

UR3F

3-1/2" Series Round Downlight Regressed Trim with Pinhole Aperture

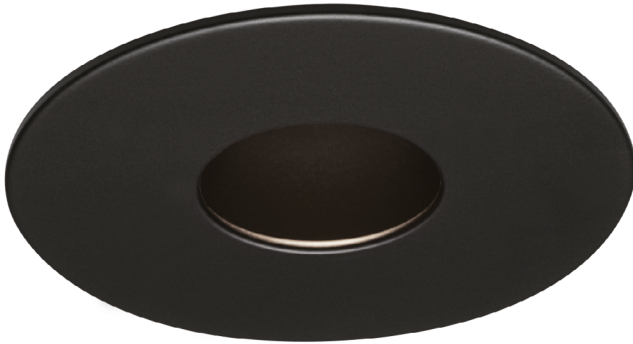


Project _____

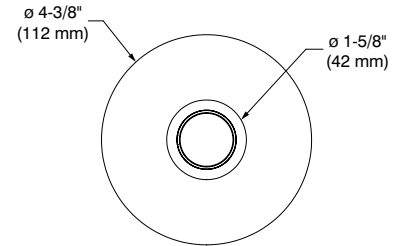
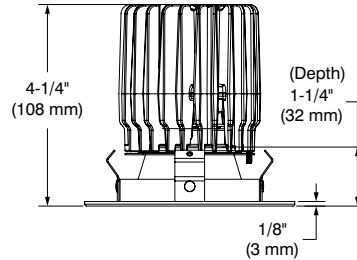
Notes _____

Fixture Type _____

Date _____



UR3FC-2222 (illustrated)



SPECIFICATIONS

LED MODULE

SOLID COLORS

Lumileds Luxeon CoB
 2,700K - CRI: 80+ and 90+
 3,000K - CRI: 80+ and 90+
 3,500K - CRI: 90+
 4,000K - CRI: 90+
 Lumens Maintenance:
 L_{70} @ 50,000 hours
 Binning: 3 SDCM

LED MODULE (CONT'D)

WARM DIMMING (WD)

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.
 Lumens Maintenance:
 L_{70} @ 50,000 hours
 Binning: 3 SDCM

DELIVERED LUMENS

Performance 1 (10W):

670 lumens @ 3,000K, 67 lms/W

Performance 2 (15W):

872 lumens @ 3,000K, 58.1 lms/W

Warm Dimming (WD)

427 lumens @ 3,000K, 28.4 lms/W

OPTIC SYSTEM*

Optical reflectors available:
 Spot and Narrow Flood

Standard	
Spot (S)	16°
Narrow Flood (M)	32°

* Average beams shown. Consult .ies files on our Website for more details.

LENSES

Without lens (std)
 Clear (C), Frosted (F)
 Honeycomb (H), Linear (L)
 Prismatic (P), Solite (S)

POWER SUPPLY

(Determined by the choice of housing)

120V, 277V or 120V/277V
 Several driver models available in two performances (10W and 15W) and in two dimming options (ELV and 0-10V).
 See housing specification sheets for more details.

HEAT SINK

High quality aluminum injected heat sink ensuring maximum heat dissipation.

TRIM

Powder coat painted or plated die-formed steel.

PAINTED REFLECTOR

Matte Black (22)

CEILING CUTOUT

ø 3-3/4" (95 mm)

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SPECIFICATIONS (CONT'D)

COMPATIBLE HOUSINGS

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

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

CERTIFICATION

cULus **E343977** for damp locations
 Certified under California Energy Commission according to reference Appendix JA8

WARRANTY

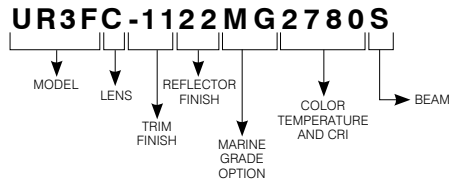
1 year on components against manufacturing defects
 5 years on LED arrays and drivers

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CODIFICATION EXAMPLE



ORDERING CODES

MODEL	LENSES	TRIM FINISHES	REFLECTOR FINISH	MARINE GRADE	COLOR TEMPERATURES AND CRI	BEAMS
UR3F			22			
UR3F	Without lens (std)	-01 White	PAINTED	MG (optional)	2780 2,700K (80+ CRI)	S Spot (16°)
C	Clear	-03SA Satin Gold	22 Matte Black	May be applied on finishes: -01, -11, -22 and -25	3080 3,000K (80+ CRI)	M Narrow Flood (32°)
F	Frosted	-04BR Brushed Chrome			2790 2,700K (90+ CRI)	
H	Honeycomb	-11 Matte White			3090 3,000K (90+ CRI)	
L	Linear	-12BR Brushed Nickel			3590 3,500K (90+ CRI)	
P	Prismatic	-13 Satin Nickel			4090 4,000K (90+ CRI)	
S	Solite	-22 Matte Black			WD90 Warm Dimming (90+ CRI)	
		-25 Polar Grey				

Compatible with 15W drivers only (EB2, D2 and UV2)

GOOF RINGS

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

- Code: RR3-01** (White)
RR3-03SA (Satin Gold)
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: ø 6-1/8" (156 mm)
 Inside diameter: ø 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: ø 4-5/16" (110 mm)
 Inside diameter: ø 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) below tables. Take note these factors also need to be implemented in the .ies files available on our website.

With performance 1 housing

	Spot (16°)		Narrow Flood (32°)	
2,700K with 80+ CRI	530 lms	53 lms/W	654 lms	65.4 lms/W
3,000K with 80+ CRI	543 lms	54.3 lms/W	670 lms	67 lms/W
2,700K with 90+ CRI	440 lms	44 lms/W	543 lms	54.3 lms/W
3,000K with 90+ CRI	455 lms	45.5 lms/W	561 lms	56.1 lms/W
3,500K with 90+ CRI	480 lms	48 lms/W	592 lms	59.2 lms/W
4,000K with 90+ CRI	493 lms	49.3 lms/W	608 lms	60.8 lms/W
Warm Dimming with 90+ CRI	Not available with performance 1 housings			

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

With performance 2 housing

	Spot (16°)		Narrow Flood (32°)	
2,700K with 80+ CRI	690 lms	46 lms/W	851 lms	56.7 lms/W
3,000K with 80+ CRI	707 lms	47.1 lms/W	872 lms	58.1 lms/W
2,700K with 90+ CRI	573 lms	38.2 lms/W	707 lms	47.1 lms/W
3,000K with 90+ CRI	593 lms	39.5 lms/W	731 lms	48.7 lms/W
3,500K with 90+ CRI	626 lms	41.7 lms/W	771 lms	51.4 lms/W
4,000K with 90+ CRI	642 lms	42.8 lms/W	792 lms	52.8 lms/W
Warm Dimming with 90+ CRI	346 lms	23 lms/W	427 lms	28.4 lms/W

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

Lens Factors	
STD	1
C	0.97
F	0.68
H	0.54

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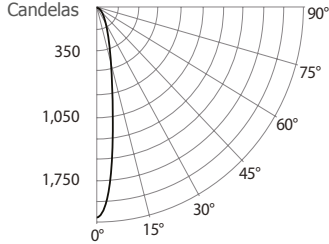
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PHOTOMETRIC DATA

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	56.3	1.7'
08'	31.6	2.3'
10'	20.3	2.8'
12'	14.1	3.4'
14'	10.3	4.0'
16'	7.9	4.5'

Beam: 16"
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 1 LED	3,000K Spot	
CPCB / Lumens	2,025 / 454.6	
Watts	120V	277V
	10W	10W
Operating AMPS	0.083A	0.036A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	45.4	
Spacing Criteria	0.07	

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	104	100	99	96	96	94	94	94	
4	92	87	89	85	87	84	84	84	
6	83	78	81	77	80	76	76	76	
8	76	71	75	70	74	70	70	70	
10	70	65	69	65	68	64	64	64	

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	348.7	76.7%
0-40	420.6	92.5%
0-60	440.9	97%
60-90	13.7	3%
0-90	454.6	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	22	0.44
6'	12	0.25
7'	9	0.17
8'	9	0.17
9'	6	0.11

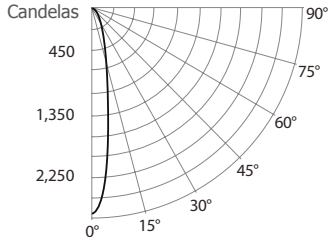
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS
0	2,025
15	449
30	155
45	17
65	6
75	5
90	0

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	73.3	1.7'
08'	41.2	2.3'
10'	26.4	2.8'
12'	18.3	3.4'
14'	13.5	4.0'
16'	10.3	4.5'

Beam: 16"
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 2 LED	3,000K Spot	
CPCB / Lumens	2,639 / 593.7	
Watts	120V	277V
	15W	15W
Operating AMPS	0.125A	0.054A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	39.6	
Spacing Criteria	0.073	

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	104	100	99	96	96	94	94	94	
4	92	87	89	85	87	84	84	84	
6	83	78	81	77	80	76	76	76	
8	76	71	75	70	74	69	70	69	
10	70	65	69	64	68	64	64	64	

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	454.5	76.6%
0-40	548.2	92.3%
0-60	575.1	96.9%
60-90	18.6	3.1%
0-90	593.7	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	29	0.66
6'	16	0.37
7'	11	0.26
8'	11	0.26
9'	7	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	2,639
15	586
30	202
45	22
65	8
75	7
90	0

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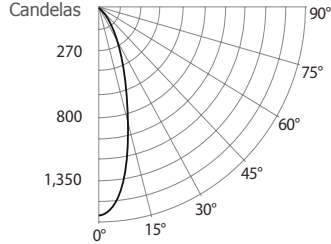
3-1/2" Series Round Downlight Regressed Trim with Pinhole Aperture



PHOTOMETRIC DATA

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	42.9	3.6'
08'	24.1	4.7'
10'	15.5	5.9'
12'	10.7	7.1'
14'	7.9	8.3'
16'	6.0	9.5'

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

LUMINAIRE

Performance 1 LED	3,000K Narrow Flood	
CPCB / Lumens	1,545	/ 560.9
Watts	120V	277V
	10W	10W
Operating AMPS	0.083A	0.036A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	56	
Spacing Criteria	0.14	

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	99	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	517.6	92.3%
0-40	556.6	99.2%
0-60	560.9	100 %
60-90	0	0%
0-90	560.9	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/ SQ. FT.
5'	28	0.44
6'	16	0.25
7'	11	0.17
8'	11	0.17
9'	7	0.11

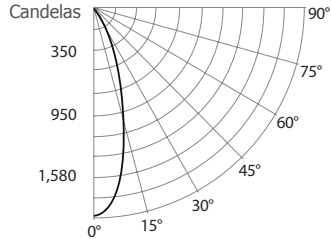
38' x 38' x 10' Room. Workplan located 2-1/2' (30").
Reflectance factor 80%/50%/30%

CANDELAS DISTRIBUTION

DEGREES/ VERTICAL	CANDELAS
0	1,545
15	865
30	165
45	3
65	0
75	0
90	0

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

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	52.3	3.5'
08'	29.4	4.7'
10'	18.8	5.9'
12'	13.1	7.1'
14'	9.6	8.3'
16'	7.3	9.5'

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

LUMINAIRE

Performance 2 LED	3,000K Narrow Flood	
CPCB / Lumens	1,881	/ 682.8
Watts	120V	277V
	15W	15W
Operating AMPS	0.125A	0.054A
Lumen Maintenance	L70 @ 50,000 Hrs	
CRI	90+	
Lumens/Watt	45.5	
Spacing Criteria	0.14	

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	99	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	629.9	92.2%
0-40	677.3	99.2%
0-60	682.7	100 %
60-90	0.1	0%
0-90	682.8	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/ SQ. FT.
5'	34	0.66
6'	19	0.37
7'	13	0.26
8'	13	0.26
9'	8	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	1,881
15	1,052
30	201
45	4
65	0
75	0
90	0