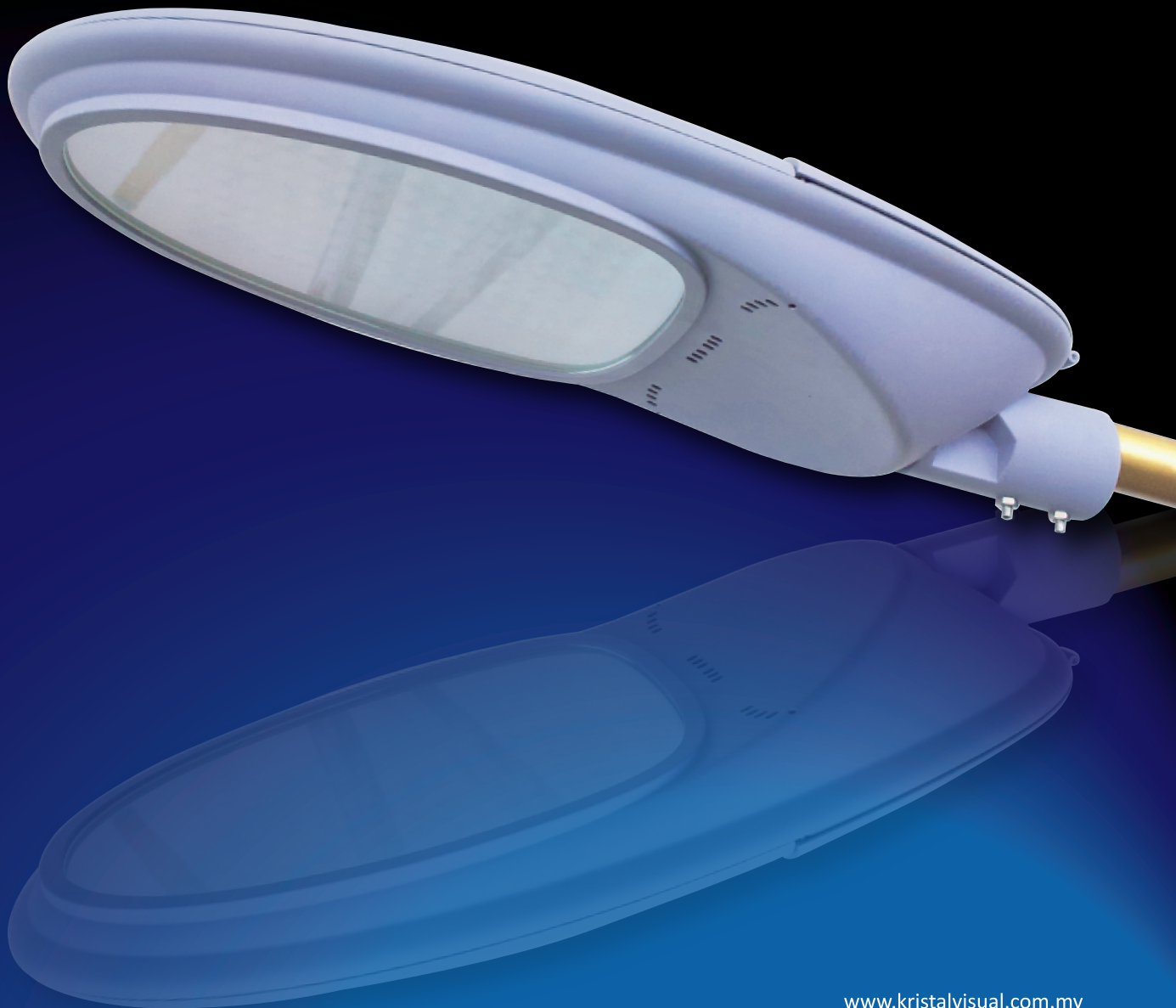




LED Street Lantern



www.kristalvisual.com.my
admin@kristalvisual.com.my

IP66



Towns



Roadways



Motorways



Promenades

A sleek and robust heat sink is just one part of the sophisticated thermal management system to remove damaging heat from the LEDs to ensure reliable performance over the life of the fixture. The KV Lite NBDD-LED-290A lantern offers more than 11 years of service life to significantly reduce maintenance frequency and expense, based on a 50,000 hour life and 12 hours of operation per day. This efficiency fixture can yield up to a 50-percent reduction in system energy compared with standard HID systems, depending on roadway applications.

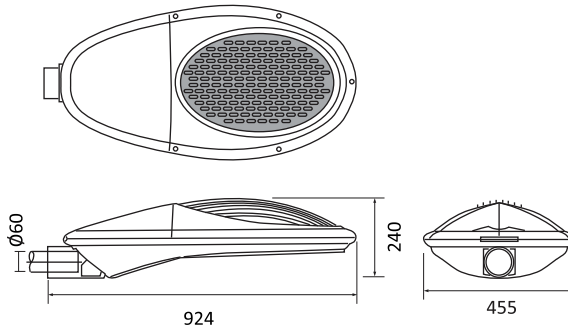
Tested by SIRIM (Standards and Industrial Research Institute of Malaysia) & JKR (Malaysian Public Works Department, Malaysia) approved.

JKR Email :
EE022009.ME287.A320

QAV Test Report :
QAV0114-0075,
QAV0114-0079

SPECIFICATION

BODY	Injection Die-cast aluminium
DIFFUSER	Clear tempered glass
IP STANDARD	IP66
INSULATION	Class I
CERTIFICATION	IEC 60598-1: 2006, IEC 60598-2-3: 1997, IESNA LM-79-08, IESNA LM-80-08, IEC 61347-2-13: 2007



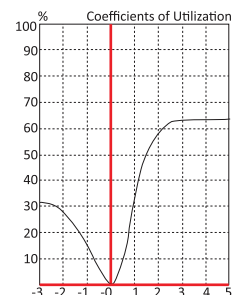
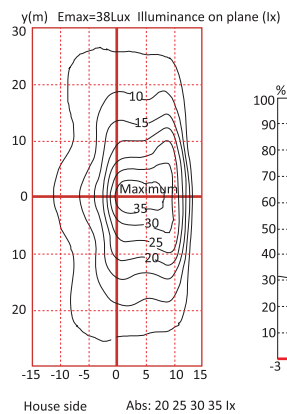
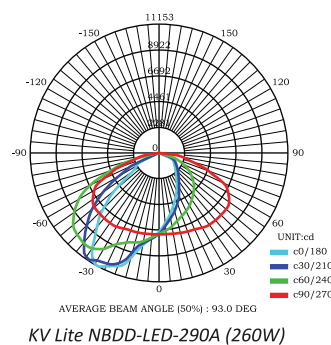
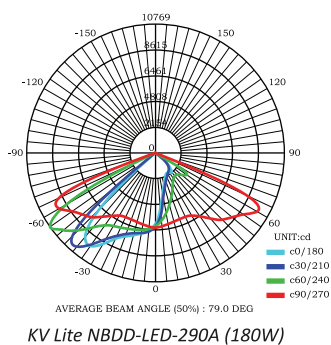
Power (Watt)	180W	260W
Lumens	22,100 lm	28,500 lm
Replacement HPSV (Watt)	400W	400W
Road type	2 lanes, 3 lanes	3 lanes, 4 lanes, 5 lanes, 6 lanes,
Pole Spacing	27m ~ 32m	30m ~ 38m
Lighting Class	ME1, ME2	ME1

Applications

Designed to meet recommended luminance and illuminance requirements for local and collector roadway / street classifications.

Features	Innovative & sustainable - Latest LED technology with high system efficacy (114-131lm/W, KV Lite NBDD -LED-290A) achieving up to 50% energy saving compared with typical conventional SON solutions	
Color rendering index	> 75	
Power requirements	220/240V 50Hz	
Optics	LED optics lense technology - High transparent, UV-stabilized material - Identical lense for each LED guarentee in the original light distribution - Glare controlled - Type II & Type III light distribution	
LED	CREE / Philips Lumileds	
Driver	Meanwell / Philips	
Material and finishing	Housing Die-cast Aluminium Cover: Tempered Glass	
Classifications	IP66	
Correlated color Temperature	Cool white	5100-6500K
	Neutral white	3500-5100K
	Warm white	2700-3500K

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



IP66



Towns



Roadways



Motorways



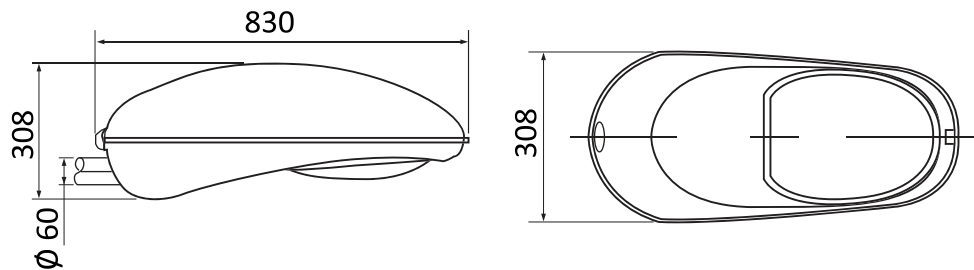
Promenades



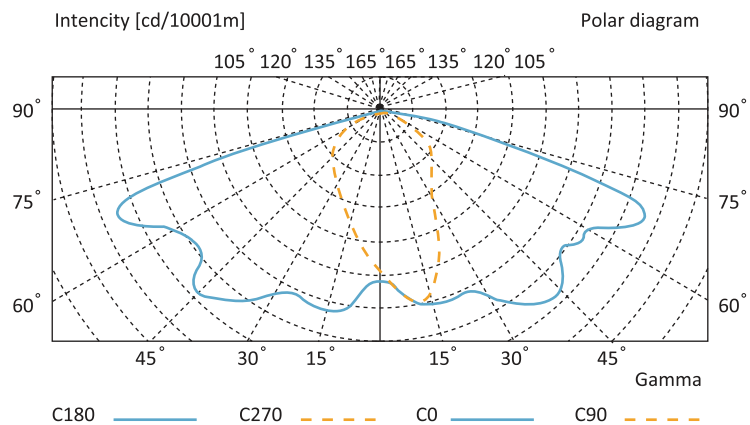
Tested by SIRIM (Standards and Industrial Research Institute of Malaysia) & JKR (Malaysian Public Works Department, Malaysia) approved.

JKR Email :
EE022001.ME287.A101

SIRIM No :
2012EL0553



Polar Diagram KV Lite SL001 Impact (400W)
Cone Mesurement



BODY	Composed of two directly joined die-cast parts with a gloss RAL 7.035 grey finish. Alternative colour of the same range to special order. Secured by pressure lock made of anodised aluminium extrusion.
OPTICAL SYSTEM	Made up of a Hydro-formed anodised aluminium reflector, and a High-transmittance lenticular 5mm tempered glass protection Cover.
LAMPHOLDER HOUSING	Made of highly heat-resistant plastic material. Includes a silicone gasket and a lamp holder
IP STANDARD	Optical Compartment IP66 Control Gear Compartment IP44
LIGHT SOURCE	400W
FINISHING	Any RAL - Colour upon request

KEY FEATURE

- Application from car parks, highways, main roads, private roads, main traffic routes in city centres.
- Gear tray removable for easy maintenance.
- Full cut-off low glare optics minimise the spread of light above horizontal.
- Anodised and extruded aluminium front locking clip.
- Arm pole mounting system Ø 60mm x 150mm.



IP66



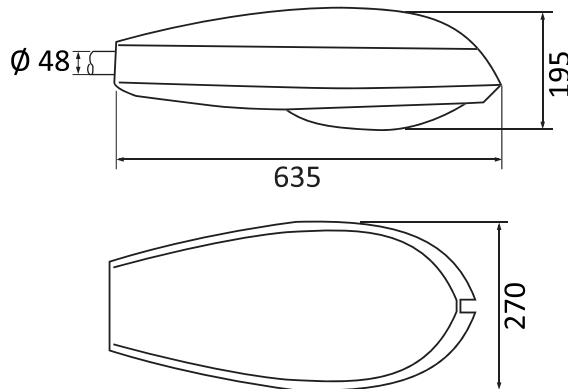
SPECIFICATION

BODY	Injection Die-cast aluminium
DIFFUSER	Clear tempered glass
IP STANDARD	IP66
INSULATION	Class I
CERTIFICATION	IEC 60598-1: 2006, IEC 60598-2-3: 1997, IESNA LM-79-08, IESNA LM-80-08, IEC 61347-2-13: 2007

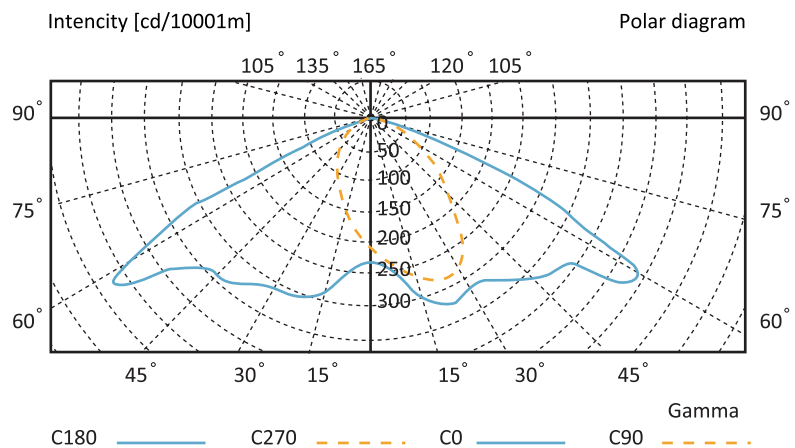
Tested by SIRIM (Standards and Industrial Research Institute of Malaysia) & JKR (Malaysian Public Works Department, Malaysia) approved.

JKR Email :
EE022001.ME287.A101

SIRIM No :
2011EL1482



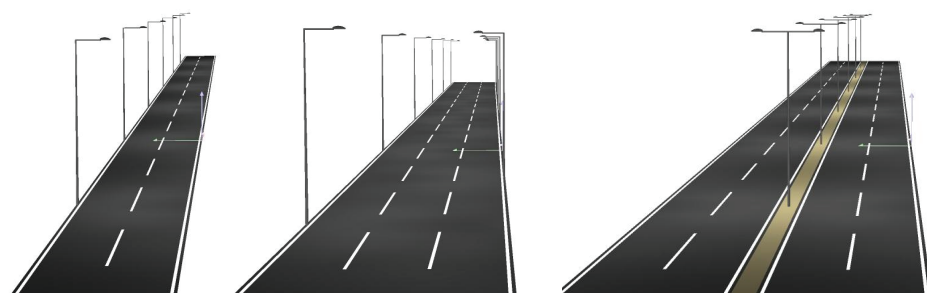
Polar Diagram KV Lite SL002
Cone Measurement



BODY	Composed of two directly joined die-cast parts with a gloss RAL 7.035 grey finish. Alternative colour of the same range to special order. Secured by pressure lock made of anodised aluminium extrusion.
OPTICAL SYSTEM	Made up of a Hydro-formed anodised aluminium reflector, and a High-transmittance lenticular 5mm tempered glass protection Cover.
LAMPHOLDER HOUSING	Made of highly heat-resistant plastic material. Includes a silicone gasket and a lamp holder
IP STANDARD	Optical Compartment IP66 Control Gear Compartment IP44
LIGHT SOURCE	150W / 250W
FINISHING	Any RAL - Colour upon request

KEY FEATURE

- Application from car parks, main roads, private roads, main traffic routes in city centres.
- Gear tray removable for easy maintance.
- Full cut-off low glare optics minimise the spread of light above horizontal.
- Anodised and extruded aluminium front locking clip.
- Arm pole mounting system \varnothing 48mm x 150mm.



IP66



Towns



Roadways



Motorways



Promenades

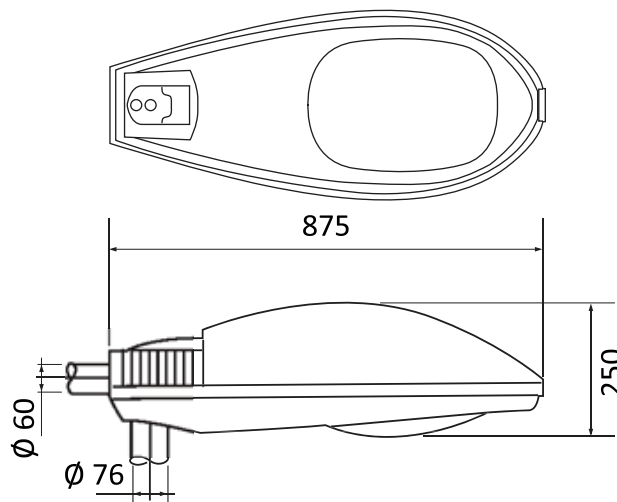
SPECIFICATION

BODY	Injection Die-cast aluminium
DIFFUSER	Clear tempered glass
IP STANDARD	IP66
INSULATION	Class I
CERTIFICATION	IEC 60598-1: 2006, IEC 60598-2-3: 1997, IESNA LM-79-08, IESNA LM-80-08, IEC 61347-2-13: 2007

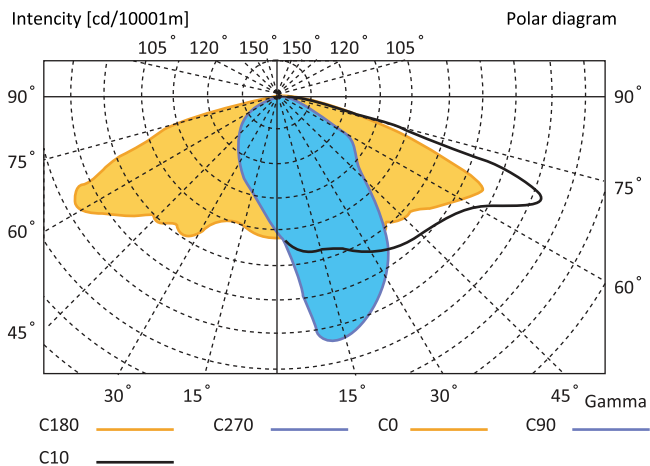
Tested by SIRIM (Standards and Industrial Research Institute of Malaysia) & JKR (Malaysian Public Works Department, Malaysia) approved.

JKR Email :
EE022001.ME287.A101

SIRIM No :
2011EL1481



Polar Diagram KV Lite SL006 Cone Measurement



BODY	Composed of two directly joined die-cast parts with a gloss RAL 7.035 grey finish. Alternative colour of the same range to special order. Secured by pressure lock made of anodised aluminium extrusion.
OPTICAL SYSTEM	Made up of a Hydro-formed anodised aluminium reflector, and a High-transmittance lenticular 5mm tempered glass protection Cover.
LAMPHOLDER HOUSING	Made of highly heat-resistant plastic material. Includes a silicone gasket and a lamp holder
IP STANDARD	Optical Compartment IP66 Control Gear Compartment IP44
LIGHT SOURCE	250W, 400W
FINISHING	Any RAL - Colour upon request

KEY FEATURE

- Application from car parks, highways, main roads, private roads, main traffic routes in city centres.
- Gear tray removable for easy maintenance.
- Full cut-off low glare optics minimise the spread of light above horizontal.
- Anodised and extruded aluminium front locking clip.
- Arm pole mounting system Ø 60mm x 150mm.





JABATAN KERJA RAYA MALAYSIA
 UNIT STANDARD, PENELITIAN & MAKMAL AKREDITASI
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 IBU PEJABAT JKR MALAYSIA
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 50582 KUALA LUMPUR

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 92857032
 Faksimili : 03 - 92876175
 Laman Web: <http://www.jkr.gov.my>



KELULUSAN BERSYARAT

Ruj. Kami : (43)dlm.JKRL(PM) 5/1/4-14 Jld. 7
 Tarikh : 31 Mac 2014
 29 Jamadil Awal 1435
 (Silalah nyatakan rujukan kami apabila menjawab surat ini)

KRISTAL VISUAL SDN BHD
 NO.11 A & 11 A-A JALAN PDR9,
 KAWASAN PERNIAGAAN DESA RIA,
 43300 SERI KEMBANGAN
 SELANGOR

Tuan,

Perkara : OUTDOOR LUMINAIRES

Merujuk kepada perkara yang tersebut di atas, sukacita dimaklumkan bahawa barangan tuan yang terkandung dalam **Laporan Ujian QAV** dan **SUJIL KEMA** seperti berikut telah disenaraikan ke dalam senarai Bahan-Bahan JKR Elektrik sebagai **pengilang/pembekal** yang berdaftar, **tertakluk kepada syarat-syarat seperti di muka surat 2.**

Nama dan Alamat Pengedar	Perihal Barangan	No. Sijil Laporan Ujian:
		Tarikh Tamat: Rujukan:
KRISTAL VISUAL SDN BHD NO.11 A & A-A JALAN PDR9, KAWASAN PERNIAGAAN DESA RIA, 43300 SERI KEMBANGAN SELANGOR TEL: 03-89613717 FAX: 03-89613579 EMAIL: admin@kristalvisual.com CATATAN : i) LED DRIVER : PHILIPS TITANIUM 150W ii) LED MODULE : CREE XP-G NEGARA PENGILANG: MALAYSIA	ROAD LIGHTING LUMINAIRES (LED) JENAMA: KVlite MODEL: SEPERTI LAMPIRAN KADARAN: 220 - 240V AC, 50Hz	Laporan Ujian QAV: QAV0512-418, QAV0114-0079, QAV0114-0075 Kema Certificate : NL-19596 TARIKH TAMAT: 15.6.2014 IEC 60598-1: 2006, IEC 60598-2-3 :1997, IESNA LM-79-08, IESNA LM-80-08, IEC 61347-2-13:2007

Sekian, terima kasih.

" BERKHIDMAT UNTUK NEGARA & CINTAILAH BAHASA KITA "

Saya yang menurut perintah,

(Dato' Ir. HJ. MOHD FAZLI BIN OSMAN)
 Pengarah Kanan,
 Cawangan Kejuruteraan Elektrik,
 b.p. Ketua Pengarah Kerja Raya,
 JKR Malaysia.



Ruj. Kami : (43)dlm.JKRL(PM) 5/1/4-14 Jld. 7
 Tarikh : 31 Mac 2014
 29 Jamadil Awal 1435

LAMPIRAN

Perihal Barangan	: ROAD LIGHTING LUMINAIRES (LED)			
Pengeluar	: KRISTAL VISUAL SDN BHD			
Alamat Pengeluar	: NO.11 A & A-A JALAN PDR9, KAWASAN PERNIAGAAN DESA RIA, 43300 SERI KEMBANGAN, SELANGOR			
No.Tel	: 03-89613717			
No.Fax	: 03-89613579			
Jenama	: KVlite			
No.Sijil /Laporan Ujian	: LAPORAN UJIAN QAV: QAV0512-418, QAV0114-0079, QAV0114-0075 KEMA CERTIFICATE : NL-19596			
Tarikh Tamat	: 15.6.2014			
Rujukan	: MS IEC 60598-1: 2006, MS IEC 60598-2-3:1997, IESNA LM-79-08, IESNA LM-80-08, IEC 61347-2-13:2007,			
Catatan	: -			
KETERANGAN				
BIL	MODEL	RATED VOLTAGE & FREQUENCY	RATED WATTAGE	TOTAL LUMINOUS FLUX@CCT
1	NBDD-LED-290A (180W)	220-240V, 50 Hz	180 W	22156.75 lm@4516 K
2	NBDD-LED-190A (260W)	220-240V, 50 Hz	260 W	28565.68 lm@3074 K
CATATAN : i) LED DRIVER : PHILIPS TITANIUM 150W ii) LED MODULE : CREE XP-G				
NEGARA PENGILANG: MALAYSIA				



JABATAN KERJA RAYA MALAYSIA
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 Ibu Pejabat JKR Malaysia
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 Faks : 92857032
 03 - 92876175
 LamanWeb : http://www.jkr.gov.my



PEMBAHARUAN PENDAFTARAN Ruj.Kami: (28)dim.JKRL(PM) 5/1/4-14 Jld.7

Tarikh: 20 Januari 2014

KRISTAL VISUAL SDN. BHD.
 11A & A-A, JALAN PDR 9
 KAWASAN PERNIAGAAN DESA RIA
 43300 SERI KEMBANGAN
 SELANGOR DARUL EHSAN
 Tuar.

Perkara : **OUTDOOR LUMINAIRES**

Merujuk kepada perkara yang tersebut di atas, sukacita dimaklumkan bahawa barangan tuan yang terkandung dalam Laporan SIRIM, Sijil SIRIM dan LIGHTLAB seperti berikut telah disenaraikan ke dalam senarai Bahan-Bahan JKR Elektrik sebagai pengilang/pembekal yang berdaftar, tertakluk kepada syarat-syarat seperti di muka surat 2.

Nama dan Alamat Pengeluar	Perihal Barangan	No. Sijil Tarikh Tamat Rujukan
KRISTAL VISUAL SDN. BHD. 11A & A-A, JALAN PDR 9 KAWASAN PERNIAGAAN DESA RIA 43300 SERI KEMBANGAN SELANGOR DARUL EHSAN TEL : 03-8961 3717 FAX: 03-8961 3579	ROAD LIGHTING LUMINAIRES JENAMA: KV LIGHT MODEL: SEPERTI LAMPIRAN	NO. LUJIAN SIRIM : 2012EL0553 2011EL1482 NO. SIRIM: PK042501 NO. LIGHTLAB : LSA8694A & LSA8882A TARIKH TAMAT: 15.02.2016 MS IEC 60598-1 : 2006 MS IEC 60598-2-3 : 1997 CIE Pub. No. 27 (1973) and 34 (1977)

NEGARA PENGILANG: MALAYSIA



Sekian, terima kasih.

" BERKHIDMAT UNTUK NEGARA & CINTAILAH BAHASA KITA "

Saya yang menurut perintah,



(DATO' Ir. Hj. MOHD FAZLI BIN OSMAN)
 Pengarah Kanan
 Cawangan Kejuruteraan Elektrik
 b.p. Ketua Pengarah Kerja Raya
 JKR Malaysia.




Ruj.Kami: (28)dim.JKRL(PM) 5/1/4-14 Jld.7

Tarikh: 20 Januari 2014

LAMPIRAN

Perihal Barangan	: ROAD LIGHTING LUMINAIRES		
Pengeluar	: KRISTAL VISUAL SDN. BHD.		
Alamat Pengeluar	: 11A & A-A, JALAN PDR 9, KAWASAN PERNIAGAAN DESA RIA, 43300 SERI KEMBANGAN, SELANGOR DARUL EHSAN		
No.Tel	: 03-8961 3717		
No.Fax	: 03-8961 3579		
Jenama	: KV LIGHT		
No.Sijil /Laporan Ujian	: NO. LUJIAN SIRIM : 2012EL0553 & 2011EL1482 NO. SIRIM: PK042501, NO. LIGHTLAB : LSA8694A & LSA8882A		
Tarikh Tamat	: 15.02.2016		
Rujukan	: MS IEC 60598-1 : 2006 MS IEC 60598-2-3 : 1997 CIE Pub. No. 27 (1973) and 34 (1977)		
KETERANGAN			
BIL.	MODEL	RATED WATTAGES	RATED VOLTAGE & FREQUENCY
1	SL-001	400W	240V, 50Hz
2	SL-002	250W	

NEGARA PENGILANG: MALAYSIA





JABATAN KERJA RAYA MALAYSIA
Cawangan Kejuruteraan Elektrik
Ibu Pejabat JKR Malaysia
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50582 Kuala Lumpur



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92867032
Faks : 03 - 92876175
Laman Web : http://www.jkr.gov.my

PENDAFTARAN BARU Ruj.Kami: (24)dlm.JKRL(PM) 5/1/4-14 Jld.7
Tarikh : 19 Disember 2013

KRISTAL VISUAL SDN. BHD.
11A & A-A, JALAN PDR 9
KAWASAN PERNIAGAAN DESA RIA
43300 SERI KEMBANGAN
SELANGOR DARUL EHSAN
Tuan,

Perkara : OUTDOOR LUMINAIRE

Merujuk kepada perkara yang tersebut di atas, sukacita dimaklumkan bahawa barangan tuan yang terkandung dalam Laporan SIRIM, Sijil SIRIM dan QAV seperti berikut telah disenaraikan ke dalam senarai Bahan-Bahan JKR Elektrik sebagai pengilang/pembekal yang berdaftar, tertakluk kepada syarat-syarat seperti di muka surat 2.

Nama dan Alamat Pengeluar	Perihal Barangan	No. Sijil Tarikh Tamat Rujukan
KRISTAL VISUAL SDN. BHD. 11A & A-A, JALAN PDR 9 KAWASAN PERNIAGAAN DESA RIA 43300 SERI KEMBANGAN SELANGOR DARUL EHSAN TEL: 04-919 9199 FAX: 04-919 0190	ROAD LIGHTING LUMINAIRE	NO. L/SIRIM : 2011EL1481 NO. SIRIM: PK042501 NO. QAV : QAV0613-0494-1 & QAV0613-0750-1
	JENAMA: KV LIGHT	TARIKH TAMAT: 15.10.2015
	MODEL: SEPerti LAMPIRAN	MS IEC 60598-1 : 2006 MS IEC 60598-2-3 : 1997 CIE Pub. No. 27 (1973) and 34 (1977)
NEGARA PENGILANG: MALAYSIA		

Sekian, terima kasih.


" BERKHIDMAT UNTUK NEGARA & CINTAILAH BAHASA KITA "

Saya yang menurut perintah,


(DATU' Ir. Hj. MOHD FAZLI BIN OSMAN)
Pengarah Kanan
Cawangan Kejuruteraan Elektrik
b.p. Ketua Pengarah Kerja Raya
JKR Malaysia. k







Ruj.Kami: (24)dlm.JKRL(PM) 5/1/4-14 Jld.7
Tarikh : 19 Disember 2013

LAMPIRAN

Perihal Barangan	: ROAD LIGHTING LUMINAIRE		
Pengeluar	: KRISTAL VISUAL SDN. BHD.		
Alamat Pengeluar	: 11A & A-A, JALAN PDR 9, KAWASAN PERNIAGAAN DESA RIA, 43300 SERI KEMBANGAN, SELANGOR DARUL EHSAN		
Jenama	: KV LIGHT		
No.Sijil /Laporan Ujian	: NO. L/SIRIM : 2011EL1481, NO. SIRIM: PK042501 NO. QAV : QAV0613-0494-1 & QAV0613-0750-1		
Tarikh Tamat	: 15.10.2015		
Rujukan	: MS IEC 60598-1 : 2006 MS IEC 60598-2-3 : 1997 CIE Pub. No. 27 (1973) and 34 (1977)		
KETERANGAN			
BIL.	MODEL	RATED WATTAGES	RATED VOLTAGE & FREQUENCY
1	SL-006	250W	240V, 50Hz
2	SL-006	400W	240V, 50Hz
NEGARA PENGILANG : MALAYSIA			



SIRIM QAS
INTERNATIONAL

No Lesen : PK042501
Licence No :

LESEN PENSIJILAN BARANGAN

Product Certification Licence



MS
SIRIM

SIRIM QAS International Sdn. Bhd. dengan ini menganugerahkan kepada
SIRIM QAS International Sdn. Bhd. hereby grants to

KRISTAL VISUAL SDN.BHD.
NO. 11A & 11A-A, JALAN PDR 9
KAWASAN PERNIAGAAN DESA RIA
43300, SERI KEMBANGAN
SELANGOR, MALAYSIA

Lesen untuk menggunakan Tanda Pensijilan di atas barangan
a licence to use the Certification Mark on

LUMINAIRES FOR ROAD AND STREET LIGHTING

Please refer to detail in the SCHEDULE

sebagai mematuhi keperluan
as complying with

MS IEC 60598-1 : 2006
MS IEC 60598-2-3 : 1997






Khalidah Mustafa
Pengarah Urusan
Managing Director
SIRIM QAS International Sdn. Bhd.

SIRIM QAS International Sdn. Bhd.
No. Syarikat 410284-A
1, Persiaran Datar Menanti
Seksyen 2, PTD, Seri 7025
Majlis Daerah
Majlis Daerah
Tel : 60-3-55446400
Faks : 60-3-55446466
<http://www.sirim.com.my>
<http://www.manyasirintestfed.com.my>

Tarikh Mula Pensijilan : 28 July 2006
Certified Since
Sah Sehingga : 28 July 2014
Valid Until

Tarikh Dikeluarkan : 26 September 2013
Issue Date
No Siri : 007522
Serial No

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SIRIM QAS
INTERNATIONAL

No Lesen : PK042501
Licence No :

SCHEDULE

KRISTAL VISUAL SDN.BHD.



MS
SIRIM

Brand : K.V. LIGHT
Model : SL-002 (150W SON)
Rating : 240V, 50HZ, 150W

Brand : K.V. LIGHT
Model : SL-002 (250W SON)
Rating : 240V, 50HZ, 250W

Brand : K.V. LIGHT
Model : SL-001 (250W SON)
Rating : 240V, 50HZ, 250W

Brand : K.V. LIGHT
Model : SL-001 (400W SON)
Rating : 240V, 50HZ, 400W

Brand : K.V. LIGHT
Model : SL-006 (250W SON)
Rating : 240V, 50HZ, 250W

Brand : K.V. LIGHT
Model : SL-006 (400W SON)
Rating : 240V, 50HZ, 400W

Brand : KVlite
Model : NBDD-LED-290A
Rating : 240V, 50HZ, 180W

Brand : KVlite
Model : SL-001 54 LED's
Rating : 240V, 50HZ, 130W

----- End of page -----

SIRIM QAS International Sdn. Bhd.
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Seksyen 2, PTD, Seri 7025
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<http://www.sirim.com.my>
<http://www.manyasirintestfed.com.my>

Tarikh Mula Pensijilan : 28 July 2006
Certified Since
Sah Sehingga : 28 July 2014
Valid Until

Tarikh Dikeluarkan : 26 September 2013
Issue Date
No Siri : 007522
Serial No

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Page 1 of 1



KRISTAL VISUAL SDN BHD

Company No: 577750-K

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43300 Seri Kembangan, Selangor Darul Ehsan, Malaysia.

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