



JABATAN KERJA RAYA MALAYSIA  
CAWANGAN KEJURUTERAAN ELEKTRIK  
UNIT PENSIJILAN BAHAN & STANDARD

**TECHNICAL INFORMATION**

**ROAD/AMENITIES LIGHTING LUMINAIRES (LED)**

A. COMPANY INFORMATION						
COMPANY NAME :						
ADDRESS :		TELEPHONE NO :				
		FAX NO :				
		COMPANY EMAIL :				
ISO CERTIFIED COMPANY			REGISTRATION NO:	SCOPE:		
1. ISO 9001	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	.....	.....
2. ISO 14001	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	.....	.....
3. ISO 50001	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	.....	.....
4. ISO .....	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	.....	.....
B. PRODUCT INFORMATION						
BRAND:						
MODEL :		1. ....		6. ....		
		2. ....		7. ....		
		3. ....		8. ....		
		4. ....		9. ....		
		5. ....		10. ....		
STANDARD NO.:		<b>**Please fill up Annex 1</b>				
(MS IEC/IEC/etc.)		PRODUCT CERTIFICATION LICENSE (SIRIM/OTHERS):			DATE OF ISSUE:	
					VALIDITY:	
		<b>**Please attach Audit Certification Report</b>				
NAME OF MANUFACTURER:						
FACTORY ADDRESS :						
COUNTRY OF MANUFACTURER:						

**TECHNICAL INFORMATION**

**ROAD/AMENITIES LIGHTING LUMINAIRES (LED)**

<b>C. STANDARD AND SPECIFICATIONS (Please specify)</b>					
<b>No.</b>	<b>Description</b>	<b>Minimum Requirement</b>	<b>Specifications</b>	<b>Test Report No &amp; Page No</b>	<b>Remarks (for JKR use)</b>
<b>1</b>	<b>General</b>				
1.1	Voltage	230V +10%, -6%			
1.2	Frequency	50 Hz			
1.3	Power Factor				
<b>2</b>	<b>Luminaire</b>				
2.1	Gross Weight				
2.2	Dimensions (W x H x L)				
2.3	Class of Luminaire	Class I/II/....			
2.4	Photobiological Safety	Exempt Group / RG1			
2.5	Correlated Colour Temperature, CCT	2500K - 3500K ( ± 175K)			
2.6	Material of Casing <i>(Please attach mill certificate)</i>	Die cast aluminium			
2.7	Degree of Protection (IP)	IP65			
2.8	Clamps or jam bolts for clamping/securing spigot to bracket arm	Min 2 locking bolts/screw			
2.9	Bracket arm depth of penetration	Min 100mm			
2.10	Working Humidity	RH > 80%			
2.11	Ambient Temperature	Ta = 35°C			
2.12	Total Harmonic Distortion	< 20%			
<b>3</b>	<b>Light Source (LED Package / LED Chip / LED Module)</b>				
3.1	Brand				
3.2	Model				
3.3	Manufacturer				
3.4	Country of Manufacturer				
3.5	Rated LED drive current				
3.6	Efficacy (lumen/watt)				
3.7	Lumen maintenance	L70@50,000 hrs			
<b>4</b>	<b>Optical System</b>				
4.1	Optical lens	UV resistant material			
4.2	Reflector	99.85% pure aluminium Min thickness of 1mm			
4.3	Luminaire Cover (Secondary Optics)				
	a) Designed as light disperser	tempered glass			
	b) Designed as cover only	UV-Resistant Material			
4.4	Silicone gasket	one piece weather resistant type			

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<b>C. STANDARD AND SPECIFICATIONS (Please ✓ and specify where applicable)</b>					
<b>No.</b>	<b>Description</b>	<b>Minimum Requirement</b>	<b>Specifications</b>	<b>Test Report No &amp; Page No</b>	<b>Remarks (for JKR use)</b>
<b>5</b>	<b>Thermal Management Unit</b>				
5.1	Material (Heatsink)				
<b>6</b>	<b>Electronic Control Gear (LED Driver)</b>				
6.1	Brand				
6.2	Model				
6.3	Manufacturer				
6.4	Country of Manufacturer				
6.5	Type of LED Driver	Cons. Voltage/ Cons. Current/ Programmable (Dimming)			
6.6	Protection features				
	a) Withstand short circuit current, overload, over voltage and over temperature				
	b) Built-in internal SPD				
6.7	Degree of Protection (IP)	IP65			
<b>7</b>	<b>Surge Protective Device, SPD (Luminaire)</b>				
7.1	Brand				
7.2	Model				
7.3	Manufacturer				
7.4	Country of Manufacturer				
7.5	Maximum discharge current	$I_{max} \geq 15kA$			
<b>8</b>	<b>Internal Wiring and Earthing Terminal (Luminaire)</b>				
8.1	Cable Size	Type : HR Cable			
8.2	Earth terminal	Separate terminal			
<b>9</b>	<b>System Warranty</b>				
9.1	Warranty for the complete luminaire (LED Package, LED Driver, Optical System, Housing, Thermal Management Unit etc.)	5 years			

**TECHNICAL INFORMATION**

**ROAD/AMENITIES LIGHTING LUMINAIRES (LED)**

**D. DETAILS OF ROAD LIGHTING LUMINAIRES (LED)**

1.0 List of Models

No	Model	Wattage (W)	Luminous Flux (lumen)	Efficacy (lm/W)	Correlated Colour Temperature (K)	Colour Rendering Index, Ra	LED Driver (Brand, Model)	Surge Protective Device (Brand, Model)

**TECHNICAL INFORMATION**

**ROAD/AMENITIES LIGHTING LUMINAIRES (LED)**

**E. OTHERS ( Please mark ✓ where applicable)**

	Yes	No
1 Manual/Documents (Please specify and attach relevant documents)		
i) Method of Installation	<input type="checkbox"/>	<input type="checkbox"/>
ii) Method of Maintenance	<input type="checkbox"/>	<input type="checkbox"/>
iii) Method of Statement for testing of the complete lighting system installation at site (Luminance & Illuminance Test)	<input type="checkbox"/>	<input type="checkbox"/>
Standard Compliance: ..... (Please specify)		
iv) ies files of luminaires (Please e-mail to officer in charge)	<input type="checkbox"/>	<input type="checkbox"/>
* Note : Once approved, the ies files will be distributed to JKR's designer for lighting simulation purposes		
2 List of testing and measuring instruments :		
i) Illuminance meter	<input type="checkbox"/>	<input type="checkbox"/>
ii) Luminance meter	<input type="checkbox"/>	<input type="checkbox"/>
iii) Measuring tools	<input type="checkbox"/>	<input type="checkbox"/>
iv) .....	<input type="checkbox"/>	<input type="checkbox"/>
v) .....	<input type="checkbox"/>	<input type="checkbox"/>
3 Warranty Certificate (according to L-S20 Specifications)	<input type="checkbox"/>	<input type="checkbox"/>
4 Photos to be attached (hardcopy - colour)		
i) Top view (with ruler as measurement guide)	<input type="checkbox"/>	<input type="checkbox"/>
ii) Bottom view (with ruler as measurement guide)	<input type="checkbox"/>	<input type="checkbox"/>
iii) Optical Compartment (LED chip/module)	<input type="checkbox"/>	<input type="checkbox"/>
iv) Driver Compartment (Including internal wiring, driver and SPD)	<input type="checkbox"/>	<input type="checkbox"/>
v) Bracket Arm (Diameter and depth of penetration)	<input type="checkbox"/>	<input type="checkbox"/>
vi) Product Marking	<input type="checkbox"/>	<input type="checkbox"/>
5 Softcopy of all test reports (as per list in Annex 1) submitted in pendrive or compact disc (CD)	<input type="checkbox"/>	<input type="checkbox"/>
<b>Notes</b>		
1 Driver wattage shall be equal or higher than luminaire wattage	<input type="checkbox"/>	<input type="checkbox"/>

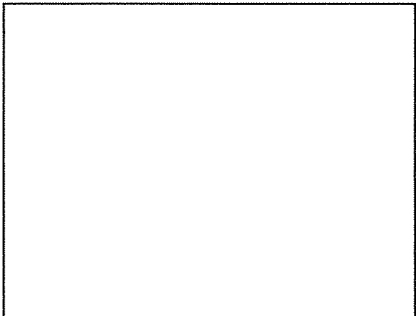
**TECHNICAL INFORMATION**

**ROAD/AMENITIES LIGHTING LUMINAIRES (LED)**

**E. PENGESAHAN**

Adalah saya ..... dengan ini mengesahkan segala keterangan yang diberikan/dikemukakan bagi produk di atas adalah benar. Jika saya didapati membuat pengakuan **PALSU**, maka tindakan seterusnya boleh diambil oleh pihak JKR ke atas diri dan syarikat diwakili oleh saya.

Cop Syarikat :



Tandatangan : \_\_\_\_\_

Nama : \_\_\_\_\_

Jawatan : \_\_\_\_\_

Tarikh : \_\_\_\_\_

**F. ULASAN (Untuk Kegunaan Pejabat)**

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TECHNICAL INFORMATION

ROAD/AMENITIES LIGHTING LUMINAIRES (LED)

NAME OF APPLICANT:  
SUMMARY OF TEST REPORTS

Annex 1

NO.	DETAILS	MODEL	COMPLYING STANDARDS		TEST REPORT NO.	TEST CERTIFICATE NO.	LED CHIP/PACKAGE (refer test report)	LED DRIVER (refer test report)	Name of Manufacturer (refer test report/certificate)	Name of Applicant (refer test report/certificate)
			Standard	Version/Year						
1	LUMINAIRES		IEC 60598-2-3							
			IEC 60598-1							
			IEC 62471							
			IES LM - 79							
			IEC 62722-2-1							
			IEC 62722-1							
			CISPR 15/EN 55015							
			IEC 61547							
IEC 61000-3-2										
			IEC 61000-3-3							
2	LED CHIP/PACKAGE/ MODULE		IEC 62717							
			IES LM-80							
			IEC 62031							
			IEC 61347-1							
3	LED DRIVER		IEC 61347-2-13							
			IEC 62384							
			IEC 61643-11							
4	SURGE PROTECTIVE DEVICE (SPD)									
5	OTHERS (List)									

Please indicate N/A if not applicable

Company Stamp