

SPECIFICATION SHEET

UR4J**4" Series**

Project _____

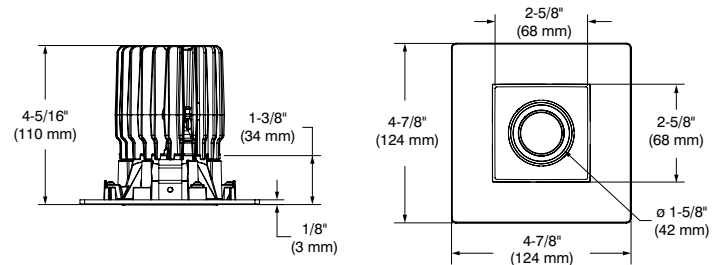
Notes _____

Fixture Type _____

Date _____

Square Downlight Regressed Trim with Square Opening

UR4J-04BRAN (illustrated)



SPECIFICATIONS

LED MODULE

STANDARD (SOLID WHITE)

Lumileds Luxeon CoB 1203 GEN4

 L_{70} @ 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) - 942 lumens @ 3,000K, 94 lm/W
 Performance 2 (15W) - 1,227 lumens @ 3,000K, 82 lm/W
 Performance 3 (24W) - 1,840 lumens @ 3,000K, 77 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.

 L_{70} @ 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 550 lumens
 Performance 2 (15W) - up to 725 lumens
 Performance 3 (24W) - up to 1,050 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 4-1/4" (108 mm)

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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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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UR4J

4" Series

Square Downlight Regressed Trim with Square Opening



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 REUR4-120D1 REUR4-120E1 REUR4-277D1 REUR4-UV1</p>	<p>IC Air Tight NWUR4-120D1 NWUR4-120E1 NWUR4-277D1 NWUR4-UV1</p> <p>Non-IC Air Tight Emergency Driver NWUR4-120D1-EM NWUR4-120E1-EM NWUR4-277D1-EM NWUR4-UV1-EM</p>	<p>IC Air Tight ISUR4-120D1 ISUR4-120E1 ISUR4-277D1 ISUR4-UV1</p> <p>IC Air Tight Chicago Plenum and Polyurethane ISUR4-120D1P ISUR4-120E1P ISUR4-277D1P ISUR4-UV1P</p>
<p>Performance 2 15W MAX</p>	<p>Non-IC Air Tight REUR4-120D2 REUR4-120E2 REUR4-120EB2 REUR4-2772 REUR4-277D2 REUR4-UV2</p>	<p>Non-IC Air Tight NWUR4-120D2 NWUR4-120E2 NWUR4-120EB2 NWUR4-2772 NWUR4-277D2 NWUR4-UV2</p> <p>Non-IC Air Tight Emergency Driver NWUR4-120D2-EM NWUR4-120E2-EM NWUR4-120EB2-EM NWUR4-2772-EM NWUR4-277D2-EM NWUR4-UV2-EM</p>	<p>IC Air Tight ISUR4-120D2 ISUR4-120E2 ISUR4-120EB2 ISUR4-2772 ISUR4-277D2 ISUR4-UV2</p> <p>IC Air Tight Chicago Plenum ISUR4-120D2P ISUR4-120E2P ISUR4-120EB2P ISUR4-2772P ISUR4-277D2P ISUR4-UV2P</p>
<p>Performance 3 24W MAX</p>	N/A	<p>Non-IC Non-Air Tight NWUR4-UV3</p> <p>Non-IC Non-Air Tight Emergency Driver NWUR4-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 REUR4-120D1</p>	<p>IC Air Tight NWUR4-120D1</p>	<p>IC Air Tight ISUR4-120D1</p>
<p>Performance 2 15W MAX</p>	N/A	N/A	<p>IC Air Tight ISUR4-120D2</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

UR4J**4" Series****Square Downlight Regressed Trim with Square Opening**

SPECIFICATIONS (CONT'D)

TRIM <i>Options in red may generate a longer production lead time</i>	Powder coat painted or plated aluminum injected. 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 and Flood <table border="1" data-bbox="329 1123 818 1266"> <thead> <tr> <th colspan="2" style="text-align: center;">Standard</th> </tr> </thead> <tbody> <tr> <td>Spot (S)</td> <td style="text-align: center;">16°</td> </tr> <tr> <td>Narrow Flood (M)</td> <td style="text-align: center;">32°</td> </tr> <tr> <td>Flood (L)</td> <td style="text-align: center;">48°</td> </tr> </tbody> </table> <p>* Average beams shown. Consult .ies files on our Website for more details.</p>	Standard		Spot (S)	16°	Narrow Flood (M)	32°	Flood (L)	48°
Standard									
Spot (S)	16°								
Narrow Flood (M)	32°								
Flood (L)	48°								
ACCESSORIES	Goof Rings (see ordering code)								

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Lévis (Québec) G6Z 1C5 Canada
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Fax.: 1-877-839-7057
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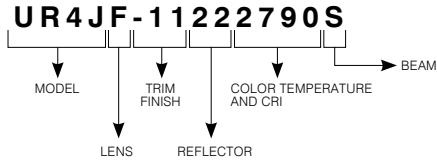
UR4J

4" Series

Square Downlight Regressed Trim with Square Opening



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	REFLECTOR FINISHES	COLOR TEMPERATURE AND CRI	BEAMS
UR4J					
UR4J	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: RS4-01** (white)
RS4-04BR (brushed chrome)
RS4-11 (matte white)
RS4-12BR (brushed nickel)
RS4-13 (satin nickel)
RS4-22 (matte black)
RS4-25 (polar grey)

Outside diameter: 5-1/2" (140 mm) x 5-1/2" (140 mm)
 Inside diameter: ø 4-1/8" (105 mm)

SPECIFICATION SHEET

UR4J**4" Series****Square Downlight Regressed Trim with Square Opening**

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	745 lm	75 lm/W	919 lm	92 lm/W	919 lm	92 lm/W
3,000K with 80+ CRI	764 lm	76 lm/W	942 lm	94 lm/W	942 lm	94 lm/W

2,700K with 90+ CRI	619 lm	62 lm/W	764 lm	76 lm/W	764 lm	76 lm/W
3,000K with 90+ CRI	640 lm	64 lm/W	789 lm	79 lm/W	789 lm	79 lm/W
3,500K with 90+ CRI	676 lm	68 lm/W	833 lm	83 lm/W	833 lm	83 lm/W
4,000K with 90+ CRI	694 lm	69 lm/W	855 lm	85 lm/W	855 lm	85 lm/W
Warm Dimming with 90+ CRI	Not available		550 lm	55 lm/W	550 lm	55 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	AN	0.99
22	0.97		

WITH PERFORMANCE 2 HOUSING (15W)

	Spot (16°)		Narrow Flood (32°)		Flood (48°)	
2,700K with 80+ CRI	971 lm	65 lm/W	1,198 lm	80 lm/W	1,198 lm	80 lm/W
3,000K with 80+ CRI	995 lm	66 lm/W	1,227 lm	82 lm/W	1,227 lm	82 lm/W

2,700K with 90+ CRI	807 lm	54 lm/W	995 lm	66 lm/W	995 lm	66 lm/W
3,000K with 90+ CRI	834 lm	56 lm/W	1,028 lm	69 lm/W	1,028 lm	69 lm/W
3,500K with 90+ CRI	880 lm	59 lm/W	1,085 lm	72 lm/W	1,085 lm	72 lm/W
4,000K with 90+ CRI	904 lm	60 lm/W	1,115 lm	74 lm/W	1,115 lm	74 lm/W
Warm Dimming with 90+ CRI	Not available		725 lm	48 lm/W	725 lm	48 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	AN	0.99
22	0.97		

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contrastlighting.com
info@contrastlighting.com

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SPECIFICATION SHEET

UR4J**4" Series****Square Downlight Regressed Trim with Square Opening**

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	1,456	61	1,797	75	1,797	75
3,000K with 80+ CRI	1,492	62	1,840	77	1,840	77

2,700K with 90+ CRI	1,210	50	1,492	62	1,492	62
3,000K with 90+ CRI	1,251	52	1,542	64	1,542	64
3,500K with 90+ CRI	1,320	55	1,628	68	1,628	68
4,000K with 90+ CRI	1,356	57	1,672	70	1,672	70
Warm Dimming with 90+ CRI	Not available		1,050	44	1,050	44

Lens Factors			
STD	1	F	0.68
C	0.97	H	0.54

Reflector Factors			
11	1	AN	0.99
22	0.97		

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UR4J

4" Series

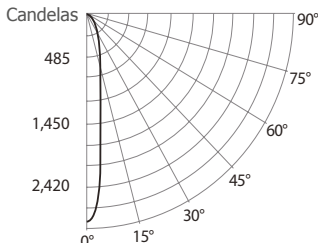
Square Downlight Regressed Trim with Square Opening

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	79.1	1.7'
08'	44.5	2.3'
10'	28.5	2.8'
12'	19.8	3.4'
14'	14.5	4.0'
16'	11.1	4.5'

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

LUMINAIRE

Performance 1 LED	3,000K Spot	
CBCP / Lumens	2,849	/ 640.5
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	64.1	
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	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	490.6	76.6%
0-40	591.3	92.3%
0-60	620.4	96.9%
60-90	20.1	3.1%
0-90	640.5	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	31	0.44
6'	24	0.34
7'	17	0.25
8'	12	0.17
9'	12	0.17

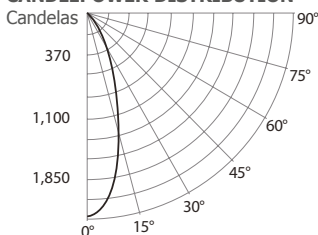
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	2,849	45	24
5	2,165	55	12
10	1,040	65	9
15	632	75	8
20	453	85	4
25	309	90	0
30	218		

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	60.4	3.5'
08'	33.9	4.7'
10'	21.8	5.9'
12'	15.1	7.1'
14'	11.1	8.3'
16'	8.5	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	2,175	/ 789.4
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	78.9	
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	728.5	92.3%
0-40	783.3	99.2%
0-60	789.4	100%
60-90	0	0%
0-90	789.4	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	29	0.33
6'	30	0.34
7'	22	0.25
8'	15	0.17
9'	15	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	2,175
15	1,217
30	233
45	4
60	0
75	0
90	0

UR4J

4" Series

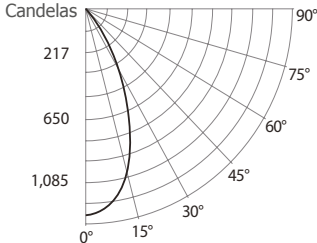
Square Downlight Regressed Trim with Square Opening

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	34.8	5.4'
08'	19.6	7.2'
10'	12.5	9.0'
12'	8.7	10.8'
14'	6.4	12.6'
16'	4.9	14.4'

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

LUMINAIRE

Performance 1 LED	3,000K Flood	
CBCP / Lumens	1,252	789
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	78.9	
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	88	84
	6	83	77	81	76	79	75
	8	75	69	73	68	72	68
	10	68	62	67	62	66	62

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	649.6	82.3%
0-40	761.1	96.5%
0-60	788.1	99.9%
60-90	1	0.1%
0-90	789	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	29	0.33
6'	29	0.34
7'	22	0.25
8'	15	0.17
9'	15	0.17

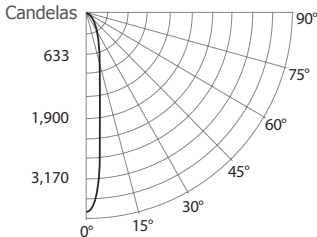
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	1,252
15	990
30	346
45	28
60	2
75	0
90	0

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	103.1	1.7'
08'	57.9	2.3'
10'	37.1	2.8'
12'	25.8	3.4'
14'	18.9	4.0'
16'	14.5	4.5'

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

LUMINAIRE

Performance 2 LED	3,000K Spot	
CBCP / Lumens	3,710	832.9
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	55.5	
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	70
	10	70	65	69	65	68	64

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	638.9	76.7%
0-40	770.5	92.5%
0-60	807.5	96.9%
60-90	25.4	3.1%
0-90	832.9	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	30	0.50
6'	31	0.51
7'	23	0.37
8'	16	0.26
9'	16	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	3,710	45	30
5	2,820	55	15
10	1,354	65	11
15	823	75	10
20	590	85	5
25	402	90	0
30	284		

UR4J

4" Series

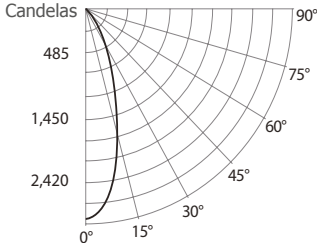
Square Downlight Regressed Trim with Square Opening

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	78.7	3.5'
08'	44.3	4.7'
10'	28.3	5.9'
12'	19.7	7.1'
14'	14.5	8.3'
16'	11.1	9.5'

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

LUMINAIRE

Performance 2 LED	3,000K Narrow Flood	
CBCP / Lumens	2,833	1,028.1
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	68.5	
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	
	2	106	103	102	99	99	97	97	
	4	96	92	93	90	91	88	88	
	6	88	83	86	82	85	81	81	
	8	81	76	80	76	79	75	75	
	10	75	71	74	70	73	70	70	

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	948.7	92.3%
0-40	1,020.0	99.2%
0-60	1,028.1	100%
60-90	0	0%
0-90	1,028.1	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	32	0.42
6'	28	0.36
7'	29	0.37
8'	20	0.26
9'	20	0.26

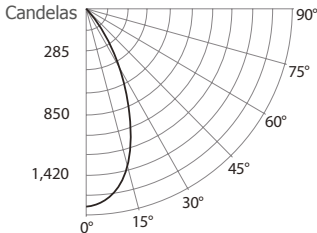
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	2,833
15	1,585
30	303
45	6
60	0
75	0
90	0

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	45.4	5.4'
08'	25.6	7.2'
10'	16.4	9.0'
12'	11.4	10.8'
14'	8.3	12.6'
16'	6.4	14.4'

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

LUMINAIRE

Performance 2 LED	3,000K Flood	
CBCP / Lumens	1,635	1,031.4
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	68.8	
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	
	2	105	101	100	97	97	94	94	
	4	93	88	89	85	87	84	84	
	6	83	77	81	76	79	75	75	
	8	75	69	73	68	72	68	68	
	10	68	62	66	62	66	61	61	

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	848.6	82.3%
0-40	994.4	96.4%
0-60	1,029.7	99.8%
60-90	1.8	0.2%
0-90	1,031.4	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	31	0.42
6'	28	0.36
7'	28	0.37
8'	20	0.26
9'	20	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	1,635
15	1,294
30	451
45	37
60	3
75	0
90	0

UR4J

4" Series

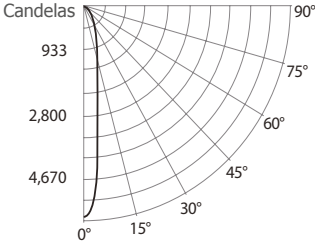
Square Downlight Regressed Trim with Square Opening

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	154.6	1.7'
08'	86.9	2.3'
10'	55.7	2.8'
12'	38.6	3.4'
14'	28.4	4.0'
16'	21.7	4.5'

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

LUMINAIRE

Performance 3 LED	3,000K Spot	
CBCP / Lumens	5,565	1,249.4
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
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	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	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	958.3	76.7%
0-40	1,155.8	92.5%
0-60	1,211.3	96.9%
60-90	38.1	3.1%
0-90	1,249.4	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	30	0.53
6'	33	0.58
7'	28	0.50
8'	24	0.42
9'	24	0.42

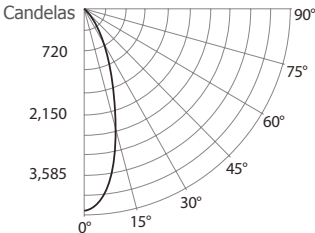
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	5,565	45	45
5	4,230	55	23
10	2,031	65	16
15	1,234	75	15
20	885	85	8
25	603	90	0
30	426		

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	118.0	3.5'
08'	66.4	4.7'
10'	42.5	5.9'
12'	29.5	7.1'
14'	21.7	8.3'
16'	16.6	9.5'

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

LUMINAIRE

Performance 3 LED	3,000K Narrow Flood	
CBCP / Lumens	4,249	1,542.2
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	64.3	
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	1,423.1	92.3%
0-40	1,530.1	99.2%
0-60	1,542.2	100%
60-90	0	0%
0-90	1,542.2	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	29	0.40
6'	33	0.47
7'	29	0.40
8'	30	0.42
9'	30	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	4,249
15	2,378
30	455
45	10
60	0
75	0
90	0

UR4J

4" Series

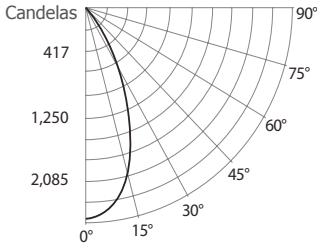
Square Downlight Regressed Trim with Square Opening

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	68.1	5.4'
08'	38.3	7.2'
10'	24.5	9.0'
12'	17.0	10.8'
14'	12.5	12.6'
16'	9.6	14.4'

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

LUMINAIRE

Performance 3 LED	3,000K Flood	
CBCP / Lumens	2,453	/ 1,547.2
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	64.5	
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	1,272.8	82.3%
0-40	1,491.6	96.4%
0-60	1,544.5	99.8%
60-90	2.6	0.2%
0-90	1,547.2	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	28	0.40
6'	33	0.47
7'	28	0.47
8'	29	0.42
9'	29	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	2,453
15	1,941
30	677
45	55
60	5
75	0
90	0