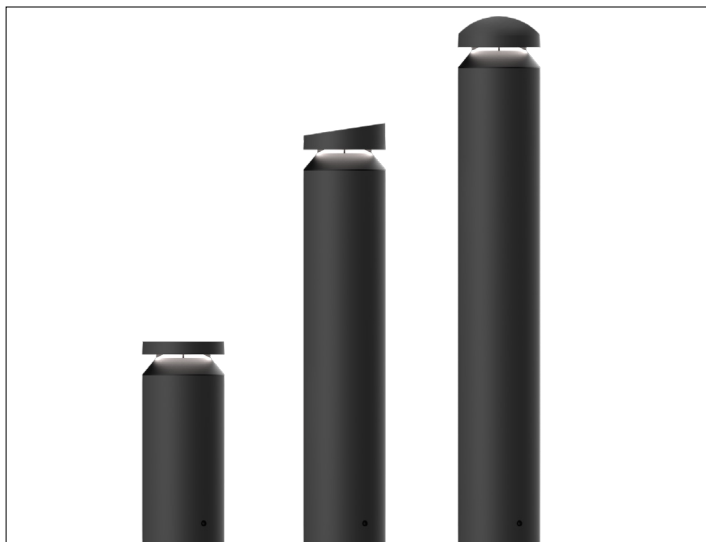
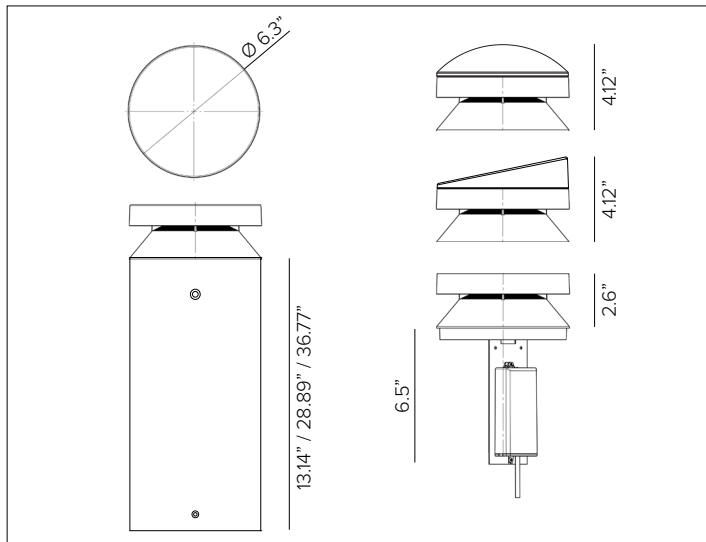


MR. BO

Radial Emission LED Bollard



Flat Top version shown. Angle Top version shown. Domed Top version shown.



CONCEPT

Radial-emission LED bollard specifically designed to light large open spaces.

FIXTURE MECHANICAL CHARACTERISTICS

Housing	Ø 6.3" Dia.
Materials	Powder coated anodized die-cast aluminum optical head with extruded body. Marine Grade cataphoresis [®] available as optional.
Finish	Textured finish. <ul style="list-style-type: none"> ● Ferrite Dark Grey ● Black ● White ● Bronze ● Sandstone Grey ● Heritage Brown
Power Connection	Factory shipped with DSM&T IP68 quick disconnect at fixture and mating 4ft SJOOW 18-6 cable with purple and grey wires for 0-10V.
Functionality	Available in three different heights - 16in, 32in and 40in nominal for flat head or 17in, 33in and 41in nominal for domed and angled heads. 316L grade stainless steel base and stainless steel anti-theft screws. Optional integral 90 minute emergency battery back at 8W output (14W 57% / 19W 42% / 27W 30%); ambient temperature not to drop below 0°C or exceed 50°C. Optional integral smart PIR motion sensor factory preset to 100% ON fade to 10% output after 30 minutes if no motion is detected, contact factory for custom settings.
BUG	B1-U0-G1 Dark Sky Compliant
Weight	3.1lbs (fixture head only)
Protection	IP66
Resistance	IK10

CERTIFICATIONS

cULus Wet Location Listed.
 Tested in accordance with LM-79-08.
 Compliant for California installations.
 IEC 62471
 RoHS3 EU 215/863

WARRANTY

5 year limited warranty.

SUSTAINABILITY

Luminaire designed for disposal/recycling at end-of-life. Replaceable LED light source and control gear by a Targetti technician.

ELECTRICAL CHARACTERISTICS

Driver	Integral 4/1 smart driver (Non-Dimmable / 0-10V / Reverse Phase / Forward Phase).
Wattage	27W (360°) / 19W (180°, 90°+90°) / 14W (90°)
Voltage	Universal Voltage 120-277V AC 50/60Hz

SOURCE

LED Chip on Board.

TM30	CCT (Nominal)	CRI	Rf	Rg	SDCM
■	2700K	80	82	96	2
■	3000K	80	83	96	2
■	3500K	80	82	95	2
■	4000K	80	82	95	2

Ra90 available upon request

OPTIC

Internal high reflective anodized aluminum reflector with transparent polycarbonate lens positioned horizontally under optical head with external black anti-glare control.

Beam	360°	180°	90°	90°+90°
Delivered Lumens	2700K 1,167Lm	873Lm	292Lm	598Lm
	3000K 1,217Lm	910Lm	305Lm	623Lm
	4000K 1,248Lm	933Lm	313Lm	639Lm

For 3500K lumen values use multiplier of 1.02 from 3000K.

Efficacy	52Lm/W max. Refer to photometric graphs for specific values.
Lifetime	L92/B10 30000hrs at max TA +25°C L90/B10 50000hrs at max TA +25°C
Photobiological Classification	Low risk safety RG1

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SPECIFICATION INFORMATION



Ex: MBBA411736L330FE / 1US3448 / 1US2530

1 - PRODUCT CODE	2 - TOP	3 - DRIVER	4 - HEIGHT	5 - EMISSION	6 - WATTAGE	6 - KELVIN	7 - FINISH
MBB — MR. BO Bollard	— Flat	41 — 4/1 Smart Dimming (Non-Dimming / 0-10V / Reverse Phase / Forward Phase)	16 — 16in	36^D — 360°	L3 — 27W	27 — 2700K	FE — Ferrite Dark Grey HB — Heritage Brown BZ — Bronze WT — White BT — Black SG — Sandstone Grey RAL — Custom RAL
			32 — 32in	18^C — 180°	L2 — 19W	30 — 3000K	
			40 — 40in	99^C — 90°+90°	L1 — 14W	35 — 3500K 40 — 4000K	
	A — Angled D — Domed	41 — 4/1 Smart Dimming (Non-Dimming / 0-10V / Reverse Phase / Forward Phase)	17 — 17in	36^D — 360°	L3 — 27W		
			33 — 33in	18^C — 180°	L2 — 19W		
			41 — 41in	99^C — 90°+90°	L1 — 14W		
8 - OPTIONAL		9 - MOUNTING		10 - INSTALLATION			
— Blank no option		Ground Anchor Base See section for details		J-Box with sleeve See section for details			
EM^{E,F} — Emergency Battery Pack		Plate for Surface Installation See section for details					
MS^E — Motion Sensor							
MG^G — Marine Grade							

^D 90° optic only available in 14W nominal.

^C 90°+90° and 180° optics only available in 19W nominal.

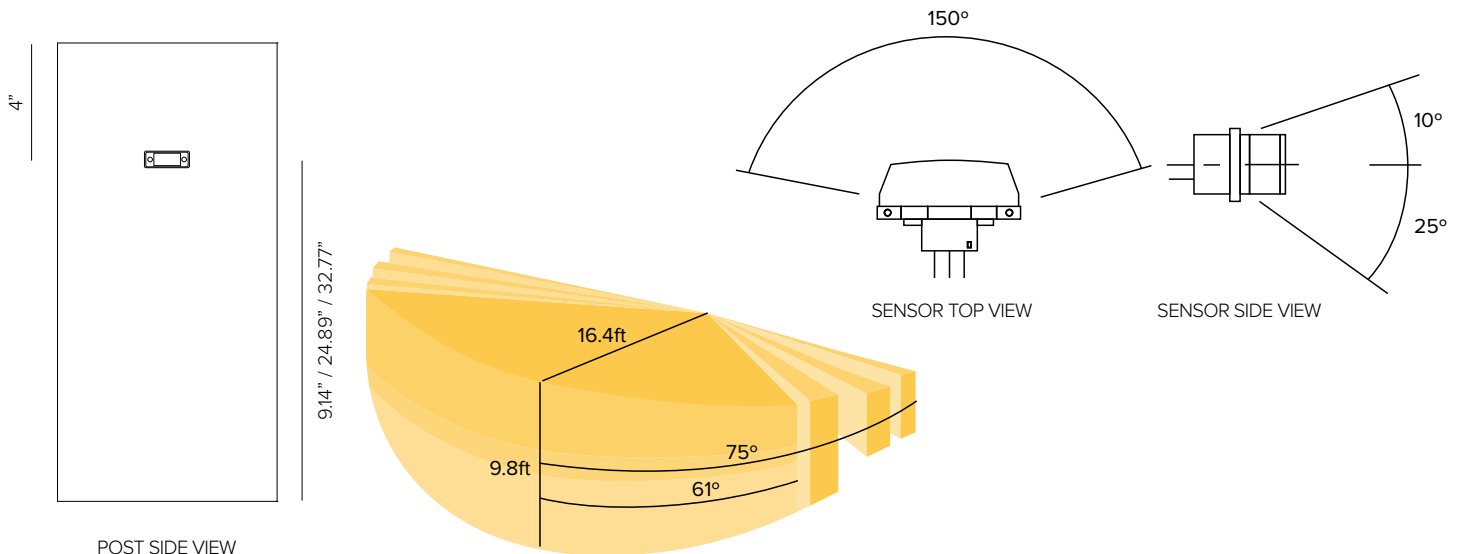
^B 360° optic only available in 27W nominal.

^E 0-10V dimming control only available with EM and MS options.

^F Not compatible with 16in or 17in height versions.

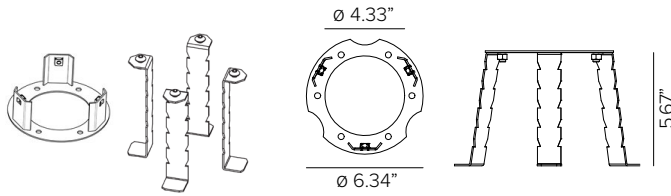
^G Marine Grade is recommended for use in environments with occasional exposure to salt air, reclaimed water, fertilizers, chemical cleaners, or frequent pressure washing (steam) cleaning. Fixture housing complete with marine grade cathaphoresis suitable for use in marine grade environments. Not to be in direct contact with salt or corrosive agents for extended periods of time.

MOTION SENSOR DETAILS



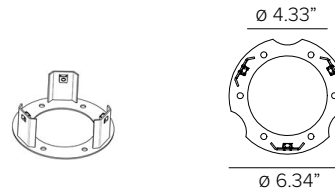
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9 – MOUNTING (REQUIRED)



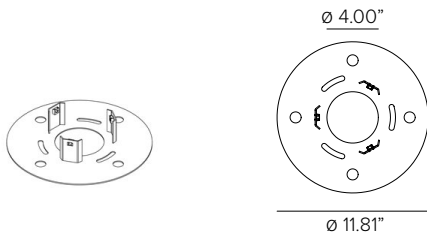
Trimless mounting base with ground anchor fixing rods for installation in concrete. AISI 316 stainless steel. Mounting bolts included. **Required for use with 1US2530 by NEC.**

Part No. **1US3448**



Trimless mounting plate for surface installation inside the fixture post. AISI 316 stainless steel compatible with dowels to be inserted into 6 holes, Ø 0.33" Dia. for use with 5/16" bolts maximum. Anchor bolts not included. **Required for use with 1US2530 by NEC.**

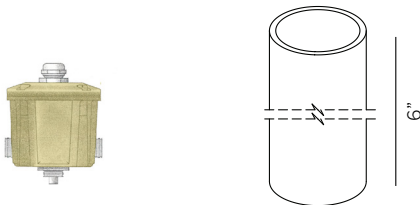
Part No. **1US3449**



Powder coated mounting plate for surface installation outside the post. AISI 316 stainless steel compatible with dowels to be inserted into 4 holes, Ø 0.33" Dia. for use with 5/16" bolts maximum. Anchor bolts not included. **Required for use with 1US2530 by NEC.**

Part No. **1US3510 (*)**

INSTALLATION (REQUIRED)



Direct burial brass ingrade j-box with PVC sleeve. Features stainless steel cover screws and strain relief for power cord, (2) 3/4" NPT bottom holes and (2) 3/4" NPT side holes. Includes (4) 3/4" to 1/2" adapters and (2) 1/2" NPT plugs. **(REQUIRED by NEC).**

Part No. **1US2530**

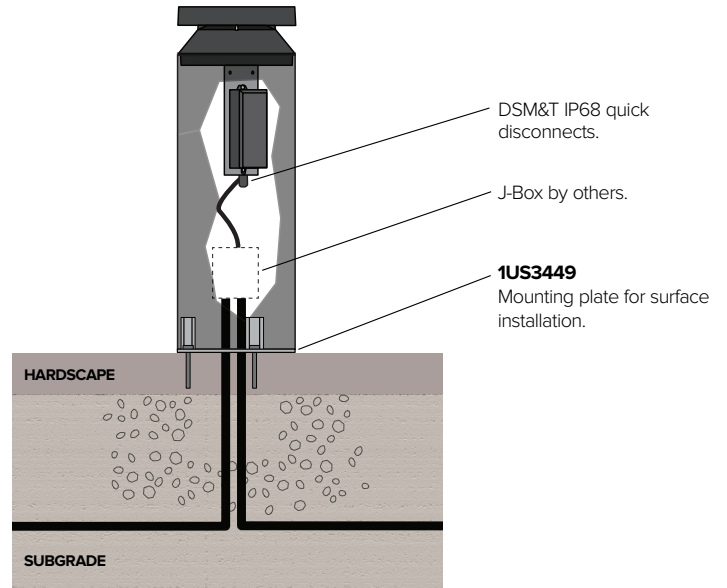
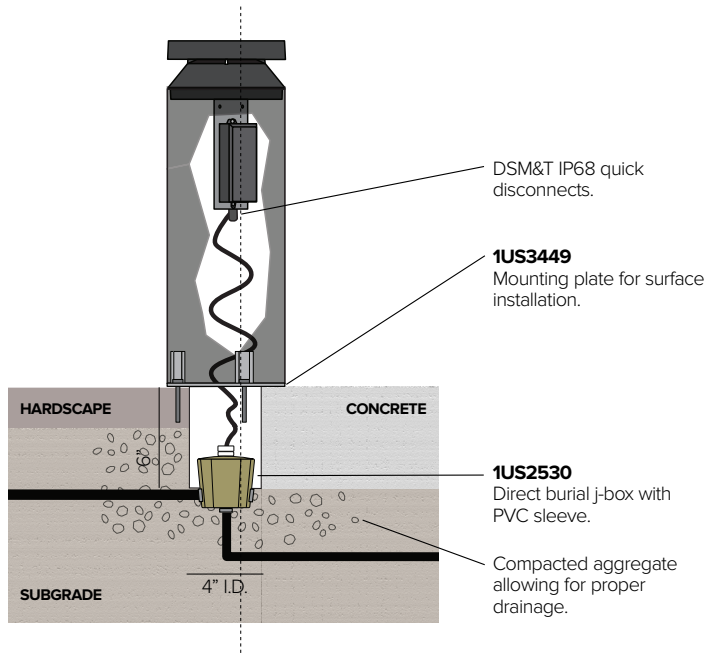
- Ferrite Dark Grey (Default)
- Heritage Brown (HB)*
- Bronze (BZ)*
- White (WT)*
- Black (BT)*
- Sandstone Grey (SG)*

***Add suffix to end of number to identify finish (EX. 1US3510HB)**

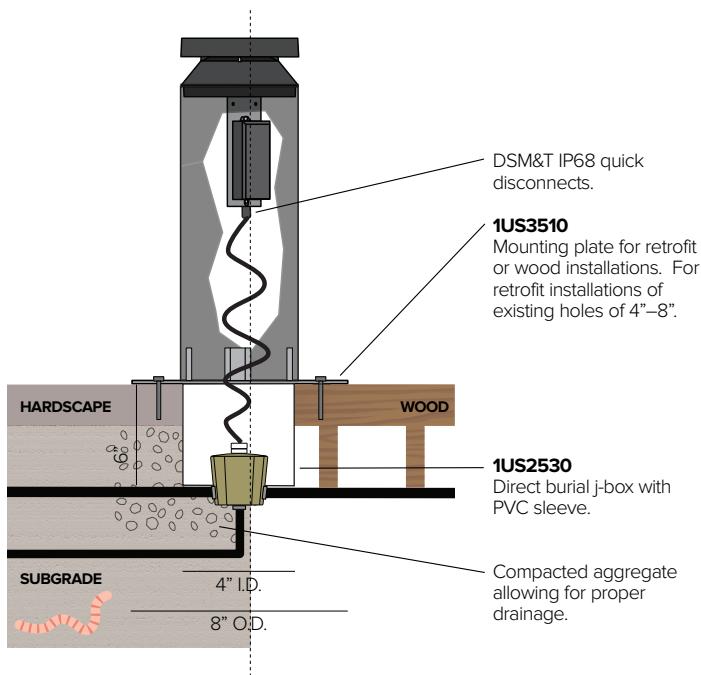
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INSTALLATION DIAGRAM

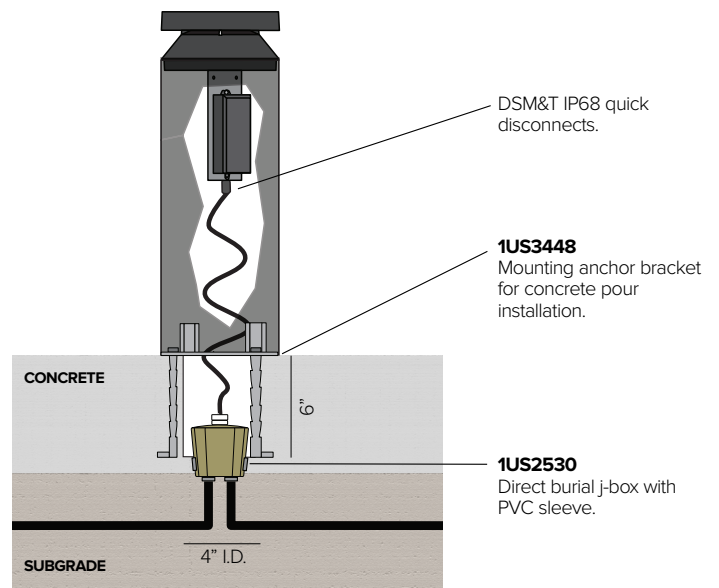
1US3449 – SURFACE INSTALLATION



1US3510 – RETROFIT / WOOD DECK INSTALLATION



1US3448 – CONCRETE POUR INSTALLATION

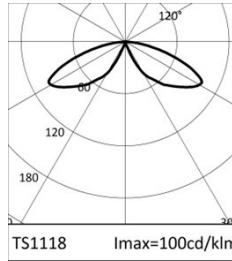


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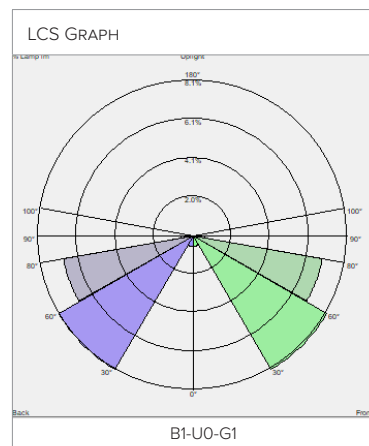
PHOTOMETRY

360° EMISSION

	2700K	H(m)	D(m)	Emax(lx)		
	Ra84		41°			
	Fixture Power	26W	1	2.98	101	
	Source Flux	3570lm	2	5.95	25	
	Fixture Flux	1167lm	3	8.93	11	
	Efficacy	45lm/W	4	11.91	6	
TS1118	I _{max} =100cd/klm	I _{max}	357cd	5	14.88	4

	3000K	H(m)	D(m)	Emax(lx)		
	Ra84		41°			
	Fixture Power	26W	1	2.98	106	
	Source Flux	3723lm	2	5.95	26	
	Fixture Flux	1217lm	3	8.93	12	
	Efficacy	47lm/W	4	11.91	7	
TS1118	I _{max} =100cd/klm	I _{max}	372cd	5	14.88	4

	4000K	H(m)	D(m)	Emax(lx)		
	Ra84		41°			
	Fixture Power	26W	1	2.98	108	
	Source Flux	3817lm	2	5.95	27	
	Fixture Flux	1248lm	3	8.93	12	
	Efficacy	48lm/W	4	11.91	7	
TS1118	I _{max} =100cd/klm	I _{max}	381cd	5	14.88	4

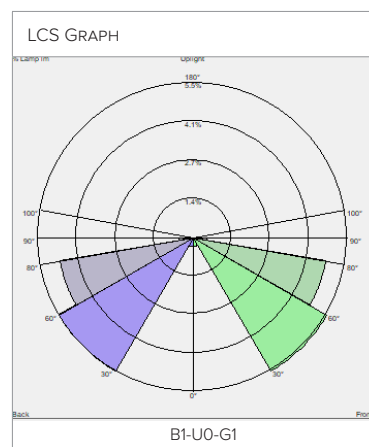


180° EMISSION

	2700K	H(m)	D(m)	Emax(lx)		
	Ra84		41°			
	Fixture Power	18W	1	2.98	76	
	Source Flux	2669lm	2	5.95	19	
	Fixture Flux	873lm	3	8.93	8	
	Efficacy	48lm/W	4	11.91	5	
TS1118	I _{max} =100cd/klm	I _{max}	267cd	5	14.88	3

	3000K	H(m)	D(m)	Emax(lx)		
	Ra84		41°			
	Fixture Power	18W	1	2.98	79	
	Source Flux	2783lm	2	5.95	20	
	Fixture Flux	910lm	3	8.93	9	
	Efficacy	50lm/W	4	11.91	5	
TS1118	I _{max} =100cd/klm	I _{max}	278cd	5	14.88	3

	4000K	H(m)	D(m)	Emax(lx)		
	Ra84		41°			
	Fixture Power	18W	1	2.98	81	
	Source Flux	2853lm	2	5.95	20	
	Fixture Flux	933lm	3	8.93	9	
	Efficacy	51lm/W	4	11.91	5	
TS1118	I _{max} =100cd/klm	I _{max}	285cd	5	14.88	3



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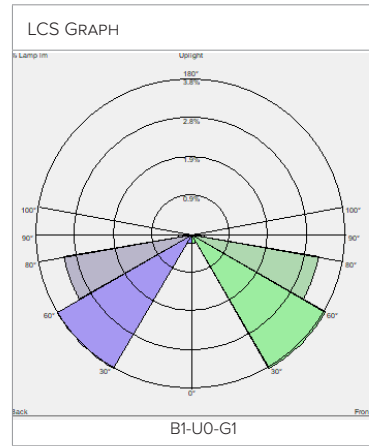
PHOTOMETRY

90° EMISSION

	2700K	H(m)	D1(m)	D2(m)	E _{max} (lx)		
	Ra80	40°	76°				
	Fixture Power	14W	1	3.12	3.35	88	
	Source Flux	1950lm	2	6.23	6.71	22	
	Fixture Flux	296lm	3	9.35	10.06	10	
	Efficacy	22lm/W	4	12.46	13.42	6	
TS1120	I _{max} =166cd/klm	I _{max}	323cd	5	15.58	16.77	4

	3000K	H(m)	D1(m)	D2(m)	E _{max} (lx)		
	Ra80	40°	76°				
	Fixture Power	14W	1	3.12	3.35	92	
	Source Flux	2034lm	2	6.23	6.71	23	
	Fixture Flux	309lm	3	9.35	10.06	10	
	Efficacy	23lm/W	4	12.46	13.42	6	
TS1120	I _{max} =166cd/klm	I _{max}	337cd	5	15.58	16.77	4

	4000K	H(m)	D1(m)	D2(m)	E _{max} (lx)		
	Ra80	40°	76°				
	Fixture Power	14W	1	3.12	3.35	95	
	Source Flux	2085lm	2	6.23	6.71	24	
	Fixture Flux	317lm	3	9.35	10.06	11	
	Efficacy	23lm/W	4	12.46	13.42	6	
TS1120	I _{max} =166cd/klm	I _{max}	346cd	5	15.58	16.77	4



90° + 90° EMISSION

	2700K					
	Ra84					
	Fixture Power	18W				
	Source Flux	2669lm				
	Fixture Flux	598lm				
	Efficacy	33lm/W				
TS1121	I _{max} =122cd/klm	I _{max}	324cd			

	3000K					
	Ra84					
	Fixture Power	18W				
	Source Flux	2783lm				
	Fixture Flux	623lm				
	Efficacy	34lm/W				
TS1121	I _{max} =122cd/klm	I _{max}	338cd			

	4000K					
	Ra84					
	Fixture Power	18W				
	Source Flux	2853lm				
	Fixture Flux	639lm				
	Efficacy	35lm/W				
TS1121	I _{max} =122cd/klm	I _{max}	347cd			

