M30 Accepted Luminaires

15 November 2023

General Notes

As at <u>15 November 2023</u>, the following luminaires have been assessed by Waka Kotahi NZ Transport Agency using M30 criteria and granted acceptance for installation.

- a) The Light Emitting Diode (LED) luminaires listed below have been assessed by Waka Kotahi and are accepted for use as road lighting luminaires on the New Zealand network. A detailed design to AS/NZS 1158 is required to determine the best suited luminaire for the particular application.
- b) The luminaire specified in design documentation shall be on the Accepted List. The luminaire system wattage shall not exceed the maximum value stated in this document. Any optic from the luminaire family, may be used subject to satisfying the M30 specification, client and specific project requirements.
- c) The preferred value of CCT for road lighting is 4000K (neutral white). Consideration may be given to the use of 3000K (warm white) nominal CCT in areas of special environmental consideration (such as Dark Skies reserves) or high pedestrian use, preferably where vehicular movements and speeds have been managed to mitigate the potential conflicts between cars/trucks and pedestrians/cyclists.

For 3000K luminaire options, the following criteria must be met:

- i. the correlated colour temperature must be 3045K ±175K (in accordance with SA/SNZ TS 1158.6)
- ii. the luminaire efficacy must be not more than 8% lower than the 4000K luminaire variant of the luminaire
- iii. the colour rendition index (CRI) must be at least 70
- iv. the luminaire must meet all other M30 acceptance criteria
- d) All luminaires listed above must be supplied with a CMS compatible driver and provision for an LPC (Light Point Controller or Luminaire Controller) via a capped socket (e.g. 7 contact NEMA ANSI) or hard wired (mini/micro aerial or plugged conduit entry) as required by M30 Section 16.3. All required internal wiring and external modifications (e.g. hole cutting) must be completed ex-supplier.
- e) Ensure the weight of the luminaire is considered in regard to lighting column design. Luminaires over 12kg require specific structural design of the lighting column and outreach with written confirmation that there are no adverse effects to the performance and life of the lighting column and outreach though the use of the nominated luminaire. Refer also Waka Kotahi NZ Transport Agency Specification M26.
- f) Ensure reference is made to the luminaire specific notes following this table.



(General notes cont'd)

- g) Once a luminaire has been listed, acceptance will remain in force for at least 12 months. Thereafter, the acceptance may be withdrawn if the luminaire is evaluated against the current M30 review checklist and determined as no longer suitable for inclusion on the list.
- h) Where a luminaire has been listed, based on the advice of another agency (e.g. Auckland Transport or Christchurch City Council), following confirmation that they have assessed and accepted the luminaire, the M30 acceptance will be linked to that of the other agency, or that agency's findings reflected in the M30 list. If the other agency rescinds approval, the luminaire will be removed from the M30 list.
- i) Where a luminaire has been removed from the list, an RCA may choose to use the luminaire for infill or maintenance replacements to match existing, but it would no longer be recommended for new installations. An exception would be made for luminaires purchased by the RCA prior to removal from the M30 list.



MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
AEC	COMPASS 1 (Approved: 17/04/20) (Approval refreshed: 23/08/22)	104	4000K	10.5	Techlight Ltd
	COMPASS 2 (Approved 17/04/20) (Approval refreshed: 23/08/22)	150	4000K	13.5	
	ITALO 1 (Luxeon MX version) [See note 10] (Approved: 20/05/19) (Approval refreshed: 23/08/22)	146	4000K	7	
	ITALO 2 (Luxeon MX version) [See note 10] (Approved: 20/05/19) (Approval refreshed: 23/08/22)	293	4000K	12	
	ITALO 3 (Luxeon MX version) (Approved: 20/05/19) (Approval refreshed: 23/08/2022)	304	4000K	20	
	I-TRON Zero OC6 & OC8 (Approved: 03/05/18) (Approval refreshed: 25/10/22)	80	4000K	4.5	

MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
(AEC cont'd)	I-TRON 1 OC6 & OC8 (Approved: 03/05/18) (Approval refreshed: 25/10/22)	150	4000K	7.0	
	MOD 2.0 PRO [See note 11] (Approval refreshed: 23/08/22)	102	4000K	9.0	
	MOD 2.0 URBAN [See note 2] (Approval refreshed: 23/08/22)	102	4000K	11.0	
	REVELAMPE [See notes 1 & 2] (Approved: 23/08/22)	102	4000K	9	
	STORY S [See note 2, 12] (Approved: 17/08/21)	23.7	4000K	9	
	STORY TP [See note 2] (Approved: 17/08/21)	23.7	4000K	9	
Betacom	GL520 [See note 5] (Approved: 17/07/14) (Approval refreshed: 25/10/22)	40	4000K	3.2	Betacom (1988) Ltd
CREE	ENERGY – UNO [See note 10] (Approved: 13/06/22) (Approval updated: 23/08/22)	54	4000K	6.5	Advanced Lighting Technologies

MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
(CREE cont'd)	ENERGY – DUE [See note 10] (Approved: 13/06/22)	106	4000K	7.5	
	ENERGY – TRE (Approved: 13/06/22)	182	4000K	8	
CU Phosco Lighting	P852K [See note 8] (Approved: 17/10/19) (Approval refreshed: 03/12/21)	40	4000K	5	Aii Lighting
	P863 [See notes 8 & 10] (Approved: 17/10/19) (Approval refreshed: 03/12/21)	100	4000K	7.5/8.2	
	P862 [See notes 8 & 10] (Approved: 17/10/19) (Approval refreshed: 03/12/21)	168	4000K	8.5/9.7	
	P861 [See note 8] (Approved: 17/10/19) (Approval refreshed: 03/12/21)	342	4000K	14.5	

MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
CU Phosco (cont'd)	P860 [See note 8] (Approved: 17/10/19) (Approval refreshed: 03/12/21)	520	4000K	19.5	
DW Windsor	ELY A [See note 2] (Approved: 13/06/21)	100	4000K	9.6	Light Project
	ELY B [See note 2] (Approved: 13/06/21)	47	4000K	5.6	
	Kirium Pro Midi (Approved: 20/01/21) (Approval refreshed: 23/08/22)	60	4000K	5.1	
	Kirium Pro 2	116	4000K	9.8	
EWO	F-System XS [See notes 2 & 8] (Approved: 23/06/21)	96.1	4000K	9	Energylight Ltd
	F-System S [See notes 2 & 8] (Approved: 23/06/21)	148	4000K	12.5	

MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
Felicity Smart Infrastructure	GYRO [See notes 8 & 10] (Ped optic added: 23/06/21) (Approval refreshed: 28/02/22)	107	4000K	9	NBSmartcities NZ
	RAZO-M (Wattage updated: 17/05/22) (Approval refreshed: 23/08/22)	140	4000K	7.9	
	RAZO-S (Approval refreshed: 23/08/22)	22	4000K	5.7	
Holophane	S-LINE (Approval refreshed: 14/06/22)	68	4000K	5	Advanced Lighting Technologies
IBEX Lighting	NOX-M (Approved: 11/07/23)	137	4000K	8.5	IBEX Lighting
	NOX-S [See note 10] (Approved: 11/07/23) (Wattage & Ped optic added 7/9/23)	52	4000K	5.1	
	VELA [See notes 1 & 2] (Approved: 25/10/22)	35	4000K	8.1	

MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
iGuzzini	WOODY Street LED [See note 4] (Approval refreshed: 14/06/22)	56.8	4000K	9	ECC Lighting Ltd
Ligman	Atlantic [See notes 1, 2 & 4]	38.2	4000K	8.8	Impressions Lighting Ltd
NVC International	ISCO1	75	4000K	7.5	NVC International (NZ) Ltd
	ISCO2	100	4000K	8.5	
	UNISCO 1 (Approved: 13/07/21)	75	4000K	7.5	
	UNISCO 2 (Approved: 13/07/21)	160	4000K	8.5	
OrangeTek	IGNIS 1 [See note 10] (Approved: 17/10/19) (Approval refreshed: 20/06/22)	141	4000K	7.9/8.2	OrangeTek Ltd
	IGNIS 2 [See note 8] (Approved: 17/10/19) (Approval refreshed: 20/06/22)	219	4000K	12.3/13.2	
	IGNIS MINI PLUS [See note 10] (Approved: 18/06/21) (Approval updated: 23/01/23)	116	4000K	6.5	

MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
OrangeTek (cont'd)	Terraled Mini (Osram version & PMMA lens) (Approval refreshed: 20/06/22)	36	4000K	5	
Panhost	TransLEDer TL-B-4 (Body: B [medium]) (Ver: 4 [Cree XPG3, PMMA visor]) [See notes 6 & 9] (Approved: 17/10/19) (Approval refreshed: 28/02/22)	160	4000K	8	Transleder Lighting Ltd
	TransLEDer TL-C-4 (Body: C [large]) (Ver: 4 [Cree XPG3, PMMA visor]) [See notes 6 & 9] (Approved: 17/10/19) (Approval refreshed: 28/02/22)	160	4000K	8	
	TransLEDer TL-A-5 (Body: A [small]) (Ver: 5 [Osram P3737, PMMA visor]) [See notes 6 & 9] (Approved: 13/07/21)	132	4000K	9	

(Panhost cont'd)	TransLEDer TL-B-5 (Body: B [medium]) (Ver: 5 [Osram P3737, PMMA visor]) [See notes 6 & 9] (Approved: 13/07/21)	80	4000K	6.5	
	TransLEDer TL-C-5 (Body: C [large]) (Ver: 5 [Osram P3737, PMMA visor]) [See notes 6 & 9] (Approved: 13/07/21)	210	4000K	9.1	
Schréder	TECEO 1 (Cree XP-G3 version) [See note 10]	104	4000K	9.6	Betacom (1988) Ltd
	TECEO 2 (Cree XP-G3 version)	276	4000K	15/17.5	
Signify	LUMA 2 BGP 701 [See notes 6 & 10] (Approved: 23/11/21)	34.5	4000K	6	Signify New Zealand Ltd
	LUMA 2 BGP 704 (See notes 6 & 10) (Approved: 23/11/21)	108	4000K	11.5	
	Roadgrace BRP711	26	4000K	6.5	
	Roadgrace BRP712	120	4000K	7.4	

MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
Sylvania-Schréder	SastaLED — Size 1 SL99234 (Small) [See notes 6 & 8] (Approved: 03/08/18) (Approval refreshed: 23/08/22)	50	4000K	5.3	Betacom (1988) Ltd
	SastaLED — Size 2 SL99234 (Large) [See notes 6 & 8] (Approved: 03/08/18) (Approval refreshed: 23/08/22)	150	4000K	9	
	Avenue II [See notes 1 & 2] (Approved: 14/06/22)	20	4000K	7	
	Bourke Hill II [See notes 1 & 2] (Approved: 14/06/22)	85	4000K	8.9	
	Parkeville II [See notes 1 & 2] (Approved: 14/06/22)	118	4000K	15	

MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
THP Inc Ltd	Cambridge [See notes 1 & 2] (Approved: 23/08/22) (Wattage updated: 22/05/23)	96	4000K	8.5	THP Inc Ltd
	Tasman II-S [See note 10] (Approved: 20/04/21) (Ped optic added: 20/06/22)	44	4000K	4.8	
	Tasman II-M (Approved: 20/04/21)	97	4000K	6.3	
	Tasman II-L (Approved: 20/04/21)	200	4000K	8.9	
	Tasman II-LL (Luxeon TX 3737) (Approved: 18/05/23)	142	4000K	8.9	
Vizulo	Mini Stork (Approved: 30/11/17)	168	4000K	8.6	IBEX International Ltd
We-ef	ASP530X [See notes 1, 2 & 10] (Approved: 13/06/21)	149	4000K	8.7	Mark Herring Lighting Ltd
	VFL530X [See notes 3, 6 & 10] (Ped optic added: 24/11/21) (Approval refreshed: 13/06/22)	81	4000K	6.6	

MANUFACTURER	LUMINAIRE MODEL	MAX SYSTEM WATTAGE (W)	NOM. COLOUR TEMPERATURE	MASS (KG)	SUPPLIER
We-ef (cont'd)	VFL540X [See notes 3 & 6] (Approval refreshed: 13/06/22)	162	4000K	8.2	
Windsor Urban	Palmerston (formerly Ely C) [See notes 1, 2 & 4]	33	4000K	3.2	Windsor Urban Ltd
	Halswell (formerly Trafalgar) [See notes 1, 2 & 4]	33	4000K	8.8	
	Karori (7032 optic) (See note 1)	23	4000K	11.0	

Luminaire Specific Notes:

- 1. Luminaire only to be used for new ("green field") or decorative retrofit installations, not suited to general road/street lighting applications
- 2. Luminaire has no internal tilt capability. Must be used on a suitable outreach arm to achieve zero tilt
- 3. Luminaire has no internal tilt capability. 8° and 13° adapters available
- 4. Special purpose luminaire with no surfaces available for a NEMA socket. External control required
- 5. Acceptance is for unpainted luminaire only
- 6. Luminaire should be supplied with flex and IP68 plug
- 7. Limited integral tilt. Must be supplied with external variable tilt adapter for 5° steps
- 8. Premium SPD to be included to ensure minimum 10kV (Uoc) / 10kA (In) protection
- 9. Option available with IP67 fused terminal block in lieu of flex & plug
- 10. Suitable pedestrian crossing optics available
- 11. Wall mount luminaire
- 12. Must include a fail-safe J-connect spigot adapter (in accordance with SA/SNZ TS 1158.6)

For further information on any of the above products, please contact the respective supplier.

This list is available online at www.nzta.govt.nz/resources/specification-and-guidelines-for-road-lighting-design/index.html Luminaire details and status correct at date of publication.

For all other enquiries, please contact the <u>Lead Safety Advisor</u>