

CATALOG #: _____

TYPE: _____

PROJECT: _____

FEATURES

- Tunable color, including white tuning, from 1650K to 8000K, minimum 90 CRI
- 4 inch aperture is unobtrusive in small scale spaces
- Square shape accentuates architectural styles
- Open reflector with 7 finishes to complement any interior style
- Die cast trim choices include flush, regressed or angled lens
- Spring clip retention system eliminates trim sag
- Contemporary design provides glare-free illumination for a soft ceiling appearance

SPECIFICATIONS

- **HOUSING** – Die-cast aluminum trim housing with forged aluminum heat sink. Galvanized steel splice compartment with driver mounting plate/enclosure. Swing-out mounting arms adjust for ceiling thickness from 1/2" - 1-1/4" (consult factory for additional ceiling thicknesses).
- **OPEN REFLECTOR** – Low-iridescent anodized aluminum with top diffuser.
- **LENSED TRIM** – Die-cast aluminum frame with micro-prismatic, tempered glass lens.
- **ELECTRICAL** – Five color, mid-power ERP-Lumenix araya5 LED modules and controls. On board thermal and optical feedback ensure color consistency of <2 step MacAdam ellipse (SDCM) and reported L70>50,000 hours. In-line spectral capture and storage results in consistent CRI and CCT across all arrays.
- **MOUNTING** – Recessed. 20 ga. galvanized steel mounting pan for new construction. Minimum 24" O.C. marked spacing required for L16.
- **LISTINGS** –
 - cCSAus conforms to UL STD 1598; Certified to CAN/CSA STD C22.2 No. 250.0 for damp locations.
 - Suitable for wet location under covered ceiling when specified with WET/CC option.
 - RoHS compliant.
- **WARRANTY** – 5-year limited warranty, see www.williams.com/warranty.

SYSTEM REQUIREMENTS

- Fixtures are shipped with factory default settings, iOS mobile app required for proper commissioning
- For additional info, see APPLICATION NOTES at erp-power.com/design-resources/technical-documentation

ORDERING EXAMPLE: 4DS - L16/9TC - OPTIONS - DIM - 120 - LW - OF - WH - TRIM OPTIONS - N - F1
HOUSING TRIM MOUNT

HOUSING

SERIES	LUMENS ^[1]	COLOR	OPTIONS	CONTROL	VOLTAGE
4DS	L11 1,100lm L16 1,600lm	9TC Tunable color (90 CRI, 1650K-8000K)	F Fuse kit	DALI DALI Type 8 enabled DIM (1) 0-10V signal to control dimming; (1) 0-10V signal to control either CCT or select up to five preset colors DMX DMX enabled LUT Lutron Ecosystem enabled ^[2] WS Wattstopper DLM enabled ^[3]	120 120V 277 277V

TRIM ^[4]

TRIM TYPE	DISTRIBUTION ^[5]	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
L Flush lens	W Wide	OF 1/2" standard flange	Open trim types CS Clear semi-specular anodize SG Satin-glow anodize GD Gold anodize CG Champagne gold anodize PW Pewter anodize SPC Clear specular anodize RG Rose gold anodize	MWT Textured white trim flange ^[9] IP IP65 rated trim ^[10] AD Diffuse acrylic lens ^[11] PD Diffuse 1/8" polycarbonate lens ^[12] WET/CC Wet location, covered ceiling listed ^[13] AM Anti-microbial ^[14]
O Open reflector	55° Open		Lens trim types CS Clear semi-specular powder coat WH White texture powder coat BL Black texture powder coat MB Black texture splay with white flange ^[8]	
R Regressed lens	60° Flush			
A Angled lens ^[6]	60° Regressed			
	WW Wall wash ^[7]			

MOUNTING

MOUNTING TYPE ^[15]	MOUNTING HARDWARE ^[16]
N Open pan for new construction	F1 Factory-installed 2-position fixed pan bracket, universal bar hanger included ^[17] BA1 Adjustable butterfly pan bracket, bar hanger not included CA1 Adjustable caterpillar pan bracket, universal bar hanger included

NOTES

- Lumen output based on L trim type, W distribution and WH finish, 4000K/90CRI. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
- CCT control only.
- CCT control only.
- Trim ships separately
- Beam angle based on CS or WH reflector finish.
- Available with WW distribution only.
- O and A Trim Types only.
- R Trim Type only. Not available with MWT.
- Not available with WH Reflector Finish or L Trim Type.
- L and R trim types only.
- Not available with O trim type. W distribution only.
- Not available with O trim type. W distribution only.
- Not available with O Trim Type.
- WH and BL Reflector Finishes only.
- Mounting hardware required, ordered separately, see MOUNTING HARDWARE ordering info. See page 4 for MOUNTING TYPE DETAILS.
- Additional mounting hardware options available. See page 4 for MOUNTING HARDWARE DETAILS.
- Universal bar hanger ships uninstalled.

4DS tunable COLOR 4.5" Downlight – Square

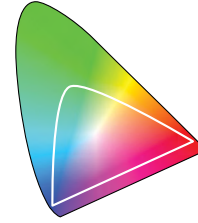
FIXTURE PERFORMANCE DATA

OPEN REFLECTOR TRIM TYPE

	COLOR	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L11	4000K	W	1021	24.0	42.5
	RED		108	4.1	26.3
	BLUE		48	6.9	7.0
	GREEN		345	10.8	31.9
L16	4000K	W	1561	40.1	38.9
	RED		165	6.8	24.3
	BLUE		74	11.5	6.4
	GREEN		528	18.0	29.3

FLUSH LENS TRIM TYPE

	COLOR	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L11	4000K	W	1106	24.0	46.1
	RED		117	4.1	28.5
	BLUE		52	6.9	7.5
	GREEN		374	10.8	34.6
L16	4000K	W	1691	40.1	42.2
	RED		179	6.8	26.3
	BLUE		80	11.5	7.0
	GREEN		572	18.0	31.8



REGRESSED LENS TRIM TYPE

	COLOR	DIST.	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
L11	4000K	W	1062	24.0	44.3
	RED		112	4.1	27.3
	BLUE		50	6.9	7.2
	GREEN		359	10.8	33.2
L16	4000K	W	1625	40.1	40.5
	RED		172	6.8	25.3
	BLUE		77	11.5	6.7
	GREEN		549	18.0	30.5

MULTIPLIER TABLES

WHITE CONVERSION FACTOR		
CCT	LUMENS	WATTS
2000K	0.46	0.45
2700K	0.74	0.63
3000K	0.85	0.74
3500K	0.94	0.87
4000K	1.00	1.00
5000K	0.94	0.97
6000K	0.86	0.96
8000K	0.70	0.81

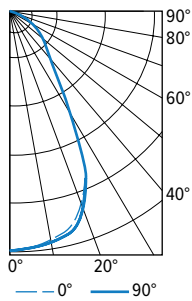
OPEN REFLECTOR FINISH		
CATALOG NUMBER	REFLECTOR FINISH	CONVERSION FACTOR
CS	Clear semi-specular	1.00
SG	Satin-glow	0.92
GD	Gold	0.93
CG	Champagne Gold	0.96
PW	Pewter	0.86
SPC	Specular	1.02
RG	Rose Gold	0.88
WH	White, textured	0.89
BL	Black, textured	0.79

TRIM	
CATALOG NUMBER	CONVERSION FACTOR
AD	0.85
PD	0.85

- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Wattage shown is based on 120V input.
- Actual lumens may vary +/-5%
- Use multiplier tables to calculate additional options.

PHOTOMETRY

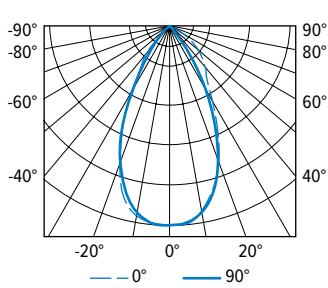
4DS-L16/9TC-DIM-120-LW-OF-WH Total Luminaire Output: 1691 lumens; 40.1 Watts | Efficacy: 42.2 lm/W | 97.6 CRI; 3905K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	1258	1258	1258	
5	1246	1246	1247	118
15	1175	1192	1200	334
25	912	1033	915	434
35	413	628	405	318
45	261	283	259	213
55	158	162	157	146
65	83	81	81	84
75	35	34	35	38
85	4	3	5	7
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	886	52
	0 - 40	1204	71
	0 - 60	1563	92
	0 - 90	1691	100
	0 - 180	1691	100

4DS-L16/9TC-DIM-120-OWW-OF-CS Total Luminaire Output: 1555 lumens; 40.1 Watts | Efficacy: 38.8 lm/W | 97.6 CRI; 3905K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE					ZONAL LUMENS
	0°	45°	90°	135°	180°	
0	1646	1646	1646	1646	1646	
5	1644	1636	1637	1639	1638	154
15	1402	1416	1410	1479	1469	399
25	958	1002	917	1045	926	442
35	548	512	361	497	424	300
45	401	236	118	171	158	161
55	242	74	17	27	19	66
65	147	16	0	0	0	26
75	49	0	0	0	0	8
85	0	0	0	0	0	0
90	0	0	0	0	0	

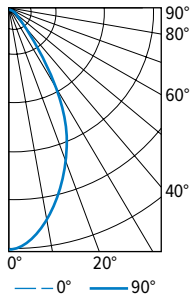
LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	995	64
	0 - 40	1295	83
	0 - 60	1521	98
	0 - 90	1555	100
	0 - 180	1555	100



4DS tunable COLOR

4.5" Downlight – Square

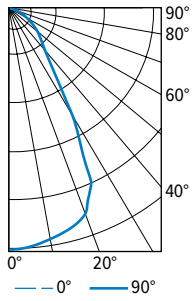
4DS-L16/9TC-DIM-120-OW-OF-CS Total Luminaire Output: 1561 lumens; 40.1 Watts | Efficacy: 39.0 lm/W | 97.6 CRI; 3905K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	2006	2006	2006	
5	1949	1931	1921	179
15	1588	1485	1554	428
25	1142	1038	1126	489
35	435	617	410	324
45	124	160	125	114
55	21	27	18	26
65	0	0	0	1
75	0	0	0	0
85	0	0	0	0
90	0	0	0	0

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1096	70
	0 - 40	1420	91
	0 - 60	1560	100
	0 - 90	1561	100
	0 - 180	1561	100

4DS-L16/9TC-DIM-120-RW-OF-WH Total Luminaire Output: 1625 lumens; 40.1 Watts | Efficacy: 40.5 lm/W | 97.6 CRI; 3478K CCT

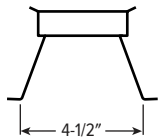


VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	1240	1240	1240	
5	1233	1232	1237	117
15	1176	1181	1197	333
25	991	1065	988	455
35	370	683	371	320
45	222	247	221	185
55	138	133	136	124
65	66	62	64	65
75	18	20	19	22
85	3	2	3	4
90	0	0	0	0

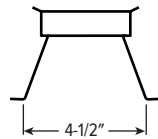
LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	906	56
	0 - 40	1225	75
	0 - 60	1534	94
	0 - 90	1625	100
	0 - 180	1625	100

TRIM TYPE DETAILS

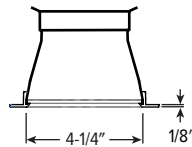
OPEN



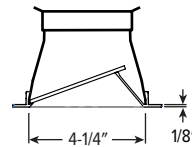
OPEN (WALL WASH)



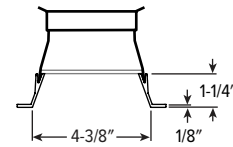
FLUSH



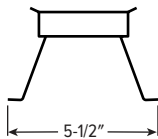
ANGLED



REGRESSED



FLANGE TYPE DETAILS



Ceiling Cutout: 5"

REFLECTOR FINISH DETAILS

SPC	SG	PW	GD	CG	RG	CS	WH	BL
Clear specular	Satin-glow	Pewter	Gold	Champagne gold	Rose gold	Clear semi-specular	White	Black



4DS tunable COLOR 4.5" Downlight – Square

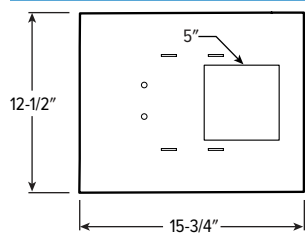
CONTROL DETAILS



PROTOCOL	(1) DIMMING ^[1]	(2) CCT	(3) SATURATION	(4) HUE
0-10V DIM ^[4]	1%	1650 - 8000K	[2]	[2]
DALI TYPE 8	0.1%	—	—	—
LUTRON ECOSYSTEM ^[3]	0.1%	1650 - 8000K	—	—
WATTSTOPPER DLM ^[3]	0.1%	1650 - 8000K	—	—
DMX512-A-RDM ^[3]	0.1%	1650 - 8000K	1 - 100%	1 - 60°

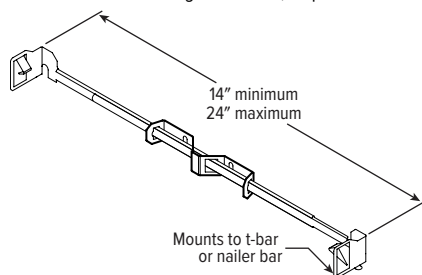
- ¹ 100 – 0.1% dimming is available when connected to 0.1% dimming capable digital controls. 100 – 1% dimming is available with analog 0 – 10V control.
- ² Two 0 – 10V lines can be used to control DIM and CCT independently, or program Scenes – in any combination of DIM, CCT, HUE and SAT – and recall them with five 0 - 10V presets.
- ³ May be limited to 1% dimming by controller; see control system specification for details.
- ⁴ 1 – 10V signal dims module to approximately 1%. In-line power relay required to achieve 0% output.

MOUNTING TYPE DETAILS

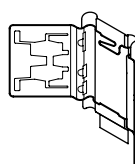


MOUNTING HARDWARE DETAILS

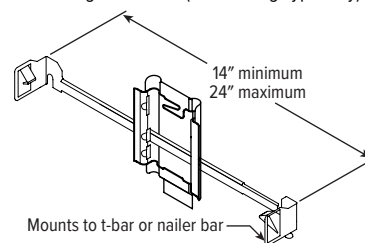
F1 Factory-installed 2-position fixed pan bracket, universal bar hanger included, ships uninstalled



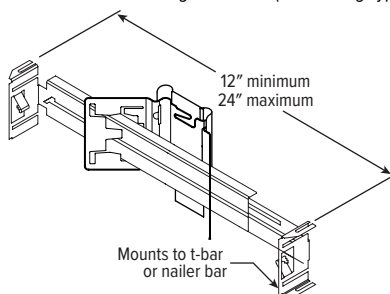
BA1 Adjustable butterfly pan bracket, bar hanger not included (N Mounting Type only)



CA1 Adjustable caterpillar pan bracket, universal bar hanger included (N Mounting Type only)



BA2 Adjustable butterfly pan bracket, heavy-duty universal bar hanger included (N Mounting Type only)



CA2 Adjustable caterpillar pan bracket, t-bar hanger included (N Mounting Type only)

