



LED RECESSED DOWNLIGHT

3-1/4" SQUARE
LENSED REFLECTOR

Non-IC Rated, 20W LED

TC49LSQ-432SQ, TC949LSQ-432SQ



PRODUCT DESCRIPTION

Recessed downlight 20W LED luminaire with 3-1/4" square lensed reflector produces up to 850 fixture lumens and approximates the performance of a 75W MR16 lamp. Fixture has 50° visual cutoff and features precision geared hot-aiming. Sealed Air-Loc® housing ensures maximum energy savings and controls plenum sound transmission. Low profile Non-IC rated housing for use in non-insulated areas or where insulation is spaced at least 3" from housing.

PRODUCT SPECIFICATIONS

LED Light Engine Replaceable LED array with connector mounts directly to high purity aluminum heat sink to provide superior thermal management • Consistent fixture to fixture color consistency within 3-step MacAdam ellipse • 2700K, 3000K, 3500K, or 4000K color temperatures are available with 85 CRI typical • 3000K also available with 93 CRI typical and R9 >80.

Modular Optics Available in three (3) factory-configured beam spreads, the optics are field interchangeable if other beam spreads are required after fixture installation • 12° Spot, 24° Narrow Flood, and 35° Flood optics available • Patent pending auto-adjusting optic holder maximizes luminaire efficiency by maintaining optimal LED optic position and accommodates up to three (3) additional beam control lenses and/or filters.

Reflector Lensed, Die cast, parabolic reflector maintains low glare, tight corners, and 50° lamp and image cut-off
• Available in haze, black haze, wheat haze, or white finishes
• Features clear glass lens.

Trims Style Self Flanged and Flush Mount reflectors utilize precision wound double torsion springs for tight, secure fit to ceiling • Flange is same finish as reflector unless optional painted white flange is specified • Flush Mount trims must be used with FMSQ4 Flush Mount Adapter.

LED Driver Choice of two drivers to accommodate voltages from 120-277 volts AC • Universal Voltage (-U) driver is dimmable with most 0-10V protocol dimmers • Lutron A Series (-L) driver is 3-wire dimmable and compatible with EcoSystem® • For a list of compatible dimmers, refer to [ACLXLED-DIM](#) • Power Factor > 0.9
• Field replaceable from below or above ceiling.

Life Rated for 50,000 hrs at 70% lumen maintenance.

Warranty 5 years from date of purchase on LED components
• Standard Juno Lighting Group product guarantee terms and conditions apply.

Codes/Labels UL and cUL listed for through branch wiring, wet locations • Meets energy code Air Leakage requirements per ASTM E283 • Union made.

Mounting

TC49LSQ features Patented (US Patent 8,038,113) Pro-VI™ Bar Hanger System with locking set screws, permitting quick placement of housing within 24" O.C. joists or suspended ceilings • Robust bar eliminates flexing regardless of fixture position • Integral T-bar notch with locking tabs secures housing to suspended ceiling grid • Captive bugle-headed ring shank nail for quick one-step installation • Bar Hanger foot aligns to bottom of construction joist and breaks away for use in suspended ceilings.

TC949LSQ is equipped with vertically adjustable mounting brackets that accept 1/2" conduit, "C" channels (HB-26 or HB-50), linear flat bars (LB-27) or 26" telescoping Real Nail bar hangers (HB-1).

Junction Box Rated for 8 No. 12 AWG 90° C through branch circuit conductors and includes (6) 1/2", (1) 3/4", and (4) Non-metallic sheathed cable knock-outs • Push-in electrical connectors for field connections.

Housing/Mounting Frame Black steel plaster frame and housing painted for visually dark interior • V-Notch in plaster frame and Patent pending Tru-Line™ Platform featuring +/- 1/2" translation and +/- 45° aperture rotation aids fixture alignment during installation.

Ceiling Thickness 1/2" - 7/8" ceiling standard • For thicker ceilings, order CTA4SQ-125 (7/8"-1 1/4"), CTA4SQ-163 (1 1/4"-1 5/8") or CTA4SQ-200 (1 5/8" - 2").

Project: _____

Fixture Type: _____

Location: _____

Contact/Phone: _____

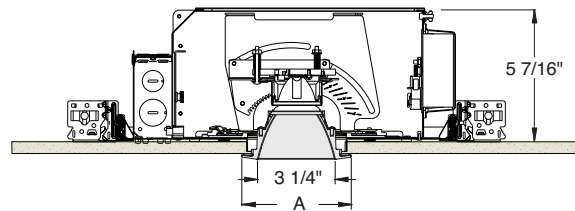
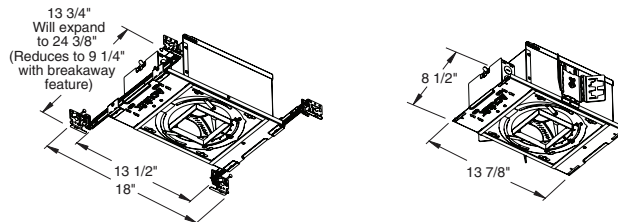
TC49LSQ



TC949LSQ



DIMENSIONS



4 1/8" CEILING CUTOUT
(4 1/4" FOR FLUSH MOUNT)

	A
Self Flanged	4 1/2"
Flush Mount	3 5/8"

ELECTRICAL DATA

Driver Option	Universal Voltage (-U)		Lutron A Series (-L)	
	120	277	120	277
Voltage	120	277	120	277
Input Power	20.6	22.1	19.7	21.1
Input Current	0.17	0.08	0.16	0.08
Frequency	50/60Hz		50/60Hz	
Power Factor	0.99	0.90	0.99	0.94

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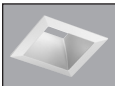

Ordering Information

Housing, trim and accessories each ordered separately

Example: **TC49LSQ-835-FL**

Housings	CRI/Color Temperature	Beam Optics	Drivers	Options
TC49LSQ	827 2700K, 85CRI	S 12° Spot	U 120-277V, 0-10V Dimming	CP Chicago Plenum
TC949LSQ	830 3000K, 85CRI	N 24° Narrow Flood	L 120-277V, Lutron 3-wire Dimming, Ecosystem Compatible	
	835 3500K, 85CRI	F 35° Flood		
	840 4000K, 85CRI			
	930 3000K, 93CRI			

Example: **432SQW-SF**

Trim/Description		
		
Self Flanged ¹	Flush Mount ²	Description
432SQBHZ-SF	432SQBHZ-FM	Black Haze Reflector
432SQHZ-SF	432SQHZ-FM	Haze Reflector
432SQW-SF	432SQW-FM	White Reflector
432SQWHZ-SF	432SQWHZ-FM	Wheat Haze Reflector

¹For self flanged reflector with optional white painted flange, replace "-SF" suffix with "-SFWH".

²Flush Mount trims must be used with FMASQ4 Flush Mount Adapter, ordered separately.

Product specifications subject to change without notice.

Accessories

Cat. #	Description	Cat. #	Description
T741	Med. Pink Color Filter	T7477	Prismatic Lens
T742	Warm Red Color Filter	T7478	Linear Spread Lens
T743	Daylight Blue Color Filter	T7459BL	Hexcell Louver
T744	Med. Blue Color Filter	FMASQ4	Flush Mount Adapter
T745	Med. Amber Color Filter	CTA4SQ-125	1 1/4" Thick Ceiling Adapter
T746	Med. Green Color Filter	CTA4SQ-163	1 5/8" Thick Ceiling Adapter
T7401	Red Dichroic Lens	CTA4SQ-200	2" Thick Ceiling Adapter
T7403	Med. Green Dichroic Lens	HB-1	(2) Real Nail 3 Bar Hangers
T7404	Med. Blue Dichroic Lens	HB-26	(2) 26" C-Channel Bar Hangers
T7405	Yellow Dichroic Lens	HB-50	(2) 50" C-Channel Bar Hangers
T7406	Magenta Dichroic Lens	LB-27	(2) 27" Linear Bar Hangers
T7411	Blue Green Dichroic Lens	TIR-1-SP	12° Spot Optic
T7416	Daylight Blue Correction Lens	TIR-1-NFL	24° Narrow Flood Optic
T7420	Diffuse Spread Lens	TIR-1-FL	35° Flood Optic
T7422	UV Filter Lens	EMI-20	20W Emergency Lighting Inverter

To order, specify catalog number.

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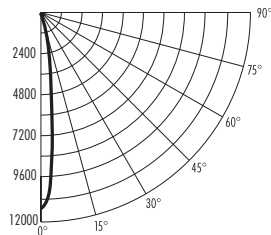
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PHOTOMETRIC REPORT

Test Report #: PT07102703
 Catalog No: TC49LSQ-830-S-U
 with 432SQHZ-SF Trim
 Luminaire Spacing Criterion: 0.23
 Luminaire LPW: 40.5



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	11012
5	6599
15	496
25	54
35	20
45	2
55	0
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	58	54	52
5.0'	37	35	33
6.0'	26	24	23
7.0'	21	19	19
8.0'	16	15	15
9.0'	13	12	11
10.0'	9	9	8

INITIAL FOOTCANDLES (One Unit, 20.0W, 11.9° Beam)

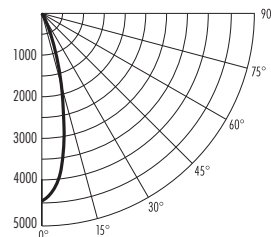
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	305.9	1.2'
8	172.1	1.7'
10	110.1	2.1'
12	76.5	2.5'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	438
55	0
65	0
75	0
85	0

PHOTOMETRIC REPORT

Test Report #: PT07102602
 Catalog No: TC49LSQ-830-N-U
 with 432SQHZ-SF Trim
 Luminaire Spacing Criterion: 0.39
 Luminaire LPW: 40.7



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	4298
5	3864
15	1247
25	152
35	30
45	2
55	0
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	57	53	49
5.0'	37	34	32
6.0'	26	23	22
7.0'	21	19	18
8.0'	16	15	14
9.0'	13	12	11
10.0'	9	8	8

INITIAL FOOTCANDLES (One Unit, 20.0W, 24.0° Beam)

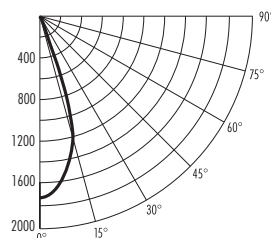
Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	119.3	2.5'
8	67.1	3.4'
10	43.0	4.2'
12	29.9	5.1'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	409
55	0
65	0
75	0
85	0

PHOTOMETRIC REPORT

Test Report #: PT09101602
 Catalog No: TC49LSQ-830-F-U
 with 432SQHZ-SF Trim
 Luminaire Spacing Criterion: 0.66
 Luminaire LPW: 42.6



CANDLEPOWER DISTRIBUTION (Candelas)

Degrees Vertical	0°
0	1778
5	1696
15	1317
25	587
35	65
45	5
55	0
65	0
75	0
85	0
90	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array, 60'x60' room)
 Ceiling 80% Wall 50% Floor 20%

Spacing	RCR1	RCR3	RCR5
4.0'	60	53	48
5.0'	38	34	31
6.0'	26	24	22
7.0'	21	19	17
8.0'	17	15	14
9.0'	13	12	11
10.0'	10	9	8

INITIAL FOOTCANDLES (One Unit, 20.0W, 41.6° Beam)

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
6	49.4	4.6'
8	27.8	6.1'
10	17.8	7.6'
12	12.3	9.1'

LUMINANCE (Average cd/m²)

Degrees	Average Luminance
45	1104
55	0
65	0
75	0
85	0

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit represents a baseline of performance for the fixture. Results may vary in the field.

