



Halo

SURFACE MOUNTED & SUSPENDED DOWNLIGHTS | TEC SERIES

With a minimalist design, Halo is a very versatile pendant luminaire, creating an elegant light effect. Four beam angles - from narrow to wide. Optimized for high-performance and pleasant lighting in shops, pubs, bistros, restaurants and building entrances or receptions. Can be equipped with special color temperatures to enhance the appearance of different food categories, art, fashion and hospitality.

Housing made of aluminum, available in three colors - signal white, jet black and white aluminum – for a perfect blend with the environment.

Halo surface-mounted and suspended downlight comes in several series, with various add-on and controls:

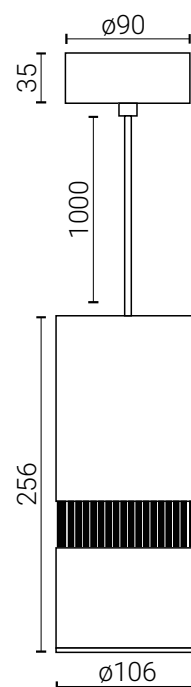
- Halo TEC – the standard for any project in the retail sector
- Halo ECO-DALI – with DALI controls for dimming

FEATURES & BENEFITS

- CRI > 80 as standard, up to 98 for certain special colors
- 15 color temperatures, including specialized options for food, fashion, art, hospitality and AGI light
- Great variety of optics – 4 angles from narrow beams to flood beams
- Efficiency: 117lm/W @4000K

APPLICATION

Grocery & Supermarkets | Retail | Office | Healthcare | Hospitality | DIY



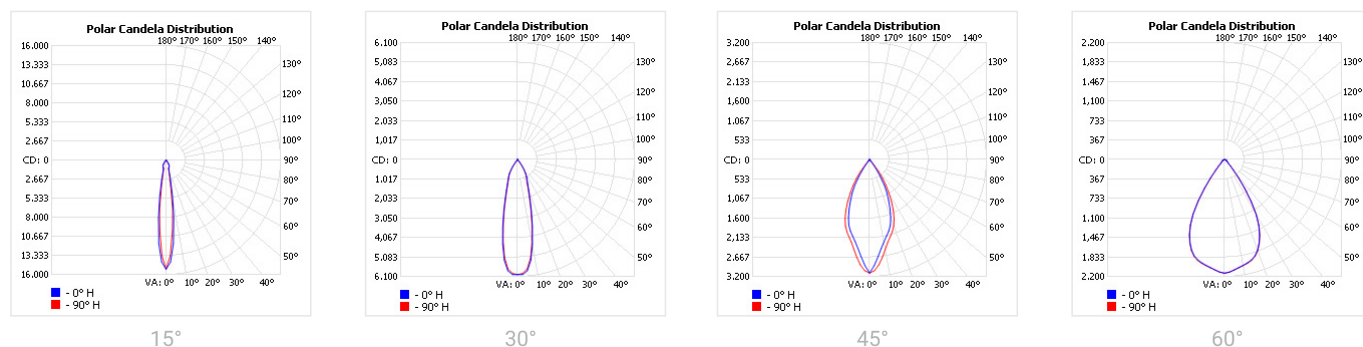
SPECIFICATIONS

Power consumption	12W, 14W, 17W, 20W, 23W, 27W, 29W
Dimensions	D106 x H256 ± 1mm
Weight	1.6 - 1.7 Kg
Housing materials	Aluminium, Glass
IK code	IK02
THD (at 230V, 50Hz, Full load)	<20%
Protection class	Safety class 1
Operating temperature [°C]	-20°C ... +45°C / -4F ... +113F
Operating humidity [%]	10 ÷ 85
Power factor	≥0.95
AC Input [Vac]	220 - 240 VAC
Lens angle [°]	15°, 30°, 45°, 60°
Lifespan [h]	50,000
Housing color	○ RAL 9003 - Signal White, ● RAL 9005 - Jet Black, ● RAL 9006 - White Aluminium
Lumen maintenance	L90/B10@50,000h at 25°C
IP factor	IP20
Control optional	For more information please see HALO ECO-DALI datasheet
Warranty [years]	5
Storage temperature range [°C]	-20°C ... +55°C / -4F ... +131F
Emergency option	-

#	Standard	Food	Fashion	AGI	Enhanced	ART	AMB	SUNSET
CRI	CRI80	CRI80	CRI95	CRI93	CRI90 / CRI95	CRI98	CRI80	CRI90
CCT [K]	2700 / 3000 / 3500 / 4000	BVF / FBS / FZM / FSM / FSH	FAS	AGI 3000 / 3500 / 4000	2700 / 3000 / 3500 / 4000	3000	2200	1800...2700
MacAdam	3	3 / 4 / 4 / 3 / 3	3	3	2	2	3	3

CRI - Color rendering, CCT - Color temperature, MacAdam - Color consistency

LIGHT DISTRIBUTION



TOLERANCES

Luminous flux tolerances: -/+ 5%

Consumption tolerance: -/+ 5% for TEC | -/+ 10% for TEC & KIT EM | -/+ 10% for ECO-DALI | -/+ 15% for ECO-DALI & KIT EM

BATTERY WARRANTY

TEC EM & ECO EM: 12 months warranty

TEC & ECO: -

MAXIMUM NO. OF LUMINAIRES ON A CIRCUIT

Power	Driver type	Control type	Circuit Breaker Type						
			Amperage	B			C		
				20	16	10	20	16	10
12-14W	SR	TEC		62	50	31	104	85	52
17-20W	SR	TEC		62	50	31	104	85	52
23-27W	SR	TEC		24	20	10	47	40	20
29-35W	SR	TEC		24	20	10	47	40	20
42W	SR	TEC		20	16	8	38	32	16
12-14W	SR	ECO		62	50	31	104	85	52
23-27W	SR	ECO		25	21	13	50	42	26
34-42W	SR	ECO		17	14	9	34	28	18

RISK GROUP

Standard (CRI80) RG1

FOOD (BVF, FBS, FSM) RG1

FOOD <20W (FZM, FSH) RG2 (dthr=1.8m)

FOOD >20W (FZM, FSH) RG2 (dthr=2.2m)

FAS RG1

AMB2200 RG1

ART RG1

AGI RG1

CRI95 RG1

SUNSET RG1

RG1

The evaluation of photobiological safety is carried out according to the standard IEC 62471:2008 ("Photobiological safety of lamps and lamp systems"). Following the definition of the risk grouping system of the mentioned IEC standard, the LEDs mounted on this family fall into the class "Low Risk (RG1 – No photobiological hazard under normal behavioral limitations)". Under real circumstances (regarding exposure time, pupils, observation distance), it is assumed that there is no endangerment to the eye from these devices. As a matter of principle, however, it should be mentioned that intense light sources have a high secondary exposure potential due to their blinding effect.

RG2

The evaluation of photobiological safety is carried out according to the standard IEC 62471:2008 ("Photobiological safety of lamps and lamp systems"). Following the definition of the risk grouping system of the mentioned IEC standard, the LEDs mounted on this family fall into the class "Moderate Risk (RG2)". Under real circumstances (regarding exposure time, pupils, observation distance), it is assumed that there is no endangerment to the eye from these devices. As a matter of principle, however, it should be mentioned that intense light sources have a high secondary exposure potential due to their blinding effect.

SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
CRI 80						
144000 Halo C31050X/2700/14W/80/A15	D106 x H256 ± 1mm	2700	1485	14W	107	15°
144001 Halo C31050X/3000/14W/80/A15	D106 x H256 ± 1mm	3000	1500	14W	108	15°
144002 Halo C31050X/3500/14W/80/A15	D106 x H256 ± 1mm	3500	1540	14W	110	15°
144003 Halo C31050X/4000/14W/80/A15	D106 x H256 ± 1mm	4000	1570	14W	113	15°
144005 Halo C31050X/2700/14W/80/A30	D106 x H256 ± 1mm	2700	1485	14W	107	30°
144006 Halo C31050X/3000/14W/80/A30	D106 x H256 ± 1mm	3000	1500	14W	108	30°
144007 Halo C31050X/3500/14W/80/A30	D106 x H256 ± 1mm	3500	1540	14W	110	30°
144008 Halo C31050X/4000/14W/80/A30	D106 x H256 ± 1mm	4000	1570	14W	113	30°
144010 Halo C31050X/2700/14W/80/A45	D106 x H256 ± 1mm	2700	1485	14W	107	45°
144011 Halo C31050X/3000/14W/80/A45	D106 x H256 ± 1mm	3000	1500	14W	108	45°
144012 Halo C31050X/3500/14W/80/A45	D106 x H256 ± 1mm	3500	1540	14W	110	45°
144013 Halo C31050X/4000/14W/80/A45	D106 x H256 ± 1mm	4000	1570	14W	113	45°
144015 Halo C31050X/2700/14W/80/A60	D106 x H256 ± 1mm	2700	1485	14W	107	60°
144016 Halo C31050X/3000/14W/80/A60	D106 x H256 ± 1mm	3000	1500	14W	108	60°
144017 Halo C31050X/3500/14W/80/A60	D106 x H256 ± 1mm	3500	1540	14W	110	60°
144018 Halo C31050X/4000/14W/80/A60	D106 x H256 ± 1mm	4000	1570	14W	113	60°
144040 Halo C31050X/2700/27W/80/A15	D106 x H256 ± 1mm	2700	2945	27W	110	15°
144041 Halo C31050X/3000/27W/80/A15	D106 x H256 ± 1mm	3000	2970	27W	110	15°
144042 Halo C31050X/3500/27W/80/A15	D106 x H256 ± 1mm	3500	3055	27W	114	15°
144043 Halo C31050X/4000/27W/80/A15	D106 x H256 ± 1mm	4000	3135	27W	117	15°
144045 Halo C31050X/2700/27W/80/A30	D106 x H256 ± 1mm	2700	2945	27W	110	30°
144046 Halo C31050X/3000/27W/80/A30	D106 x H256 ± 1mm	3000	2970	27W	110	30°
144047 Halo C31050X/3500/27W/80/A30	D106 x H256 ± 1mm	3500	3055	27W	114	30°
144048 Halo C31050X/4000/27W/80/A30	D106 x H256 ± 1mm	4000	3135	27W	117	30°
144050 Halo C31050X/2700/27W/80/A45	D106 x H256 ± 1mm	2700	2945	27W	110	45°
144051 Halo C31050X/3000/27W/80/A45	D106 x H256 ± 1mm	3000	2970	27W	110	45°
144052 Halo C31050X/3500/27W/80/A45	D106 x H256 ± 1mm	3500	3055	27W	114	45°
144053 Halo C31050X/4000/27W/80/A45	D106 x H256 ± 1mm	4000	3135	27W	117	45°
144055 Halo C31050X/2700/27W/80/A60	D106 x H256 ± 1mm	2700	2945	27W	110	60°
144056 Halo C31050X/3000/27W/80/A60	D106 x H256 ± 1mm	3000	2970	27W	110	60°
144057 Halo C31050X/3500/27W/80/A60	D106 x H256 ± 1mm	3500	3055	27W	114	60°
144058 Halo C31050X/4000/27W/80/A60	D106 x H256 ± 1mm	4000	3135	27W	117	60°
144020 Halo C31050X/2700/20W/80/A15	D106 x H256 ± 1mm	2700	2080	20W	104	15°
144021 Halo C31050X/3000/20W/80/A15	D106 x H256 ± 1mm	3000	2100	20W	105	15°
144022 Halo C31050X/3500/20W/80/A15	D106 x H256 ± 1mm	3500	2160	20W	108	15°
144023 Halo C31050X/4000/20W/80/A15	D106 x H256 ± 1mm	4000	2200	20W	110	15°
144025 Halo C31050X/2700/20W/80/A30	D106 x H256 ± 1mm	2700	2080	20W	104	30°
144026 Halo C31050X/3000/20W/80/A30	D106 x H256 ± 1mm	3000	2100	20W	105	30°
144027 Halo C31050X/3500/20W/80/A30	D106 x H256 ± 1mm	3500	2160	20W	108	30°
144028 Halo C31050X/4000/20W/80/A30	D106 x H256 ± 1mm	4000	2200	20W	110	30°
144030 Halo C31050X/2700/20W/80/A45	D106 x H256 ± 1mm	2700	2080	20W	104	45°
144031 Halo C31050X/3000/20W/80/A45	D106 x H256 ± 1mm	3000	2100	20W	105	45°
144032 Halo C31050X/3500/20W/80/A45	D106 x H256 ± 1mm	3500	2160	20W	108	45°
144033 Halo C31050X/4000/20W/80/A45	D106 x H256 ± 1mm	4000	2200	20W	110	45°
144035 Halo C31050X/2700/20W/80/A60	D106 x H256 ± 1mm	2700	2080	20W	104	60°
144036 Halo C31050X/3000/20W/80/A60	D106 x H256 ± 1mm	3000	2100	20W	105	60°
144037 Halo C31050X/3500/20W/80/A60	D106 x H256 ± 1mm	3500	2160	20W	108	60°
144038 Halo C31050X/4000/20W/80/A60	D106 x H256 ± 1mm	4000	2200	20W	110	60°
144120 Halo C31050X/BVF/27W/80/A15	D106 x H256 ± 1mm	BVF	2065	27W	77	15°
144121 Halo C31050X/FBS/27W/80/A15	D106 x H256 ± 1mm	FBS	1635	27W	61	15°

SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
CRI 80						
144122 Halo C31050X/FZM/27W/80/A15	D106 x H256 ± 1mm	FZM	1530	27W	57	15°
144123 Halo C31050X/FSM/27W/80/A15	D106 x H256 ± 1mm	FSM	1530	27W	57	15°
144124 Halo C31050X/FHS/27W/80/A15	D106 x H256 ± 1mm	FSH	2250	27W	84	15°
144125 Halo C31050X/BVF/27W/80/A30	D106 x H256 ± 1mm	BVF	2065	27W	77	30°
144126 Halo C31050X/FBS/27W/80/A30	D106 x H256 ± 1mm	FBS	1635	27W	61	30°
144127 Halo C31050X/FZM/27W/80/A30	D106 x H256 ± 1mm	FZM	1530	27W	57	30°
144128 Halo C31050X/FSM/27W/80/A30	D106 x H256 ± 1mm	FSM	1530	27W	57	30°
144129 Halo C31050X/FHS/27W/80/A30	D106 x H256 ± 1mm	FSH	2250	27W	84	30°
144130 Halo C31050X/BVF/27W/80/A45	D106 x H256 ± 1mm	BVF	2065	27W	77	45°
144131 Halo C31050X/FBS/27W/80/A45	D106 x H256 ± 1mm	FBS	1635	27W	61	45°
144132 Halo C31050X/FZM/27W/80/A45	D106 x H256 ± 1mm	FZM	1530	27W	57	45°
144133 Halo C31050X/FSM/27W/80/A45	D106 x H256 ± 1mm	FSM	1530	27W	57	45°
144134 Halo C31050X/FHS/27W/80/A45	D106 x H256 ± 1mm	FSH	2250	27W	84	45°
144135 Halo C31050X/BVF/27W/80/A60	D106 x H256 ± 1mm	BVF	2065	27W	77	60°
144136 Halo C31050X/FBS/27W/80/A60	D106 x H256 ± 1mm	FBS	1635	27W	61	60°
144137 Halo C31050X/FZM/27W/80/A60	D106 x H256 ± 1mm	FZM	1530	27W	57	60°
144138 Halo C31050X/FSM/27W/80/A60	D106 x H256 ± 1mm	FSM	1530	27W	57	60°
144139 Halo C31050X/FHS/27W/80/A60	D106 x H256 ± 1mm	FSH	2250	27W	84	60°
144200 Halo C31050X/BVF/14W/80/A15	D106 x H256 ± 1mm	BVF	1080	14W	77	15°
144201 Halo C31050X/FBS/14W/80/A15	D106 x H256 ± 1mm	FBS	855	14W	61	15°
144202 Halo C31050X/FZM/14W/80/A15	D106 x H256 ± 1mm	FZM	800	14W	57	15°
144203 Halo C31050X/FSM/14W/80/A15	D106 x H256 ± 1mm	FSM	800	14W	57	15°
144204 Halo C31050X/FHS/14W/80/A15	D106 x H256 ± 1mm	FHS	1180	14W	84	15°
144205 Halo C31050X/BVF/14W/80/A30	D106 x H256 ± 1mm	BVF	1080	14W	77	30°
144206 Halo C31050X/FBS/14W/80/A30	D106 x H256 ± 1mm	FBS	855	14W	61	30°
144207 Halo C31050X/FZM/14W/80/A30	D106 x H256 ± 1mm	FZM	800	14W	57	30°
144208 Halo C31050X/FSM/14W/80/A30	D106 x H256 ± 1mm	FSM	800	14W	57	30°
144209 Halo C31050X/FHS/14W/80/A30	D106 x H256 ± 1mm	FHS	1180	14W	84	30°
144210 Halo C31050X/BVF/14W/80/A45	D106 x H256 ± 1mm	BVF	1080	14W	77	45°
144211 Halo C31050X/FBS/14W/80/A45	D106 x H256 ± 1mm	FBS	855	14W	61	45°
144212 Halo C31050X/FZM/14W/80/A45	D106 x H256 ± 1mm	FZM	800	14W	57	45°
144213 Halo C31050X/FSM/14W/80/A45	D106 x H256 ± 1mm	FSM	800	14W	57	45°
144214 Halo C31050X/FHS/14W/80/A45	D106 x H256 ± 1mm	FHS	1180	14W	84	45°
144215 Halo C31050X/BVF/14W/80/A60	D106 x H256 ± 1mm	BVF	1080	14W	77	60°
144216 Halo C31050X/FBS/14W/80/A60	D106 x H256 ± 1mm	FBS	855	14W	61	60°
144217 Halo C31050X/FZM/14W/80/A60	D106 x H256 ± 1mm	FZM	800	14W	57	60°
144218 Halo C31050X/FSM/14W/80/A60	D106 x H256 ± 1mm	FSM	800	14W	57	60°
144219 Halo C31050X/FHS/14W/80/A60	D106 x H256 ± 1mm	FHS	1180	14W	84	60°
144220 Halo C31050X/BVF/20W/80/A15	D106 x H256 ± 1mm	BVF	1540	20W	77	15°
144221 Halo C31050X/FBS/20W/80/A15	D106 x H256 ± 1mm	FBS	1220	20W	61	15°
144222 Halo C31050X/FZM/20W/80/A15	D106 x H256 ± 1mm	FZM	1140	20W	57	15°
144223 Halo C31050X/FSM/20W/80/A15	D106 x H256 ± 1mm	FSM	1140	20W	57	15°
144224 Halo C31050X/FHS/20W/80/A15	D106 x H256 ± 1mm	FHS	1680	20W	84	15°
144225 Halo C31050X/BVF/20W/80/A30	D106 x H256 ± 1mm	BVF	1540	20W	77	30°
144226 Halo C31050X/FBS/20W/80/A30	D106 x H256 ± 1mm	FBS	1220	20W	61	30°
144227 Halo C31050X/FZM/20W/80/A30	D106 x H256 ± 1mm	FZM	1140	20W	57	30°
144228 Halo C31050X/FSM/20W/80/A30	D106 x H256 ± 1mm	FSM	1140	20W	57	30°
144229 Halo C31050X/FHS/20W/80/A30	D106 x H256 ± 1mm	FHS	1680	20W	84	30°
144230 Halo C31050X/BVF/20W/80/A45	D106 x H256 ± 1mm	BVF	1540	20W	77	45°
144231 Halo C31050X/FBS/20W/80/A45	D106 x H256 ± 1mm	FBS	1220	20W	61	45°

SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
CRI 80						
144232 Halo C31050X/FZM/20W/80/A45	D106 x H256 ± 1mm	FZM	1140	20W	57	45°
144233 Halo C31050X/FSM/20W/80/A45	D106 x H256 ± 1mm	FSM	1140	20W	57	45°
144234 Halo C31050X/FHS/20W/80/A45	D106 x H256 ± 1mm	FHS	1680	20W	84	45°
144235 Halo C31050X/BVF/20W/80/A60	D106 x H256 ± 1mm	BVF	1540	20W	77	60°
144236 Halo C31050X/FBS/20W/80/A60	D106 x H256 ± 1mm	FBS	1220	20W	61	60°
144237 Halo C31050X/FZM/20W/80/A60	D106 x H256 ± 1mm	FZM	1140	20W	57	60°
144238 Halo C31050X/FSM/20W/80/A60	D106 x H256 ± 1mm	FSM	1140	20W	57	60°
144239 Halo C31050X/FHS/20W/80/A60	D106 x H256 ± 1mm	FHS	1680	20W	84	60°
144240 Halo C31050X/AMB2200/14W/80/A15	D106 x H256 ± 1mm	AMB2200	1020	14W	73	15°
144241 Halo C31050X/AMB2200/14W/80/A30	D106 x H256 ± 1mm	AMB2200	1020	14W	73	30°
144242 Halo C31050X/AMB2200/14W/80/A45	D106 x H256 ± 1mm	AMB2200	1020	14W	73	45°
144243 Halo C31050X/AMB2200/14W/80/A60	D106 x H256 ± 1mm	AMB2200	1020	14W	73	60°
144244 Halo C31050X/AMB2200/20W/80/A15	D106 x H256 ± 1mm	AMB2200	1410	20W	71	15°
144245 Halo C31050X/AMB2200/20W/80/A30	D106 x H256 ± 1mm	AMB2200	1410	20W	71	30°
144246 Halo C31050X/AMB2200/20W/80/A45	D106 x H256 ± 1mm	AMB2200	1410	20W	71	45°
144247 Halo C31050X/AMB2200/20W/80/A60	D106 x H256 ± 1mm	AMB2200	1410	20W	71	60°
144248 Halo C31050X/AMB2200/27W/80/A15	D106 x H256 ± 1mm	AMB2200	1870	27W	70	15°
144249 Halo C31050X/AMB2200/27W/80/A30	D106 x H256 ± 1mm	AMB2200	1870	27W	70	30°
144250 Halo C31050X/AMB2200/27W/80/A45	D106 x H256 ± 1mm	AMB2200	1870	27W	70	45°
144251 Halo C31050X/AMB2200/27W/80/A60	D106 x H256 ± 1mm	AMB2200	1870	27W	70	60°
CRI 93						
144152 Halo C31050X/AGI3000/12W/93/A15	D106 x H256 ± 1mm	AGI3000	735	12W	62	15°
144153 Halo C31050X/AGI3500/12W/93/A15	D106 x H256 ± 1mm	AGI3500	780	12W	65	15°
144154 Halo C31050X/AGI4000/12W/93/A15	D106 x H256 ± 1mm	AGI4000	830	12W	70	15°
144155 Halo C31050X/AGI3000/12W/93/A30	D106 x H256 ± 1mm	AGI3000	735	12W	62	30°
144156 Halo C31050X/AGI3500/12W/93/A30	D106 x H256 ± 1mm	AGI3500	780	12W	65	30°
144157 Halo C31050X/AGI4000/12W/93/A30	D106 x H256 ± 1mm	AGI4000	830	12W	70	30°
144158 Halo C31050X/AGI3000/12W/93/A45	D106 x H256 ± 1mm	AGI3000	735	12W	62	45°
144159 Halo C31050X/AGI3500/12W/93/A45	D106 x H256 ± 1mm	AGI3500	780	12W	65	45°
144160 Halo C31050X/AGI4000/12W/93/A45	D106 x H256 ± 1mm	AGI4000	830	12W	70	45°
144161 Halo C31050X/AGI3000/12W/93/A60	D106 x H256 ± 1mm	AGI3000	735	12W	62	60°
144162 Halo C31050X/AGI3500/12W/93/A60	D106 x H256 ± 1mm	AGI3500	780	12W	65	60°
144163 Halo C31050X/AGI4000/12W/93/A60	D106 x H256 ± 1mm	AGI4000	830	12W	70	60°
144176 Halo C31050X/AGI3000/23W/93/A15	D106 x H256 ± 1mm	AGI3000	1330	23W	58	15°
144177 Halo C31050X/AGI3500/23W/93/A15	D106 x H256 ± 1mm	AGI3500	1440	23W	63	15°
144178 Halo C31050X/AGI4000/23W/93/A15	D106 x H256 ± 1mm	AGI4000	1550	23W	68	15°
144179 Halo C31050X/AGI3000/23W/93/A30	D106 x H256 ± 1mm	AGI3000	1330	23W	58	30°
144180 Halo C31050X/AGI3500/23W/93/A30	D106 x H256 ± 1mm	AGI3500	1440	23W	63	30°
144181 Halo C31050X/AGI4000/23W/93/A30	D106 x H256 ± 1mm	AGI4000	1550	23W	68	30°
144182 Halo C31050X/AGI3000/23W/93/A45	D106 x H256 ± 1mm	AGI3000	1330	23W	58	45°
144183 Halo C31050X/AGI3500/23W/93/A45	D106 x H256 ± 1mm	AGI3500	1440	23W	63	45°
144184 Halo C31050X/AGI4000/23W/93/A45	D106 x H256 ± 1mm	AGI4000	1550	23W	68	45°
144185 Halo C31050X/AGI3000/23W/93/A60	D106 x H256 ± 1mm	AGI3000	1330	23W	58	60°
144186 Halo C31050X/AGI3500/23W/93/A60	D106 x H256 ± 1mm	AGI3500	1440	23W	63	60°
144187 Halo C31050X/AGI4000/23W/93/A60	D106 x H256 ± 1mm	AGI4000	1550	23W	68	60°
144164 Halo C31050X/AGI3000/17W/93/A15	D106 x H256 ± 1mm	AGI3000	985	17W	58	15°
144165 Halo C31050X/AGI3500/17W/93/A15	D106 x H256 ± 1mm	AGI3500	1050	17W	62	15°
144166 Halo C31050X/AGI4000/17W/93/A15	D106 x H256 ± 1mm	AGI4000	1115	17W	66	15°
144167 Halo C31050X/AGI3000/17W/93/A30	D106 x H256 ± 1mm	AGI3000	985	17W	58	30°

SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
CRI 93						
144168 Halo C31050X/AGI3500/17W/93/A30	D106 x H256 ± 1mm	AGI3500	1050	17W	62	30°
144169 Halo C31050X/AGI4000/17W/93/A30	D106 x H256 ± 1mm	AGI4000	1115	17W	66	30°
144170 Halo C31050X/AGI3000/17W/93/A45	D106 x H256 ± 1mm	AGI3000	985	17W	58	45°
144171 Halo C31050X/AGI3500/17W/93/A45	D106 x H256 ± 1mm	AGI3500	1050	17W	62	45°
144172 Halo C31050X/AGI4000/17W/93/A45	D106 x H256 ± 1mm	AGI4000	1115	17W	66	45°
144173 Halo C31050X/AGI3000/17W/93/A60	D106 x H256 ± 1mm	AGI3000	985	17W	58	60°
144174 Halo C31050X/AGI3500/17W/93/A60	D106 x H256 ± 1mm	AGI3500	1050	17W	62	60°
144175 Halo C31050X/AGI4000/17W/93/A60	D106 x H256 ± 1mm	AGI4000	1115	17W	66	60°
144188 Halo C31050X/AGI3000/29W/93/A15	D106 x H256 ± 1mm	AGI3000	1680	29W	58	15°
144189 Halo C31050X/AGI3500/29W/93/A15	D106 x H256 ± 1mm	AGI3500	1820	29W	63	15°
144190 Halo C31050X/AGI4000/29W/93/A15	D106 x H256 ± 1mm	AGI4000	1960	29W	68	15°
144191 Halo C31050X/AGI3000/29W/93/A30	D106 x H256 ± 1mm	AGI3000	1680	29W	58	30°
144192 Halo C31050X/AGI3500/29W/93/A30	D106 x H256 ± 1mm	AGI3500	1820	29W	63	30°
144193 Halo C31050X/AGI4000/29W/93/A30	D106 x H256 ± 1mm	AGI4000	1960	29W	68	30°
144194 Halo C31050X/AGI3000/29W/93/A45	D106 x H256 ± 1mm	AGI3000	1680	29W	58	45°
144195 Halo C31050X/AGI3500/29W/93/A45	D106 x H256 ± 1mm	AGI3500	1820	29W	63	45°
144196 Halo C31050X/AGI4000/29W/93/A45	D106 x H256 ± 1mm	AGI4000	1960	29W	68	45°
144197 Halo C31050X/AGI3000/29W/93/A60	D106 x H256 ± 1mm	AGI3000	1680	29W	58	60°
144198 Halo C31050X/AGI3500/29W/93/A60	D106 x H256 ± 1mm	AGI3500	1820	29W	63	60°
144199 Halo C31050X/AGI4000/29W/93/A60	D106 x H256 ± 1mm	AGI4000	1960	29W	68	60°
CRI 95						
144140 Halo C31050X/FAS/27W/95/A15	D106 x H256 ± 1mm	FAS	2080	27W	78	15°
144141 Halo C31050X/FAS/27W/95/A30	D106 x H256 ± 1mm	FAS	2080	27W	78	30°
144142 Halo C31050X/FAS/27W/95/A45	D106 x H256 ± 1mm	FAS	2080	27W	78	45°
144143 Halo C31050X/FAS/27W/95/A60	D106 x H256 ± 1mm	FAS	2080	27W	78	60°
CRI 98						
144148 Halo C31050X/ART3000/27W/98/A15	D106 x H256 ± 1mm	ART3000	1995	27W	74	15°
144149 Halo C31050X/ART3000/27W/98/A30	D106 x H256 ± 1mm	ART3000	1995	27W	74	30°
144150 Halo C31050X/ART3000/27W/98/A45	D106 x H256 ± 1mm	ART3000	1995	27W	74	45°
144151 Halo C31050X/ART3000/27W/98/A60	D106 x H256 ± 1mm	ART3000	1995	27W	74	60°