

**Commercial Slim Downlight 4in 13W Lumen-Color Select 500-900lm
Smooth Dimm - Specification Sheet**

Product #: 89168 Product Code: CSDL-4-LS-CS-ST-DDV



Product Details	
Watts	Selectable 8W, 10W or 13W
Color Temp	Selectable 2700K, 3000K, 3500K, 4000K or 5000K
Lumens	500-900
Voltage	120-277V
Bulb Type	
Base Type	
Dimmable	Yes (Triac/ELV or 0-10V)
Equivalent Watts	
Amps	
Input Frequency	50/60Hz
Length	
Size	4in
Warranty (years)	5
Color Selectable	Yes
Wattage Selectable	Yes
Filament Type	
Technology	LED
Market	Residential, Commercial
Applications	Commercial, office, hospitality, healthcare, retail & residential

For Submittals	
Date	
Location	
Type	
Project	
Notes	

Certifications	
UL Listed	No
ETL Listed	Yes
DLC Qualified	No
Energy Star Certified	Yes
IC Rated	Yes
IP Rating	
JA-8	
Title 20	No
Title 24	Yes
RoHs	
Certifications	ETL Listed - T24 - Energy Star - Wet Location - IC Rated Air Tight

Product Identifiers	
Short Name	Commercial Slim Downlight Selectable
Product Name	Commercial Slim Downlight 4in 13W Lumen Select 500-700-900lm 2700-5000K Color Selectable Smooth Trim 120-277V Dimmable TRIAC-ELV & 0-10V
Product Id	89168
Product Code	CSDL-4-LS-CS-ST-DDV
UPC	807154891689
Manufacturer	Halco Lighting Technologies
Brand	Halco

Performance	
Average Life	50,000
Color Rendering Index (CRI)	90
Power Factor	0.9
Beam Angle	110
Beam Type (Spread)	Wide Flood
Light Dist. Type	
Open -Closed Rated	
Environment (wet, damp,etc)	Wet Location
Operating Position	

Packaging & Weights	
Sold in Multiples of	1
Inner Package Size	1
Master Carton Size	20
Contains Single Inner Sleeve	
Weight per Item	1.05



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Construction	
Base Material	
Housing Material	Aluminum housing
Finish	White
Trim Color	White - Smooth Trim
Trim Design	
Mount Included	Spring retention clips
Mount Options	Recessed
Lens	Frosted PMMA Diffuser (polymethyl methacrylate/transparent and rigid thermoplastic material)
With Lens Guard	

Other Features	
Emergency Backup Available	Yes
Included Accessory	
Integrated Controls Available	No

Ballast Features	
Ballast Type	
Ballast Lamp Type	
Number of Lamps	
Primary Lamp	
Start Type	
Ballast Lamp Watts	
Ballast Lamp Connection	



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Related Products

Product ID	Product Code	Description
89126	DFDLS4-RT-RD-BZ	4in Round Flat Smooth Bronze Replacement Trim for Recessed Downlights
89120	DFDLS4-RT-RD-BK	4in Round Flat Smooth Black Replacement Trim for Recessed Downlights
89123	DFDLS4-RT-RD-SN	4in Round Flat Smooth Satin Nickel Replacement Trim for Recessed Downlights
89129	DFDLS-RP-468-RD	ProLED Select Direct Fit Slim Downlight Adjustable Rough In Pan 4inch 6inch 8inch
89102	FSDLS/EXT12	ProLED Select Direct Fit Slim Downlight Extension Cable 12in
89104	FSDLS/RP4RD	ProLED Select Direct Fit Slim Downlight Rough In Pan 4in Round



LED Luminaires



Description

The Commercial Slim Downlight family of fixtures are designed with the installer and end user in mind. Spring clips with remote mounted driver box eliminate the need for additional housings. Selectable color temperature and multiple technologies mean one fixture can fulfill the lighting needs for many different applications from residential to hospitality to commercial spaces.

Performance

- Field Selectable CCT (2700K, 3000K, 3500K, 4000K, 5000K)
- Field Selectable lumen output
- 120-277V, 50/60 Hz Triac/ELV and 0-10V dimming driver to 10%
- 90 CRI
- L70 Lumen maintenance > 50,000 hours
- Up to 109 lumens per watt
- 5 Year Limited Warranty

Construction

- Aluminum housing
- Canless design with spring retention clips and remote mounted driver box
- Edge Lit LED design with frosted PMMA diffuser
- Field selectable CCT switch
- Field selectable lumen output switch
- Remote driver box with plenum rated quick connect cord

Certifications

- cETLus rated for wet locations
- Air tight certified per ASTM E283-2004
- IC rated for direct contact with insulation
- Energy Star rated
- Complies with California T24 standards
- RoHS compliant
- FCC Part 15 compliant

Ordering Logic:

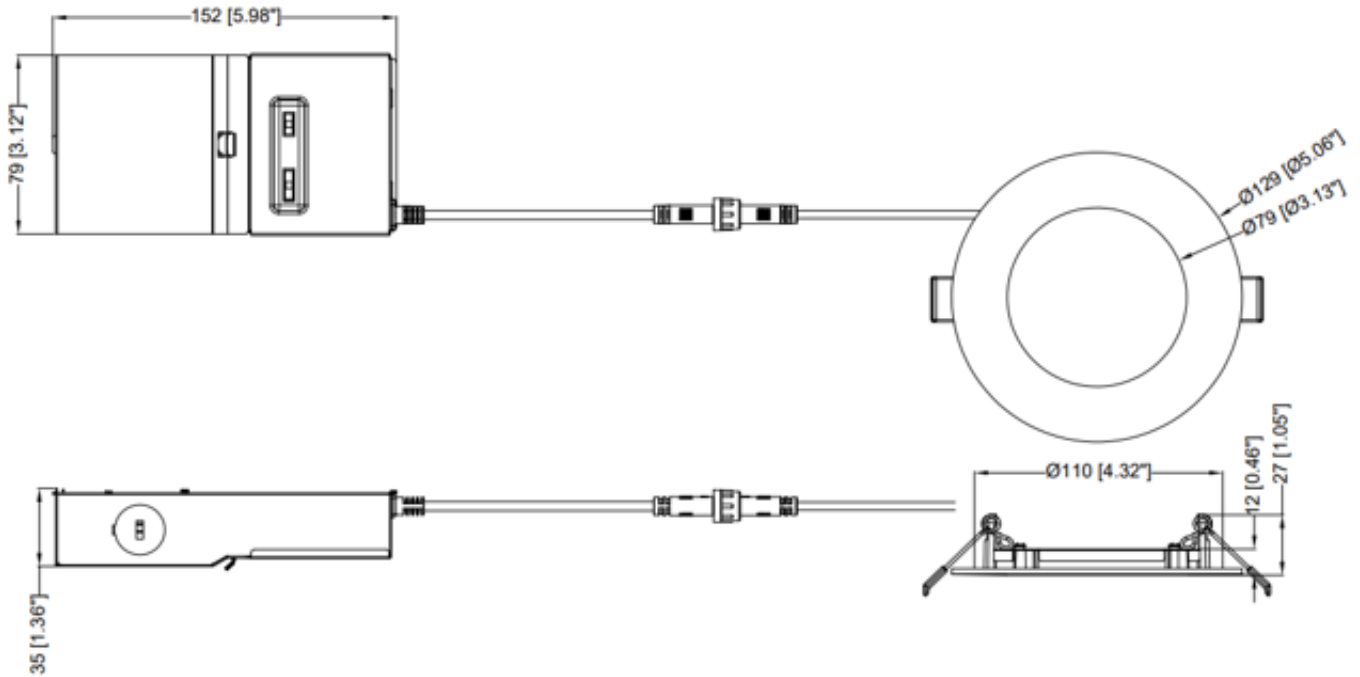
Series	Product Size	Lumen Output	CRI/CCT	Trim	Voltage/Dimming
CDSL = Commercial Slim Downlight	4 = 4" 6 = 6" 8 = 8"	LS = Lumen Selectable 4": 500/700/900 6": 700/900/1100 8": 900/1100/1500	CS = 90 CRI, Color Selectable (27K/30K/35K/40K/50K)	ST = Smooth Trim BT = Baffle Trim	DDV = Dual Dimming Universal 120-277V 0-10V Dimming OR 120V TRIAC/ELV

Performance Table

Product Code	Wattage	2700K		3000K		3500K		4000K		5000K	
		Lumen (lm)	Efficacy (lm/W)	Lumen (lm)	Efficacy (lm/W)	Lumen (lm)	Efficacy (lm/W)	Lumen (lm)	Efficacy (lm/W)	Lumen (lm)	Efficacy (lm/W)
CSDL-4-LS-CS-ST-DDV	13	1007	76	1099	86	1136	88	1137	88	1126	87
CSDL-6-LS-CS-ST-DDV	15	1182	80	1226	84	1254	86	1272	88	1249	86
CSDL-8-LS-CS-ST-DDV	18	1579	91	1706	101	1754	103	1776	105	1745	102
CSDL-4-LS-CS-BT-DDV	13	964	75	998	77	1037	80	1050	82	1026	78
CSDL-6-LS-CS-BT-DDV	15	1104	75	1152	78	1184	81	1210	83	1173	81
CSDL-8-LS-CS-BT-DDV	18	1562	90	1646	94	1704	97	1721	99	1681	96

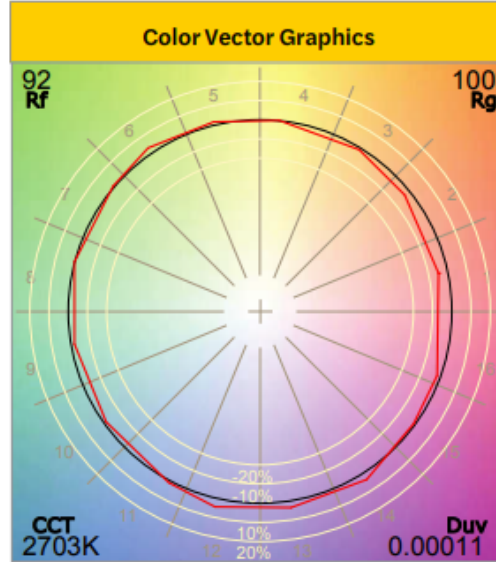
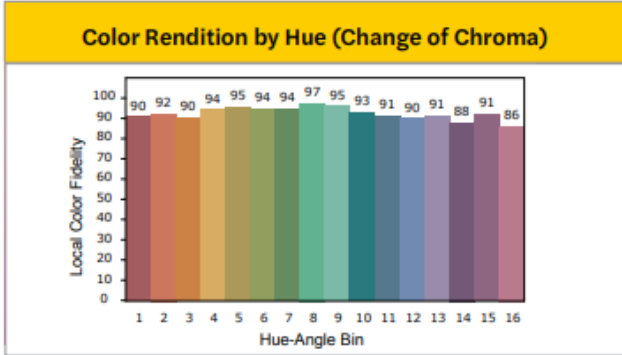
Specifications Table

	CSDL-4-LS-CS-XX-DDV	CSDL-6-LS-CS-XX-DDV	CSDL-8-LS-CS-XX-DDV
Nominal Wattage	13W	15W	18W
Delivered Lumens	500/700/900	700/900/1100	900/1100/1500
Efficacy (lm/W)	88	88	105
CCT	Selectable - 2700K, 3000K, 3500K, 4000K, 5000K		
CRI	90+		
Beam Angle	110°		
L70 Lifetime (hrs)	50,000		
Voltage	120V, 50/60Hz		
Power Factor	>0.9		
Dimming	Triac/ELV and 0-10V		
Housing Material	Aluminum		
Lens	PMMA		
Operating Temperature	-20°C to 40°C		
Listings	cETLus, FCC, RoHS, Wet Location, IC Rated, Air Tight, JAB, Energy Star®		
Environment	Wet Location, IC Rated, Air Tight		
Warranty	5 Years Standard		



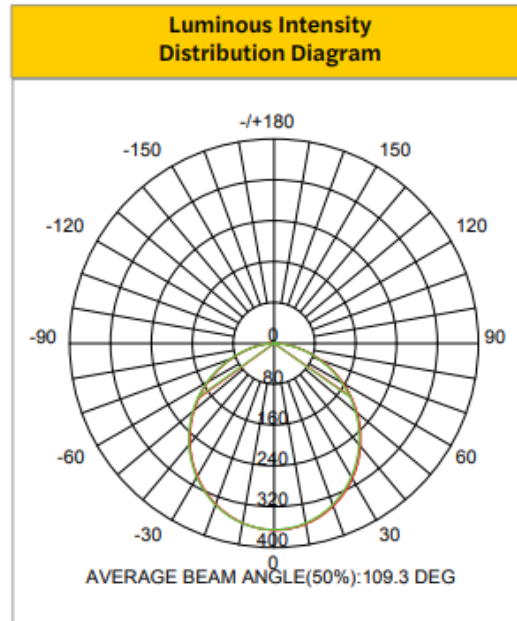
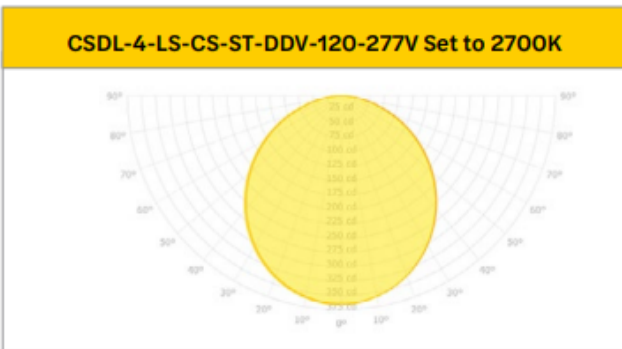
Photometrics*

89168-CSDL-4-LS-CS-ST-DDV



Color Metrics

RF	92
RG	100

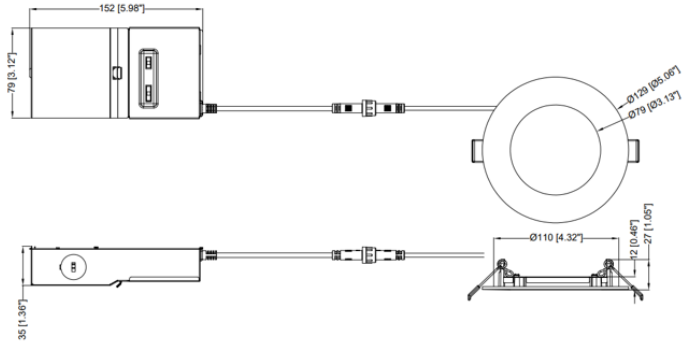


Zonal Lumen Summary

LCS Zone	Lumens	%Fixture
0° - 10°	35	3%
10° - 20°	98	10%
20° - 30°	148	15%
30° - 40°	176	18%
40° - 50°	181	18%
50° - 60°	161	16%
60° - 70°	121	12%
70° - 80°	69	7%
80° - 90°	17	2%
0° - 90°	1007	100%

*The Diagrams and zonal lumen summaries represent each fixture at highest wattage selection and at 2700K. For complete photometry/IES files, please contact Halco lighting.

Media Gallery



Replacement Trims

		Flat Smooth		
		Black	Nickel	Bronze
Size	4"	89120	89123	89126
	6"	89121	89124	89127
	8"	89122	89125	89128

		Smooth Baffle			Baffle		
		Black	Nickel	Bronze	Black	Nickel	Bronze
Size	4"	89111	89114	89117	89130	89133	89136
	6"	89112	89115	89118	89131	89134	89137
	8"	89113	89116	89119	89132	89135	89138