

SUMMARY

Test Condition: 15V 60Hz for SL06

Setting: 1 (Max light output)

Criteria	Result
Total Lumen Output (lm)	868.664
Total Power(W)	9.8615
Lamp Luminaire Efficacy (lm/W)	88.09
Power Factor	0.7250
Field Angle (°)	66.5
Correlated Color Temperature (CCT)	3063
Color Rendering Index (CRI)	98
Color Rendering Index (R ₉)	93
Fidelity Index (R _f)	95
Gamut Index (R _g)	102
Chromaticity Coordinate (x)	0.4336
Chromaticity Coordinate (y)	0.4047
Chromaticity Coordinate (u')	0.2481
Chromaticity Coordinate (v')	0.5211
In-situ Case Temperature of LED/COB (°C)	84.7
Drive Current of LED/COB (mA)	255
Projection Life Time, Reported L70 (hours)	>66000

Test Condition: 15V 60Hz for SL06

Setting: 2 (Medium light output)

Criteria	Result
Total Lumen Output (lm)	723.363
Total Power(W)	7.8983
Lamp Luminaire Efficacy (lm/W)	91.58
Power Factor	0.7116
Correlated Color Temperature (CCT)	3063
Color Rendering Index (CRI)	98
Color Rendering Index (R ₉)	95
Fidelity Index (R _f)	95
Gamut Index (R _g)	102
Chromaticity Coordinate (x)	0.4336
Chromaticity Coordinate (y)	0.4048
Chromaticity Coordinate (u')	0.2481
Chromaticity Coordinate (v')	0.5212

***** End of Page *****

SUMMARY (Cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 3 (Medium light output)

Criteria	Result
Total Lumen Output (lm)	599.722
Total Power(W)	6.3849
Lamp Luminaire Efficacy (lm/W)	93.93
Power Factor	0.7043
Correlated Color Temperature (CCT)	3056
Color Rendering Index (CRI)	98
Color Rendering Index (R ₉)	95
Fidelity Index (R _f)	95
Gamut Index (R _g)	102
Chromaticity Coordinate (x)	0.4339
Chromaticity Coordinate (y)	0.4045
Chromaticity Coordinate (u')	0.2484
Chromaticity Coordinate (v')	0.5211

Test Condition: 15V 60Hz for SL06

Setting: 4 (Medium light output)

Criteria	Result
Total Lumen Output (lm)	504.647
Total Power(W)	5.1931
Lamp Luminaire Efficacy (lm/W)	97.18
Power Factor	0.7032
Correlated Color Temperature (CCT)	3051
Color Rendering Index (CRI)	98
Color Rendering Index (R ₉)	96
Fidelity Index (R _f)	95
Gamut Index (R _g)	102
Chromaticity Coordinate (x)	0.4340
Chromaticity Coordinate (y)	0.4043
Chromaticity Coordinate (u')	0.2486
Chromaticity Coordinate (v')	0.5210

***** End of Page *****

SUMMARY (Cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 5 (Medium light output)

Criteria	Result
Total Lumen Output (lm)	380.567
Total Power(W)	3.848
Lamp Luminaire Efficacy (lm/W)	98.90
Power Factor	0.6995
Correlated Color Temperature (CCT)	3043
Color Rendering Index (CRI)	98
Color Rendering Index (R ₉)	97
Fidelity Index (R _f)	95
Gamut Index (R _g)	102
Chromaticity Coordinate (x)	0.4343
Chromaticity Coordinate (y)	0.4038
Chromaticity Coordinate (u')	0.2490
Chromaticity Coordinate (v')	0.5209

Test Condition: 15V 60Hz for SL06

Setting: 6 (Minimum light output)

Criteria	Result
Total Lumen Output (lm)	269.376
Total Power(W)	2.6895
Lamp Luminaire Efficacy (lm/W)	100.16
Power Factor	0.6802
Correlated Color Temperature (CCT)	3035
Color Rendering Index (CRI)	98
Color Rendering Index (R ₉)	97
Fidelity Index (R _f)	95
Gamut Index (R _g)	102
Chromaticity Coordinate (x)	0.4346
Chromaticity Coordinate (y)	0.4034
Chromaticity Coordinate (u')	0.2493
Chromaticity Coordinate (v')	0.5208

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EQUIPMENT LIST

Equipment Used	Model Number	Control Number
Fluke Temperature Meter	52	EC2357
Everfine- DC Power Supply	WY12010	EC4753-7
Everfine- AC power source for Integrating Sphere System	VPS1010 PWM	EC4760-12
Everfine - AC power source for Goniophotometer System	VPS1060 PWM	EC4753-8
Two meter integrating sphere unit	Everfine – 2M	EC4760
Everfine - Digital Power Meter	PF2010A	EC4760-10
YOKOGAWA - Digital Power Meter	WT210	EC4553
Everfine – Goniophotometer	Go-R5000	EC4753
Draught-proof enclosure	N/A	EC2201
Agilent - Data Acquisition Unit	34970A	EC2043
QINGZHI - Power Meter	8770A	EC2652
YOKOGAWA - Digital Power Meter	WT-210	EC4553

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TEST METHOD

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79

Light Distribution and Output Measurements

Light Distribution and total light output (luminous flux) were measured using a Go-R5000 Type-C Rotating Mirror Goniophotometer. Temperature 25°C and relative humidity of 60% was measured at a position in the testing laboratory.

The lamp rotates only around the fixed vertical axle in the prescribed burning position. The lamp and mirror permit the measurement of luminous intensity at the direction of any horizontal or vertical angle without tilting the lamp. The lamp was allowed to stabilize before measurements were made.

Chromaticity Measurements

Chromaticity was measured using a 2 meters integrating sphere spectral lamp measurement system. Temperature was measured at a position inside the sphere shielded from direct light. Relative humidity of 65% was measured at a position in the testing laboratory.

Spectral radiant flux measurements were made using spectroradiometer attached to the detector port of the integrating sphere. Each lamp was allowed to stabilize before measurements were made. The calibration of the integrating sphere spectroradiometer system is by the reference/standard lamps which are traceable to National Institute of Metrology P.R. CHINA. Lamp efficacy (lumens per watt) for each lamp model was then computed based on the luminous flux result. Electrical measurements including voltage, power and power factor were measured using YOKOGAWA - Digital Power Meter., model WT210.

Standard lamp used:
Model: Labsphere SCL-1400
Current: 2.679A

Temperature Measurement Test

The sample was operated at 25±5°C until constant temperatures were obtained. A temperature was considered constant if sample was operating for at least three hours and upon three successive readings-taken at 15 minutes intervals- were within one degree and were not rising.

Thermocouples were attached at locations described in the results by means of epoxy.

Driver current Measurement Test

During the temperature measurement test, measure the forward current for each LED package/array/module.

***** End of Page *****

RESULTS OF TESTS

Test Condition: 15V 60Hz for SL06

Setting: 1 (Max light output)

Total operation burning time: 70 min

Stabilization time: 60 min

Photometric Measurements at 25°C

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
SL06							
0231201-15-016	N/A	3063	98	0.4336	0.4047	0.2481	0.5211

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (A)	Lamp Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
SL06							
0231201-15-016	N/A	15.0	0.9084	9.8615	0.7250	868.664	88.09

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SL06		
0-30	718.2	82.7
0-40	820.4	94.4
0-60	865.9	99.7
0-90	868.7	100.0
0-180	868.7	100.00

Beam Angle

	Horizontal Spread (°)	Vertical Spread (°)
SL06		
Beam (50%)	34.1	33.6
Beam Angle	33.8	

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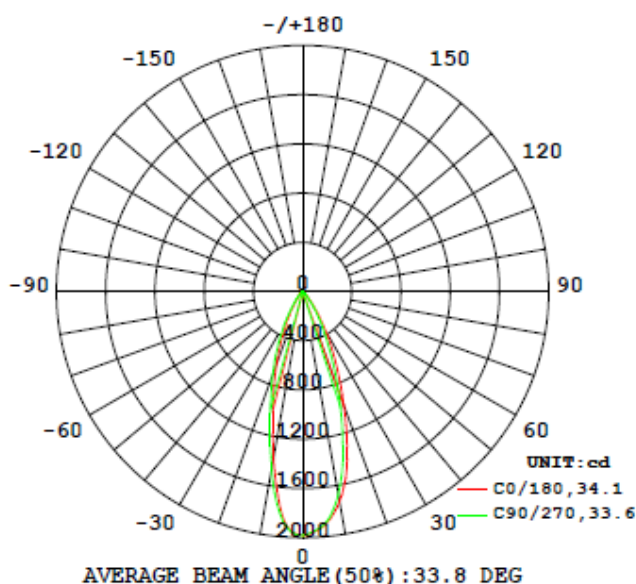
RESULTS OF TESTS (cont'd)

Intensity (Candlepower) Summary at 25°C – Candelas

Test Condition: 15V 60Hz for SL06

Setting: 1 (Max light output)

G \ C(°)	0	22.5	45	67.5	90
0	1979.2	1979.2	1979.2	1979.2	1979.2
5	1916.7	1890.3	1879.7	1880.0	1907.4
10	1731.3	1700.9	1670.7	1649.6	1672.0
15	1402.5	1367.2	1320.5	1255.6	1266.0
20	975.8	933.9	885.5	831.0	839.1
25	634.8	597.2	550.9	509.1	516.9
30	381.9	353.2	319.7	292.5	302.0
35	209.2	191.0	170.8	152.6	160.5
40	96.3	89.2	78.8	70.2	73.3
45	45.9	41.8	38.2	36.8	38.3
50	24.4	24.3	23.5	23.7	25.1
55	16.7	16.8	16.5	16.0	16.9
60	4.2	4.5	4.3	4.3	5.1
65	2.3	2.4	2.3	2.2	2.5
70	1.2	1.2	1.1	1.1	1.2
75	0.5	0.6	0.4	0.4	0.5
80	0.1	0.1	0.1	0.1	0.2
85	0.0	0.0	0.0	0.1	0.1
90	0.0	0.0	0.0	0.0	0.0



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RESULTS OF TESTS (cont'd)

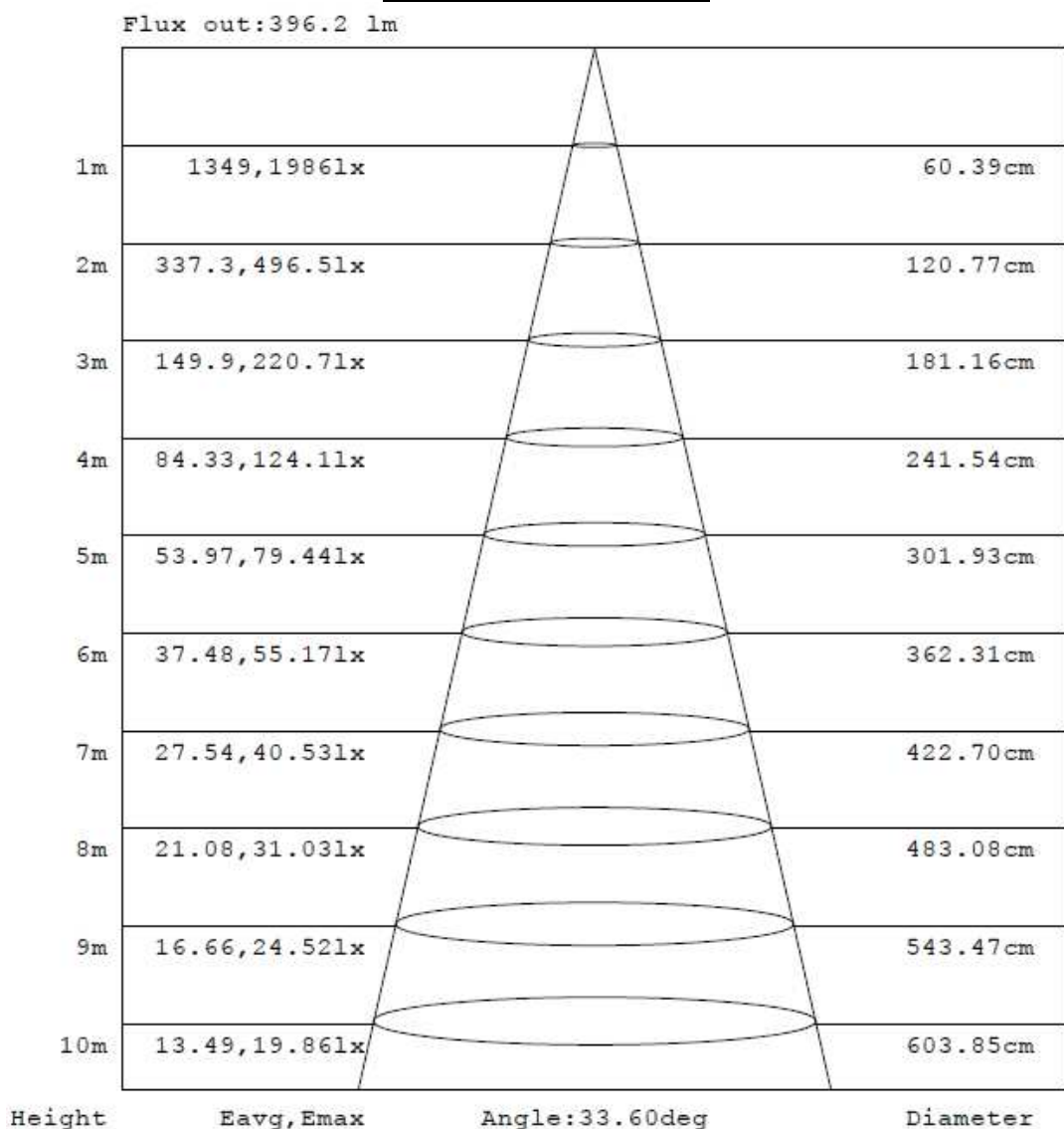
Test Condition: 15V 60Hz for SL06

Setting: 1 (Max light output)

Illumination Plots

Model No.: SL06
Mount Height: 10 m

Illuminance - Cone of Light



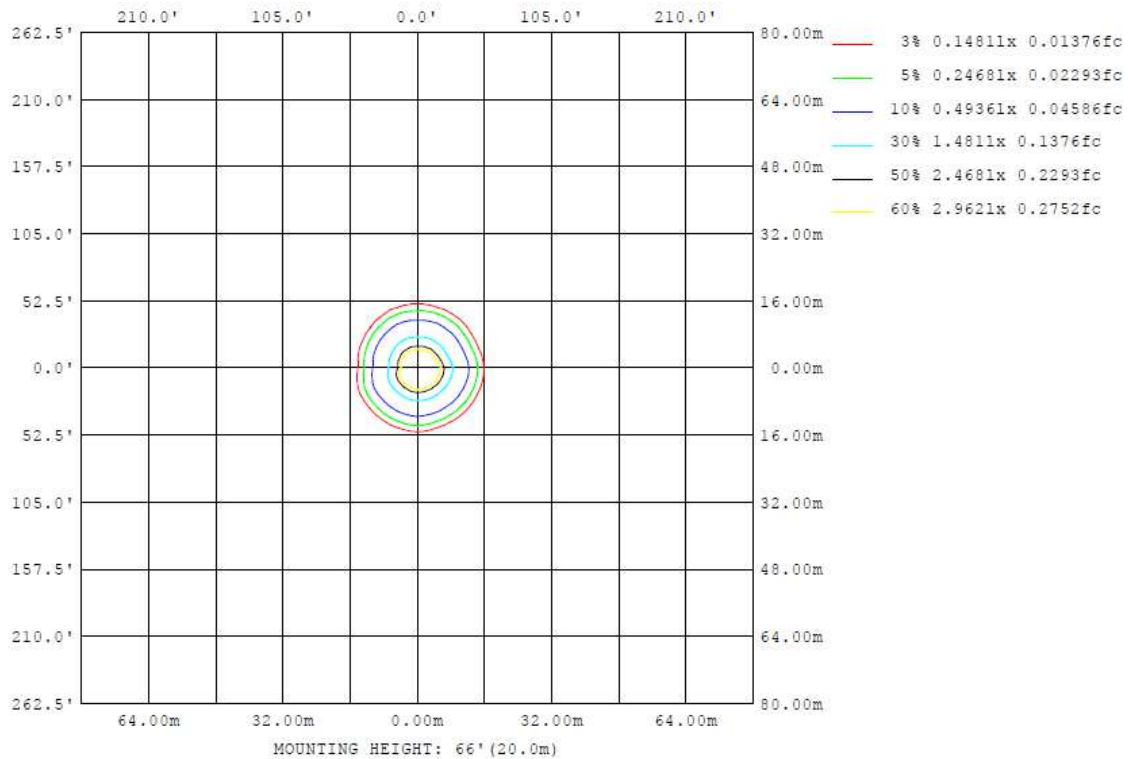
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06
Setting: 1 (Max light output)

Model No.: SL06
Mount Height: 20 m
Isoillumination Plot



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RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06
Setting: 1 (Max light output)

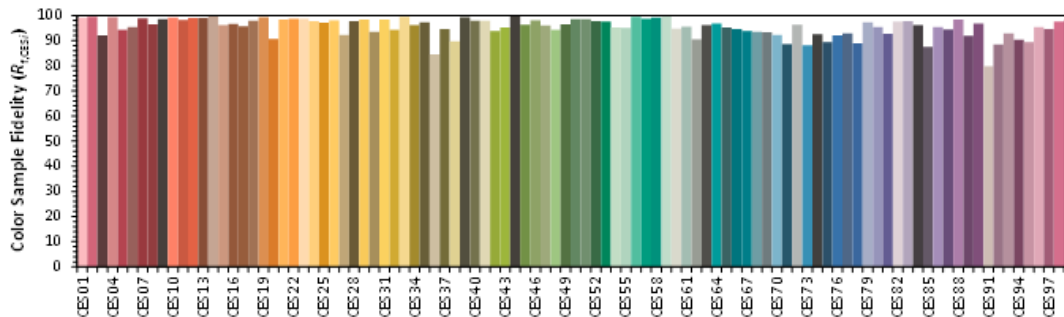
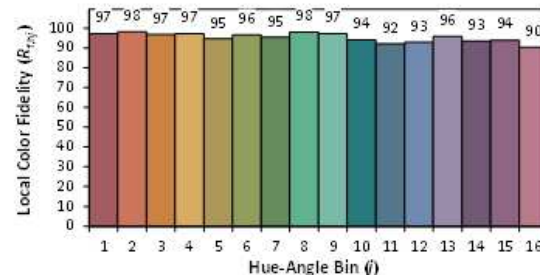
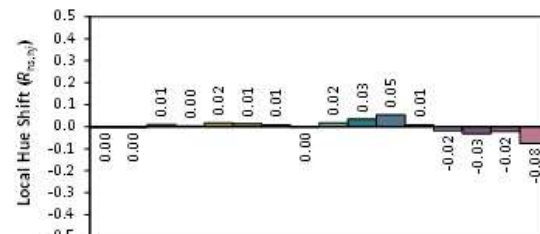
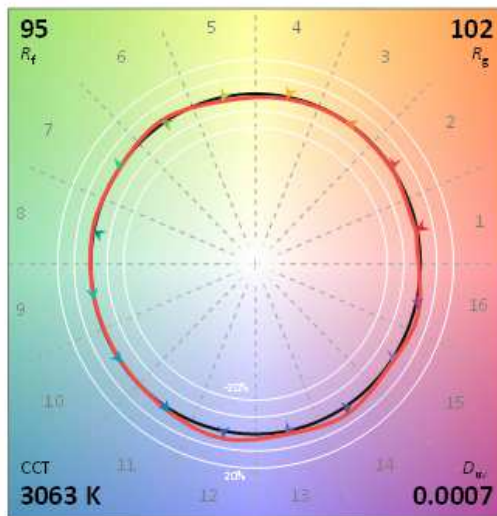
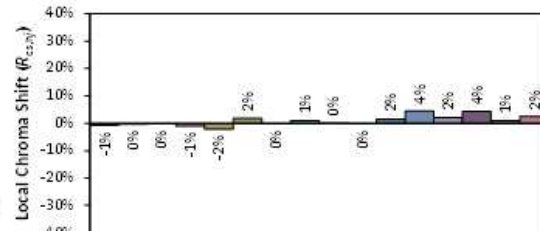
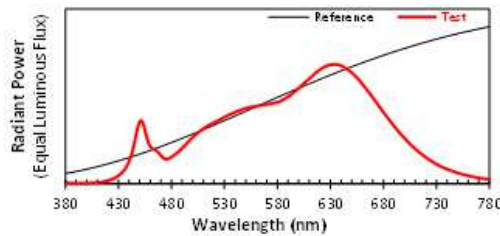
ANSI/IES TM-30-18 Color Rendition Report

Source: LED

Manufacturer: STERLING LIGHTING LLC

Date: 12/18/2023

Model: SL06



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4336
y 0.4047
u' 0.2481
v' 0.5211

CIE 13.3-1995
(CRI)

R_a 98

R_g 93

***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 2 (Medium light output)

Total operation burning time: 70 min

Stabilization time: 60 min

Photometric Measurements at 25°C

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
SL06							
0231201-15-016	N/A	3063	98	0.4336	0.4048	0.2481	0.5212

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (A)	Lamp Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
SL06							
0231201-15-016	N/A	15.0	0.7402	7.8983	0.7116	723.363	91.58

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SL06		
0-30	600.2	83.0
0-40	684.2	94.6
0-60	721.2	99.7
0-90	723.4	100.0
0-180	723.4	100.00

Beam Angle

	Horizontal Spread (°)	Vertical Spread (°)
SL06		
Beam (50%)	33.9	33.8
Beam Angle	33.9	

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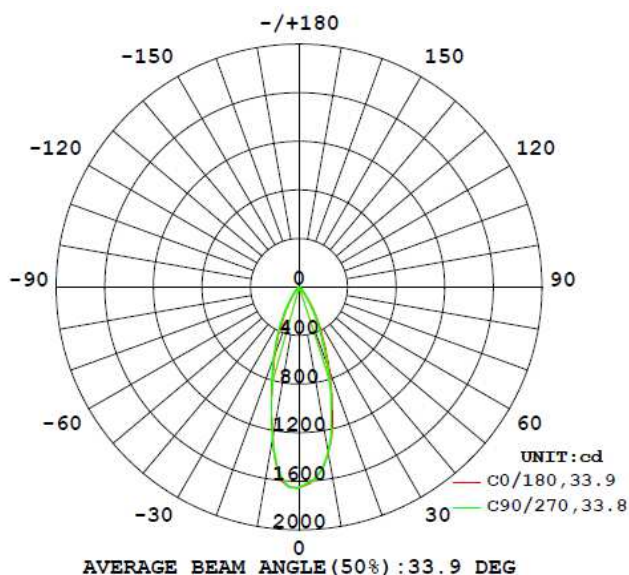
RESULTS OF TESTS (cont'd)

Intensity (Candlepower) Summary at 25°C – Candelas

Test Condition: 15V 60Hz for SL06

Setting: 2 (Medium light output)

G \ C(°)	0	22.5	45	67.5	90
0	1649.5	1649.5	1649.5	1649.5	1649.5
5	1575.1	1554.8	1548.4	1557.6	1573.8
10	1383.6	1371.3	1368.5	1372.0	1381.2
15	1066.0	1058.2	1058.9	1058.5	1038.2
20	721.4	713.9	706.0	698.4	683.2
25	461.4	451.8	435.7	427.2	417.3
30	273.5	263.9	254.9	246.7	243.1
35	145.3	139.2	133.7	128.1	124.9
40	65.4	62.9	61.4	59.0	56.3
45	32.8	31.5	30.6	30.3	29.7
50	19.7	19.5	19.7	19.4	18.9
55	15.0	13.7	14.2	13.8	13.4
60	3.3	4.0	3.8	3.9	4.0
65	2.0	2.2	2.1	2.1	2.0
70	1.1	1.2	1.1	1.1	1.0
75	0.5	0.6	0.5	0.5	0.4
80	0.1	0.1	0.1	0.1	0.1
85	0.0	0.0	0.0	0.1	0.0
90	0.0	0.0	0.0	0.0	0.0



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RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

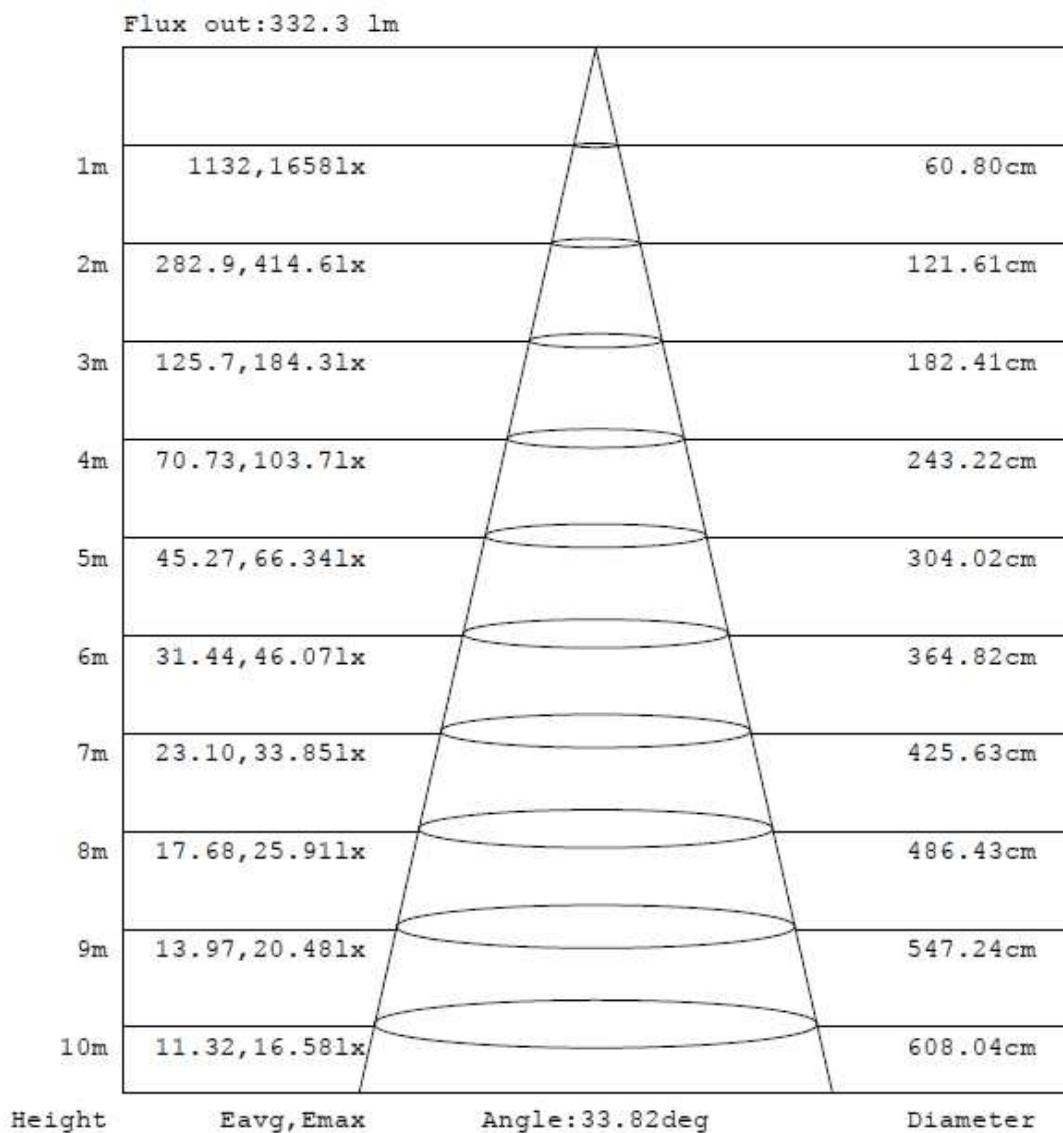
Setting: 2 (Medium light output)

Illumination Plots

Model No.: SL06

Mount Height: 10 m

Illuminance - Cone of Light



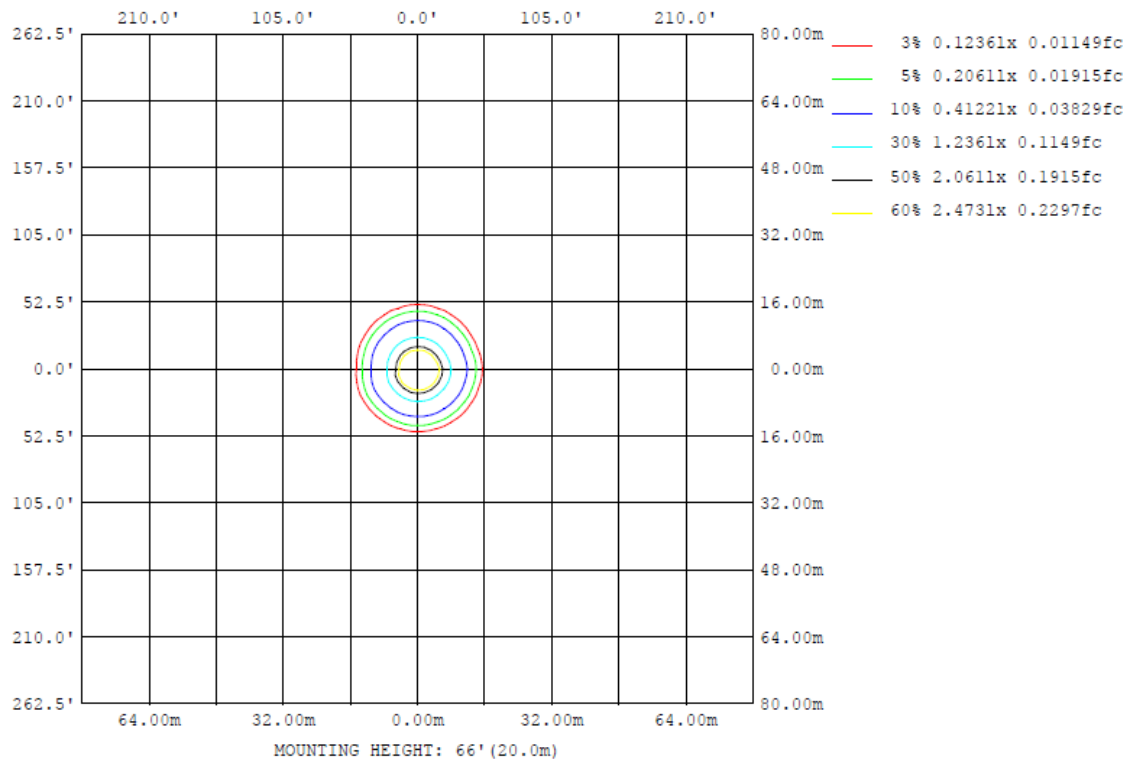
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06
Setting: 2 (Medium light output)

Model No.: SL06
Mount Height: 20 m
Isoillumination Plot



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RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 2 (Medium light output)

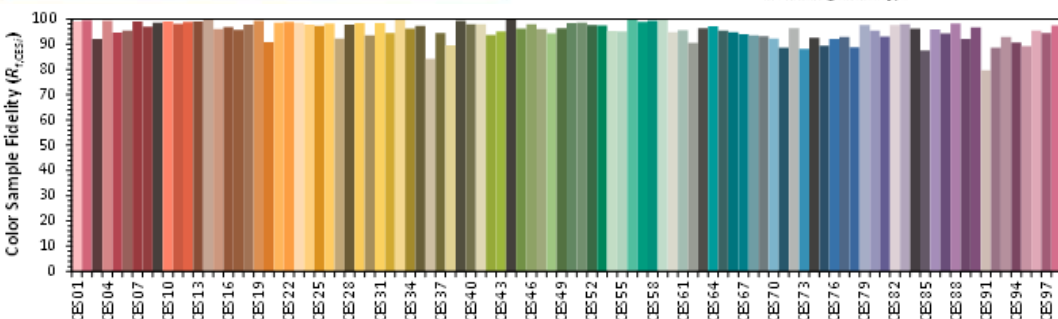
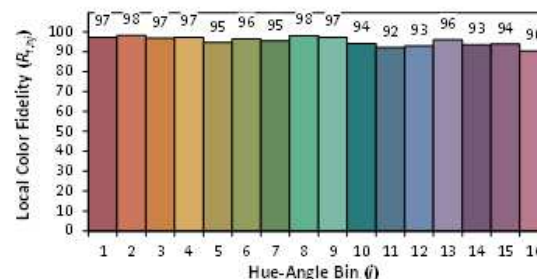
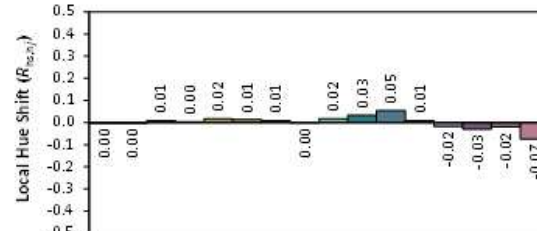
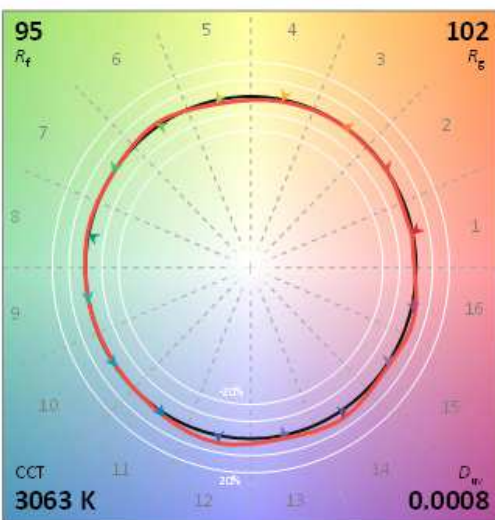
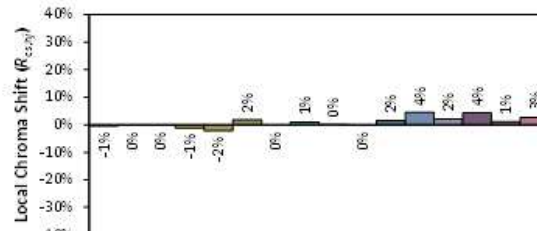
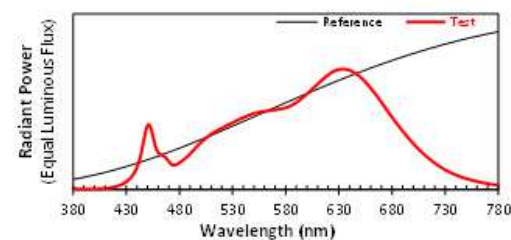
ANSI/IES TM-30-18 Color Rendition Report

Source: LED

Manufacturer: STERLING LIGHTING LLC

Date: 12/18/2023

Model: SL06



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4336
y 0.4048
u' 0.2481
v' 0.5212

CIE 13.3-1995
(CRI)

R_a 98
R_g 95

***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 3 (Medium light output)

Total operation burning time: 70 min

Stabilization time: 60 min

Photometric Measurements at 25°C

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
SL06							
0231201-15-016	N/A	3056	98	0.4339	0.4045	0.2484	0.5211

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (A)	Lamp Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
SL06							
0231201-15-016	N/A	15.0	0.6035	6.3849	0.7043	599.722	93.93

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SL06		
0-30	498.1	83.1
0-40	567.5	94.6
0-60	598.0	99.7
0-90	599.7	100.0
0-180	599.7	100.00

Beam Angle

	Horizontal Spread (°)	Vertical Spread (°)
SL06		
Beam (50%)	34.0	34.0
Beam Angle	34.0	

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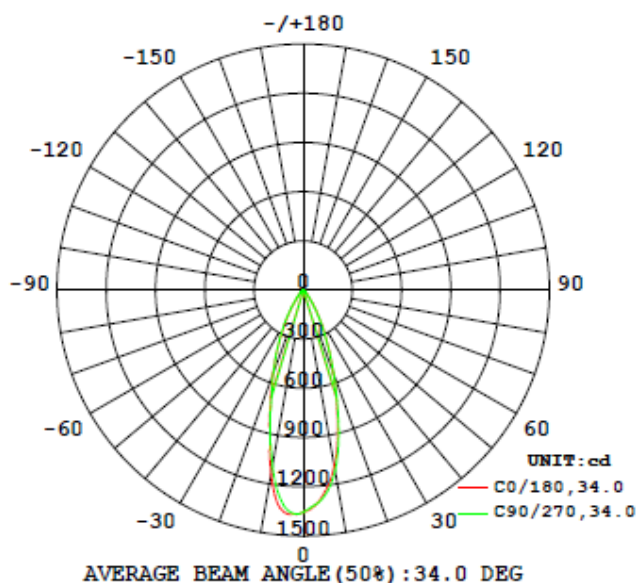
RESULTS OF TESTS (cont'd)

Intensity (Candlepower) Summary at 25°C – Candelas

Test Condition: 15V 60Hz for SL06

Setting: 3 (Medium light output)

G \ C(°)	0	22.5	45	67.5	90
0	1354.1	1354.1	1354.1	1354.1	1354.1
5	1270.7	1256.5	1251.8	1262.7	1282.8
10	1090.4	1078.7	1081.5	1095.4	1118.9
15	806.9	792.5	800.4	816.1	830.7
20	539.3	525.5	522.8	531.5	542.9
25	341.1	326.1	317.3	320.2	327.5
30	196.4	187.0	182.0	181.2	187.3
35	100.2	95.2	93.1	93.2	96.5
40	45.6	42.5	42.3	42.1	43.0
45	24.6	23.7	23.3	23.7	23.9
50	15.2	15.1	15.4	15.3	15.1
55	10.6	10.9	10.8	10.5	10.7
60	2.5	2.9	2.8	3.0	3.0
65	1.5	1.7	1.6	1.6	1.6
70	0.8	0.9	0.8	0.8	0.8
75	0.2	0.3	0.3	0.3	0.3
80	0.1	0.1	0.1	0.1	0.1
85	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0



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RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 3 (Medium light output)

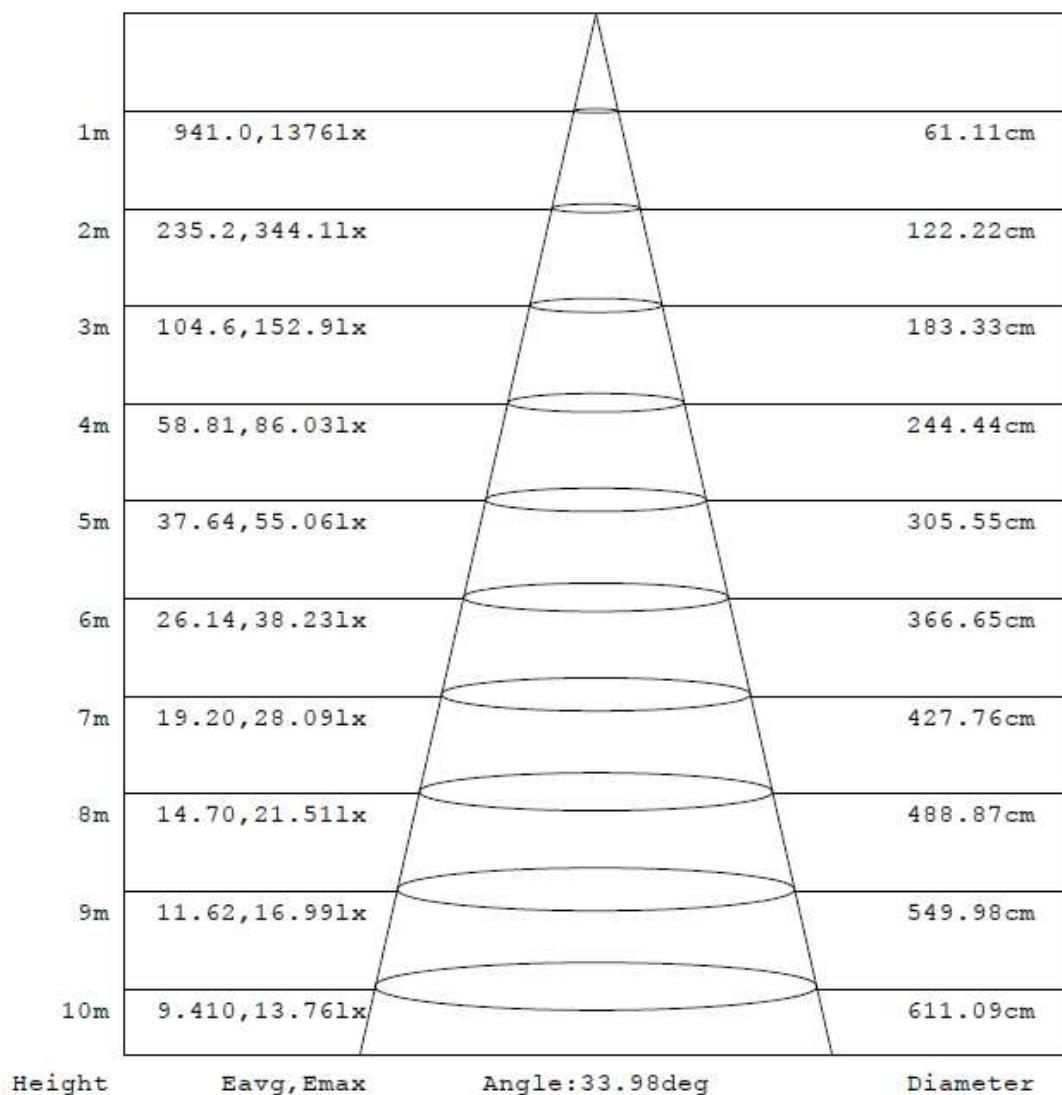
Illumination Plots

Model No.: SL06

Mount Height: 10 m

Illuminance - Cone of Light

Flux out: 276.3 lm



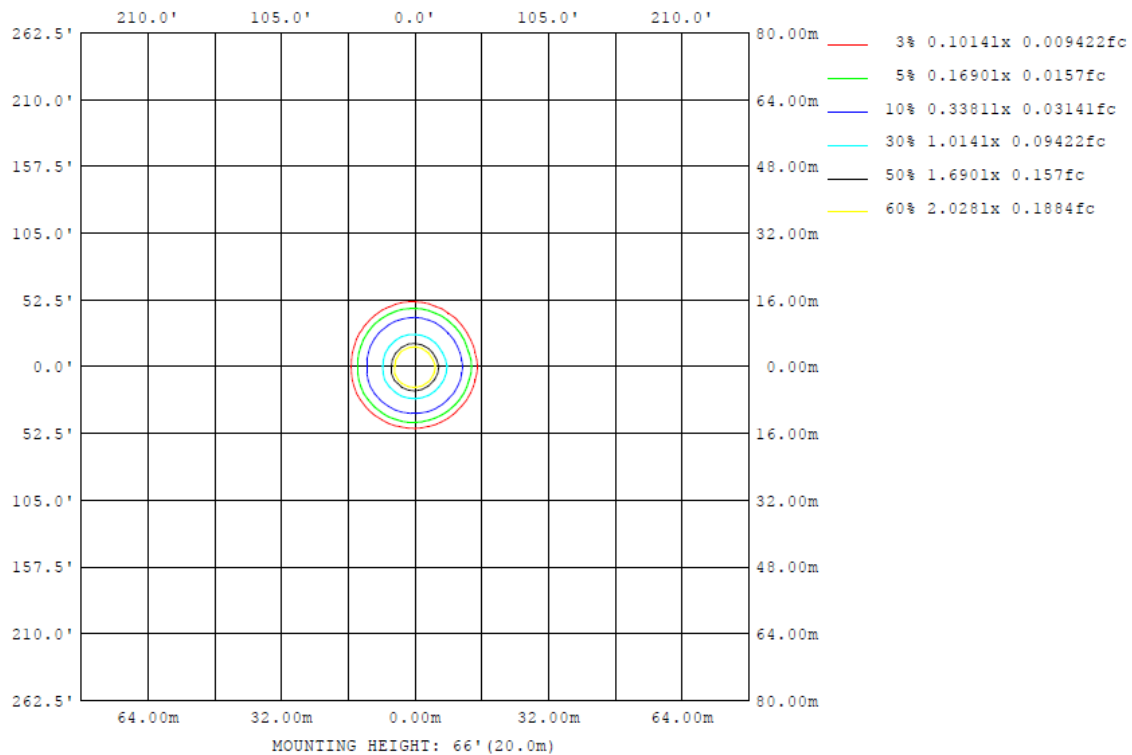
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06
Setting: 3 (Medium light output)

Model No.: SL06
Mount Height: 20 m
Isoillumination Plot



***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 3 (Medium light output)

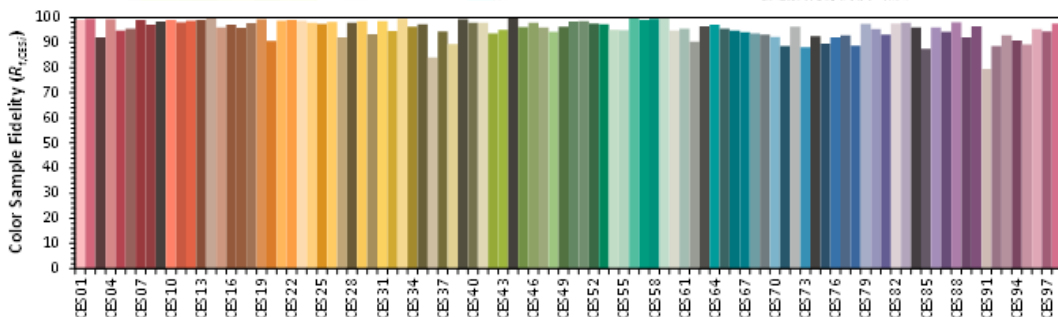
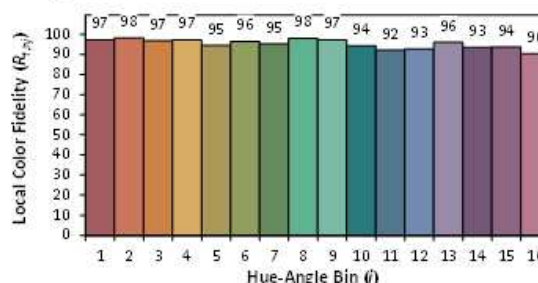
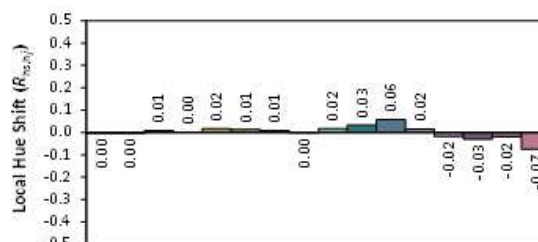
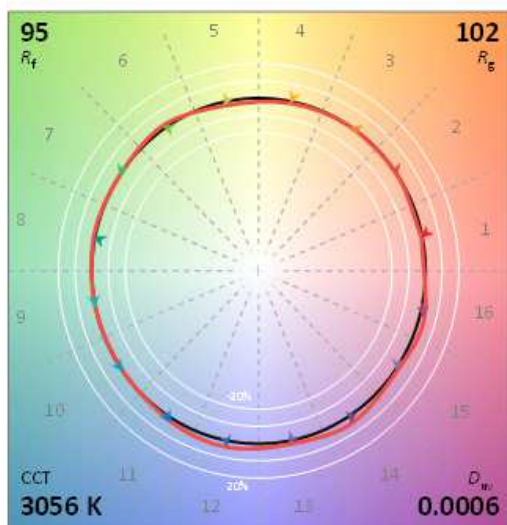
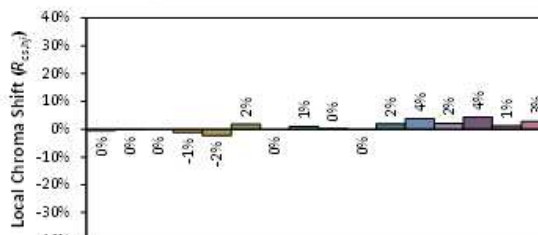
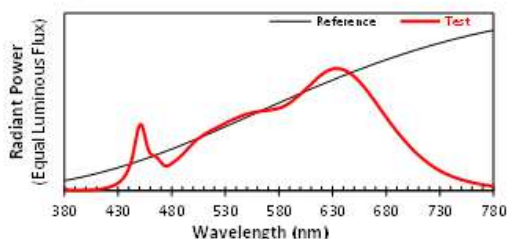
ANSI/IES TM-30-18 Color Rendition Report

Source: LED

Date: 12/18/2023

Manufacturer: STERLING LIGHTING LLC

Model: SL06



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4339
y 0.4045
u' 0.2484
v' 0.5211

CIE 13.3-1995
(CRI)

R_a 98
R_g 95

***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 4 (Medium light output)

Total operation burning time: 70 min

Stabilization time: 60 min

Photometric Measurements at 25°C

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
SL06							
0231201-15-016	N/A	3051	98	0.4340	0.4043	0.2486	0.5210

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (A)	Lamp Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
SL06							
0231201-15-016	N/A	15.0	0.4890	5.1931	0.7032	504.647	97.18

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SL06		
0-30	415.3	82.3
0-40	476.4	94.4
0-60	503.1	99.7
0-90	504.6	100.0
0-180	504.6	100.00

Beam Angle

	Horizontal Spread (°)	Vertical Spread (°)
SL06		
Beam (50%)	34.7	34.8
Beam Angle	34.8	

***** End of Page *****

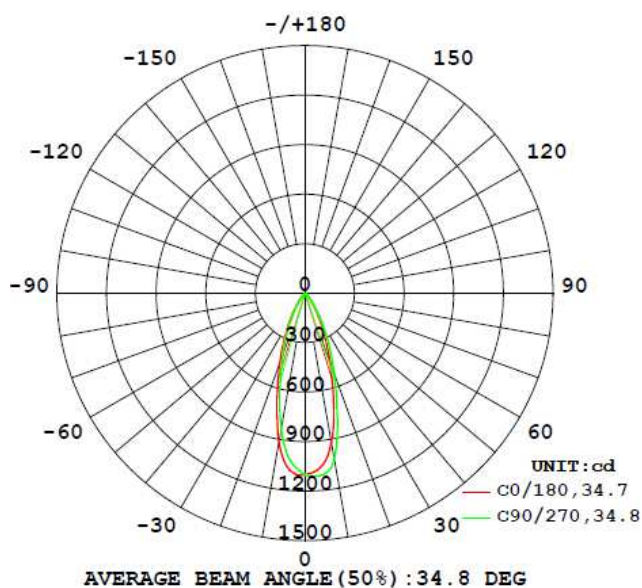
RESULTS OF TESTS (cont'd)

Intensity (Candlepower) Summary at 25°C – Candelas

Test Condition: 15V 60Hz for SL06

Setting: 4 (Medium light output)

G \ C(°)	0	22.5	45	67.5	90
0	1100.5	1100.5	1100.5	1100.5	1100.5
5	1060.8	1076.2	1090.4	1101.7	1109.1
10	918.3	943.7	970.8	1000.7	1019.4
15	667.4	693.3	719.7	742.4	757.7
20	442.1	458.7	475.1	496.8	515.3
25	277.3	291.3	305.4	324.6	339.9
30	166.4	174.1	184.3	196.9	208.2
35	88.4	95.4	102.1	109.4	116.6
40	41.5	45.5	49.5	53.1	56.2
45	22.3	24.5	26.4	27.6	29.8
50	13.4	15.2	15.7	16.1	16.2
55	9.1	9.5	10.6	10.3	9.9
60	2.6	2.7	2.7	2.7	2.7
65	1.3	1.3	1.4	1.4	1.5
70	0.6	0.7	0.7	0.8	0.8
75	0.2	0.3	0.3	0.3	0.3
80	0.1	0.1	0.1	0.1	0.1
85	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0



***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 4 (Medium light output)

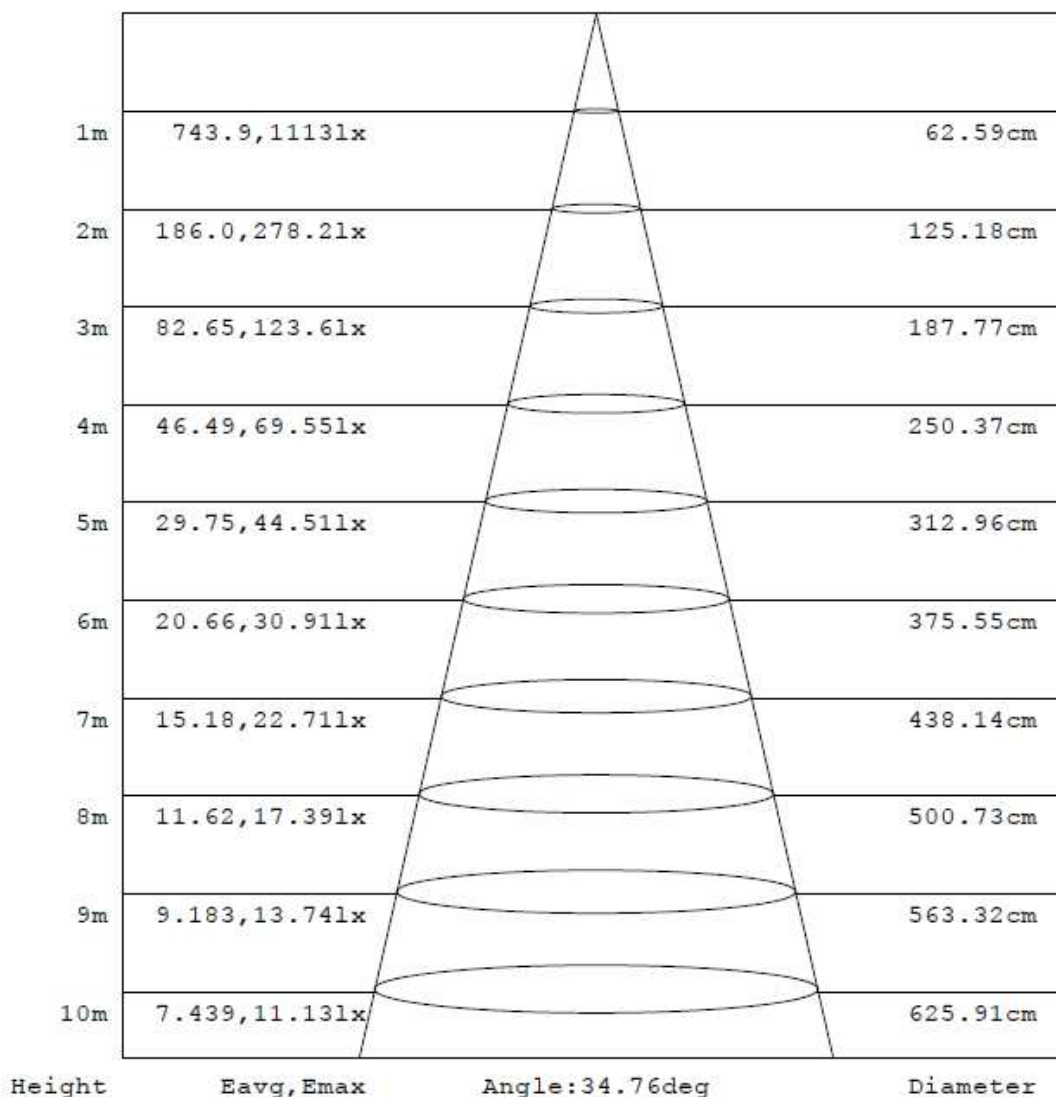
Illumination Plots

Model No.: SL06

Mount Height: 10 m

Illuminance - Cone of Light

Flux out: 246.7 lm



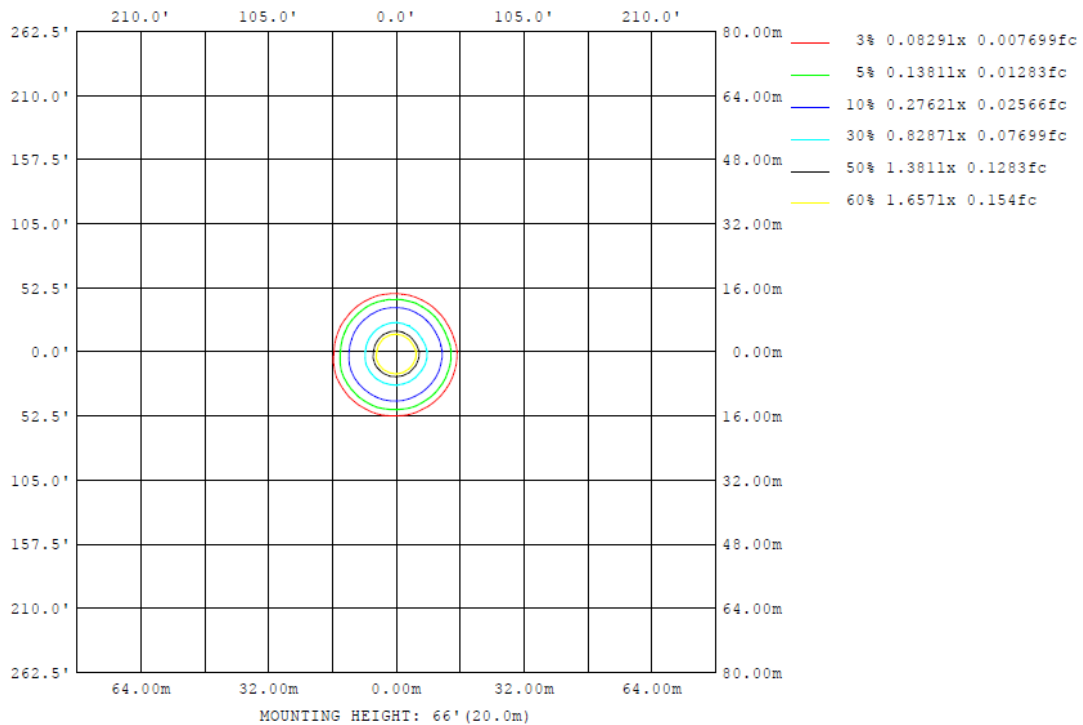
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06
Setting: 4 (Medium light output)

Model No.: SL06
Mount Height: 20 m
Isoillumination Plot



***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 4 (Medium light output)

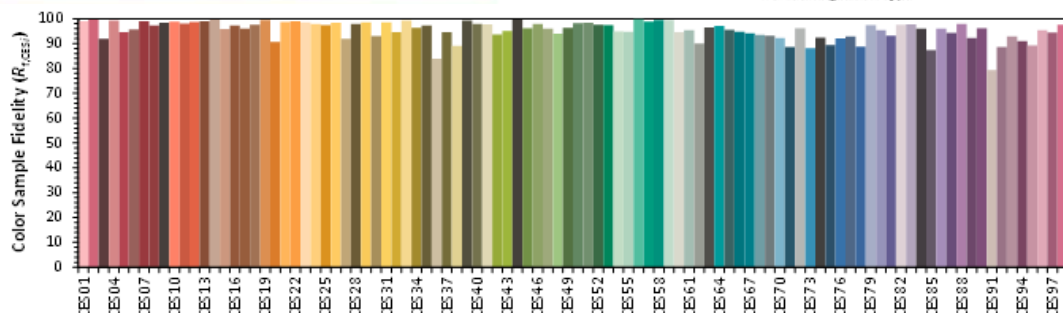
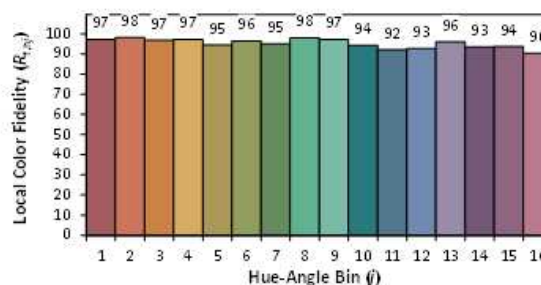
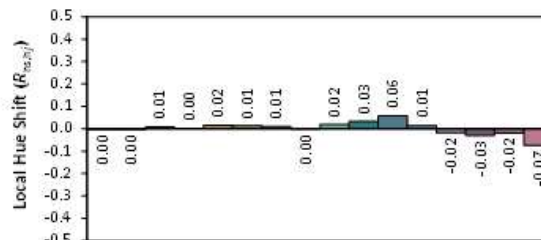
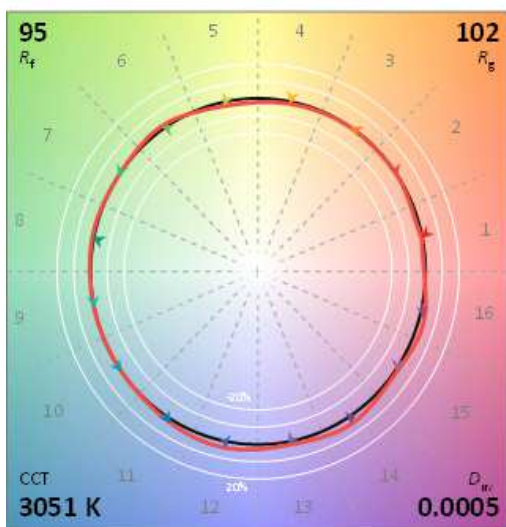
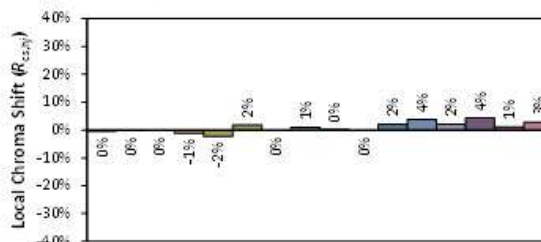
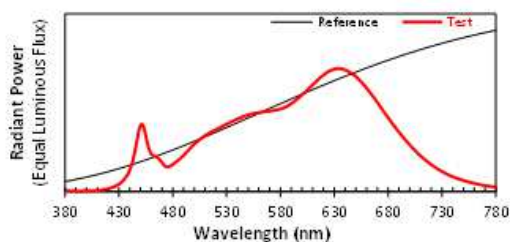
ANSI/IES TM-30-18 Color Rendition Report

Source: LED

Manufacturer: STERLING LIGHTING LLC

Date: 12/18/2023

Model: SL06



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4340

y 0.4043

u' 0.2486

v' 0.5210

CIE 13.3-1995
(CRI)

R_a 98

R₉ 96

***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 5 (Medium light output)

Total operation burning time: 70 min

Stabilization time: 60 min

Photometric Measurements at 25°C

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
SL06							
0231201-15-016	N/A	3043	98	0.4343	0.4038	0.2490	0.5209

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (A)	Lamp Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
SL06							
0231201-15-016	N/A	15.0	0.3664	3.848	0.6995	380.567	98.90

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SL06		
0-30	313.4	82.4
0-40	359.8	94.6
0-60	379.5	99.7
0-90	380.6	100.0
0-180	380.6	100.00

Beam Angle

	Horizontal Spread (°)	Vertical Spread (°)
SL06		
Beam (50%)	34.6	34.4
Beam Angle	34.5	

***** End of Page *****

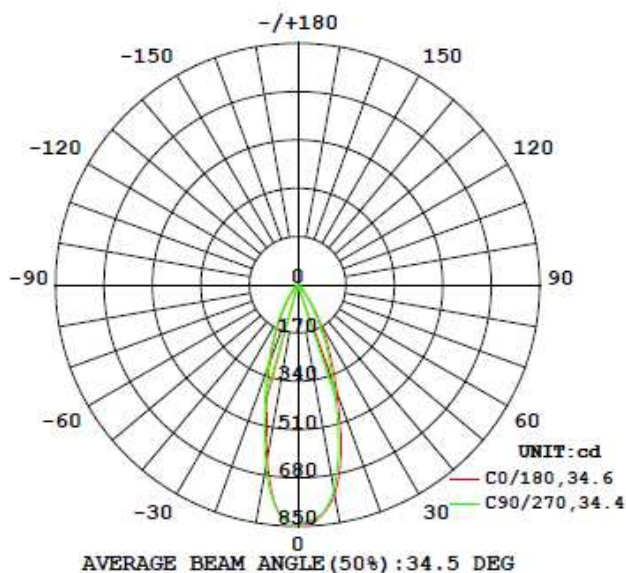
RESULTS OF TESTS (cont'd)

Intensity (Candlepower) Summary at 25°C – Candelas

Test Condition: 15V 60Hz for SL06

Setting: 5 (Medium light output)

G \ C(°)	0	22.5	45	67.5	90
0	840.5	840.5	840.5	840.5	840.5
5	825.8	820.9	818.8	820.0	820.0
10	748.6	747.3	744.8	739.1	730.8
15	586.7	587.9	582.7	572.6	551.5
20	403.2	404.1	396.6	384.4	368.5
25	268.1	268.2	259.4	249.2	236.6
30	165.2	164.6	157.8	149.6	141.8
35	92.9	92.5	88.4	83.7	78.1
40	44.5	43.8	42.5	40.6	37.1
45	22.0	21.1	20.3	19.6	18.5
50	11.1	11.0	11.0	11.0	10.5
55	7.2	7.2	7.7	7.5	7.1
60	1.8	1.9	2.0	2.1	2.1
65	1.0	1.0	1.1	1.1	1.0
70	0.5	0.6	0.5	0.5	0.5
75	0.2	0.3	0.2	0.2	0.2
80	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0



***** End of Page *****

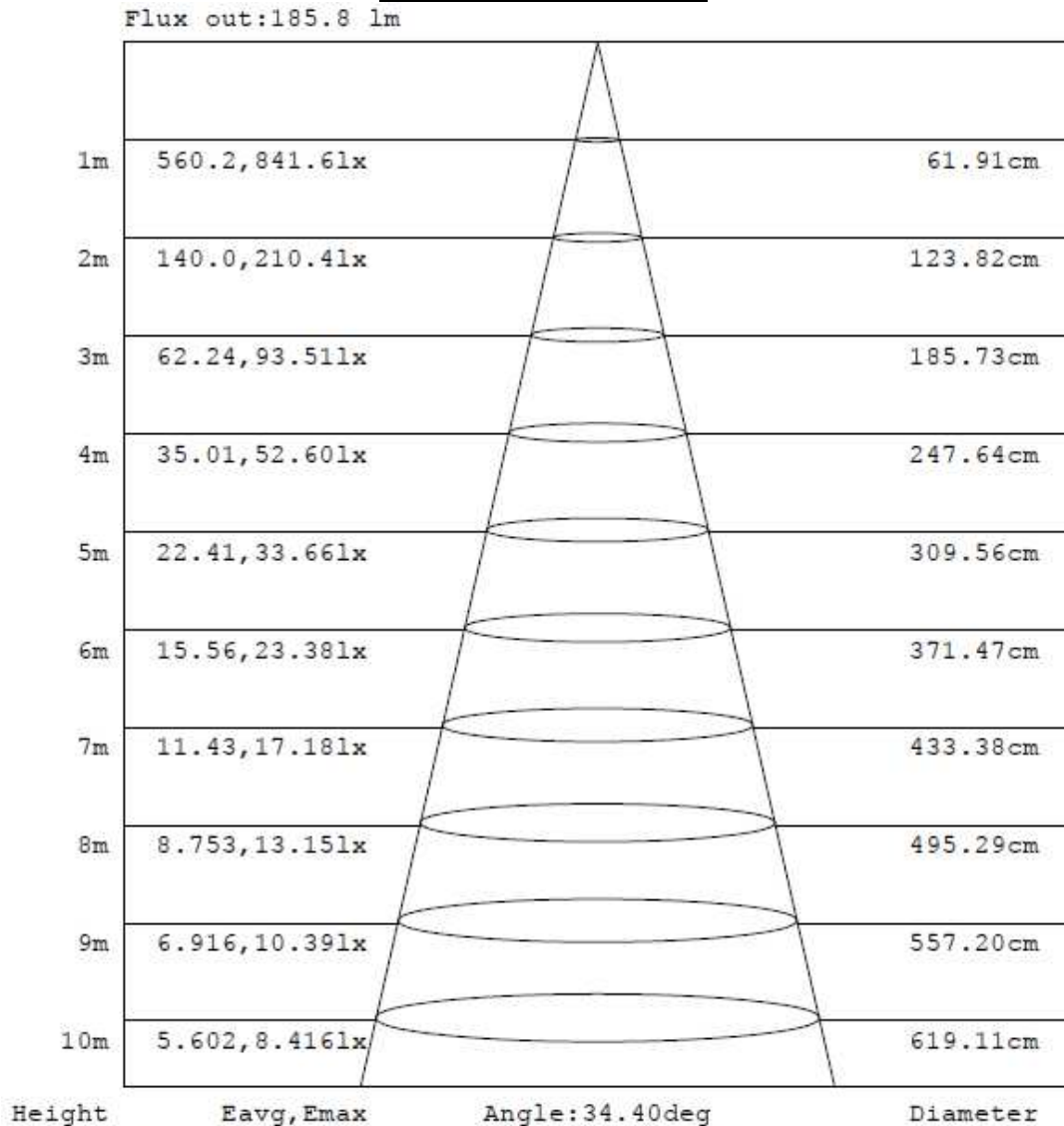
RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06
Setting: 5 (Medium light output)

Illumination Plots

Model No.: SL06
Mount Height: 10 m

Illuminance - Cone of Light



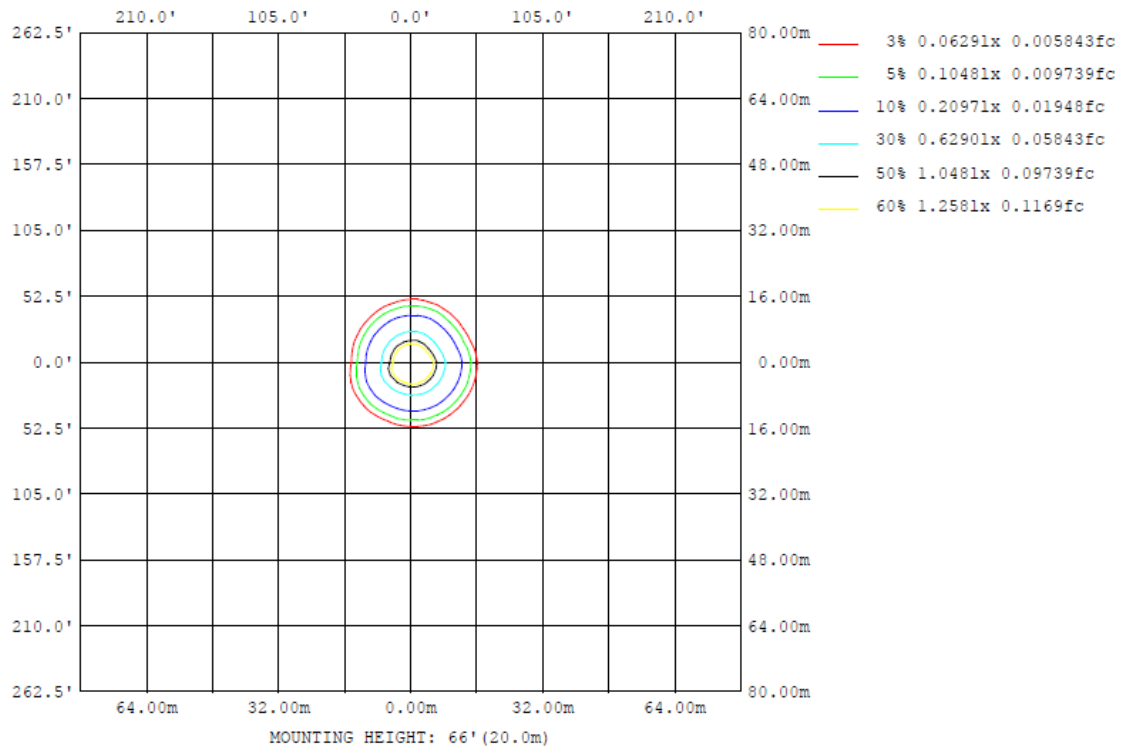
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06
Setting: 5 (Medium light output)

Model No.: SL06
Mount Height: 20 m
Isoillumination Plot



***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 5 (Medium light output)

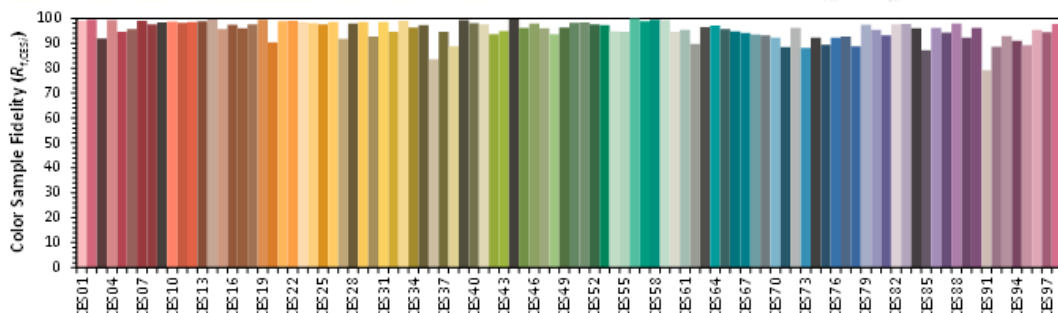
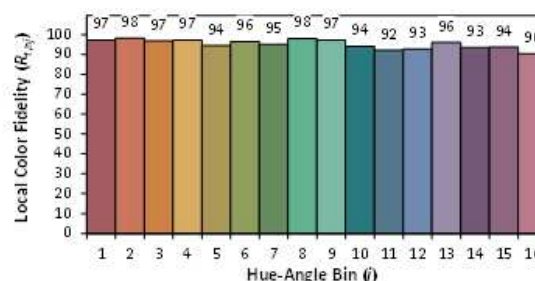
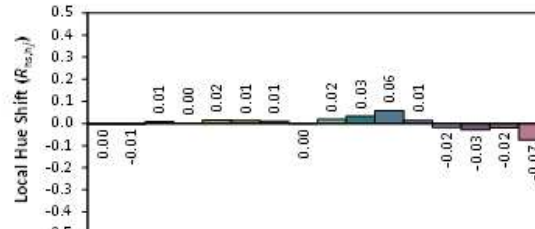
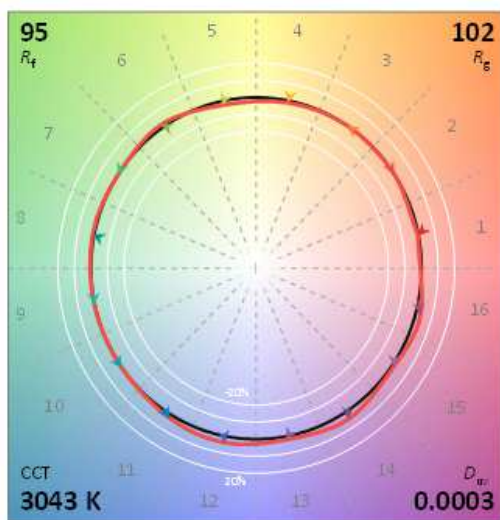
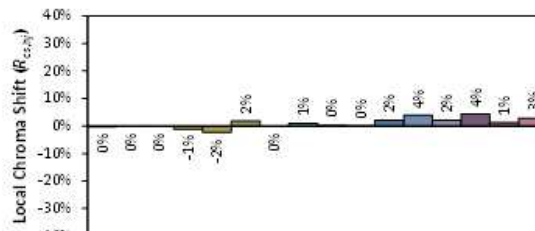
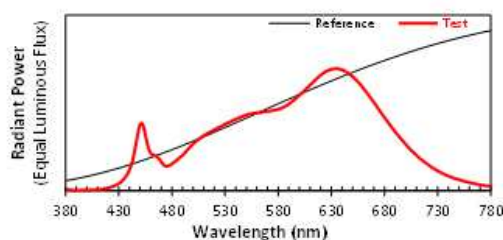
ANSI/IES TM-30-18 Color Rendition Report

Source: LED

Manufacturer: STERLING LIGHTING LLC

Date: 12/18/2023

Model: SL06



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4343
y 0.4038
u' 0.2490
v' 0.5209

CIE 13.3-1995
(CRI)

R_a 98
R_s 97

***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 6 (Minimum light output)

Total operation burning time: 70 min

Stabilization time: 60 min

Photometric Measurements at 25°C

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
SL06							
0231201-15-016	N/A	3035	98	0.4346	0.4034	0.2493	0.5208

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (A)	Lamp Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
SL06							
0231201-15-016	N/A	15.0	0.2636	2.6895	0.6802	269.376	100.16

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SL06		
0-30	221.1	82.1
0-40	253.5	94.1
0-60	268.4	99.7
0-90	269.4	100.0
0-180	269.4	100.00

Beam Angle

	Horizontal Spread (°)	Vertical Spread (°)
SL06		
Beam (50%)	34.5	34.5
Beam Angle	34.5	

***** End of Page *****

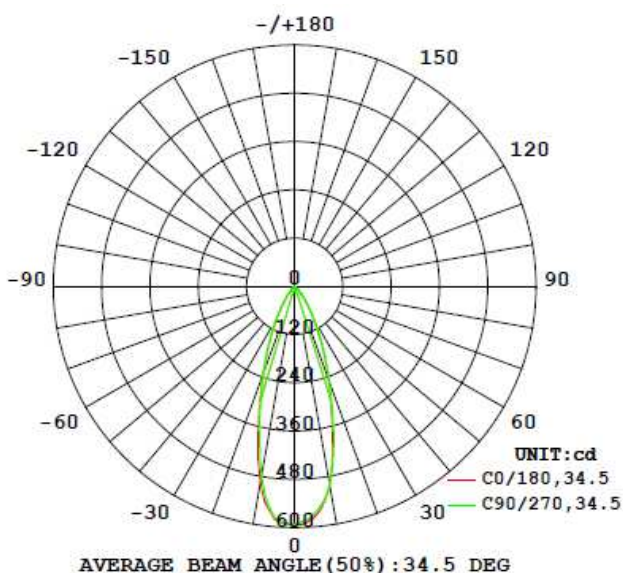
RESULTS OF TESTS (cont'd)

Intensity (Candlepower) Summary at 25°C – Candelas

Test Condition: 15V 60Hz for SL06

Setting: 6 (Minimum light output)

G \ C(°)	0	22.5	45	67.5	90
0	591.9	591.9	591.9	591.9	591.9
5	574.4	569.2	565.2	564.6	566.7
10	499.1	496.3	493.5	497.8	500.4
15	362.6	365.3	365.8	368.9	373.1
20	246.7	247.5	250.2	247.2	250.1
25	160.2	161.3	159.7	158.8	158.3
30	98.1	97.6	96.2	95.7	94.7
35	54.0	52.9	51.5	51.7	51.9
40	27.0	25.7	24.9	25.2	25.5
45	13.9	13.0	12.4	12.4	12.5
50	8.8	8.2	8.0	8.1	8.2
55	5.3	5.1	5.1	5.6	5.6
60	1.5	1.5	1.5	2.1	2.2
65	0.8	0.8	0.9	0.9	0.8
70	0.4	0.4	0.5	0.5	0.4
75	0.1	0.2	0.2	0.2	0.2
80	0.0	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0



***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

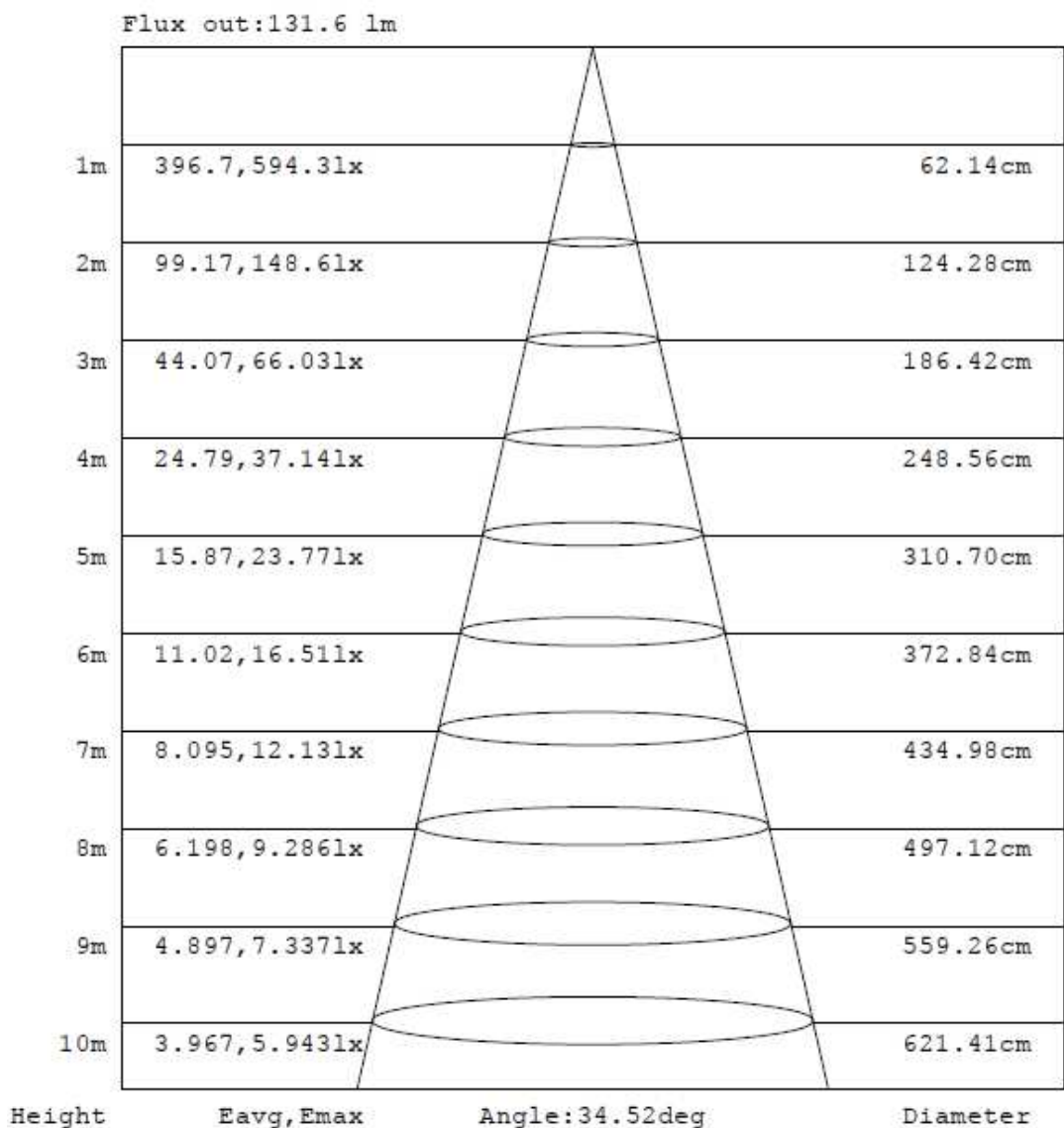
Setting: 6 (Minimum light output)

Illumination Plots

Model No.: SL06

Mount Height: 10 m

Illuminance - Cone of Light



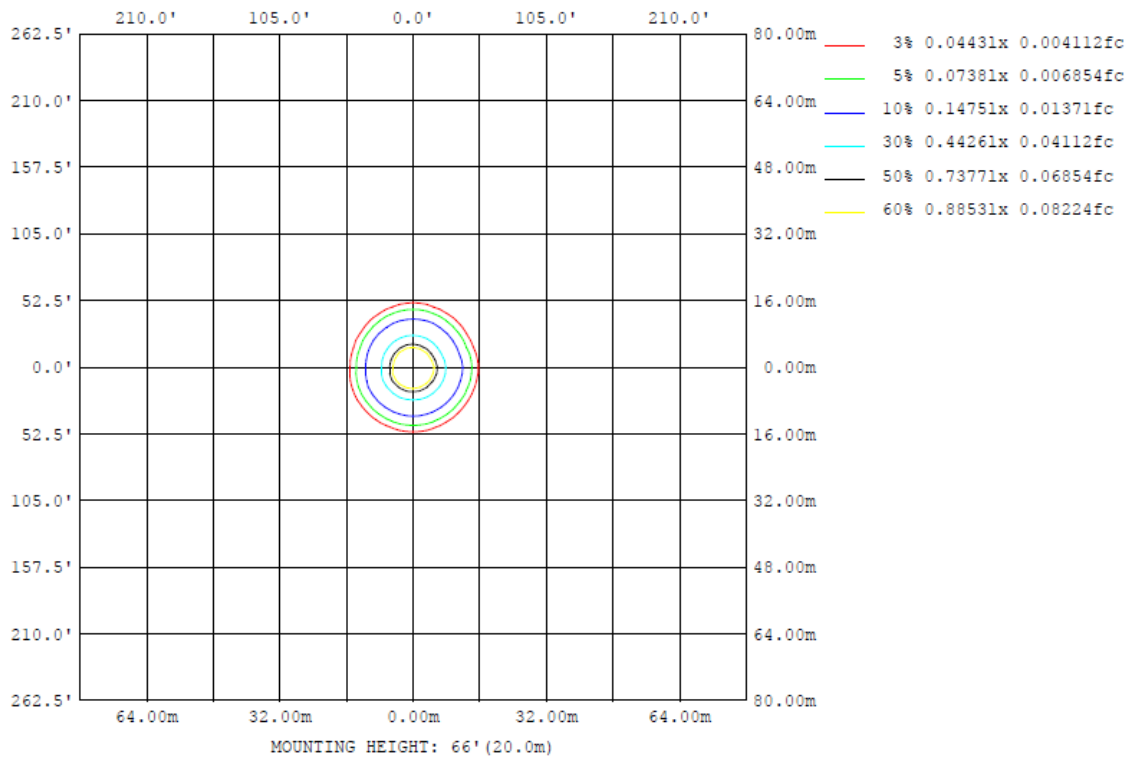
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06
Setting: 6 (Minimum light output)

Model No.: SL06
Mount Height: 20 m
Isoillumination Plot



***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 15V 60Hz for SL06

Setting: 6 (Minimum light output)

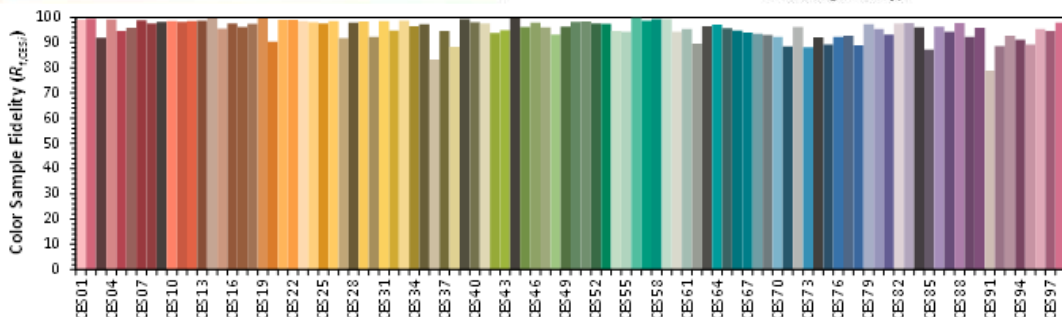
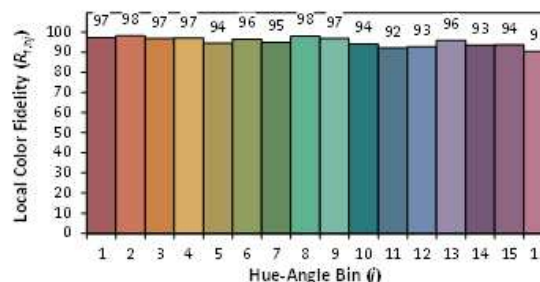
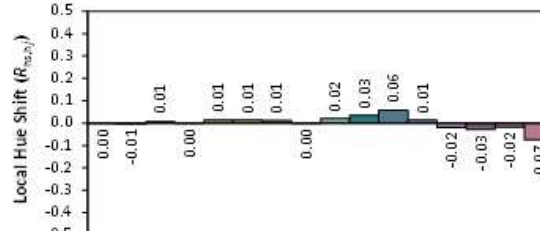
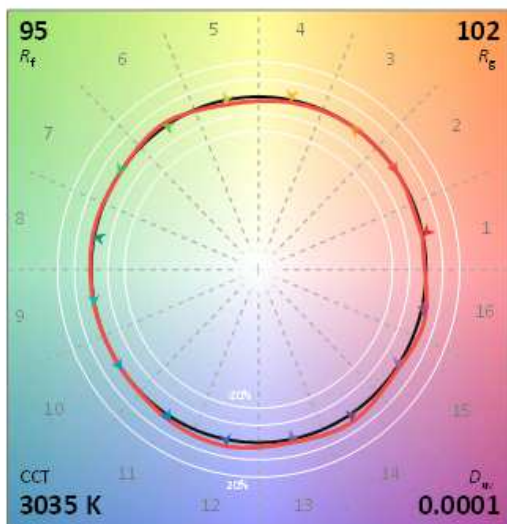
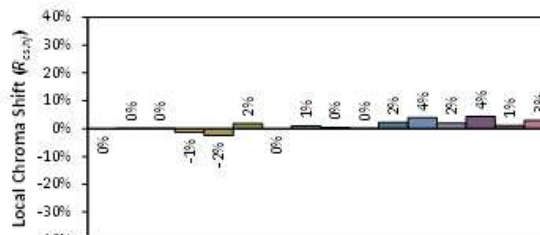
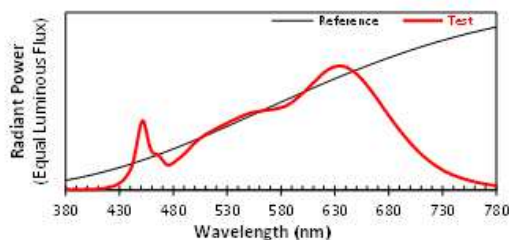
ANSI/IES TM-30-18 Color Rendition Report

Source: LED

Date: 12/18/2023

Manufacturer: STERLING LIGHTING LLC

Model: SL06



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4346

y 0.4034

u' 0.2493

v' 0.5208

CIE 13.3-1995
(CRI)

R_a 98

R_g 97

***** End of Page *****

RESULTS OF TESTS (cont'd)

IN SITU TEMPERATURE MEASUREMENT TEST

Test condition Input Voltage - 15Vac 60Hz

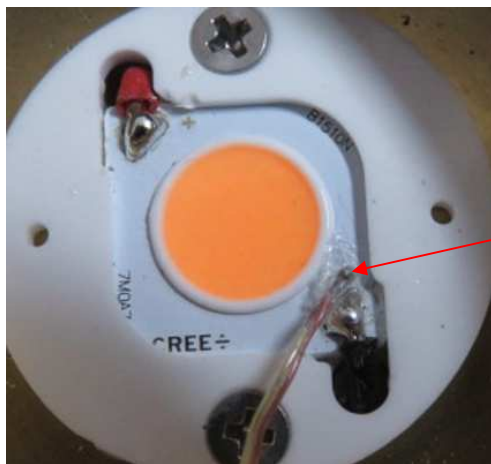
Ambient temperature: 25±5°C, Relative Humidity: 50%

Test Model: SL06

LED model name: CMB1510-0000-000N0U0A30G

LED manufacturer: CREE LED

Test Location:



TMP of
LED

***** End of Page *****

RESULTS OF TESTS (cont'd)

IN SITU TEMPERATURE MEASUREMENT TEST

Test Results of LED chip temperature and current

TMP led: CMB1510-0000-000N0U0A30G	
In-situ case temperature of LED source (°C)	Limit single led chip temperature(°C)
84.7	105
Measured Drive current for each LED package/array/module (mA)	Limit single led chip current (mA)
255	465

Note: In-situ case temperature was corrected to ambient temperature at 25°C in above table.

***** End of Page *****