

SPECIFICATION SHEET

UR4E

4" Series

Round Downlight Regressed Trim

Project _____

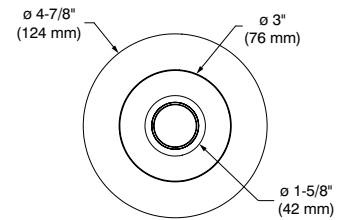
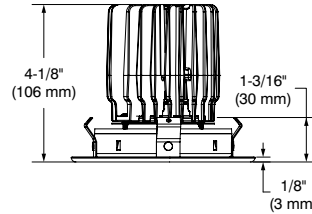
Notes _____

Fixture Type _____

Date _____



UR4E-1111 (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) - 918 lumens @ 3,000K, 92 lm/W
 Performance 2 (15W) - 1,196 lumens @ 3,000K, 80 lm/W
 Performance 3 (24W) - 1,793 lumens @ 3,000K, 75 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 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" (95 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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UR4E

4" Series

Round Downlight 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 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

UR4E**4" Series****Round Downlight 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

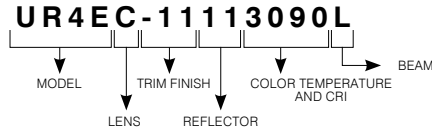
UR4E

4" Series

Round Downlight 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
UR4E					
UR4E	Whitout lens (std)	-01 White	PAINTED	2780 2,700K (80+ CRI)	<ul style="list-style-type: none"> S Spot (16°) M Narrow Flood (32°) L Flood (48°) <p><i>Not available with Warm Dimming</i></p>
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: RR4-01** (white)
RR4-04BR (brushed chrome)
RR4-11 (matte white)
RR4-12BR (brushed nickel)
RR4-13 (satin nickel)
RR4-22 (matte black)
RR4-25 (polar grey)

Outside diameter: ø 6-1/8" (156 mm)
 Inside diameter: ø 4-1/8" (105 mm)

SPECIFICATION SHEET

UR4E**4" Series****Round Downlight 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	726 lm	73 lm/W	896 lm	90 lm/W	896 lm	90 lm/W
3,000K with 80+ CRI	744 lm	74 lm/W	918 lm	92 lm/W	918 lm	92 lm/W

2,700K with 90+ CRI	604 lm	60 lm/W	744 lm	74 lm/W	744 lm	74 lm/W
3,000K with 90+ CRI	623 lm	62 lm/W	769 lm	77 lm/W	769 lm	77 lm/W
3,500K with 90+ CRI	658 lm	66 lm/W	812 lm	81 lm/W	812 lm	81 lm/W
4,000K with 90+ CRI	676 lm	68 lm/W	834 lm	83 lm/W	834 lm	83 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	946 lm	63 lm/W	1,167 lm	78 lm/W	1,167 lm	78 lm/W
3,000K with 80+ CRI	970 lm	65 lm/W	1,196 lm	80 lm/W	1,196 lm	80 lm/W

2,700K with 90+ CRI	786 lm	52 lm/W	970 lm	65 lm/W	970 lm	65 lm/W
3,000K with 90+ CRI	812 lm	54 lm/W	1,002 lm	67 lm/W	1,002 lm	67 lm/W
3,500K with 90+ CRI	858 lm	57 lm/W	1,058 lm	71 lm/W	1,058 lm	71 lm/W
4,000K with 90+ CRI	881 lm	59 lm/W	1,086 lm	72 lm/W	1,086 lm	72 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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SPECIFICATION SHEET

UR4E

4" Series

Round Downlight 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	1,419	59	1,751	73	1,751	73
3,000K with 80+ CRI	1,455	61	1,793	75	1,793	75

2,700K with 90+ CRI	1,179	49	1,455	61	1,455	61
3,000K with 90+ CRI	1,218	51	1,503	63	1,503	63
3,500K with 90+ CRI	1,286	54	1,588	66	1,588	66
4,000K with 90+ CRI	1,322	55	1,630	68	1,630	68
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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UR4E

4" Series

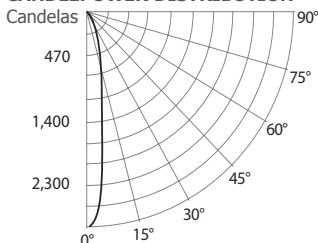
Round Downlight Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	77.2	1.7
08'	43.4	2.3
10'	27.8	2.8
12'	19.3	3.4
14'	14.2	4.0
16'	10.9	4.5

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

LUMINAIRE

Performance 1 LED	3,000K Spot	
CBCP / Lumens	2,778	/ 625
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	62.5	
Spacing Criteria	0.28	

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	104	100	99	96	96	94	94	
	4	92	87	89	85	87	84	84	
	6	83	78	81	77	80	76	76	
	8	76	71	74	70	74	69	69	
	10	70	65	69	64	68	64	64	

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	478.3	76.5%
0-40	576.7	92.3%
0-60	604.9	96.8%
60-90	20.1	3.2%
0-90	625	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	30	0.44
6'	23	0.34
7'	17	0.25
8'	12	0.17
9'	12	0.17

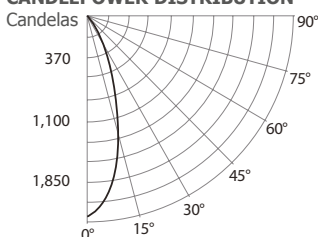
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	2,778	45	27
5	2,111	55	14
10	1,014	65	10
15	617	75	9
20	442	85	5
25	301	90	0
30	213		

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	58.8	3.5'
08'	33.1	4.7'
10'	21.2	5.9'
12'	14.7	7.1'
14'	10.8	8.3'
16'	8.3	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	2,118	/ 768.5
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	76.8	
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	709.2	92.3%
0-40	762.7	99.2%
0-60	768.5	100%
60-90	0.0	0%
0-90	768.5	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	29	0.33
6'	29	0.34
7'	21	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	2,118
15	1,185
30	227
45	4
60	0
75	0
90	0

UR4E

4" Series

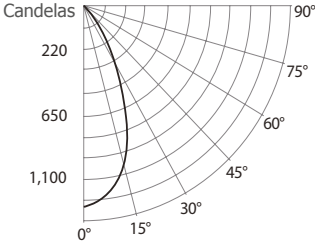
Round Downlight Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	33.9	5.4'
08'	19.1	7.2'
10'	12.2	9.0'
12'	8.5	10.8'
14'	6.2	12.6'
16'	4.8	14.4'

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

LUMINAIRE

Performance 1 LED	3,000K Flood	
CBCP / Lumens	1,220 / 769.2	
Watts	120V	277V
	10W	10.5W
Operating AMPS	0.08A	0.038A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	76.9	
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	67	62	66	62

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	633.0	82.3%
0-40	741.9	96.4%
0-60	768.2	99.9%
60-90	1.0	0.1%
0-90	769.2	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	28	0.33
6'	29	0.34
7'	21	0.25
8'	15	0.17
9'	15	0.17

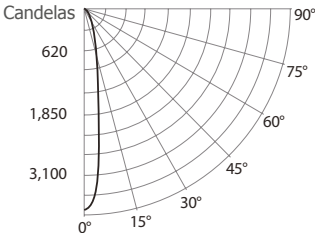
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	1,220
15	966
30	337
45	27
60	2
75	0
90	0

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	100.4	1.7'
08'	56.5	2.3'
10'	36.2	2.8'
12'	25.1	3.4'
14'	18.4	4.0'
16'	14.1	4.5'

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

LUMINAIRE

Performance 2 LED	3,000K Spot	
CBCP / Lumens	3,615 / 813.1	
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	54.2	
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	622.6	76.6%
0-40	750.7	92.3%
0-60	787.6	96.9%
60-90	25.4	3.1%
0-90	813.1	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	30	0.50
6'	30	0.51
7'	22	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	3,615	45	30
5	2,748	55	15
10	1,320	65	11
15	802	75	10
20	575	85	5
25	392	90	0
30	276		

UR4E

4" Series

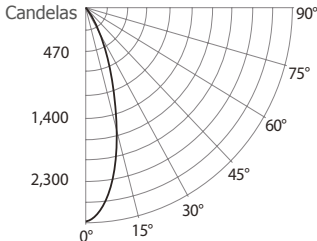
Round Downlight Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	76.7	3.5'
08'	43.1	4.7'
10'	27.6	5.9'
12'	19.2	7.1'
14'	14.1	8.3'
16'	10.8	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	2,760	/ 1,002.2
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	66.8	
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	924.5	92.2%
0-40	994.4	99.2%
0-60	1,002.2	100%
60-90	0.0	0%
0-90	1,002.2	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	31	0.42
6'	33	0.44
7'	28	0.37
8'	19	0.26
9'	19	0.26

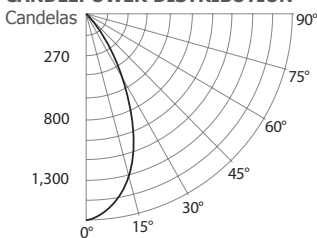
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	2,760
15	1,544
30	296
45	6
60	0
75	0
90	0

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	44.1	5.4'
08'	24.8	7.2'
10'	15.9	9.0'
12'	11.0	10.8'
14'	8.1	12.6'
16'	6.2	14.4'

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

LUMINAIRE

Performance 2 LED	3,000K Flood	
CBCP / Lumens	1,589	/ 1,002
Watts	120V	277V
	15W	15.5W
Operating AMPS	0.12A	0.055A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	66.8	
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	824.4	82.3%
0-40	966.0	96.4%
0-60	1,000.2	99.8%
60-90	1.8	0.2%
0-90	1,002	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	31	0.42
6'	32	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	1,589
15	1,257
30	438
45	36
60	3
75	0
90	0

UR4E

4" Series

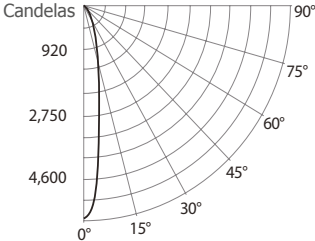
Round Downlight Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	150.6	1.7'
08'	84.7	2.3'
10'	54.2	2.8'
12'	37.7	3.4'
14'	27.7	4.0'
16'	21.2	4.5'

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

LUMINAIRE

Performance 3 LED	3,000K Spot	
CBCP / Lumens	5,422 / 1,219.6	
120V	277V	
Watts	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	50.8	
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	106
2	104	100	99	96	96	94	94	94	94	94
4	92	87	89	85	87	84	84	84	84	84
6	83	78	81	77	80	76	76	76	76	76
8	76	71	75	70	74	69	69	69	69	69
10	70	65	69	64	68	64	64	64	64	64

Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	933.8	76.6%
0-40	1,126	92.3%
0-60	1,181.5	96.9%
60-90	38.1	3.1%
0-90	1,219.6	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	30	0.53
6'	32	0.58
7'	28	0.50
8'	23	0.42
9'	23	0.42

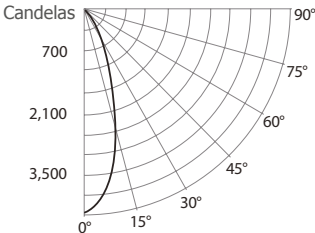
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	5,422	45	45
5	4,121	55	23
10	1,980	65	16
15	1,204	75	15
20	862	85	8
25	588	90	0
30	415		

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	115.0	3.5'
08'	64.7	4.7'
10'	41.4	5.9'
12'	28.8	7.1'
14'	21.1	8.3'
16'	16.2	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	4,141 / 1,503.3	
120V	277V	
Watts	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	62.6	
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	106
2	106	103	102	99	99	97	97	97	97	97
4	96	92	93	90	91	88	88	88	88	88
6	88	83	86	82	85	81	81	81	81	81
8	81	76	80	76	79	75	75	75	75	75
10	75	71	74	70	73	70	70	70	70	70

Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,386.7	92.2%
0-40	1,491.5	99.2%
0-60	1,503.3	100%
60-90	0.0	0%
0-90	1,503.3	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	28	0.40
6'	33	0.47
7'	28	0.40
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	4,141
15	2,317
30	444
45	10
60	0
75	0
90	0

UR4E

4" Series

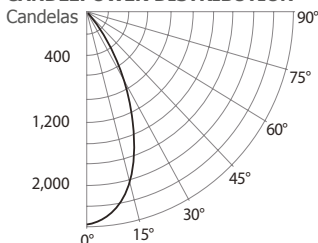
Round Downlight Regressed Trim

PHOTOMETRIC DATA



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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	66.2	5.4'
08'	37.2	7.2'
10'	23.8	9.0'
12'	16.6	10.8'
14'	12.2	12.6'
16'	9.3	14.4'

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

LUMINAIRE

Performance 3 LED	3,000K Flood	
CBCP / Lumens	2,383	/ 1,502.9
Watts	120V	277V
	24W	24.5W
Operating AMPS	0.20A	0.088A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	62.6	
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	1,236.7	82.3%
0-40	1,449.0	96.4%
0-60	1,500.3	99.8%
60-90	2.6	0.2%
0-90	1,502.9	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	27	0.40
6'	32	0.47
7'	27	0.40
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	2,383
15	1,886
30	658
45	53
60	5
75	0
90	0