCP / Lumens	1,173 / 739.3	
Watts	120V	277V
Operating AMPS	10W	10.5W
Lumen Maintenance	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	73.9	
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	608.2	82.3%
0-40	712.9	96.4%
0-60	738.4	99.9%
60-90	1.0	0.1%
0-90	739.3	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

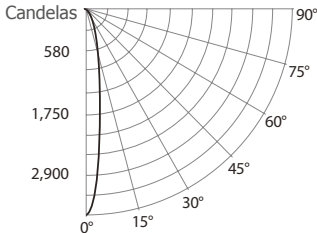
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/ VERTICAL	CANDELAS
0	1,173
15	928
30	324
45	26
60	2
75	0
90	0

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	96.4	1.7'
08'	54.2	2.3'
10'	34.7	2.8'
12'	24.1	3.4'
14'	17.7	4.0'
16'	13.6	4.5'

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

LUMINAIRE

Performance 2 LED	3,000K Spot	
CBCP / Lumens	3,471 / 781.2	
Watts	120V	277V
Operating AMPS	15W	15.5W
Lumen Maintenance	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	52.1	
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	74	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	597.8	76.5%
0-40	720.6	92.2%
0-60	755.8	96.7%
60-90	25.4	3.3%
0-90	781.2	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/ SQ. FT.
5'	28	0.50
6'	29	0.51
7'	21	0.37
8'	15	0.26
9'	15	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	3,471	45	29
5	2,638	55	14
10	1,267	65	11
15	770	75	10
20	552	85	5
25	377	90	0
30	266		

UR3D

3-1/2" Series

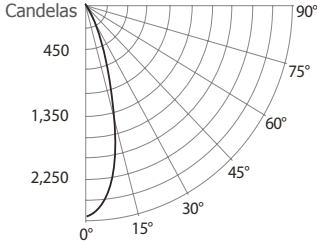
Round Adjustable Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	73.6	3.5'
08'	41.4	4.7'
10'	26.5	5.9'
12'	18.4	7.1'
14'	13.5	8.3'
16'	10.4	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	2,650	962.3
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	64.1	
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	887.6	92.2%
0-40	954.7	99.2%
0-60	962.3	100%
60-90	0.0	0%
0-90	962.3	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'	19	0.26
9'	19	0.26

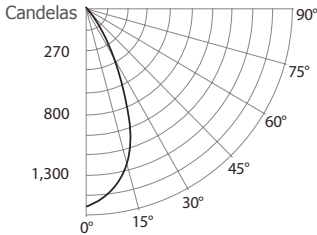
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	2,650
15	1,483
30	284
45	6
60	0
75	0
90	0

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	42.4	5.4'
08'	23.8	7.2'
10'	15.3	9.0'
12'	10.6	10.8'
14'	7.8	12.6'
16'	5.9	14.4'

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

LUMINAIRE

Performance 2 LED	3,000K Flood	
CBCP / Lumens	1,525	962.4
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	64.1	
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	791.6	82.3%
0-40	927.6	96.4%
0-60	960.6	99.8%
60-90	1.8	0.2%
0-90	962.4	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	29	0.42
6'	31	0.44
7'	26	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
0	1,525
15	1,207
30	421
45	35
60	3
75	0
90	0

UR3D

3-1/2" Series

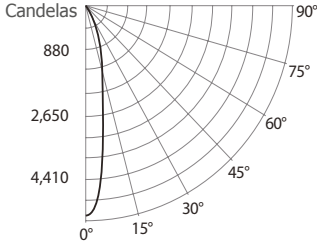
Round Adjustable Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	144.6	1.7'
08'	81.4	2.3'
10'	52.1	2.8'
12'	36.2	3.4'
14'	26.6	4.0'
16'	20.3	4.5'

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

LUMINAIRE

Performance 3 LED	3,000K Spot	
CBCP / Lumens	5,207 / 1,171.8	
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	48.8	
Spacing Criteria	0.28	

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30			
Wall Reflect %	50	30	50	30	50	30	50	30	50	30
RCR	0	119	119	111	111	106	106	106	106	106
	2	104	100	99	96	96	96	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	74	70	74	69	69	69	69
	10	70	65	69	64	68	64	64	64	64

Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	896.7	76.5%
0-40	1,080.9	92.2%
0-60	1,133.7	96.7%
60-90	38.1	3.3%
0-90	1,171.8	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	28	0.53
6'	31	0.58
7'	32	0.60
8'	22	0.42
9'	22	0.42

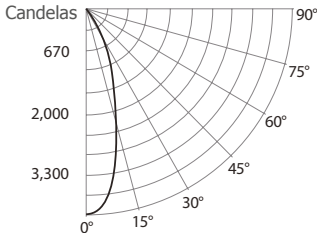
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	5,207	45	22
5	3,958	55	12
10	1,900	65	9
15	1,155	75	8
20	828	85	4
25	565	90	0
30	399		

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	110.4	3.5'
08'	62.1	4.7'
10'	39.8	5.9'
12'	27.6	7.1'
14'	20.3	8.3'
16'	15.5	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	3,975 / 1,443.5	
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	60.1	
Spacing Criteria	0.56	

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30			
Wall Reflect %	50	30	50	30	50	30	50	30	50	30
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	1,331.4	92.2%
0-40	1,432.1	99.2%
0-60	1,443.5	100%
60-90	0.0	0%
0-90	1,443.5	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	27	0.40
6'	31	0.47
7'	27	0.40
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
0	3,975
15	2,224
30	426
45	10
60	0
75	0
90	0

UR3D

3-1/2" Series

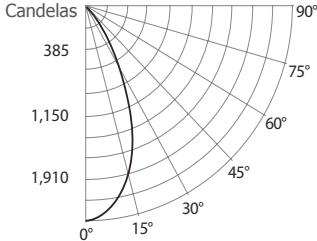
Round Adjustable Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	63.5	5.4'
08'	35.7	7.2'
10'	22.9	9.0'
12'	15.9	10.8'
14'	11.7	12.6'
16'	8.9	14.4'

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

LUMINAIRE

Performance 3 LED	3,000K Flood	
CBCP / Lumens	2,287 / 1,443.6	
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	60.1	
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	1,187.4	82.3%
0-40	1,391.4	96.4%
0-60	1,441.0	99.8%
60-90	2.6	0.2%
0-90	1,443.6	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	35	0.53
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
0	2,287
15	1,811
30	632
45	52
60	5
75	0
90	0