

T e s t R e p o r t

Report No : LS1421D

Client: : TLC Southern Ltd
The TLC Building,
5 Newton Road,
Crawley,
West Sussex,
RH10 9TS

Description : LED LITE Galaxy 21W Soft White 3500K

Manufacturer : LEDLITE

Type/Model : LTG1SW

Test Specification : Determination of Light Output Distribution Light Distribution measurements were made with reference to CIE 127 – 2007, clause 6.2.1; Goniophotometry Method

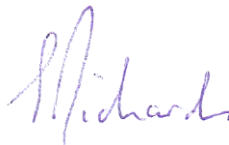
Date Testing Started : 17/05/2016

Conclusion : Refer to body of report

Date of Issue : 23/05/2016

Date of Expiry : 22/05/2021

Tested by: **S. RICHARDS**
Position: Photometrics Team
Leader



Approved by: **T. MALIK**
Position: Quality and Operations
Manager



INTRODUCTION

TLC Southern Ltd have supplied the product identified in page one for determination of light output distribution.

PRODUCT DETAILS

Table 1. Test Sample Details

Product Description	LED LITE Galaxy 21W Soft White 3500K
Model No.	LTG1SW
Number of Samples	1
Condition on Receipt	Good
Nominal Dimensions	Ø 365mm x H 110mm
Product Supply Requirement	220-240V AC 50Hz
Lamp Type and Power	LED 21W
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

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PROCEDURE

Table 2. Test Procedure and Equipment Used for Photometric Measurements

Test Standard	CIE 127 – 2007, clause 6.2.1; Goniophotometry Method
Equipment Used	LMT GO-DS 2000 goniophotometer
Standard Lamp Used	LMT Photometer Unit 01B6081
Standard Lamp Traceability	Traceable to luminous intensity standard lamp type OSRAM Wi41/G lamp No. 934
Scan Setup	Elevation: 0°-180°, step size: 5° Azimuth: 0°-360°, step size: 5°
Power Supply	LMT GO-DS 2000 goniophotometer
Power Measurement	LMT GO-DS 2000 goniophotometer
Temperature Measurement	Testo 925 Thermocouple reader (143)

Table 3. Lamp Conditioning and Setup

Lamp ageing Time (Hours)	0
Stabilisation Time (Hours)	1.0
Total Operating Time (Hours)	1.66
Support Structure	Goniophotometer luminaire mounting fixture

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TEST RESULTS

Table 4. Test Environmental and Operating Conditions

Ambient Temperature (°C)	25.0
Voltage (V)	240.2
Current (mA)	97.19
Power (W)	22.4
Power Factor	0.95

Table 5. Beam Angle and Luminous Flux Results

Centre Beam Intensity (cd)	Beam Angle (Lamp orientation)	Beam Angle Result (°)
549.4	0-180	109.9
	90-270	109.9

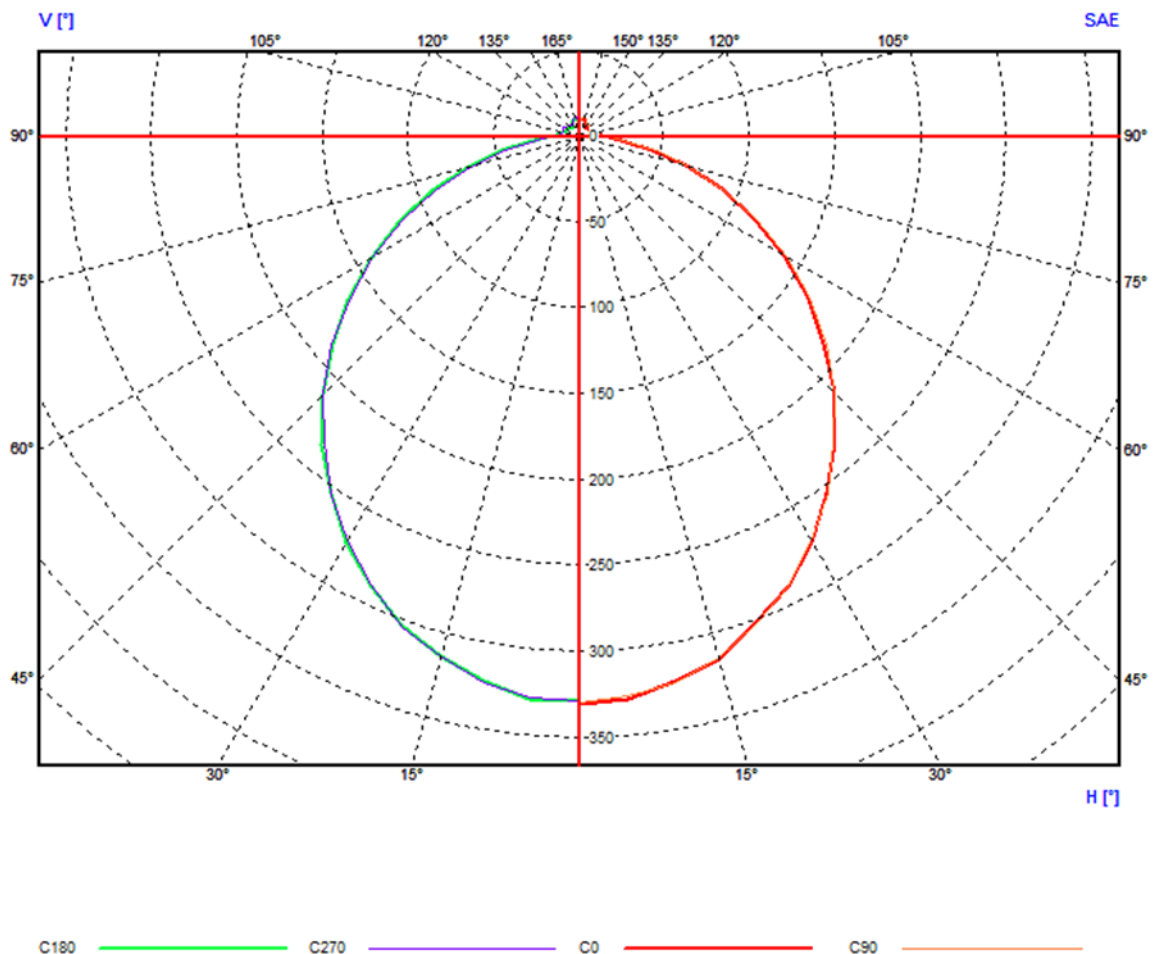


Figure 1. Polar Diagram

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Table 6. Luminous Intensities (cd)

Gamma	0	5	10	15	20	25	30	35	40	45	50	55
0	548.4	547.3	548.6	549.2	547.8	548.6	548.4	545.7	545.4	547.6	549.2	545.4
5	546.2	544.7	544.9	545.7	546.2	545.2	544.4	546.0	546.0	546.2	545.4	546.5
10	535.4	537.8	537.8	537.8	537.8	536.2	535.1	536.4	535.6	536.4	534.1	534.3
15	522.9	523.2	521.9	521.1	520.3	521.6	523.2	522.4	523.2	523.5	521.3	521.3
20	501.2	503.9	504.4	504.9	504.1	501.2	501.7	501.2	501.7	502.0	504.7	504.4
25	480.5	480.0	478.7	478.2	477.6	480.0	480.8	481.1	480.3	480.3	477.6	477.9
30	453.0	450.6	449.8	449.8	450.3	452.7	451.4	451.1	449.8	449.8	452.2	451.9
35	420.1	419.1	420.7	421.2	421.5	419.3	418.3	418.6	419.6	419.9	420.7	420.4
40	386.2	386.8	385.2	384.4	386.5	386.8	385.2	385.4	384.4	384.4	386.8	386.8
45	350.2	348.1	348.9	349.7	350.5	349.1	348.1	348.1	348.1	348.4	350.5	350.2
50	310.2	312.3	312.3	311.8	310.7	310.5	312.1	311.8	312.3	312.3	310.5	310.2
55	272.1	270.2	270.5	270.5	270.7	272.1	271.3	271.5	270.7	271.0	270.7	270.7
60	229.4	230.2	230.7	230.7	230.2	229.1	229.7	229.7	230.7	231.0	229.9	229.9
65	188.7	188.6	188.6	188.6	188.6	188.5	188.6	188.6	188.8	188.9	189.0	189.1
70	146.9	146.9	146.9	147.0	147.0	147.0	147.1	147.1	147.3	147.4	147.6	147.7
75	107.6	107.6	107.6	107.6	107.6	107.7	107.8	107.9	108.0	108.1	108.2	108.3
80	72.9	72.9	72.8	72.9	72.9	73.0	73.1	73.2	73.2	73.4	73.4	73.6
85	46.4	46.4	46.4	46.4	46.4	46.4	46.5	46.5	46.6	46.7	46.7	46.8
90	29.3	29.3	29.3	29.3	29.3	29.4	29.4	29.4	29.4	29.5	29.5	29.5
95	20.5	20.5	20.5	20.5	20.5	20.5	20.6	20.6	20.6	20.6	20.6	20.7
100	17.3	17.2	17.2	17.2	17.2	17.2	17.2	17.3	17.3	17.3	17.4	17.4
105	16.4	16.3	16.4	16.4	16.3	16.3	16.5	16.6	16.6	16.6	16.7	16.7
110	12.6	12.7	14.0	13.4	13.4	14.4	15.6	16.3	16.5	16.6	16.7	16.7
115	11.5	12.1	13.7	14.4	14.8	15.0	15.7	16.7	17.4	17.6	17.7	17.8
120	12.5	12.2	13.1	14.1	14.6	14.6	15.0	15.9	16.6	17.1	17.4	17.5
125	12.4	12.6	12.7	13.4	14.0	14.2	14.5	15.1	15.6	16.1	16.5	16.7
130	12.5	12.8	12.7	13.0	13.5	14.0	14.2	14.4	14.6	14.9	15.2	15.5
135	12.3	12.3	12.3	12.5	12.9	13.3	13.6	13.8	14.0	14.2	14.4	14.7
140	11.2	11.2	11.0	11.3	11.6	11.9	12.2	12.4	12.6	12.8	12.9	13.1
145	10.8	10.9	10.9	11.0	11.2	11.4	11.7	11.9	12.1	12.3	12.4	12.6
150	11.7	11.7	11.7	11.8	11.9	12.1	12.2	12.4	12.6	12.7	12.8	13.0
155	14.4	14.4	14.4	14.5	14.5	14.6	14.8	14.9	15.0	15.1	15.2	15.3
160	17.7	17.7	17.7	17.7	17.8	17.9	18.0	18.1	18.1	18.3	18.3	18.4
165	18.7	18.7	18.7	18.8	18.9	19.0	19.1	19.2	19.3	19.4	19.5	19.6
170	17.8	17.8	17.8	17.9	17.9	18.0	18.1	18.1	18.3	18.4	18.4	18.5
175	15.9	15.9	15.9	15.9	15.9	16.0	16.1	16.1	16.2	16.2	16.3	16.3
180	15.7	15.7	15.7	15.7	15.8	15.8	15.8	15.9	15.9	15.9	16.0	16.1

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Table 6 Continued...

Gamma	60	65	70	75	80	85	90	95	100	105	110	115
0	549.4	545.7	547.3	546.8	548.1	546.5	547.0	548.9	546.2	547.8	546.5	546.8
5	546.2	544.9	546.5	546.0	545.2	543.3	542.8	543.3	542.5	542.8	545.2	546.2
10	534.8	535.9	534.3	534.1	534.3	535.4	536.2	534.6	535.4	535.9	537.5	537.5
15	520.8	521.1	521.1	520.8	521.9	520.8	521.1	520.3	520.0	520.3	521.1	520.8
20	503.9	504.4	500.9	501.2	501.2	501.2	501.5	503.9	503.3	503.1	502.0	503.1
25	479.0	478.7	480.5	480.8	480.5	480.3	479.5	478.2	478.2	478.4	477.9	478.4
30	452.7	452.7	449.5	449.8	450.1	450.1	450.6	453.3	453.0	452.5	453.0	452.2
35	419.9	419.9	419.6	420.4	420.9	420.9	421.5	421.2	420.9	420.4	420.7	420.1
40	387.0	387.0	384.9	384.6	384.6	384.9	384.9	387.3	387.3	388.1	387.8	388.4
45	349.7	349.7	348.9	348.9	349.7	349.9	350.7	351.0	351.5	351.5	352.1	351.8
50	310.5	310.7	312.9	312.9	312.9	313.1	312.6	311.5	311.5	311.8	311.8	312.3
55	271.3	271.3	272.6	271.8	272.3	272.3	272.9	273.4	273.4	273.7	274.2	273.9
60	229.9	230.2	231.0	231.5	232.1	232.1	232.3	232.3	232.3	232.1	232.3	232.3
65	189.3	189.5	189.6	189.9	190.2	190.4	190.6	190.9	191.1	191.3	191.5	191.7
70	147.9	148.1	148.2	148.4	148.6	148.9	149.1	149.4	149.6	149.9	150.1	150.3
75	108.5	108.7	108.9	109.1	109.3	109.5	109.7	110.0	110.2	110.4	110.5	110.8
80	73.7	73.9	74.1	74.3	74.4	74.6	74.8	75.0	75.2	75.4	75.5	75.7
85	46.9	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.0	48.2	48.3	48.5
90	29.6	29.7	29.8	29.9	30.0	30.1	30.3	30.3	30.4	30.5	30.6	30.7
95	20.7	20.8	20.9	21.0	21.0	21.1	21.2	21.3	21.4	21.5	21.5	21.6
100	17.4	17.5	17.6	17.6	17.7	17.8	17.9	18.0	18.0	18.1	18.1	18.2
105	16.7	16.8	16.9	16.9	17.0	17.1	17.2	17.2	17.3	17.4	17.4	17.5
110	16.8	16.8	16.9	17.0	17.1	17.1	17.2	17.2	17.3	17.4	17.4	17.4
115	17.9	18.0	18.0	18.1	18.2	18.3	18.3	18.4	18.4	18.5	18.5	18.5
120	17.6	17.6	17.7	17.8	17.9	18.0	18.0	18.0	18.1	18.1	18.2	18.2
125	16.8	16.8	16.9	16.9	17.0	17.0	17.0	17.1	17.1	17.0	17.0	17.0
130	15.7	15.8	15.8	15.8	15.9	15.9	16.0	16.1	16.2	16.3	16.3	16.4
135	15.0	15.2	15.3	15.4	15.4	15.4	15.4	15.5	15.5	15.6	15.6	15.6
140	13.4	13.6	13.7	13.9	13.9	13.9	13.9	13.9	14.0	14.0	14.0	14.0
145	12.7	12.9	13.0	13.2	13.3	13.3	13.4	13.4	13.4	13.4	13.3	13.2
150	13.1	13.2	13.4	13.5	13.6	13.7	13.7	13.8	13.8	13.8	13.7	13.6
155	15.4	15.5	15.6	15.7	15.8	15.9	15.9	16.0	16.0	16.0	15.9	15.8
160	18.5	18.6	18.6	18.7	18.8	18.8	18.9	18.9	18.9	18.9	18.8	18.8
165	19.7	19.8	19.8	19.8	19.9	19.9	19.9	19.9	19.9	20.0	19.9	19.9
170	18.5	18.6	18.7	18.8	18.9	19.0	18.9	18.9	19.0	19.0	18.9	18.9
175	16.4	16.4	16.5	16.5	16.5	16.6	16.6	16.6	16.5	16.6	16.6	16.6
180	16.1	16.2	16.2	16.2	16.2	16.2	16.2	16.1	16.0	16.1	16.1	16.1

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Table 6 Continued...

Gamma	120	125	130	135	140	145	150	155	160	165	170	175
0	548.9	547.3	547.0	548.6	546.2	547.8	547.3	545.7	549.4	545.7	545.4	549.2
5	545.4	546.5	546.0	545.2	543.1	544.7	542.8	542.8	544.7	545.4	543.3	544.7
10	536.4	537.5	538.0	538.0	537.2	538.0	537.5	536.7	534.6	534.3	535.9	535.4
15	520.5	520.5	520.5	520.8	521.3	521.3	520.8	520.8	520.8	521.3	521.1	521.1
20	504.9	505.2	505.2	505.2	504.4	504.9	504.9	504.4	505.2	505.2	502.8	503.1
25	481.1	481.6	481.6	481.6	481.3	481.3	481.9	481.1	481.1	481.1	479.0	479.0
30	452.5	451.4	451.7	451.1	451.7	451.7	451.4	451.9	451.9	452.7	454.3	454.3
35	419.9	420.1	420.1	420.7	420.9	423.1	423.3	423.3	423.3	423.3	420.9	420.7
40	387.3	387.0	387.6	387.3	387.3	387.0	386.8	387.6	387.3	387.3	389.4	389.4
45	349.9	350.2	350.2	350.5	350.7	351.5	351.3	351.0	351.3	351.3	351.3	351.8
50	313.9	314.4	314.4	315.0	315.0	314.7	315.0	314.2	314.2	314.2	313.7	313.7
55	272.9	272.9	273.1	273.4	273.4	274.7	273.9	274.4	274.7	275.0	276.0	276.0
60	232.3	232.6	232.6	232.9	232.9	234.4	234.2	234.7	234.4	234.7	234.4	234.2
65	191.8	192.0	192.2	192.3	192.5	192.5	192.6	192.7	192.8	192.8	192.9	193.0
70	150.4	150.6	150.8	150.9	151.1	151.1	151.2	151.3	151.3	151.4	151.5	151.5
75	110.9	111.1	111.2	111.3	111.5	111.6	111.7	111.7	111.8	111.8	111.9	111.9
80	75.9	76.0	76.1	76.3	76.4	76.4	76.5	76.6	76.7	76.7	76.7	76.7
85	48.6	48.7	48.8	48.9	49.0	49.1	49.1	49.2	49.3	49.3	49.4	49.4
90	30.8	30.9	31.0	31.0	31.1	31.2	31.2	31.3	31.3	31.3	31.3	31.3
95	21.7	21.7	21.7	21.8	21.8	21.9	21.9	21.9	22.0	22.0	21.9	21.9
100	18.2	18.3	18.3	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
105	17.5	17.6	17.6	17.6	17.6	17.7	17.6	17.6	17.5	17.6	17.6	17.4
110	17.5	17.5	17.5	17.5	17.5	17.5	17.3	16.5	15.4	15.4	15.5	14.3
115	18.5	18.5	18.5	18.5	18.5	18.2	17.5	16.7	16.2	16.0	15.5	14.5
120	18.2	18.2	18.2	18.1	17.8	17.3	16.7	16.3	16.0	15.7	15.0	14.4
125	17.0	17.1	17.0	16.8	16.4	16.0	15.6	15.4	15.2	14.8	14.3	13.9
130	16.4	16.4	16.2	15.9	15.6	15.3	15.0	14.8	14.5	14.1	13.6	13.3
135	15.6	15.4	15.2	14.9	14.7	14.4	14.2	14.0	13.6	13.3	13.0	12.8
140	13.9	13.7	13.5	13.3	13.1	12.9	12.7	12.5	12.2	12.0	11.8	11.6
145	13.2	13.0	12.9	12.7	12.5	12.3	12.2	12.0	11.8	11.6	11.5	11.4
150	13.5	13.4	13.2	13.1	12.9	12.8	12.7	12.6	12.5	12.3	12.2	12.1
155	15.7	15.6	15.5	15.4	15.3	15.3	15.2	15.2	15.1	15.0	14.9	14.8
160	18.8	18.7	18.6	18.6	18.5	18.4	18.4	18.3	18.2	18.1	18.0	18.0
165	19.9	19.8	19.8	19.7	19.7	19.6	19.5	19.4	19.3	19.2	19.1	19.1
170	18.8	18.7	18.7	18.6	18.6	18.5	18.5	18.4	18.4	18.3	18.2	18.1
175	16.7	16.6	16.6	16.5	16.5	16.4	16.4	16.3	16.3	16.2	16.1	16.1
180	16.1	16.0	15.9	15.9	15.8	15.8	15.7	15.7	15.7	15.6	15.6	15.6

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Table 6 Continued...

Gamma	180	185	190	195	200	205	210	215	220	225	230	235
0	546.0	547.3	549.2	548.6	545.4	549.2	547.8	546.0	545.2	548.4	548.9	545.4
5	546.5	545.4	543.9	544.4	543.1	544.4	545.7	546.0	546.5	546.0	544.9	543.1
10	534.3	534.8	535.4	534.3	534.6	535.6	535.4	537.2	534.6	535.9	536.2	536.4
15	520.8	520.8	521.1	521.1	521.1	520.8	521.1	520.8	523.5	522.4	522.4	522.1
20	503.6	503.6	503.1	502.3	502.3	502.3	502.3	502.3	505.7	505.4	505.4	505.2
25	479.2	479.2	479.0	480.5	481.1	480.0	481.1	480.5	481.6	481.3	480.3	480.0
30	454.3	454.6	454.3	451.7	451.4	451.4	451.7	451.4	454.6	454.6	454.1	453.8
35	420.9	420.9	420.7	421.5	422.3	422.0	423.3	422.8	422.3	422.5	421.5	420.7
40	389.4	389.4	389.4	387.6	387.0	387.3	387.0	387.0	389.7	389.4	389.4	389.4
45	351.8	352.1	352.6	353.7	353.4	353.4	352.6	352.6	351.0	350.7	351.3	351.3
50	313.4	313.7	313.9	315.5	315.5	315.5	315.2	315.2	313.1	312.9	313.1	313.1
55	275.8	275.8	275.8	274.7	274.2	274.7	273.9	274.4	273.7	273.7	274.2	274.4
60	234.4	234.4	234.4	233.1	232.9	233.1	232.6	232.6	233.4	232.9	233.4	233.4
65	192.9	192.9	192.8	192.7	192.5	192.4	192.2	192.1	191.8	191.7	191.5	191.3
70	151.4	151.4	151.2	151.1	150.9	150.8	150.6	150.5	150.3	150.1	149.9	149.8
75	111.9	111.8	111.7	111.6	111.4	111.3	111.1	111.0	110.7	110.5	110.3	110.2
80	76.6	76.6	76.5	76.4	76.3	76.2	76.1	75.9	75.7	75.6	75.4	75.2
85	49.4	49.3	49.2	49.1	49.1	49.0	48.8	48.7	48.6	48.5	48.3	48.2
90	31.3	31.3	31.3	31.2	31.2	31.1	31.0	30.9	30.9	30.8	30.6	30.5
95	21.9	21.9	21.9	21.8	21.8	21.8	21.7	21.7	21.6	21.5	21.5	21.4
100	18.3	18.3	18.3	18.2	18.2	18.2	18.2	18.1	18.1	18.0	18.0	18.0
105	17.4	17.3	17.4	17.4	17.3	17.2	17.3	17.4	17.4	17.3	17.2	17.2
110	13.4	13.5	14.6	15.2	15.0	15.1	16.3	17.0	17.1	17.2	17.2	17.2
115	14.4	14.3	14.5	15.3	15.6	15.8	16.3	17.2	17.9	18.1	18.1	18.2
120	14.4	14.3	14.4	15.0	15.4	15.6	15.9	16.3	17.0	17.5	17.7	17.8
125	13.9	14.0	14.0	14.4	14.8	15.1	15.3	15.6	15.9	16.3	16.7	16.9
130	13.4	13.4	13.4	13.6	14.0	14.3	14.4	14.5	14.7	15.0	15.3	15.6
135	12.8	12.8	12.7	12.8	13.1	13.4	13.6	13.8	14.0	14.3	14.5	14.8
140	11.6	11.6	11.6	11.7	11.9	12.1	12.3	12.5	12.6	12.8	13.0	13.2
145	11.4	11.4	11.3	11.4	11.6	11.7	11.8	11.9	12.1	12.3	12.4	12.6
150	12.2	12.2	12.1	12.2	12.3	12.4	12.5	12.6	12.6	12.7	12.9	13.0
155	14.8	14.8	14.8	14.8	14.9	15.0	15.0	15.1	15.2	15.2	15.3	15.3
160	18.0	18.0	18.0	18.0	18.1	18.1	18.2	18.3	18.4	18.4	18.5	18.5
165	19.0	19.0	19.1	19.1	19.2	19.2	19.3	19.4	19.5	19.6	19.6	19.7
170	18.1	18.0	18.0	18.1	18.1	18.2	18.2	18.3	18.3	18.4	18.4	18.5
175	16.0	16.0	16.0	16.0	16.0	16.1	16.1	16.2	16.2	16.2	16.3	16.3
180	15.6	15.6	15.7	15.7	15.7	15.8	15.8	15.8	15.8	15.9	15.9	16.0

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Table 6 Continued...

Gamma	240	245	250	255	260	265	270	275	280	285	290	295
0	546.2	547.3	548.9	547.3	545.4	546.5	546.2	548.4	547.6	546.0	545.4	545.4
5	542.8	542.8	542.8	544.4	544.9	546.2	544.4	545.4	546.2	546.2	544.9	546.0
10	536.2	534.6	534.6	534.6	534.8	534.8	535.9	536.4	535.6	535.9	534.8	538.0
15	523.5	524.3	523.7	524.0	522.9	523.2	520.8	521.9	522.1	523.2	522.4	523.5
20	505.4	503.1	502.0	502.0	502.0	502.0	505.2	505.2	504.9	503.3	503.3	502.3
25	479.2	479.7	481.3	481.9	481.9	481.6	478.4	478.7	479.0	480.5	481.1	479.0
30	452.5	451.7	453.0	453.5	454.1	453.3	451.1	451.9	452.7	453.8	453.8	450.6
35	420.4	422.8	423.1	423.1	421.5	420.4	421.7	422.5	422.5	421.5	420.9	420.7
40	388.4	386.5	387.0	387.3	388.1	388.4	386.5	385.7	385.7	386.8	387.0	386.5
45	352.1	352.1	350.5	350.2	349.9	350.2	352.1	351.3	350.2	349.1	349.1	351.5
50	313.9	314.7	313.4	312.6	312.1	312.1	313.9	313.1	311.5	312.3	312.6	312.1
55	274.7	273.7	272.9	272.3	272.3	272.6	273.7	273.1	272.6	271.8	271.5	272.9
60	233.4	232.3	231.5	231.5	231.3	231.5	232.3	231.5	231.0	230.5	230.2	231.8
65	191.2	191.2	190.9	190.8	190.5	190.4	190.2	190.2	190.0	189.8	189.7	189.5
70	149.6	149.5	149.2	149.0	148.8	148.6	148.6	148.5	148.3	148.1	147.9	147.8
75	110.0	109.9	109.7	109.5	109.4	109.2	109.1	108.9	108.8	108.6	108.5	108.3
80	75.0	74.8	74.7	74.5	74.4	74.2	74.1	74.0	73.8	73.8	73.6	73.4
85	48.0	47.9	47.7	47.6	47.5	47.4	47.3	47.1	47.0	46.9	46.8	46.8
90	30.5	30.4	30.3	30.2	30.1	30.1	30.0	29.9	29.9	29.8	29.8	29.7
95	21.4	21.4	21.3	21.3	21.3	21.2	21.2	21.2	21.1	21.1	21.0	21.0
100	18.0	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.8	17.8
105	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.1
110	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.1
115	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.2	18.2
120	17.8	17.9	17.9	18.0	18.0	18.0	18.0	18.0	18.0	18.0	17.9	17.9
125	17.0	17.0	17.0	17.0	17.0	16.9	16.9	16.9	16.8	16.8	16.7	16.6
130	15.8	15.9	15.9	15.8	15.8	15.8	15.9	15.9	16.0	16.0	16.0	16.1
135	15.1	15.3	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.3
140	13.4	13.6	13.8	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.7
145	12.7	12.9	13.1	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.1	13.0
150	13.1	13.3	13.4	13.5	13.6	13.6	13.6	13.6	13.6	13.6	13.5	13.3
155	15.4	15.6	15.7	15.8	15.8	15.9	15.9	15.9	15.9	15.8	15.7	15.6
160	18.6	18.6	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.7
165	19.7	19.8	19.8	19.8	19.8	19.9	19.9	19.9	19.9	19.9	19.9	19.9
170	18.5	18.6	18.7	18.8	18.9	18.9	18.9	18.9	18.9	18.9	18.8	18.8
175	16.4	16.4	16.4	16.4	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.6
180	16.0	16.1	16.1	16.1	16.1	16.1	16.1	16.0	16.0	16.1	16.1	16.1

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Table 6 Continued...

Gamma	300	305	310	315	320	325	330	335	340	345	350	355
0	546.8	548.6	548.1	548.9	547.6	546.2	545.2	546.0	545.4	547.3	548.9	548.9
5	546.0	545.7	543.9	546.2	545.4	545.2	544.1	543.9	545.4	545.2	544.1	544.4
10	538.0	537.8	538.0	537.5	538.0	537.8	537.8	537.0	534.8	534.6	534.6	534.3
15	523.7	522.1	521.6	521.9	521.9	522.7	522.4	524.0	522.4	520.8	520.8	520.3
20	502.0	503.1	503.6	503.9	503.3	502.3	502.3	501.5	503.6	504.7	504.9	504.4
25	478.7	478.4	478.4	481.6	481.3	479.7	479.5	478.4	479.7	480.8	478.7	477.9
30	450.9	452.2	452.5	451.9	451.1	450.3	450.6	452.2	453.3	451.9	451.1	450.1
35	421.5	422.3	422.0	419.3	419.6	420.7	421.7	421.5	419.1	419.1	419.6	420.9
40	386.2	385.2	385.4	387.6	387.0	385.7	385.4	384.9	387.6	387.0	386.2	384.6
45	351.3	351.3	350.5	349.4	349.9	350.7	351.0	350.7	348.4	348.6	349.1	349.9
50	311.8	311.0	311.0	312.9	312.9	312.1	311.8	310.5	311.3	312.3	312.6	311.8
55	273.1	272.6	272.6	270.7	271.0	271.8	272.3	272.3	270.7	270.5	270.5	271.0
60	231.5	230.7	230.5	230.2	230.5	231.0	231.0	229.9	229.7	230.2	230.7	231.0
65	189.3	189.3	189.3	189.1	189.0	188.9	188.8	188.8	188.8	188.7	188.6	188.6
70	147.7	147.6	147.5	147.3	147.2	147.2	147.2	147.1	147.0	146.9	146.9	147.0
75	108.2	108.1	108.0	107.9	107.8	107.7	107.7	107.6	107.7	107.6	107.6	107.6
80	73.3	73.3	73.2	73.1	73.0	73.0	72.9	72.9	72.9	72.8	72.8	72.8
85	46.7	46.6	46.5	46.5	46.5	46.5	46.4	46.4	46.4	46.4	46.4	46.4
90	29.6	29.5	29.5	29.4	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.3
95	20.9	20.9	20.8	20.8	20.8	20.7	20.7	20.7	20.6	20.6	20.6	20.5
100	17.7	17.7	17.7	17.6	17.6	17.6	17.5	17.5	17.5	17.4	17.4	17.3
105	17.1	17.1	17.0	17.0	17.0	17.0	16.9	16.7	16.6	16.6	16.6	16.4
110	17.1	17.1	17.0	17.0	16.9	16.8	16.5	15.6	14.5	14.2	13.9	13.2
115	18.1	18.1	18.1	18.0	17.9	17.5	16.7	15.9	15.0	14.1	13.4	12.1
120	17.8	17.8	17.7	17.5	17.2	16.6	16.0	15.3	15.4	15.0	13.9	13.0
125	16.6	16.6	16.4	16.2	15.8	15.3	14.8	14.3	14.1	13.1	11.9	11.6
130	16.1	15.9	15.8	15.4	15.1	14.9	14.5	14.3	13.6	12.8	12.4	12.3
135	15.2	15.0	14.8	14.5	14.3	14.1	13.9	13.5	13.0	12.6	12.5	12.3
140	13.5	13.4	13.2	13.0	12.8	12.6	12.4	12.1	11.7	11.5	11.3	11.2
145	12.8	12.6	12.4	12.3	12.1	11.9	11.7	11.6	11.4	11.2	11.1	10.9
150	13.2	13.1	12.8	12.7	12.5	12.3	12.2	12.1	11.9	11.8	11.8	11.7
155	15.5	15.3	15.2	15.1	14.8	15.0	14.8	14.7	14.6	14.5	14.4	14.4
160	18.6	18.5	18.4	18.3	18.3	18.2	18.1	18.0	17.9	17.7	17.6	17.6
165	19.8	19.7	19.6	19.5	19.4	19.3	19.2	19.0	18.9	18.9	18.8	18.7
170	18.7	18.6	18.5	18.4	18.4	18.3	18.2	18.2	18.1	18.0	17.9	17.9
175	16.6	16.6	16.5	16.5	16.4	16.3	16.3	16.3	16.2	16.1	16.0	16.0
180	16.1	16.0	16.0	15.9	15.9	15.8	15.8	15.8	15.7	15.7	15.7	15.7

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PRODUCT DIAGRAM & IDENTIFICATION OF PHOTOMETRIC CENTRE

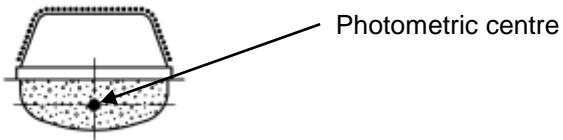


Figure 2. *Product photometric centre*

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ILLUSTRATION

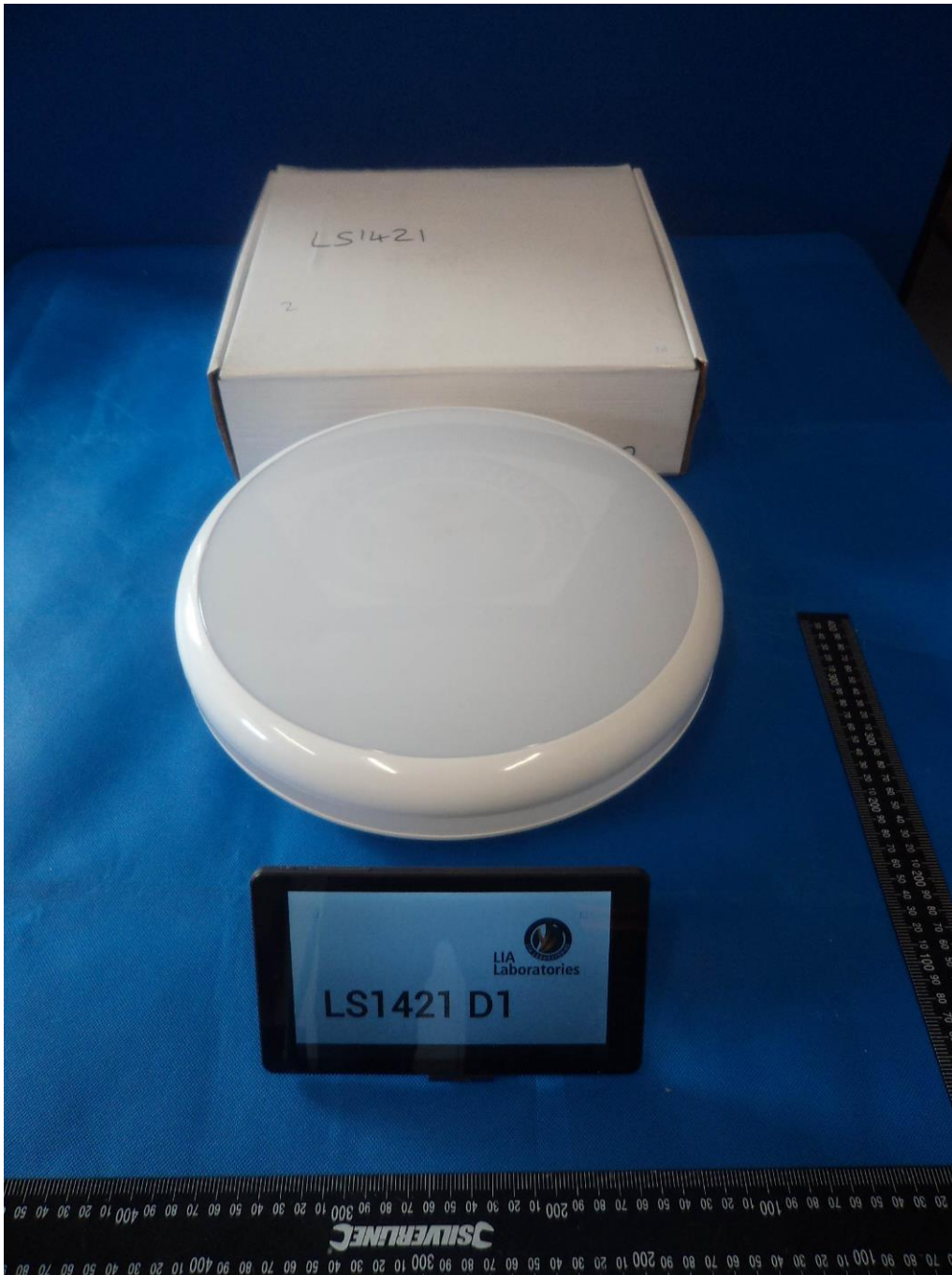


Figure 3. Product image

End