



TEST REPORT

According to ANSI/IES LM-80-15

For

Hongli Zhihui Group Co.,Ltd. Guangzhou Branch

Room 316, Building 2, No.1, Xianke Yi Road, Huadong Town, Huadu District, Guangzhou, China

FINAL

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1 - General Information

1.1 Description of LED Light Sources

Sample Size:

60 PCS test samples were in good condition and received on 2018-09-12. The samples were numbered from 1 to 30 and 31 to 60.

| | |
|---------------------------------------|---|
| #Manufacturer: | Hongli Zhihui Group Co.,Ltd. Guangzhou Branch |
| #Part Number: | HL-AS-2835HW-2C-S1-08-PCT-HR3 |
| #Part Type: | LED Package |
| #Drive Level: | DC 150mA |
| #Nominal CCT: | 2700K |
| #Power: | 0.96W |
| #Average Current Density per LED die: | 1159.555 mA/mm ² |
| #Average Power Density per LED die: | 3.827 W/mm ² |
| #CRI: | 80 |
| #Die Spacing: | 0.15mm |

Sampling Method:

LED samples for IESNA LM-80 testing consist of units built from a minimum of three manufacturing lots with each manufacturing lot built from different wafer lots built on non-consecutive days.

These manufacturing lots are picked to represent a wide parametric distribution.

#Family products covered by this report:

According to *ENERGY STAR® Requirements for the Use of LM-80 Data*, the following products can be covered by this report base on the information and declaration provided by manufacturer. The information of these models shows that the covered products meet all section 4 requirements of *ENERGY STAR® Requirements for the Use of LM-80 Data* (September 28, 2017)

This report covers the following models:

| Model type | Model name | CRI (typ.) | CCT (typ.) | Series | Parallel | Power density (W/mm ²) | Current density per LED die (mA/mm ²) | Current per die (mA) | Distance between of dies | Current (mA) |
|-----------------|-----------------------------------|------------|------------|--------|----------|------------------------------------|---|----------------------|--------------------------|--------------|
| Tested model | HL-AS-2835HW-2C-S1-08-PCT-HR3 | 80 | 2700K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| Multiple models | HL-AS-2835HW-2C-S1-08-PCT-HR3 | 80 | 3000K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 4000K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 5000K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 5700K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 6500K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| Multiple models | HL-AS-2835HW-2C-S1-08-PCT-HR3(R9) | 80 | 2700K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 3000K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 4000K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 5000K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 5700K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 6500K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |

| | | | | | | | | | | |
|-----------------|------------------------------------|----|-------|---|---|--------|---------|----|------|----|
| Multiple models | HL-AS-2835HVW-2C-S1-08-PCT-HR3 | 80 | 2700K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 3000K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 4000K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 5000K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 5700K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 6500K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| Multiple models | HL-AS-2835HVW-2C-S1-08-PCT-HR3(R9) | 80 | 2700K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 3000K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 4000K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 5000K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 5700K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 6500K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| Multiple models | HL-AS-2835HVW-2C-S1-08L-PCT-HR3 | 80 | 2700K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 3000K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 4000K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 5000K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 5700K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | 6500K | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |
| | | 80 | | 2 | 1 | 0.0582 | 255.495 | 30 | 0.15 | 30 |

Multiple models
HL-AS-2835HVW-2C-S1

| | | | | | | | | | | |
|-----------------|-------------------------------------|----|-------|---|---|--------|---------|----|------|----|
| Multiple models | HL-AS-2835DVW-2C-S1-08L-PCT-HR3 | 80 | 2700K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 3000K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 4000K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 5000K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 5700K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 6500K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| Multiple models | HL-AS-2835DVW-2C-S1-08L-PCT-HR3(R9) | 80 | 2700K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 3000K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 4000K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 5000K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 5700K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | 6500K | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| | | 80 | | 2 | 1 | 0.0979 | 273.53 | 60 | 0.15 | 60 |
| Multiple models | HL-AS-2835DVW-2C-S1-08-PCT-HR3 | 80 | 2700K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 3000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 4000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 5000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 5700K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 6500K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| Multiple models | HL-AS-2835DVW-2C-S1-08-PCT-HR3(R9) | 80 | 2700K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 3000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 4000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 5000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 5700K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 6500K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| Multiple models | HL-AS-2835DVW-2C-S1-08L-PCT-HR3 | 80 | 2700K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 3000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 4000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 5000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 5700K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 6500K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| Multiple models | HL-AS-2835DVW-2C-S1-08L-PCT-HR3(R9) | 80 | 2700K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 3000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 4000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 5000K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 5700K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | 6500K | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |
| | | 80 | | 2 | 1 | 0.0979 | 134.783 | 30 | 0.15 | 30 |

| | | | | | | | | | | |
|-----------------|-----------------------------------|----|-------|---|---|--------|---------|----|------|-----|
| Multiple models | HL-AS-2835DW-2-S1-08L-PCT-HR3 | 80 | 2700K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 3000K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 4000K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 5000K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 5700K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 6500K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| Multiple models | HL-AS-2835DW-2-S1-08L-PCT-HR3(R9) | 80 | 2700K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 3000K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 4000K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 5000K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 5700K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | 6500K | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| | | 80 | | 1 | 2 | 0.0204 | 309.997 | 60 | 0.15 | 60 |
| Multiple models | HL-AS-2835HW-2-S1-08-PCT-HR3 | 80 | 2700K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 3000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 4000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 5000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 5700K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 6500K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| Multiple models | HL-AS-2835HW-2-S1-08-PCT-HR3(R9) | 80 | 2700K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 3000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 4000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 5000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 5700K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 6500K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| Multiple models | HL-AS-2835HW-2-S1-08L-PCT-HR3 | 80 | 2700K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 3000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 4000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 5000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 5700K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 6500K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| Multiple models | HL-AS-2835HW-2-S1-08L-PCT-HR3(R9) | 80 | 2700K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 3000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 4000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 5000K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 5700K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | 6500K | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |
| | | 80 | | 1 | 2 | 0.051 | 579.782 | 75 | 0.15 | 150 |

| | | | | | | | | | | |
|-----------------|-----------------------------------|----|-------|---|---|--------|----------|-----|------|-----|
| Multiple models | HL-AS-2835DW-2-S1-08L-PCT-HR3 | 80 | 2700K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| Multiple models | HL-AS-2835DW-2-S1-08L-PCT-HR3(R9) | 80 | 2700K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| | | 80 | | 1 | 2 | 0.0979 | 861.112 | 150 | 0.15 | 300 |
| Multiple models | HL-AS-2835HW-2-S1-08-PCT-HR3 | 80 | 2700K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| Multiple models | HL-AS-2835HW-2-S1-08-PCT-HR3(R9) | 80 | 2700K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| Multiple models | HL-AS-2835HW-2-S1-08L-PCT-HR3 | 80 | 2700K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| Multiple models | HL-AS-2835HW-2-S1-08L-PCT-HR3(R9) | 80 | 2700K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 1159.555 | 150 | 0.15 | 300 |

| | | | | | | | | | | |
|-----------------|------------------------------------|----|-------|---|---|--------|---------|----|------|-----|
| Multiple models | HL-AS-2835DVW-2-S1-08-PCT-HR3 | 80 | 2700K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| Multiple models | HL-AS-2835DVW-2-S1-08-PCT-HR3(R9) | 80 | 2700K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| Multiple models | HL-AS-2835DVW-2-S1-08L-PCT-HR3 | 80 | 2700K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| Multiple models | HL-AS-2835DVW-2-S1-08L-PCT-HR3(R9) | 80 | 2700K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| | | 80 | | 1 | 2 | 0.0979 | 227.942 | 50 | 0.15 | 100 |
| Multiple models | HL-AS-2835DVW-2-S1-08-PCT-HR3 | 80 | 2700K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| Multiple models | HL-AS-2835DVW-2-S1-08-PCT-HR3(R9) | 80 | 2700K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 3000K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 4000K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 5000K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 5700K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | 6500K | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |
| | | 80 | | 1 | 2 | 0.0979 | 134.783 | 30 | 0.15 | 60 |



Bay Area Compliance Laboratories Corp. (Dongguan)

No.69, Pulongcun, Puxinhu Industrial Area Tangxia ,
Dongguan, Guangdong, China.
The IAS Accreditation Number TL-460

Multiple
models HL-AS-
 2835HW-S1-
 08L-

FINAL



Bay Area Compliance Laboratories Corp. (Dongguan)

No.69, Pulongcun, Puxinhu Industrial Area Tangxia ,
Dongguan, Guangdong, China.
The IAS Accreditation Number TL-460

Multiple models HL-AS-2835DW-S1-08-

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Bay Area Compliance Laboratories Corp. (Dongguan)

No.69, Pulongcun, Puxinhu Industrial Area Tangxia ,
Dongguan, Guangdong, China.
The IAS Accreditation Number TL-460

| | | | | | | | | | | |
|-----------------|---------------------------------|----|-------|---|---|--------|---------|-----|------|-----|
| Multiple models | HL-AS-2835HW-S1-08-PCT-HR3(R9) | 80 | 2700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 3000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 4000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 6500K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| Multiple models | HL-AS-2835HW-S1-08L-PCT-HR3 | 80 | 2700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 3000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 4000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 6500K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| Multiple models | HL-AS-2835HW-S1-08L-PCT-HR3(R9) | 80 | 2700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 3000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 4000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 6500K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 2700K | 1 | 1 | 0.0204 | 210.407 | 60 | / | 60 |
| | | 80 | 3000K | 1 | 1 | 0.0204 | 210.407 | 60 | / | 60 |
| | | | | | | | | | / | 60 |
| | | | | | | | | | / | 60 |
| | | | | | | | | | / | 60 |
| | | | | | | | | | / | 60 |
| | | | | | | | | | / | 60 |
| | | | | | | | | | 0.15 | 120 |
| | | | | | | | | | 0.15 | 120 |

| | | | | | | | | | | |
|-----------------|-----------------------------|----|-------|---|---|--------|----------|-----|------|------------|
| Multiple models | SL- *B2835FTA- 21EA** | 80 | 2700K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 3000K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 4000K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 5000K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 150 |
| | | 80 | 5700K | 2 | 1 | 0.0979 | 1159.555 | 150 | 0.15 | 2626.26 Tr |

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| | | | | | | | | | | |
|-----------------|---|----|-------|---|---|--------|---------|-----|---|-----|
| Multiple models | SL- *B2835FTA- 11EA*H-** | 80 | 2700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 3000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 4000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 6500K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| Multiple models | SL- *B2835FTA- 11EA*/* | 80 | 2700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 3000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 4000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 6500K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| Multiple models | SL- *B2835FTA- 11EA*H/* | 80 | 2700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 3000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 4000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 6500K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| Multiple models | SL- **B2835FTA- 11EA****- APH*** | 80 | 2700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 3000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 4000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5000K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 5700K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | 6500K | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| | | 80 | | 1 | 1 | 0.051 | 930.002 | 150 | / | 150 |
| Multiple models | SL- *B2835FTA- 11CA* | 80 | 2700K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 3000K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 4000K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 5000K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 5700K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 6500K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| Multiple models | SL- *B2835FTA- 11CA*H | 80 | 2700K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 3000K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 4000K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 5000K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 5700K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 6500K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |

| | | | | | | | | | | |
|--------------------|-------------------------------|----|-------|---|-------|--------|---------|----|---|-------|
| Multiple models | SL- *B2835FTA- 11CA*-** | 80 | 2700K | 1 | 1 | 0.0204 | 463.822 | 60 | / | 60 |
| | | 80 | 3000K | 1 | 4000K | 0.0204 | 463.822 | 60 | / | 6000K |
| | | 80 | 4000K | 1 | | | | | | |

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g. For the Model name of ****2835D**W-S1-08*-PCT-HR3(R9)-**-**** and ****2835D**W-2-S1-08*-PCT-HR3(R9)-**-**** ,
as below is the the detail remarks :

1. Two different Model name for different market.
2. The first s for the process type.
3. The second s for the brightness level.
4. The third s for the bonding wire style.
5. The fourth

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Dongguan, Guangdong, China.
The IAS Accreditation Number TL-460

The relative humidity within chamber was kept less than 65% during test.

For photometry measurement, the ambient temperature during test was set to $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$, RH21 688.0± <60±

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2 - Summary of Test Result

| Data Set: | Sample Size | Failures Observed: | Test Interval | Test Duration | |
|-----------|-------------|--------------------|---------------|---------------|--|
|-----------|-------------|--------------------|---------------|---------------|--|

F I N A L

3 - Test Data

3.1 Data Set 1, 85°C, 150mA (Lumen Maintenance)

| No. | Lumen Maintenance (%) | | | | | | | | | | |
|-----|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| | 0hr(Initial) | 1000hrs | 2000hrs | 3000hrs | 4000hrs | 5000hrs | 6000hrs | 7000hrs | 8000hrs | 9000hrs | 10000hrs |
| 1 | 100.00 | 99.52 | 99.22 | 98.87 | 98.48 | 98.17 | 97.91 | 97.67 | 97.49 | 97.05 | 96.90 |
| 2 | 99.61 | 99.94 | 99.61 | 99.40 | 99.20 | 98.96 | 98.84 | 98.67 | 98.32 | 97.84 | 97.58 |
| 3 | 99.45 | 99.88 | 99.61 | 99.30 | 99.02 | 98.80 | 98.49 | 98.22 | 97.91 | 97.87 | 97.67 |
| 4 | 99.06 | 99.62 | 99.30 | 99.08 | 98.85 | 98.57 | 98.47 | 98.06 | 97.86 | 97.65 | 97.38 |
| 5 | 100.10 | 99.55 | 99.26 | 98.91 | 98.53 | 98.44 | 98.19 | 97.99 | 97.89 | 97.85 | 97.69 |
| 6 | 101.70 | 99.61 | 99.21 | 98.92 | 98.53 | 98.24 | 98.20 | 98.00 | 97.83 | 97.67 | 97.36 |
| 7 | 100.70 | 99.60 | 99.30 | 99.10 | 98.74 | 98.47 | 98.30 | 98.01 | 97.76 | 97.54 | 97.28 |
| 8 | 98.55 | 99.81 | 99.56 | 99.20 | 98.99 | 98.84 | 98.67 | 98.43 | 98.20 | 98.05 | 97.81 |
| 9 | 98.80 | 99.51 | 99.09 | 98.86 | 98.48 | 98.20 | 97.98 | 97.60 | 97.25 | 97.15 | 96.74 |
| 10 | 98.59T/F3 | | | | | | | | | | |

3.2 Data Set 1, 85°C, 150mA (Forward Voltage)

| No. | Forward Voltage (V) | | | | | | | | | | |
|-----|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| | 0hr(Initial) | 1000hrs | 2000hrs | 3000hrs | 4000hrs | 5000hrs | 6000hrs | 7000hrs | 8000hrs | 9000hrs | 10000hrs |
| 1 | 6.436 | 6.423 | 6.411 | 6.466 | 6.467 | 6.385 | 6.393 | 6.376 | 6.383 | 6.380 | 6.399 |

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3.3 Data Set 1, 85°C, 150mA (Chromaticity Shift)

| No. | | | CCT(K) | | | | | | | | | | |
|--------|--------------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| | Ohr(Initial) | | | 1000hrs | 2000hrs | 3000hrs | 4000hrs | 5000hrs | 6000hrs | 7000hrs | 8000hrs | 9000hrs | 10000hrs |
| 1 | 0.2627 | 0.5284 | 2693 | 0.0003 | 0.0005 | 0.0007 | 0.0008 | 0.0011 | 0.0014 | 0.0017 | 0.0021 | 0.0027 | 0.0030 |
| 2 | 0.2632 | 0.5291 | 2680 | 0.0004 | 0.0006 | 0.0007 | 0.0009 | 0.0020 | 0.0021 | 0.0022 | 0.0025 | 0.0027 | 0.0028 |
| 3 | 0.2643 | 0.5280 | 2661 | 0.0004 | 0.0007 | 0.0010 | 0.0011 | 0.0014 | 0.0015 | 0.0019 | 0.0021 | 0.0018 | 0.0020 |
| 4 | 0.2636 | 0.5278 | 2676 | 0.0006 | 0.0008 | 0.0009 | 0.0012 | 0.0018 | 0.0021 | 0.0022 | 0.0025 | 0.0031 | 0.0036 |
| 5 | 0.2612 | 0.5278 | 2725 | 0.0007 | 0.0011 | 0.0014 | 0.0015 | 0.0019 | 0.0023 | 0.0025 | 0.0027 | 0.0030 | 0.0035 |
| 6 | 0.2617 | 0.5279 | 2715 | 0.0006 | 0.0009 | 0.0012 | 0.0014 | 0.0020 | 0.0031 | 0.0035 | 0.0039 | 0.0035 | 0.0040 |
| 7 | 0.2614 | 0.5267 | 2726 | 0.0004 | 0.0006 | 0.0007 | 0.0009 | 0.0009 | 0.0011 | 0.0012 | 0.0013 | 0.0018 | 0.0022 |
| 8 | 0.2628 | 0.5270 | 2695 | 0.0006 | 0.0009 | 0.0012 | 0.0015 | 0.0018 | 0.0024 | 0.0027 | 0.0030 | 0.0031 | 0.0036 |
| 9 | 0.2625 | 0.5283 | 2697 | 0.0007 | 0.0011 | 0.0012 | 0.0013 | 0.0015 | 0.0021 | 0.0022 | 0.0025 | 0.0035 | 0.0036 |
| 10 | 0.2644 | 0.5290 | 2655 | 0.0005 | 0.0008 | 0.0011 | 0.0013 | 0.0014 | 0.0016 | 0.0017 | 0.0018 | 0.0016 | 0.0020 |
| 11 | 0.2634 | 0.5293 | 2673 | 0.0004 | 0.0007 | 0.0009 | 0.0011 | 0.0017 | 0.0021 | 0.0024 | 0.0027 | 0.0025 | 0.0027 |
| 12 | 0.2620 | 0.5274 | 2710 | 0.0009 | 0.0014 | 0.0016 | 0.0019 | 0.0023 | 0.0034 | 0.0036 | 0.0038 | 0.0038 | 0.0039 |
| 13 | 0.2629 | 0.5301 | 2681 | 0.0007 | 0.0012 | 0.0014 | 0.0016 | 0.0020 | 0.0026 | 0.0028 | 0.0031 | 0.0037 | 0.0039 |
| 14 | 0.2642 | 0.5281 | 2663 | 0.0006 | 0.0008 | 0.0009 | 0.0010 | 0.0011 | 0.0013 | 0.0015 | 0.0017 | 0.0018 | 0.0022 |
| 15 | 0.2637 | 0.5285 | 2672 | 0.0005 | 0.0008 | 0.0010 | 0.0011 | 0.0013 | 0.0016 | 0.0019 | 0.0021 | 0.0017 | 0.0017 |
| 16 | 0.2616 | 0.5276 | 2718 | 0.0007 | 0.0009 | 0.0011 | 0.0014 | 0.0023 | 0.0026 | 0.0029 | 0.0032 | 0.0039 | 0.0042 |
| 17 | 0.2628 | 0.5296 | 2684 | 0.0005 | 0.0007 | 0.0009 | 0.0011 | 0.0013 | 0.0015 | 0.0017 | 0.0018 | 0.0022 | 0.0023 |
| 18 | 0.2626 | 0.5284 | 2694 | 0.0007 | 0.0009 | 0.0011 | 0.0012 | 0.0014 | 0.0018 | 0.0020 | 0.0022 | 0.0013 | 0.0016 |
| 19 | 0.2630 | 0.5285 | 2685 | 0.0009 | 0.0012 | 0.0014 | 0.0017 | 0.0023 | 0.0037 | 0.0040 | 0.0043 | 0.0041 | 0.0045 |
| 20 | 0.2631 | 0.5306 | 2675 | 0.0006 | 0.0008 | 0.0011 | 0.0014 | 0.0019 | 0.0025 | 0.0026 | 0.0027 | 0.0033 | 0.0036 |
| 21 | 0.2635 | 0.5292 | 2673 | 0.0007 | 0.0010 | 0.0011 | 0.0014 | 0.0020 | 0.0025 | 0.0026 | 0.0027 | 0.0032 | 0.0035 |
| 22 | 0.2634 | 0.5278 | 2680 | 0.0003 | 0.0004 | 0.0005 | 0.0007 | 0.0009 | 0.0010 | 0.0010 | 0.0011 | 0.0014 | 0.0017 |
| 23 | 0.2637 | 0.5285 | 2670 | 0.0008 | 0.0011 | 0.0014 | 0.0015 | 0.0017 | 0.0020 | 0.0021 | 0.0024 | 0.0023 | 0.0025 |
| 24 | 0.2618 | 0.5294 | 2707 | 0.0008 | 0.0011 | 0.0013 | 0.0014 | 0.0020 | 0.0025 | 0.0028 | 0.0031 | 0.0029 | 0.0031 |
| 25 | 0.2633 | 0.5303 | 2672 | 0.0007 | 0.0011 | 0.0013 | 0.0016 | 0.0020 | 0.0031 | 0.0034 | 0.0036 | 0.0040 | 0.0042 |
| 26 | 0.2631 | 0.5294 | 2680 | 0.0007 | 0.0010 | 0.0013 | 0.0014 | 0.0015 | 0.0016 | 0.0016 | 0.0018 | 0.0016 | 0.0017 |
| 27 | 0.2618 | 0.5286 | 2709 | 0.0005 | 0.0008 | 0.0011 | 0.0013 | 0.0016 | 0.0018 | 0.0021 | 0.0023 | 0.0016 | 0.0018 |
| 28 | 0.2630 | 0.5296 | 2682 | 0.0005 | 0.0009 | 0.0010 | 0.0013 | 0.0019 | 0.0024 | 0.0027 | 0.0030 | 0.0031 | 0.0033 |
| 29 | 0.2604 | 0.5248 | 2756 | 0.0006 | 0.0009 | 0.0010 | 0.0011 | 0.0016 | 0.0022 | 0.0025 | 0.0028 | 0.0031 | 0.0034 |
| 30 | 0.2621 | 0.5269 | 2710 | 0.0004 | 0.0005 | 0.0007 | 0.0009 | 0.0015 | 0.0017 | 0.0022 | 0.0024 | 0.0020 | 0.0023 |
| Avg. | 0.2628 | 0.5284 | 2691 | 0.0006 | 0.0009 | 0.0011 | 0.0013 | 0.0017 | 0.0021 | 0.0023 | 0.0026 | 0.0027 | 0.0030 |
| Med. | 0.2630 | 0.5285 | 2683 | 0.0006 | 0.0009 | 0.0011 | 0.0013 | 0.0017 | 0.0021 | 0.0022 | 0.0025 | 0.0028 | 0.0031 |
| st dev | 0.0010 | 0.0012 | 23 | 0.0002 | 0.0002 | 0.0003 | 0.0003 | 0.0004 | 0.0007 | 0.0007 | 0.0007 | 0.0009 | 0.0009 |
| Min. | 0.2604 | 0.5248 | 2655 | 0.0003 | 0.0004 | 0.0005 | 0.0007 | 0.0009 | 0.0010 | 0.0010 | 0.0011 | 0.0013 | 0.0016 |
| Max. | 0.2644 | 0.5306 | 2756 | 0.0009 | 0.0014 | 0.0016 | 0.0019 | 0.0023 | 0.0037 | 0.0040 | 0.0043 | 0.0041 | 0.0045 |

3.4 Data Set 2, 105°C, 150mA (Lumen Maintenance)

| No. | Lumen Maintenance (%) | | | | | | | | | | |
|-----|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| | 0hr(Initial) | 1000hrs | 2000hrs | 3000hrs | 4000hrs | 5000hrs | 6000hrs | 7000hrs | 8000hrs | 9000hrs | 10000hrs |
| 31 | 100.40 | 99.70 | 99.45 | 99.20 | 98.87 | 98.57 | 98.50 | 98.28 | 97.81 | 97.16 | 96.99 |
| 32 | 99.72 | 99.74 | 99.47 | 99.03 | 98.73 | 98.69 | 98.55 | 98.26 | 98.07 | 97.83 | 97.43 |
| 33 | 100.30 | 99.30 | 98.97 | 98.60 | 98.29 | 98.22 | 98.06 | 97.83 | 97.42 | 97.06 | 96.72 |
| 34 | 98.73 | 99.29 | 99.09 | 98.75 | 98.24 | 97.88 | 97.70 | 97.35 | 97.22 | 96.78 | 96.56 |
| 35 | 98.27 | 99.07 | 98.73 | 98.37 | 98.06 | 97.79 | 97.36 | 97.04 | 96.84 | 96.61 | 96.33 |
| 36 | 101.70 | 99.51 | 99.41 | 99.02 | 98.62 | 98.33 | 97.95 | 97.69 | 97.21 | 96.88 | 96.55 |
| 37 | 98.24 | 99.54 | 99.18 | 98.99 | 98.79 | 98.44 | 98.03 | 97.73 | 97.38 | 97.19 | 96.85 |
| 38 | 101.30 | 99.51 | 99.11 | 98.91 | 98.47 | 98.23 | 97.91 | 97.67 | 97.37 | 97.16 | 96.92 |
| 39 | 100.20 | 99.45 | 99.17 | 98.86 | 98.56 | 98.23 | 98.13 | 97.84 | 97.30 | 97.05 | 96.65 |
| 40 | 96.62 | 99.53 | 99.04 | 98.77 | 98.34 | 98.09 | 97.76 | 97.51 | 97.28 | 96.64 | 96.29 |
| 41 | 101.00 | 99.50 | 99.11 | 98.93 | 98.50 | 98.44 | 98.18 | 97.91 | 97.71 | 97.28 | 97.07 |
| 42 | 98.13 | 99.39 | 98.91 | 98.60 | 98.34 | 98.01 | 97.67 | 97.25 | 96.93 | 96.72 | 96.48 |
| 43 | 98.43 | 99.49 | 98.88 | 98.55 | 98.14 | 97.68 | 97.59 | 97.42 | 97.12 | 96.86 | 96.48 |

3.5 Data Set 2, 105°C, 150mA (Forward Voltage)

| No. | Forward Voltage (V) | | | | | | | | | | |
|-----|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| | 0hr(Initial) | 1000hrs | 2000hrs | 3000hrs | 4000hrs | 5000hrs | 6000hrs | 7000hrs | 8000hrs | 9000hrs | 10000hrs |
| 31 | 6.466 | 6.432 | | | | | | | | | |

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3.6 Data Set 2, 105°C, 150mA (Chromaticity Shift)

| No. | | | CCT(K) | | | | | | | | | | |
|-----|--------------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| | Ohr(Initial) | | | 1000hrs | 2000hrs | 3000hrs | 4000hrs | 5000hrs | 6000hrs | 7000hrs | 8000hrs | 9000hrs | 10000hrs |
| 31 | 0.2622 | 0.5296 | 2698 | 0.0003 | 0.0006 | 0.0007 | 0.0009 | 0.0014 | 0.0017 | 0.0019 | 0.0021 | 0.0021 | 0.0025 |
| 32 | 0.2626 | 0.5291 | 2691 | 0.0004 | 0.0005 | 0.0007 | 0.0008 | 0.0011 | 0.0015 | 0.0018 | 0.0021 | 0.0025 | 0.0027 |
| 33 | 0.2621 | 0.5303 | 2696 | 0.0006 | 0.0009 | 0.0012 | 0.0013 | 0.0014 | 0.0017 | 0.0019 | 0.0021 | 0.0028 | 0.0030 |
| 34 | 0.2618 | 0.5264 | 2719 | 0.0006 | 0.0008 | 0.0011 | 0.0013 | 0.0022 | 0.0027 | 0.0028 | 0.0029 | 0.0029 | 0.0032 |
| 35 | 0.2645 | 0.5306 | 2648 | 0.0003 | 0.0005 | 0.0006 | 0.0008 | 0.0010 | 0.0015 | 0.0016 | 0.0018 | 0.0030 | 0.0030 |
| 36 | 0.2646 | 0.5303 | 2647 | 0.0009 | 0.0012 | 0.0015 | 0.0017 | 0.0020 | 0.0021 | 0.0024 | 0.0026 | 0.0027 | 0.0030 |
| 37 | 0.2643 | 0.5271 | 2664 | 0.0008 | 0.0010 | 0.0012 | 0.0013 | 0.0020 | 0.0025 | 0.0028 | 0.0031 | 0.0037 | 0.0040 |
| 38 | 0.2622 | 0.5292 | 2699 | 0.0005 | 0.0007 | 0.0010 | 0.0013 | 0.0016 | 0.0018 | 0.0019 | 0.0021 | 0.0022 | 0.0025 |
| 39 | 0.2613 | 0.5279 | 2722 | 0.0008 | 0.0009 | 0.0010 | 0.0015 | 0.0018 | 0.0020 | 0.0022 | 0.0024 | 0.0024 | 0.0026 |
| 40 | 0.2588 | 0.5222 | 2802 | 0.0009 | 0.0012 | 0.0013 | 0.0016 | 0.0024 | 0.0031 | 0.0033 | 0.0037 | 0.0036 | 0.0040 |
| 41 | 0.2605 | 0.5270 | 2744 | 0.0006 | 0.0010 | 0.0013 | 0.0014 | 0.0024 | 0.0029 | 0.0032 | 0.0033 | 0.0038 | 0.0042 |
| 42 | 0.2618 | 0.5256 | 2721 | 0.0011 | 0.0013 | 0.0013 | 0.0017 | 0.0021 | 0.0028 | 0.0030 | 0.0033 | 0.0037 | 0.0044 |
| 43 | 0.2608 | 0.5271 | 2737 | 0.0010 | 0.0013 | 0.0013 | 0.0017 | 0.0025 | 0.0031 | 0.0034 | 0.0035 | 0.0036 | 0.0041 |
| 44 | 0.2632 | 0.5301 | 2676 | 0.0006 | 0.0008 | 0.0008 | 0.0012 | 0.0013 | 0.0014 | 0.0015 | 0.0017 | 0.0016 | 0.0018 |
| 45 | 0.2637 | 0.5300 | 2666 | 0.0007 | 0.0010 | 0.0010 | 0.0013 | 0.0017 | 0.0019 | 0.0021 | 0.0022 | 0.0022 | 0.0024 |
| 46 | 0.2647 | 0.5278 | 2654 | 0.0008 | 0.0012 | 0.0012 | 0.0017 | 0.0022 | 0.0026 | 0.0030 | 0.0033 | 0.0034 | 0.0038 |
| | 0.2635 | | | 0.0009 | | | | | | | 0.0036 | | |
| 48 | 2616 | 5289 | | 0.0005 | 0.0007 | 0.0009 | 0.0010 | 0.0013 | 0.0016 | 0.0018 | 0.0019 | 0.0018 | 0.0021 |

5 - Report Revision

| Report Number | Report Date | Contents |
|--------------------------|-------------|--|
| RSZ180912501-10-10000 | 2020-03-12 | Original report. |
| RSZ180912501-10-10000-M1 | 2020-05-04 | Update the family products covered in this report. |
| RSZ180912501-10-10000-M2 | 2020-06-02 | Update the family products covered in this report. |
| RSZ180912501-10-10000-M3 | 2020-08-04 | Update the family products covered in this report. |

FINAL

Directions

*****END OF REPORT*****

FINAL