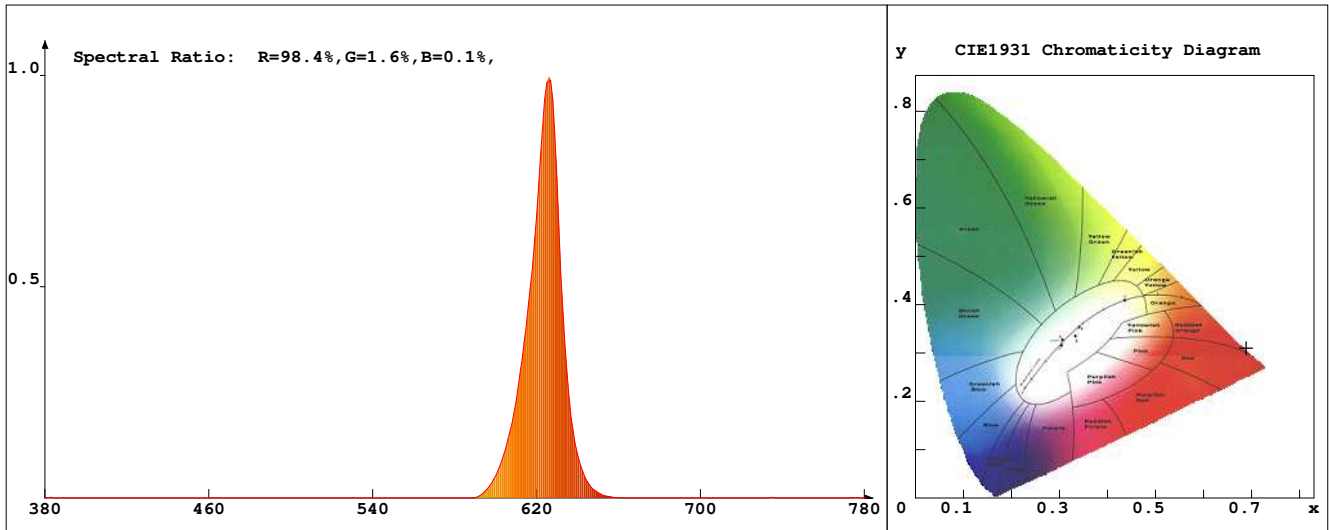


# LED Test Report

**Product Mark**

Product Type : ORR300F52096512 Red  
 Temperature : 'C  
 Operator : -  
 Remark :

Manufacturer : -  
 Humidity : -%  
 Test Date : 2024-02-15



**Chroma Parameters**

Chro.Coor.:x=0.6891 y=0.3105 u=0.5155 v=0.3484 duv=-0.0005  
 CCT: 1297K Dominant Wave.:619.0nm Purity:99.9% Centre Wave:623.8nm  
 Flux RGB Ratio:R=97.0%,G=3.0%,B=0.0% Peak Wave:625.5nm Half Width:15.3nm

**Rendering Index:Ra=-21.5 CRI=108.4**

R1 =-55 R2 =44 R3 =18 R4 =-66 R5 =-30 R6 =69 R7 =-24 R8 =-127  
 R9 =-353 R10=27 R11=-79 R12=31 R13=-31 R14=46 R15=-94  
 PPF:1.718umol/s (400-700nm) PRF:0.3mW (400-700nm) PAR:0.3mW (400-700nm)

**Photo Parameters**

Flux:79.49lm Effi.:32.4lm/W Radiant:330.6mW Iv:0.0mcd  
 Scotopic Flux:4.4Plm Effi.:0.0Plm/W S/P:0.1  
 Efficiency:0.00 Effi Level:A++ (EU 874-2012) Photon Flux:1720.240umol/s (380-780nm)

**Ele. Parameters**

Forward Current:If=102.0mA Reverse Voltage:Vr=5.00V  
 Forward Voltage:Vf=24.03V Reverse Current:Ir=0.00uA  
 Power:P=2.461W

**Instrument state**

Instrument:Lisun Integral Time: 177.080ms VPeak: 13480  
 VDark: 1115 Scan Range: 380-780nm Product ID: 201508924

# IES TM-30-2015 Test Report

**Product Mark**

Product Type : ORR300F52096512 Red

Temperature : 'C

Operator : -

Remark :

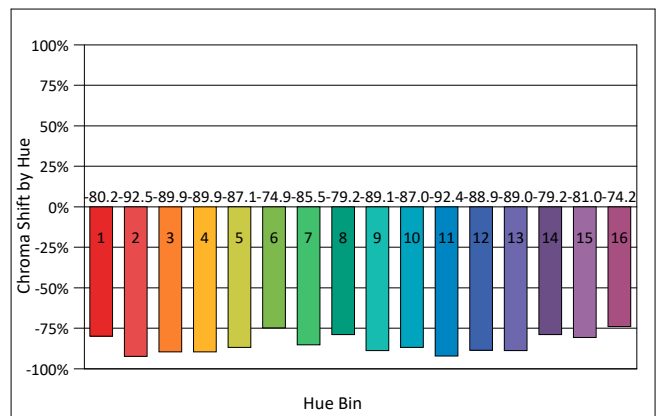
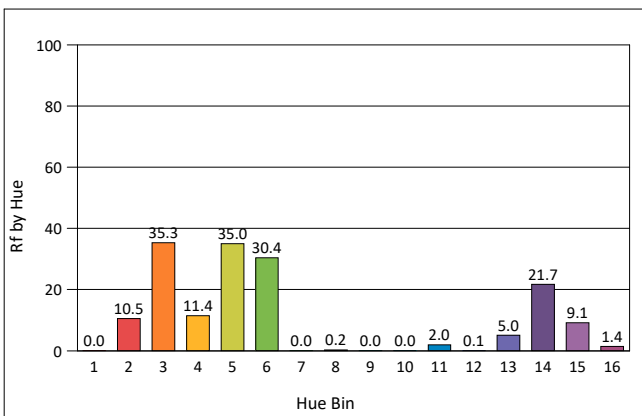
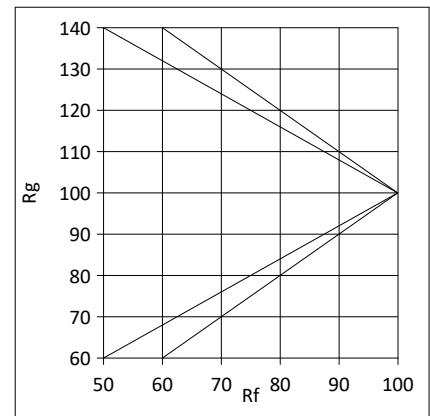
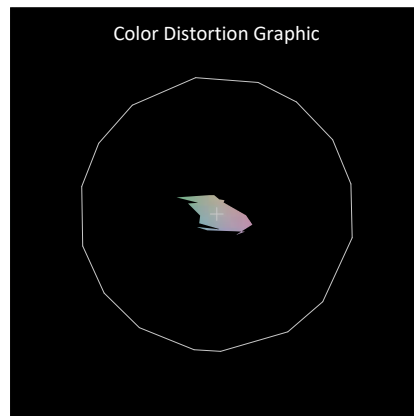
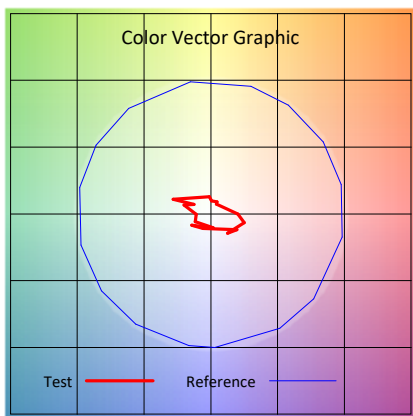
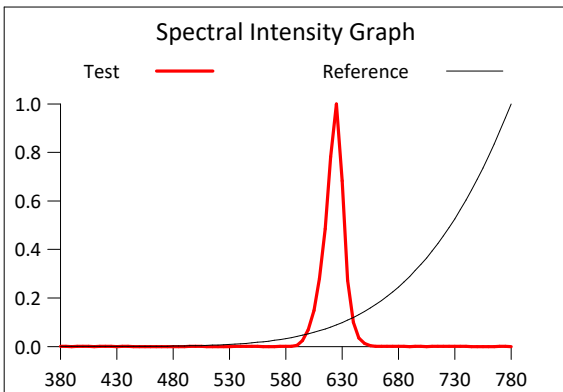
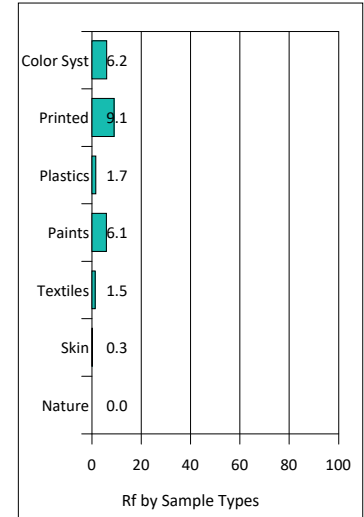
Manufacturer : -

Humidity : -%

Test Date : 2024-02-15

Rf: 0.6                      CCT(K): 1297              u': 0.5155  
 Rg: 1.8                      LER: 242.2              Duv: -0.0005              v': 0.3484

Hue Bin	Rf	Graphic Shifts (%)	
		Chroma	Hue
1	0.0	-80.2%	-6.4%
2	10.5	-92.5%	5.8%
3	35.3	-89.9%	4.1%
4	11.4	-89.9%	12.1%
5	35.0	-87.1%	3.0%
6	30.4	-74.9%	10.2%
7	0.0	-85.5%	-3.7%
8	0.2	-79.2%	-2.1%
9	0.0	-89.1%	-5.8%
10	0.0	-87.0%	-4.1%
11	2.0	-92.4%	8.1%
12	0.1	-88.9%	-15.4%
13	5.0	-89.0%	8.7%
14	21.7	-79.2%	14.3%
15	9.1	-81.0%	5.2%
16	1.4	-74.2%	-3.9%



# IES TM-30-2015 Test Report

**Product Mark**

Product Type : ORR300F52096512 Red

Manufacturer : -

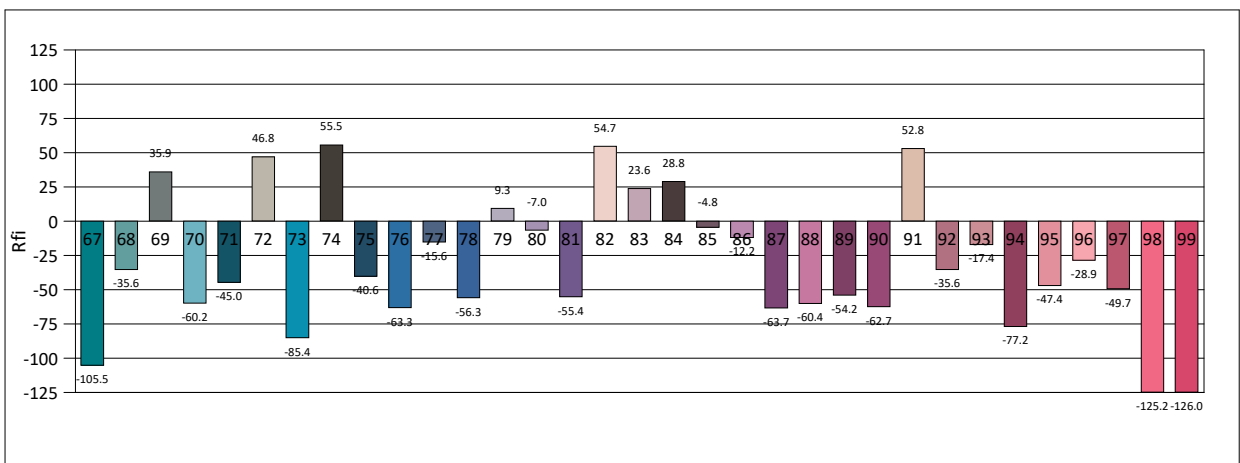
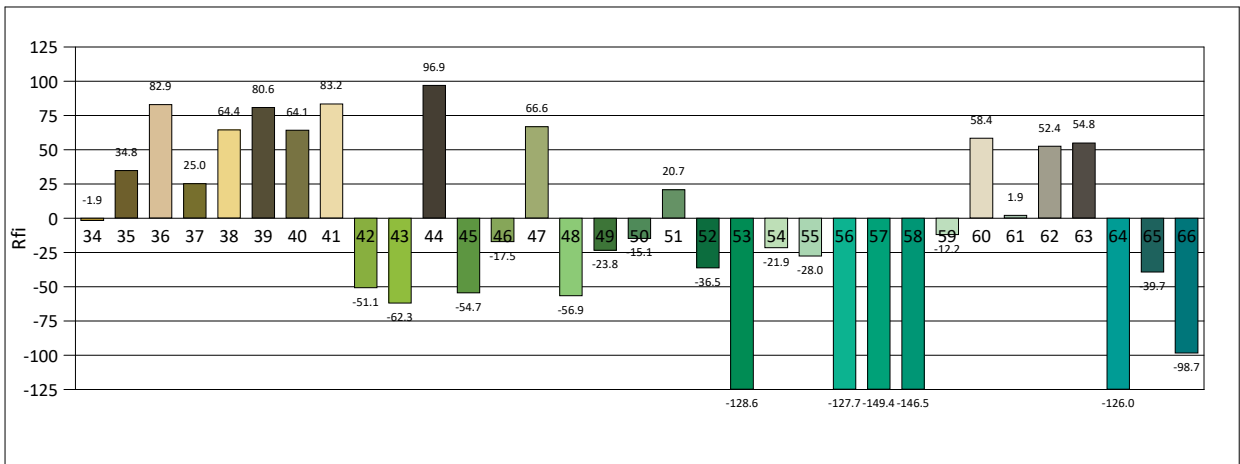
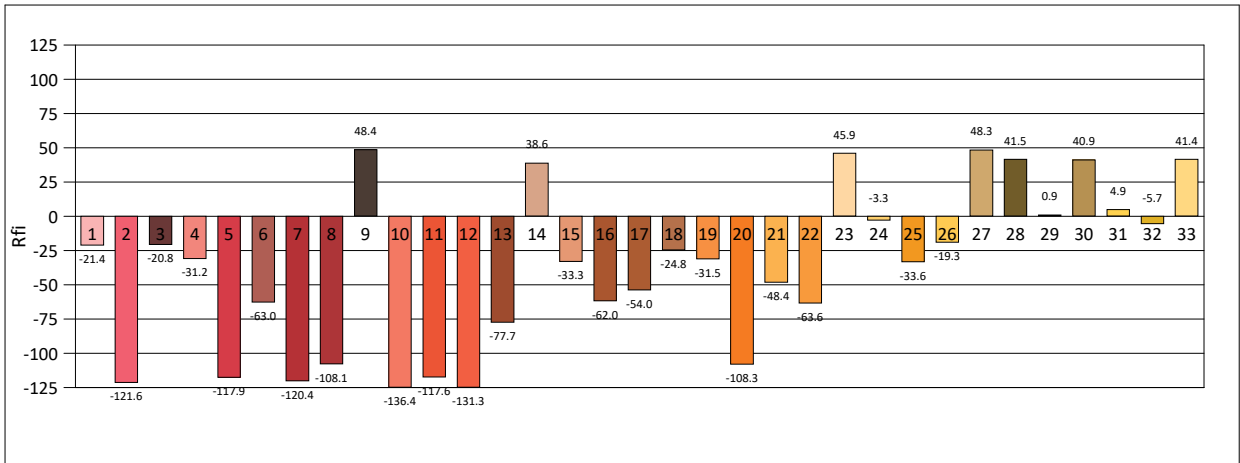
Temperature : 'C

Humidity : -%

Operator : -

Test Date : 2024-02-15

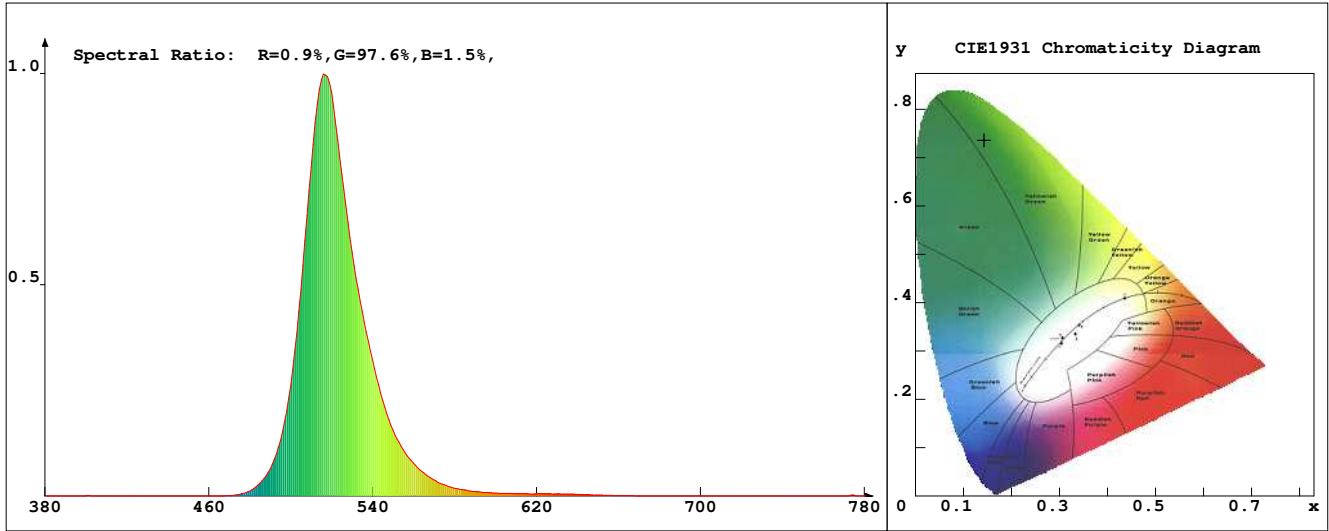
Remark :



# LED Test Report

**Product Mark**

Product Type : ORR300F52096512 Green      Manufacturer : -  
 Temperature : 'C      Humidity : -%  
 Operator : -      Test Date : 2024-02-15  
 Remark :



**Chroma Parameters**

Chro.Coor.:x=0.1431 y=0.7363 u=0.0496 v=0.3825 duv=0.1662  
 CCT: 8317K Dominant Wave.:523.0nm Purity:80.9% Centre Wave:517.8nm  
 Flux RGB Ratio:R=0.4%,G=99.2%,B=0.4% Peak Wave:515.6nm Half Width:27.1nm

**Rendering Index:Ra=-31.5 CRI=103.6**

R1 =-34    R2 =-17    R3 =-42    R4 =-73    R5 =-9    R6 =-24    R7 =-18    R8 =-34  
 R9 =-344    R10=-126    R11=-102    R12=-43    R13=-43    R14=29    R15=-31  
 PPF:1.742umol/s (400-700nm)      PRF:0.4mW (400-700nm)      PAR:0.3mW (400-700nm)

**Photo Parameters**

Flux:209.63lm      Effi.:85.5lm/W      Radiant:398.9mW      Iv:0.0mcd  
 Scotopic Flux:656.7Plm      Effi.:0.0Plm/W      S/P:3.1  
 Efficiency:0.00      Effi Level:A++ (EU 874-2012)      Photon Flux:1742.660umol/s (380-780nm)

**Ele. Parameters**

Forward Current:If=102.0mA      Reverse Voltage:Vr=5.00V  
 Forward Voltage:Vf=24.04V      Reverse Current:Ir=0.00uA  
 Power:P=2.461W

**Instrument state**

Instrument:Lisun      Integral Time: 225.374ms      VPeak: 13432  
 VDark: 1124      Scan Range: 380-780nm      Product ID: 201508924

# IES TM-30-2015 Test Report

**Product Mark**

Product Type : ORR300F52096512 Green

Temperature : 'C

Operator : -

Remark :

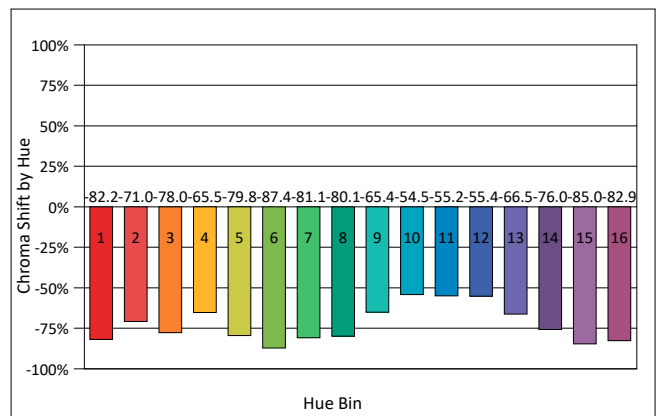
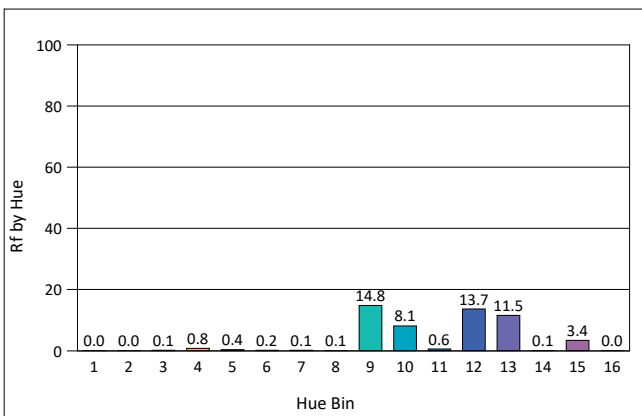
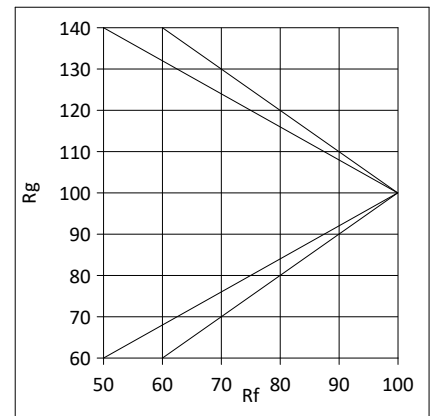
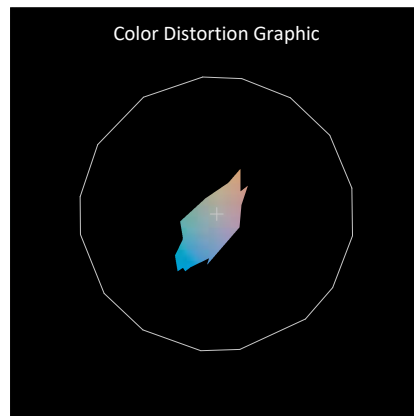
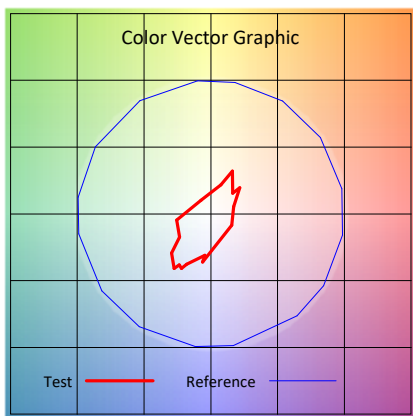
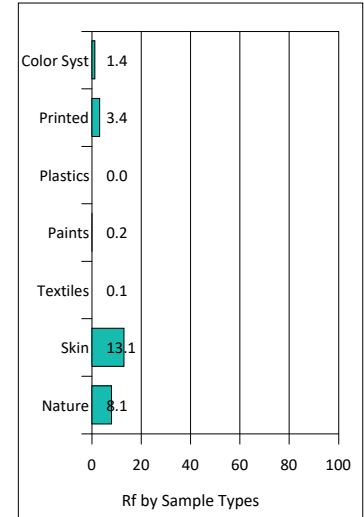
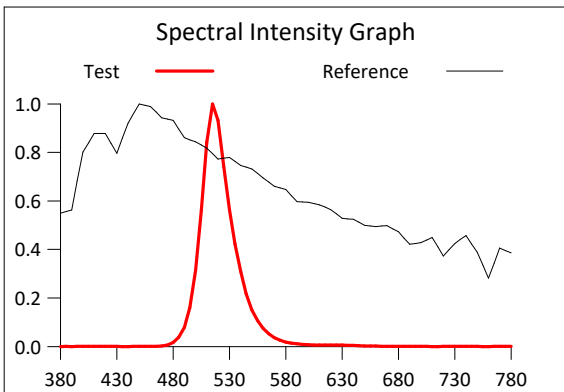
Manufacturer : -

Humidity : -%

Test Date : 2024-02-15

Rf: 0.4 CCT(K): 8317 u': 0.0496  
 Rg: 5.6 LER: 460.6 Duv: 0.1662 v': 0.3825

Hue Bin	Rf	Chroma	Hue
1	0.0	-82.2%	2.7%
2	0.0	-71.0%	2.4%
3	0.1	-78.0%	-7.3%
4	0.8	-65.5%	-11.0%
5	0.4	-79.8%	-2.0%
6	0.2	-87.4%	3.3%
7	0.1	-81.1%	11.7%
8	0.1	-80.1%	14.4%
9	14.8	-65.4%	27.7%
10	8.1	-54.5%	16.1%
11	0.6	-55.2%	-0.7%
12	13.7	-55.4%	-21.5%
13	11.5	-66.5%	-22.4%
14	0.1	-76.0%	-32.2%
15	3.4	-85.0%	-35.6%
16	0.0	-82.9%	-9.0%



# IES TM-30-2015 Test Report

**Product Mark**

Product Type : ORR300F52096512 Green

Manufacturer : -

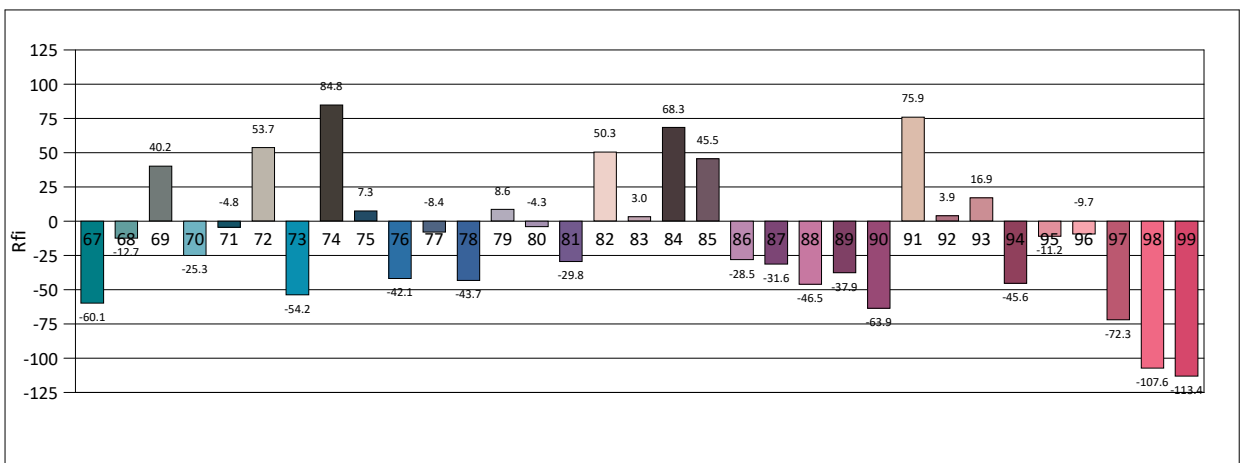
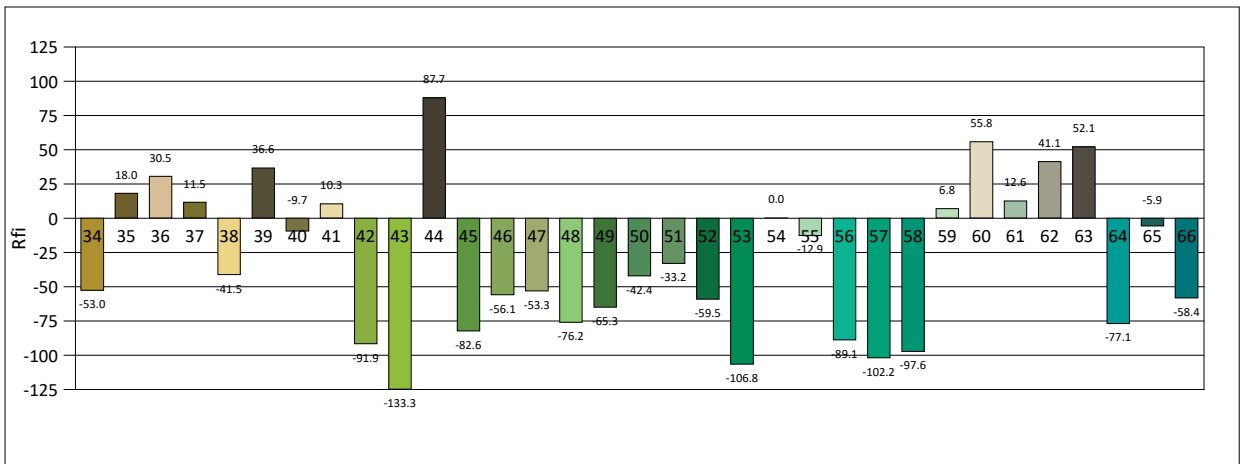
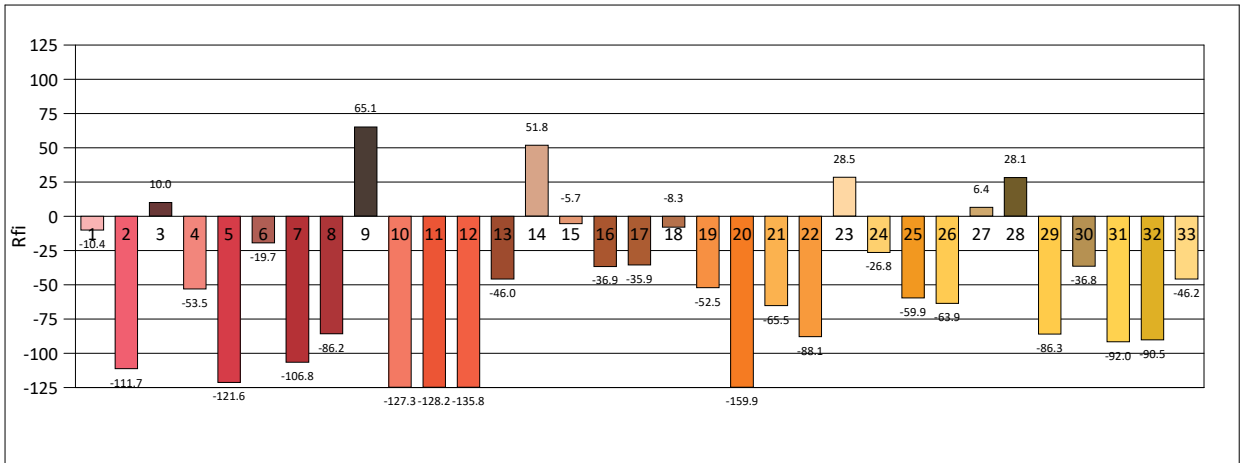
Temperature : 'C

Humidity : -%

Operator : -

Test Date : 2024-02-15

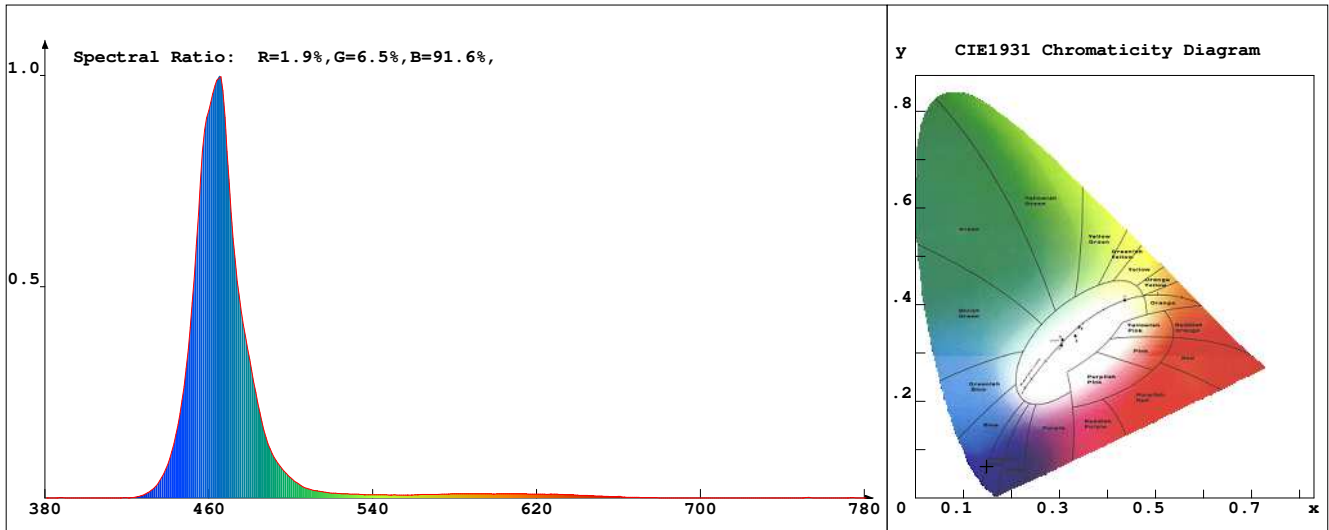
Remark :



# LED Test Report

**Product Mark**

Product Type : ORR300F52096512 Blue      Manufacturer : -  
 Temperature : 'C      Humidity : -%  
 Operator : -      Test Date : 2024-02-15  
 Remark :



**Chroma Parameters**

Chro.Coor.:x=0.1483 y=0.0651 u=0.1703 v=0.1120 duv=-0.0281  
 CCT:100000K Dominant Wave.:466.2nm Purity:92.5% Centre Wave:462.5nm  
 Flux RGB Ratio:R=5.1%,G=32.5%,B=62.4% Peak Wave:464.7nm Half Width:21.7nm

**Rendering Index:Ra=-27.5 CRI= 82.5**

R1 =55      R2 =-26      R3 =-146      R4 =-63      R5 =57      R6 =-24      R7 =-46      R8 =-25  
 R9 =-71      R10=-218      R11=-78      R12=-65      R13=25      R14=-28      R15=47  
 PPF:2.478umol/s (400-700nm)      PRF:0.6mW (400-700nm)      PAR:0.5mW (400-700nm)

**Photo Parameters**

Flux:61.40lm      Effi.:23.7lm/W      Radiant:631.0mW      Iv:0.0mcd  
 Scotopic Flux:822.2Plm      Effi.:0.0Plm/W      S/P:13.4  
 Efficiency:0.00      Effi Level:A++ (EU 874-2012)      Photon Flux:2480.810umol/s (380-780nm)

**Ele. Parameters**

Forward Current:If=108.0mA      Reverse Voltage:Vr=5.00V  
 Forward Voltage:Vf=24.02V      Reverse Current:Ir=0.00uA  
 Power:P=2.611W

**Instrument state**

Instrument:Lisun      Integral Time: 184.038ms      VPeak: 16383  
 VDark: 1239      Scan Range: 380-780nm      Product ID: 201508924

# IES TM-30-2015 Test Report

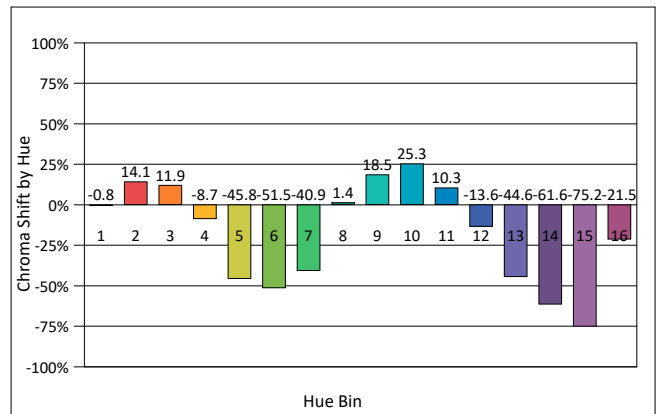
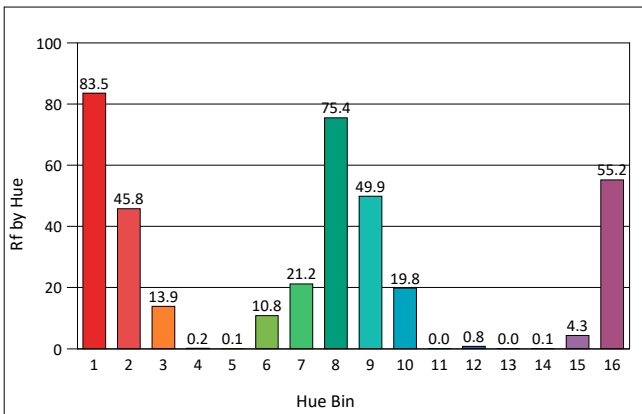
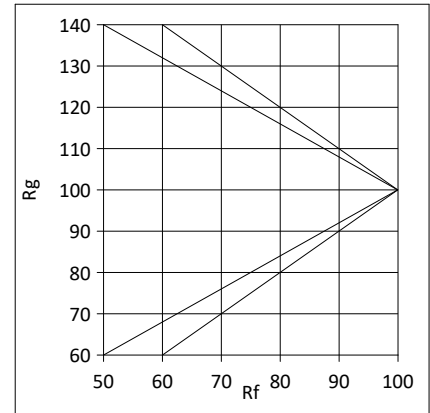
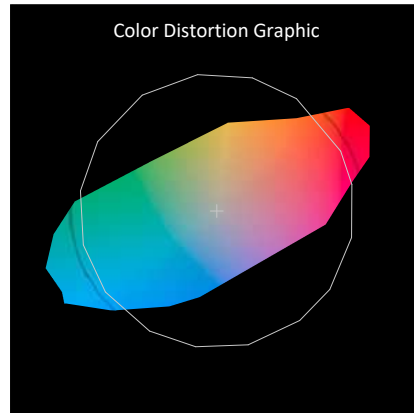
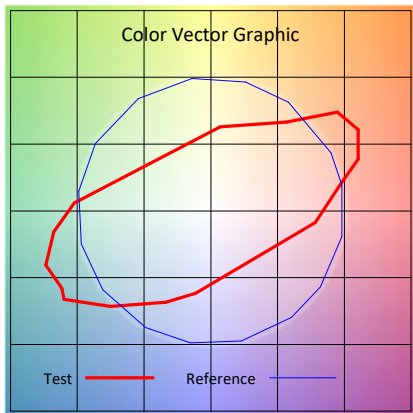
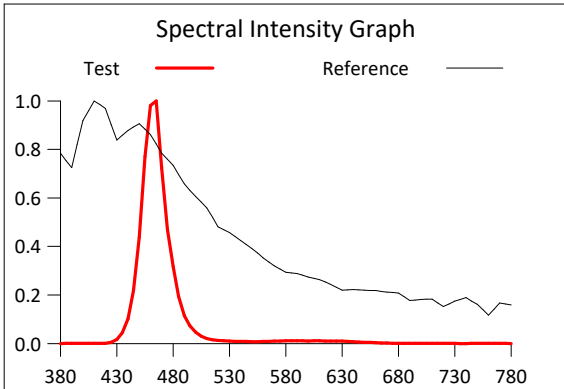
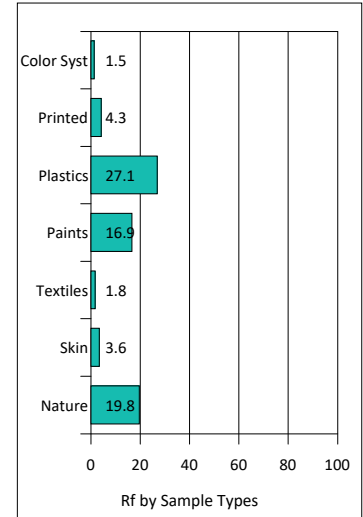
**Product Mark**

Product Type : ORR300F52096512 Blue  
 Temperature : 'C  
 Operator : -  
 Remark :

Manufacturer : -  
 Humidity : -%  
 Test Date : 2024-02-15

Rf: 11.3      CCT(K): 100000      u': 0.1703  
 Rg: 65.3      LER: 76.0      Duv: -0.0281      v': 0.1120

Hue Bin	Rf	Graphic Shifts (%)	
		Chroma	Hue
1	83.5	-0.8%	0.9%
2	45.8	14.1%	-15.2%
3	13.9	11.9%	-54.9%
4	0.2	-8.7%	-71.9%
5	0.1	-45.8%	-63.2%
6	10.8	-51.5%	-39.1%
7	21.2	-40.9%	-7.8%
8	75.4	1.4%	9.3%
9	49.9	18.5%	-12.9%
10	19.8	25.3%	-38.9%
11	0.0	10.3%	-68.4%
12	0.8	-13.6%	-99.2%
13	0.0	-44.6%	-91.1%
14	0.1	-61.6%	-71.9%
15	4.3	-75.2%	-55.8%
16	55.2	-21.5%	6.4%





# IES TM-30-2015 Test Report

**Product Mark**

Product Type : ORR300F52096512 Blue

Manufacturer : -

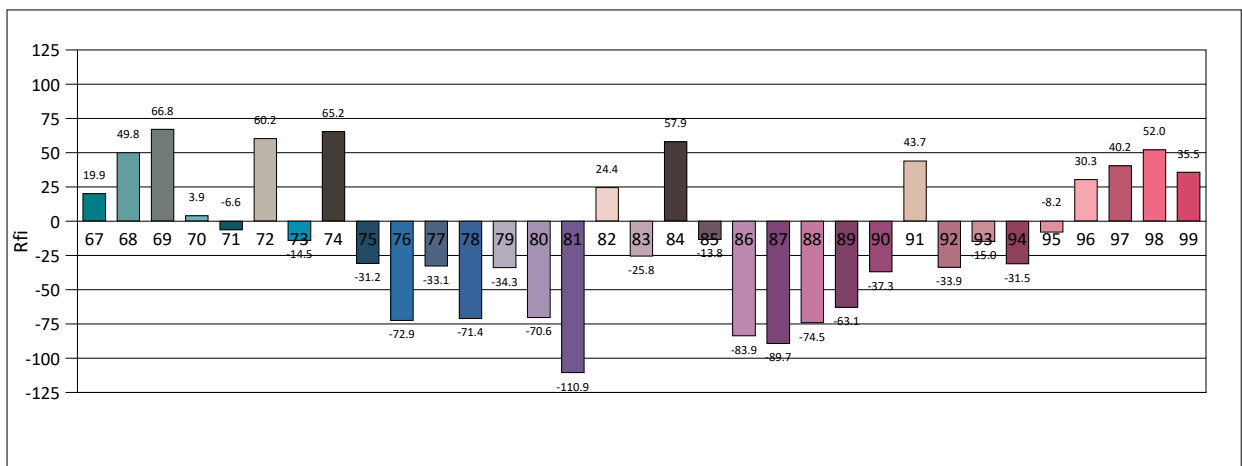
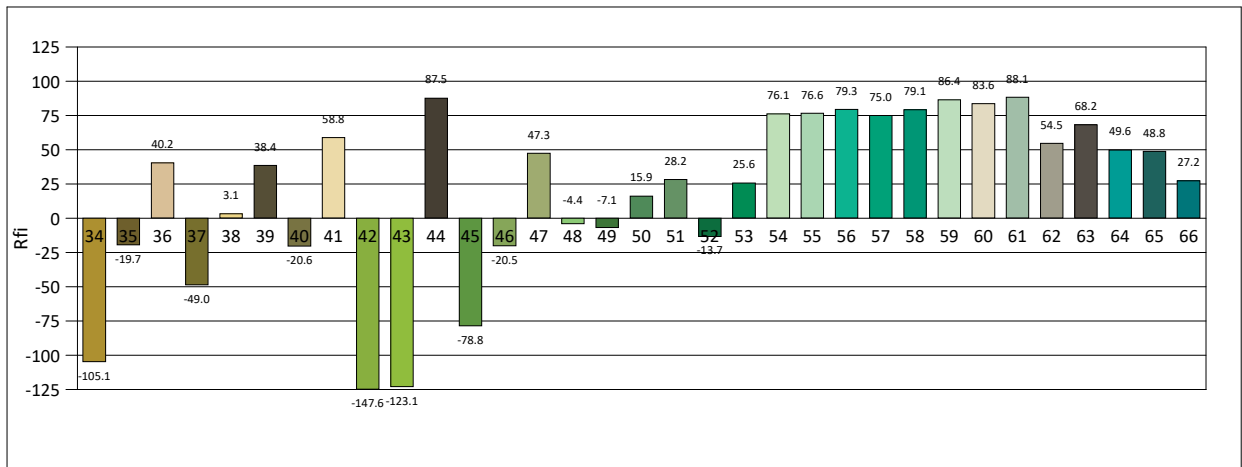
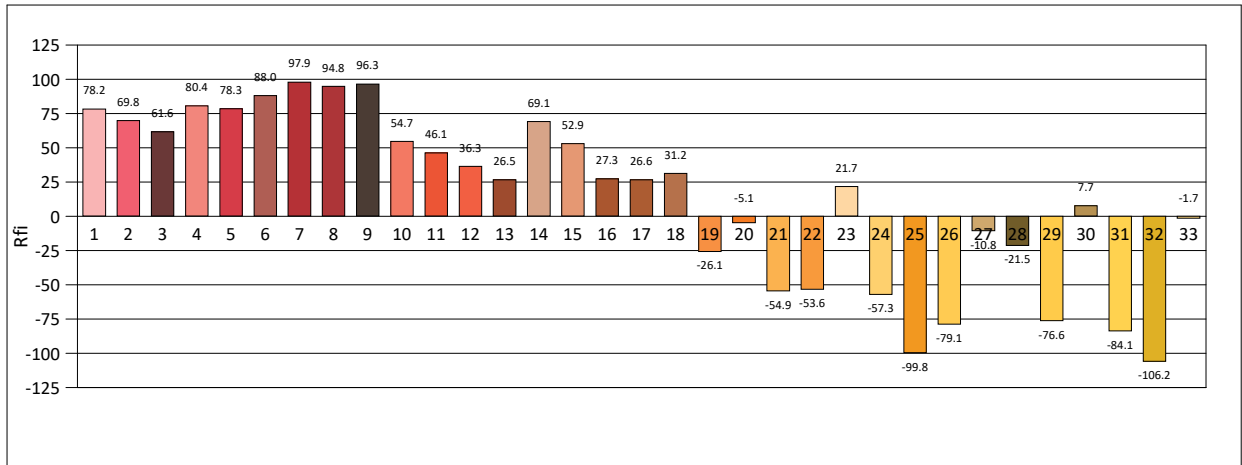
Temperature : 'C

Humidity : -%

Operator : -

Test Date : 2024-02-15

Remark :

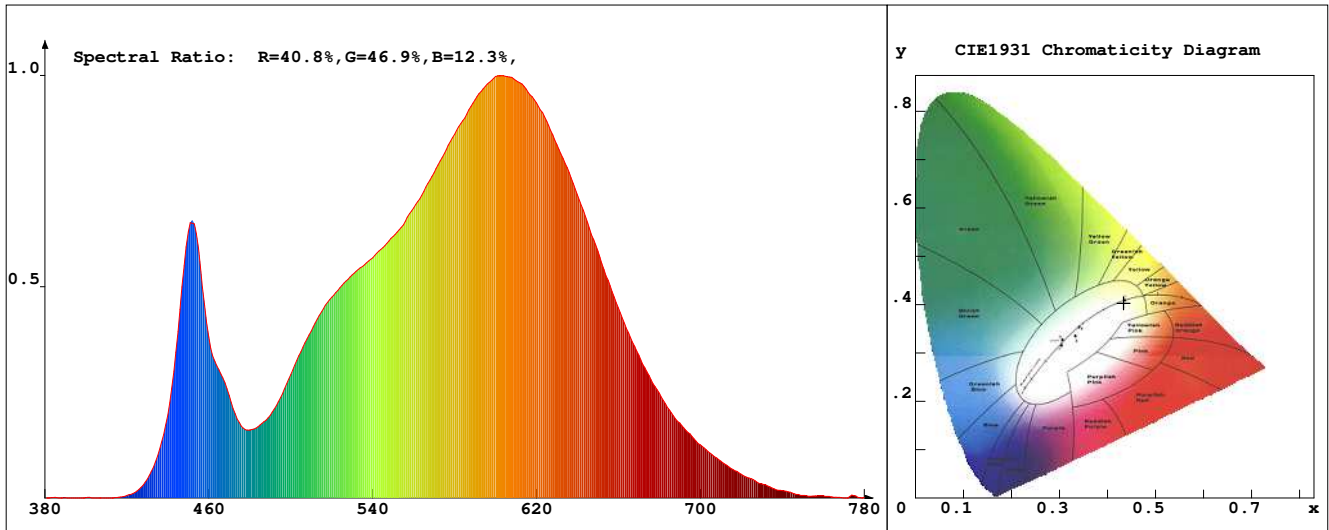


# LED Test Report

**Product Mark**

Product Type : ORR300F52096512 White  
 Temperature : 'C  
 Operator : -  
 Remark :

Manufacturer : -  
 Humidity : -%  
 Test Date : 2024-02-15



**Chroma Parameters**

Chro.Coor.:x=0.4334 y=0.4027 u=0.2489 v=0.3469 duv=-0.0001  
 CCT: 3048K Dominant Wave.:582.6nm Purity:51.0% Centre Wave:589.5nm  
 Flux RGB Ratio:R=21.7%,G=76.7%,B=1.6% Peak Wave:602.8nm Half Width:131.2nm

**Rendering Index:Ra= 81.9 CRI= 78.5**

R1 =80	R2 =89	R3 =97	R4 =82	R5 =82	R6 =88	R7 =82	R8 =58
R9 =5	R10=75	R11=81	R12=66	R13=81	R14=98	R15=72	
PPF:3.079umol/s (400-700nm)			PRF:0.6mW (400-700nm)			PAR:0.6mW (400-700nm)	

**Photo Parameters**

Flux:232.99lm      Effi.:90.6lm/W      Radiant:651.3mW      Iv:0.0mcd  
 Scotopic Flux:314.0Plm      Effi.:0.0Plm/W      S/P:1.3  
 Efficiency:0.00      Effi Level:A++ (EU 874-2012)      Photon Flux:3146.700umol/s (380-780nm)

**Ele. Parameters**

Forward Current:If=107.0mA      Reverse Voltage:Vr=5.00V  
 Forward Voltage:Vf=24.03V      Reverse Current:Ir=0.00uA  
 Power:P=2.590W

**Instrument state**

Instrument:Lisun      Integral Time: 736.155ms      VPeak: 14824  
 VDark: 1310      Scan Range: 380-780nm      Product ID: 201508924

# IES TM-30-2015 Test Report

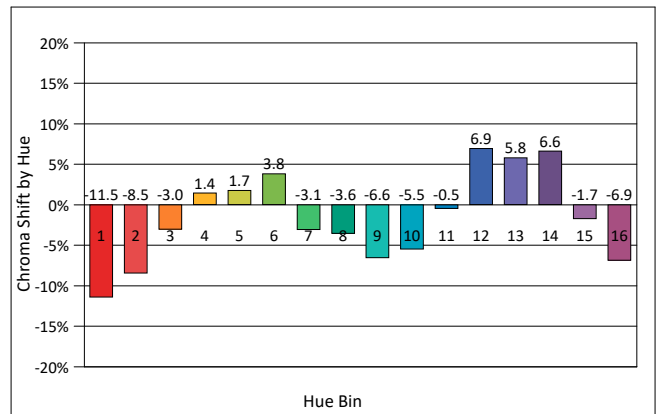
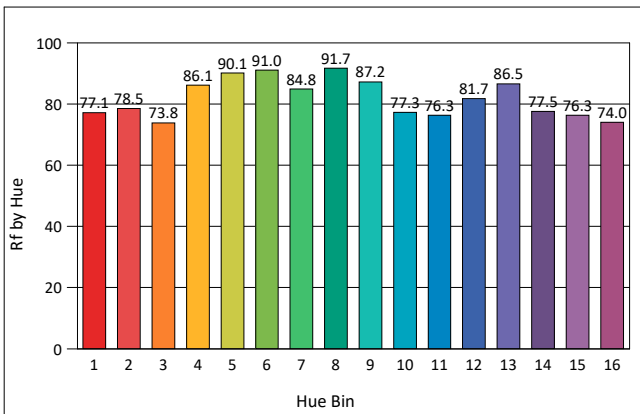
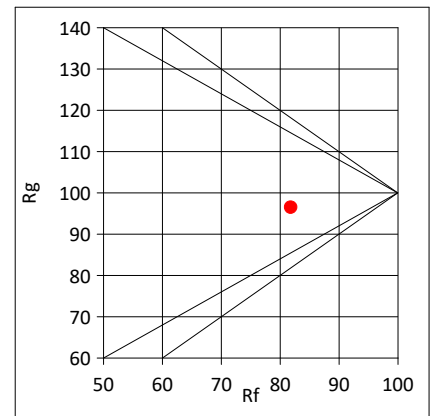
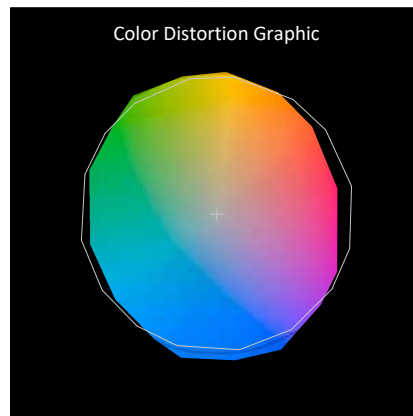
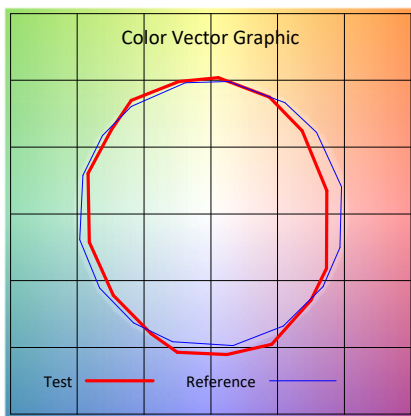
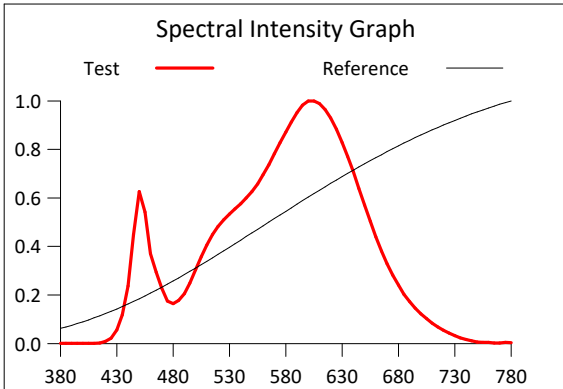
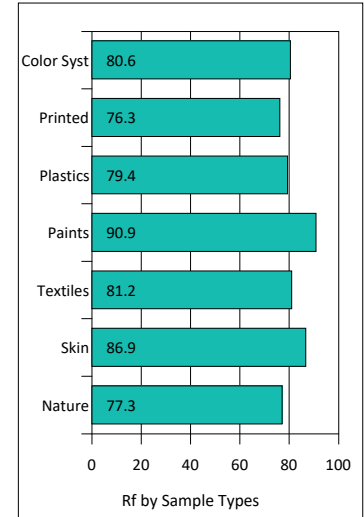
**Product Mark**

Product Type : ORR300F52096512 White  
 Temperature : 'C  
 Operator : -  
 Remark :

Manufacturer : -  
 Humidity : -%  
 Test Date : 2024-02-15

Rf: 81.8      CCT(K): 3048      u': 0.2489  
 Rg: 96.5      LER: 338.5      Duv: -0.0001      v': 0.3469

Hue Bin	Rf	Graphic Shifts (%)	
		Chroma	Hue
1	77.1	-11.5%	-0.7%
2	78.5	-8.5%	7.0%
3	73.8	-3.0%	12.0%
4	86.1	1.4%	7.7%
5	90.1	1.7%	4.5%
6	91.0	3.8%	-2.5%
7	84.8	-3.1%	-7.4%
8	91.7	-3.6%	-2.3%
9	87.2	-6.6%	3.4%
10	77.3	-5.5%	10.3%
11	76.3	-0.5%	15.4%
12	81.7	6.9%	5.2%
13	86.5	5.8%	-5.7%
14	77.5	6.6%	-14.9%
15	76.3	-1.7%	-13.8%
16	74.0	-6.9%	-17.1%



# IES TM-30-2015 Test Report

**Product Mark**

Product Type : ORR300F52096512 White

Manufacturer : -

Temperature : 'C

Humidity : -%

Operator : -

Test Date : 2024-02-15

Remark :

