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LABORATORY'S REPORT



PHYSICAL LABORATORY ()
 CHEMICAL LABORATORY ()
 PERFORMANCE LABORATORY ()
 PHOTOMETRIC LABORATORY (X)

DENOMINATION: <u>HEADLAMP HYUNDAI HB20</u> Note: Commercial name of the models that use this headlamp design according to: Anexo_3691_Lista de Aplicação.		CODE / NUMBER: HB20
CUSTOMER: Lumileds Iluminação do Brasil Ltda		SOLICITED BY: Leonardo Figueiredo
CUSTOMER ADDRESS: Al. Rio Negro, 585 Ed. Jaçari - 4º A Conjunto 44,45 CEP: 06454-000 Barueri - SP – Brazil		
SS Nº	NUMBER OF SAMPLES: 02	ANALYST: ALEX FONSECA DE OLIVEIRA
BEGIN'S DATE: 22/06/2018	TEMPERATURE: 23,0 °C	HUMIDITY: 60%
EQUIPAMENTOS UTILIZADOS: PHOTOMETER ILFF 002 - CERTIFICATE: 85.278 / 85.279 / CALIBRATE: 03/30/2017 - NEXT CALIBRATION: 30/03/2019 POWER SUPPLY ILFF 002/02 - CERTIFICATE: R0674 / 2017 CALIBRATED: 27/03/2017– - NEXT CALIBRATION: 27/03/2019 SPECTRORADIOMETRO EL-10 - CERTIFICATE: L-001-17 CALIBRATE: 09/20/2017 - NEXT CALIBRATION: 20/09/2018		
SPECIFICATIONS: ECE R112 / CONTRAN 22/07		

OBSERVATIONS: Lumileds Iluminação Brasil LTDA are responsible about the control of Anexo_3691_Lista de Aplicação.

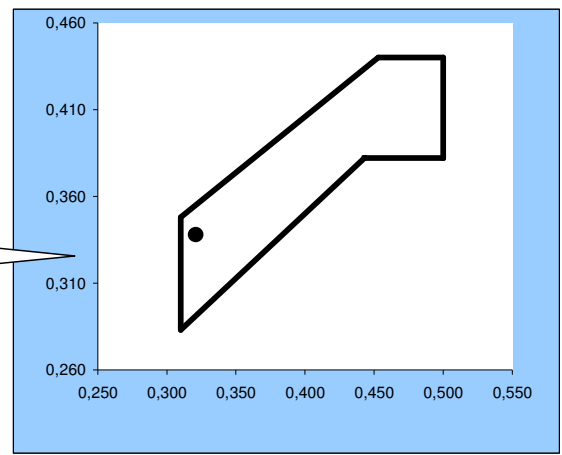
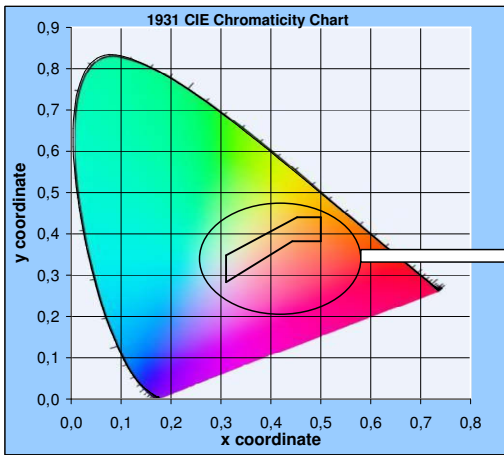
INFORMATION ABOUT LOW BEAM & HIGH BEAM :
 VOLTAGE : 13,50 V
 PRODUTO: LED-HL [-H4],
 PART NUMBER 11342xxxx
 MARCA: PHILIPS



The results presented in the present Document have restricted significance and they are only applied to the rehearsed sample. The reproduction of the document for another ends can only be made integrally, without any alteration

COLORIMETRY ECE R112 / CONTRAN 227/07

LOW BEAM / HIGH BEAM LED COLOUR (WHITE) TEMP: 7620 K



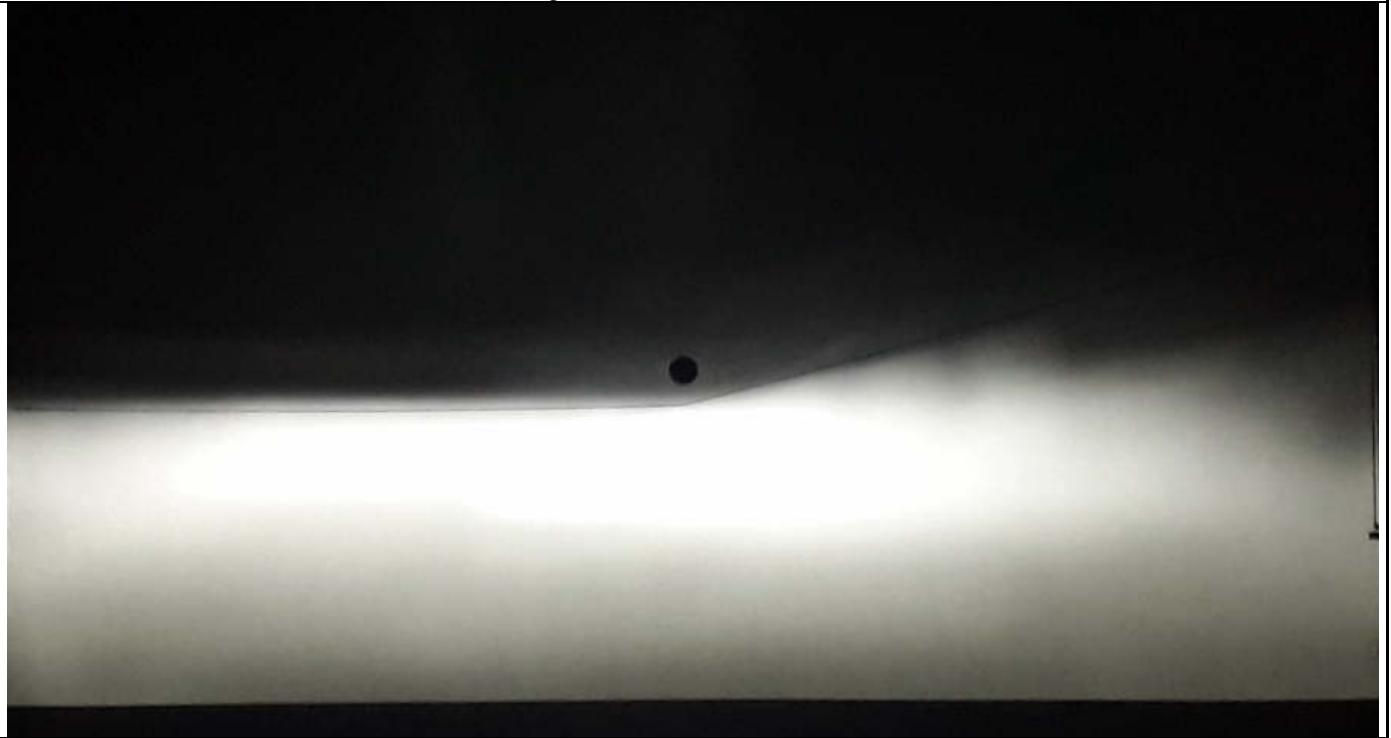
Standardization	Limit the Green	$y = 0.150 + 0.640 x$	X :	0,321
	Limit with the Green-Yellowish	$y = 0.440$	Y :	0,338
	Limit with Yellow	$x = 0.500$	Z :	0,341
	Limit with Purpura-Reddish	$y = 0.382$	Values	
	Limit with Purpura-Reddish	$y = 0.050 + 0.750 x$		
	Limit with Blue	$x = 0.310$		

RESULT: APPROVED

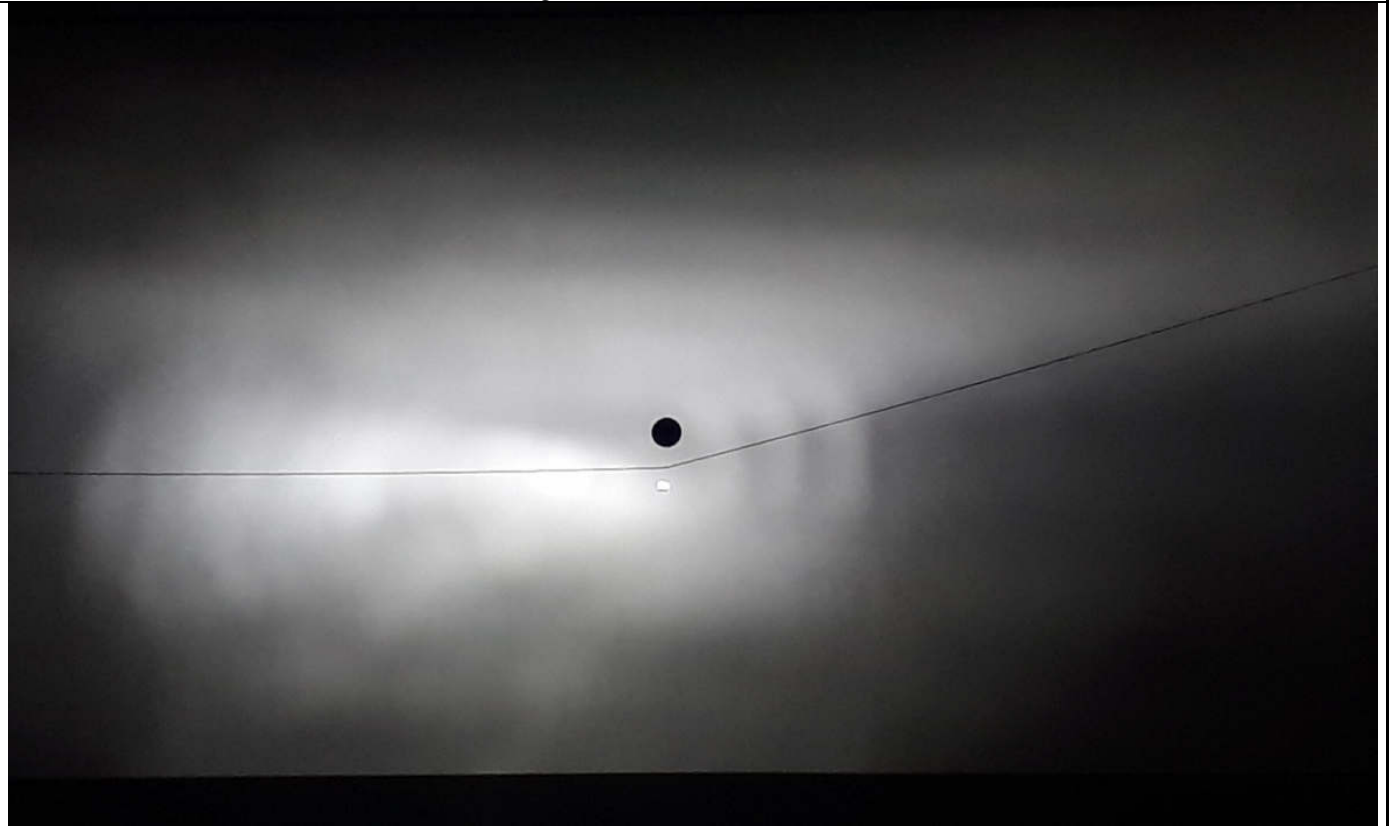
The point must be within the approved area.

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Projection LOW BEAM

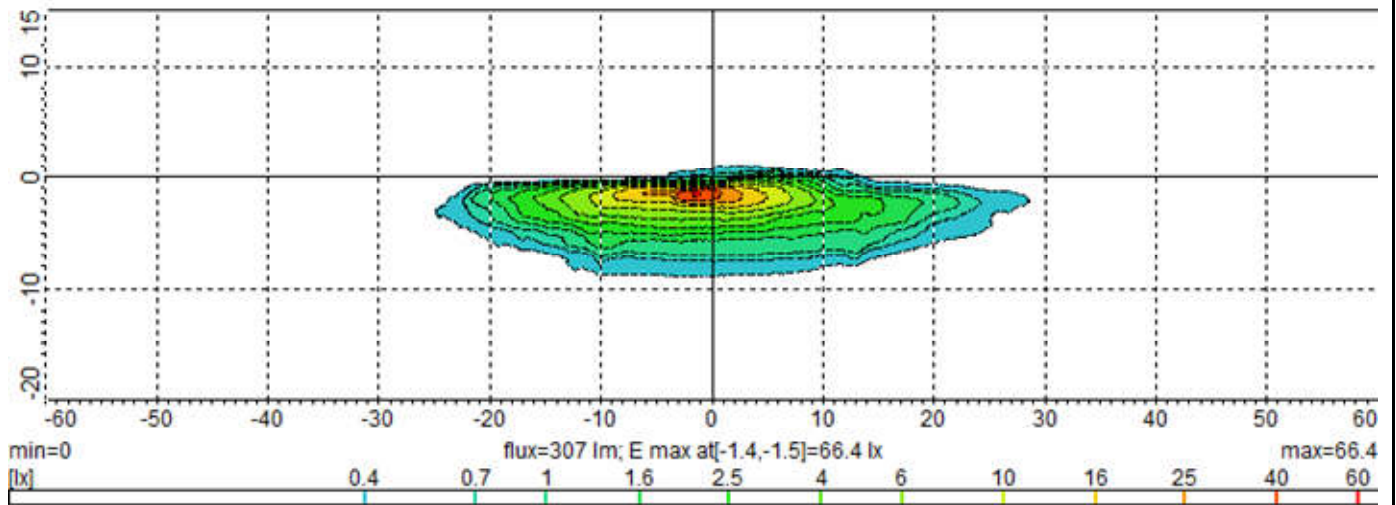


Projection HIGH BEAM

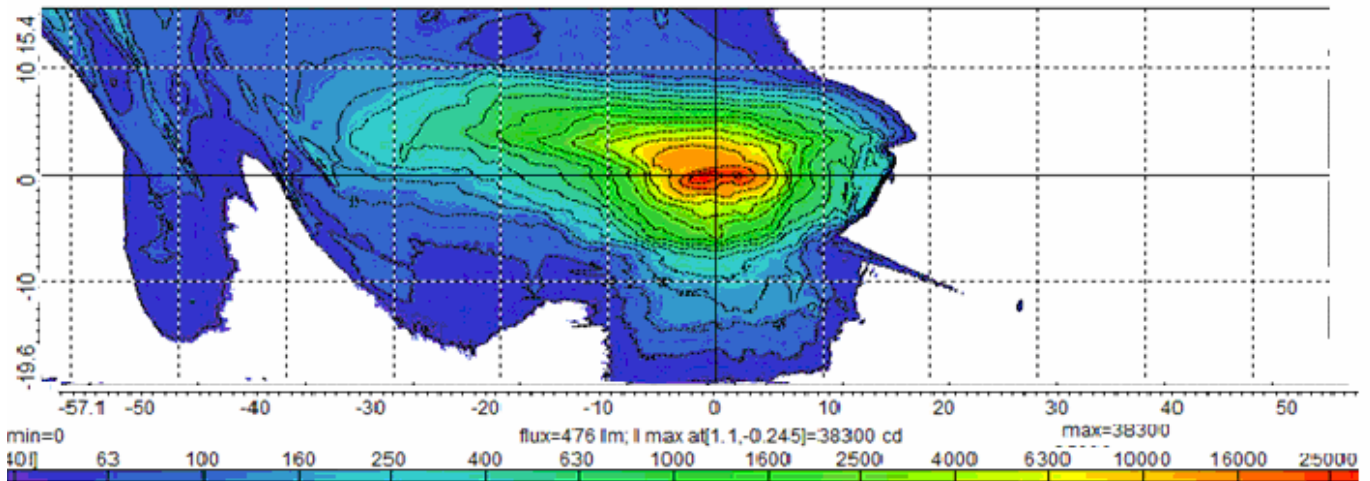


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ISOLUX Wall View Low Beam



ISOLUX Wall View High Beam



EXIT DATE: 11/07/2018

ANALYST:
ALEX FONSECA DE OLIVEIRA

SUPERVISION:
JARBAS ENZENBERG
MÁRCIO CLAUDINO

COPIES DISTRIBUTION:
Leonardo Figueiredo

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ANEXO - LABORATORY'S REPORT Nº 3691-18

Lista de marca/modelos/versão/ano equipadas com farol utilizado no ensaio Nº 3691-18

Hyundai HB20 Hatch Comfort 1.0 12V câmbio manual Flex 4P 2012, 2013, 2014, 2015, 2016, 2017, 2018
Hyundai HB20 Hatch Comfort 1.6 16V câmbio manual Flex 4P 2012, 2013, 2014
Hyundai HB20 Hatch Comfort Plus 1.0 12V câmbio manual Flex 4P 2012, 2013, 2014, 2015, 2016, 2017, 2018
Hyundai HB20 Hatch Comfort Plus 1.0 12V Turbo câmbio manual Flex 4P 2016, 2017, 2018
Hyundai HB20 Hatch Comfort Plus 1.6 16V câmbio automático Flex 4P 2013, 2014, 2015, 2016, 2017, 2018
Hyundai HB20 Hatch Comfort Plus 1.6 16V câmbio manual Flex 4P 2012, 2013, 2014, 2015, 2016, 2017, 2018
Hyundai HB20 Hatch Comfort Style 1.0 12V câmbio manual Flex 4P 2012, 2013, 2014, 2015, 2016, 2017, 2018
Hyundai HB20 Hatch Comfort Style 1.0 12V Turbo câmbio manual Flex 4P 2016, 2017, 2018
Hyundai HB20 Hatch Comfort Style 1.6 16V câmbio automático Flex 4P 2012, 2013, 2014, 2015, 2016, 2017, 2018
Hyundai HB20 Hatch Comfort Style 1.6 16V câmbio manual Flex 4P 2012, 2013, 2014, 2015, 2016, 2017, 2018
Hyundai HB20 Hatch Copa do Mundo 1.0 12V câmbio manual Flex 4P 2014, 2015
Hyundai HB20 Hatch Copa do Mundo 1.6 16V câmbio automático Flex 4P 2014, 2015
Hyundai HB20 Hatch Copa do Mundo 1.6 16V câmbio manual Flex 4P 2014, 2015
Hyundai HB20 Hatch For You 1.0 12V câmbio manual Flex 4P 2014, 2015
Hyundai HB20 Hatch Ocean 1.0 12V câmbio manual Flex 4P 2016, 2017, 2018
Hyundai HB20 Hatch Ocean 1.6 16V câmbio automático Flex 4P 2016, 2017, 2018
Hyundai HB20 Hatch Ocean 1.6 16V câmbio manual Flex 4P 2016, 2017, 2018
Hyundai HB20 Hatch Premium 1.6 16V câmbio automático Flex 4P 2012, 2013, 2014, 2015, 2016, 2017, 2018
Hyundai HB20 Hatch Premium 1.6 16V câmbio manual Flex 4P 2012, 2013, 2014, 2015
Hyundai HB20 Hatch Spicy 1.0 12V câmbio manual Flex 4P 2015
Hyundai HB20 Hatch Spicy 1.6 16V câmbio automático Flex 4P 2015
Hyundai HB20 Hatch Spicy 1.6 16V câmbio manual Flex 4P 2015

Versão: 0	Atualização: Ago/2018	Resp: Lumileds Iluminação Brasil Ltda
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