

## T e s t R e p o r t

**Report No** : LS1421C

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

**Description** : LED LITE Galaxy 21W Daylight 5000K

**Manufacturer** : LEDLITE

**Type/Model** : LTG1DL

**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 Daylight 5000K
Model No.	LTG1DL
Number of Samples	1
Condition on Receipt	Good
Nominal Dimensions	Ø 365 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)	95.32
Power (W)	21.3
Power Factor	0.92

Table 5. Beam Angle and Luminous Flux Results

Centre Beam Intensity (cd)	Beam Angle (Lamp orientation)	Beam Angle Result (°)
471.5	0-180	113.2
	90-270	113.3

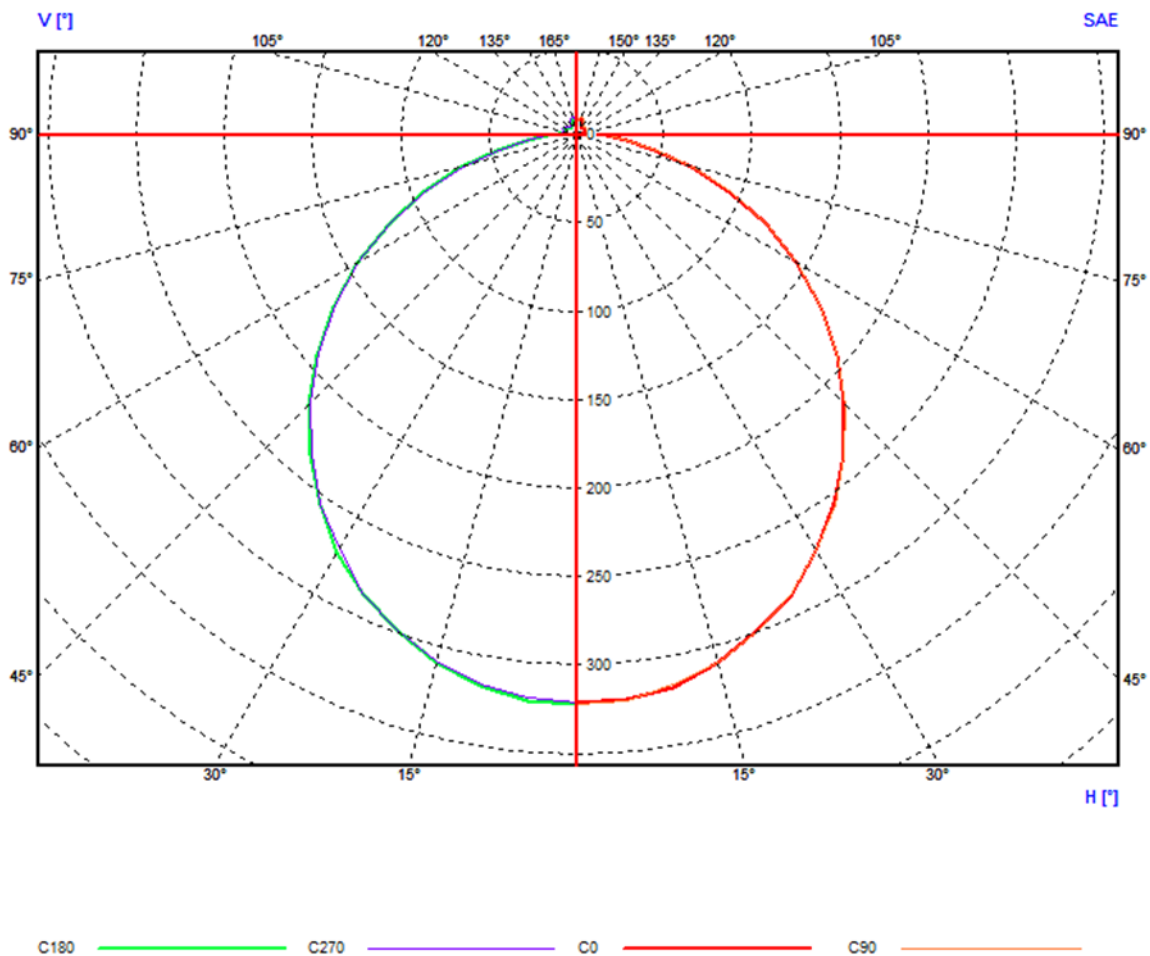


Figure 1. Polar Diagram

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**Table 6. Luminous Intensities (cd)**

Gamma	0	5	10	15	20	25	30	35	40	45	50	55
0	468.4	468.4	470.7	469.4	468.9	470.2	471.3	468.6	469.7	470.7	468.9	470.7
5	467.6	467.3	468.9	468.1	466.5	466.5	467.8	469.2	467.8	466.8	466.8	469.2
10	462.8	462.5	462.5	460.9	460.4	460.7	462.0	462.5	461.2	460.4	460.4	462.0
15	450.6	451.4	450.3	449.5	449.8	449.5	449.8	452.2	452.2	450.6	451.9	450.3
20	435.0	435.2	435.0	436.0	437.1	436.3	436.3	437.9	437.4	435.5	436.8	435.5
25	419.1	418.8	419.3	419.1	418.3	419.1	419.3	418.0	417.5	417.5	417.2	418.0
30	396.8	395.5	395.8	396.6	397.1	396.6	396.6	397.4	397.4	397.4	397.4	397.6
35	370.3	371.7	371.9	371.4	371.1	371.7	371.7	370.6	370.6	370.3	371.1	370.6
40	343.9	343.1	343.6	344.1	344.4	343.6	344.1	344.6	344.4	343.9	344.9	344.4
45	313.1	313.7	313.7	313.4	313.4	313.9	313.9	313.7	313.1	312.3	313.4	312.9
50	280.8	280.0	280.5	281.1	281.3	281.1	280.8	281.6	281.9	281.3	281.9	281.6
55	246.1	245.3	245.3	246.1	246.4	246.1	246.4	246.9	246.9	246.6	247.2	246.9
60	209.3	210.1	210.1	210.1	210.1	210.3	210.3	209.8	209.8	209.5	210.6	210.1
65	172.3	172.5	172.5	172.5	172.6	172.7	172.8	172.9	173.0	173.1	173.1	173.2
70	134.8	134.8	134.9	135.0	135.1	135.2	135.2	135.3	135.4	135.4	135.5	135.6
75	98.6	98.7	98.7	98.8	98.9	98.9	99.0	99.1	99.2	99.3	99.3	99.4
80	66.3	66.3	66.4	66.4	66.4	66.5	66.6	66.6	66.7	66.7	66.8	66.8
85	41.2	41.3	41.3	41.3	41.4	41.4	41.4	41.4	41.5	41.5	41.5	41.6
90	24.9	24.9	24.9	24.9	25.0	25.0	25.0	25.0	25.0	25.1	25.1	25.1
95	16.4	16.4	16.4	16.4	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
100	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
105	12.4	12.4	12.4	12.4	12.4	12.5	12.5	12.5	12.5	12.5	12.5	12.5
110	9.5	9.8	11.0	11.1	10.8	11.3	12.1	12.4	12.4	12.5	12.5	12.5
115	10.1	10.2	10.6	11.0	11.4	11.7	12.3	13.0	13.3	13.4	13.4	13.4
120	6.8	7.8	8.8	10.1	10.7	11.1	11.6	12.3	12.8	13.1	13.2	13.2
125	9.2	9.4	9.6	10.2	10.7	10.9	11.1	11.3	11.8	12.2	12.5	12.6
130	9.1	9.0	9.2	9.6	10.0	10.2	10.3	10.5	10.8	11.1	11.4	11.6
135	8.9	8.7	8.6	8.9	9.3	9.6	9.8	10.0	10.3	10.6	10.8	11.0
140	7.9	7.8	7.7	7.9	8.2	8.4	8.7	9.0	9.2	9.3	9.5	9.7
145	7.7	7.5	7.7	7.8	7.9	8.1	8.3	8.5	8.7	8.8	9.0	9.1
150	8.3	8.4	8.4	8.4	8.6	8.7	8.8	9.0	9.1	9.2	9.3	9.5
155	10.7	10.7	10.7	10.8	10.9	11.0	11.1	11.2	11.2	11.3	11.4	11.5
160	13.6	13.6	13.6	13.6	13.7	13.8	13.9	14.0	14.1	14.1	14.2	14.3
165	14.6	14.6	14.6	14.6	14.7	14.8	14.9	15.0	15.1	15.2	15.3	15.4
170	14.0	14.0	14.0	14.0	14.1	14.2	14.3	14.4	14.4	14.5	14.6	14.6
175	12.6	12.6	12.6	12.7	12.7	12.8	12.8	12.8	12.9	12.9	13.0	13.0
180	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.6	12.6	12.6	12.6	12.7

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**Table 6 Continued...**

Gamma	60	65	70	75	80	85	90	95	100	105	110	115
0	470.2	468.6	471.0	469.2	469.9	471.5	469.2	471.5	469.4	469.4	471.3	469.9
5	468.1	467.0	466.8	468.9	468.9	466.8	468.6	469.2	468.4	466.8	469.4	468.6
10	463.1	460.7	461.7	460.7	462.0	463.1	460.9	460.9	461.7	463.3	461.5	460.7
15	450.1	452.2	451.1	452.7	452.7	451.7	450.1	450.1	451.7	452.7	450.6	450.3
20	435.5	437.1	436.0	437.6	438.2	436.8	436.0	436.6	436.0	437.6	437.6	436.6
25	418.8	419.9	419.1	419.9	418.8	417.5	418.0	417.8	418.8	419.9	418.6	417.8
30	396.8	396.0	397.6	397.1	396.3	395.5	396.0	395.8	396.3	397.4	397.4	396.3
35	370.6	371.9	370.6	371.1	371.7	372.7	372.7	373.0	372.5	371.7	370.9	370.9
40	343.9	343.1	343.6	343.1	343.3	344.1	345.2	344.6	345.4	344.9	343.6	343.3
45	312.6	312.9	312.6	312.9	313.9	314.7	314.7	314.7	314.4	313.4	313.4	313.9
50	281.3	280.8	281.9	281.1	280.8	281.1	281.9	281.1	281.9	282.4	281.9	281.3
55	247.2	247.2	247.2	247.4	247.2	246.4	246.4	246.4	246.4	246.9	247.7	247.7
60	209.8	210.1	210.1	210.1	210.3	211.1	211.4	211.4	211.4	210.9	210.3	210.3
65	173.4	173.5	173.5	173.6	173.6	173.6	173.7	173.7	173.8	173.9	173.9	173.9
70	135.7	135.7	135.8	135.9	136.0	136.1	136.1	136.2	136.2	136.2	136.3	136.3
75	99.5	99.6	99.7	99.8	99.8	99.8	99.9	99.9	99.9	100.0	100.1	100.1
80	66.9	66.9	67.0	67.0	67.1	67.2	67.2	67.3	67.3	67.3	67.3	67.4
85	41.6	41.6	41.7	41.7	41.8	41.8	41.9	41.9	41.9	41.9	42.0	42.0
90	25.1	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.3	25.3	25.3
95	16.5	16.5	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
100	13.2	13.2	13.2	13.2	13.2	13.3	13.3	13.2	13.2	13.2	13.3	13.2
105	12.5	12.5	12.6	12.6	12.6	12.6	12.6	12.5	12.5	12.5	12.5	12.5
110	12.5	12.5	12.5	12.5	12.6	12.6	12.5	12.5	12.5	12.5	12.5	12.5
115	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
120	13.2	13.3	13.3	13.3	13.4	13.3	13.3	13.3	13.3	13.3	13.3	13.3
125	12.6	12.6	12.6	12.6	12.5	12.5	12.5	12.5	12.4	12.4	12.3	12.3
130	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.8	11.8	11.8	11.8	11.8
135	11.2	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.2
140	9.8	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.9	9.9
145	9.2	9.4	9.5	9.5	9.6	9.6	9.5	9.5	9.5	9.5	9.4	9.3
150	9.6	9.7	9.8	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.8	9.7
155	11.6	11.7	11.8	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.8	11.8
160	14.3	14.4	14.5	14.5	14.6	14.6	14.6	14.6	14.6	14.5	14.5	14.5
165	15.4	15.5	15.6	15.6	15.6	15.7	15.7	15.7	15.7	15.7	15.6	15.6
170	14.7	14.8	14.8	14.9	15.0	15.0	15.0	15.0	15.0	15.0	15.0	14.9
175	13.0	13.1	13.1	13.1	13.1	13.2	13.2	13.2	13.2	13.2	13.2	13.2
180	12.7	12.7	12.8	12.8	12.8	12.7	12.7	12.7	12.7	12.7	12.7	12.7

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**Table 6 Continued...**

Gamma	120	125	130	135	140	145	150	155	160	165	170	175
0	471.0	469.7	469.2	471.3	468.9	471.0	468.9	471.3	469.2	471.0	468.9	471.5
5	467.3	467.6	469.2	467.0	468.6	468.9	467.8	467.0	469.4	467.3	467.0	467.3
10	460.7	462.5	462.0	460.4	462.3	462.0	462.5	460.7	462.0	462.8	462.5	460.7
15	450.3	451.9	452.2	450.3	451.4	450.6	452.5	451.7	450.1	451.7	451.9	452.2
20	436.8	435.8	436.3	437.9	437.4	437.6	435.8	435.8	437.6	437.9	437.9	436.6
25	417.8	418.0	419.6	419.9	418.0	418.6	417.8	418.8	419.9	419.1	419.1	417.8
30	396.6	395.8	396.0	397.1	397.9	397.9	397.1	395.8	395.8	396.6	395.8	396.8
35	370.9	371.4	372.7	373.0	371.9	372.7	371.4	370.6	371.4	372.5	371.9	372.5
40	343.6	343.6	344.6	345.4	344.6	345.2	344.1	343.3	343.9	344.9	344.6	345.2
45	313.7	314.2	315.0	314.4	313.1	313.4	313.4	313.7	313.1	312.9	312.9	313.1
50	281.3	281.1	281.3	282.1	282.7	282.7	281.9	281.3	281.1	281.3	281.1	281.9
55	248.0	247.4	246.6	246.6	247.4	246.9	247.7	247.7	246.6	246.4	246.4	246.4
60	210.3	210.9	211.7	211.4	210.6	211.1	210.3	210.6	211.4	211.4	211.4	211.1
65	174.0	173.9	173.9	173.9	174.0	174.0	173.9	173.8	173.7	173.7	173.6	173.6
70	136.3	136.4	136.4	136.4	136.3	136.3	136.3	136.3	136.3	136.3	136.2	136.2
75	100.1	100.1	100.1	100.2	100.2	100.2	100.2	100.1	100.1	100.0	99.9	99.9
80	67.4	67.4	67.5	67.5	67.5	67.5	67.5	67.4	67.4	67.4	67.3	67.3
85	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	41.9	41.8	41.8
90	25.3	25.3	25.3	25.3	25.4	25.4	25.4	25.3	25.3	25.2	25.2	25.1
95	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.5	16.5	16.4	16.4
100	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.2	13.2	13.2	13.1	13.1
105	12.5	12.5	12.5	12.5	12.6	12.6	12.6	12.5	12.5	12.5	12.4	12.3
110	12.5	12.5	12.5	12.5	12.5	12.5	12.3	11.5	10.8	10.9	10.8	9.8
115	13.5	13.5	13.5	13.5	13.4	13.1	12.5	11.9	11.6	11.5	11.1	10.6
120	13.3	13.3	13.3	13.2	12.9	12.5	12.0	11.7	11.6	11.3	10.9	10.5
125	12.3	12.3	12.2	12.0	11.7	11.4	11.2	11.1	10.9	10.6	10.3	10.1
130	11.8	11.8	11.6	11.3	11.1	10.9	10.7	10.6	10.4	10.1	9.8	9.6
135	11.1	10.9	10.8	10.6	10.4	10.2	10.1	10.0	9.7	9.5	9.3	9.1
140	9.7	9.6	9.4	9.3	9.1	9.0	8.9	8.8	8.6	8.4	8.2	8.1
145	9.2	9.1	9.0	8.8	8.7	8.6	8.5	8.4	8.3	8.2	8.0	7.9
150	9.6	9.5	9.4	9.3	9.2	9.2	9.1	9.1	9.0	8.8	8.7	8.7
155	11.7	11.7	11.6	11.6	11.5	11.5	11.4	11.4	11.3	11.2	11.2	11.1
160	14.5	14.4	14.4	14.4	14.3	14.3	14.3	14.2	14.1	14.1	14.0	14.0
165	15.6	15.5	15.5	15.4	15.4	15.3	15.3	15.2	15.1	15.0	15.0	15.0
170	14.9	14.8	14.8	14.8	14.7	14.6	14.6	14.5	14.5	14.4	14.4	14.3
175	13.2	13.2	13.2	13.1	13.1	13.1	13.0	13.0	12.9	12.8	12.8	12.8
180	12.6	12.6	12.6	12.5	12.5	12.5	12.5	12.5	12.5	12.4	12.4	12.4

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**Table 6 Continued...**

Gamma	180	185	190	195	200	205	210	215	220	225	230	235
0	469.2	470.2	469.4	471.3	468.6	470.7	468.9	469.7	468.9	471.0	468.9	470.5
5	468.6	467.0	469.2	468.1	466.5	469.2	467.3	468.1	468.4	467.3	466.5	468.9
10	461.2	462.8	460.7	460.1	461.5	462.5	461.5	460.1	459.9	462.3	462.3	460.1
15	450.1	450.3	451.9	452.2	451.4	449.5	450.1	451.9	451.1	451.7	450.1	449.5
20	435.5	437.1	437.9	437.6	437.6	435.2	437.1	435.2	436.8	435.0	435.0	436.3
25	418.0	419.6	419.1	419.3	418.3	417.0	417.8	419.3	418.8	418.8	418.0	416.7
30	397.6	396.3	395.2	395.5	395.0	395.8	396.3	396.8	396.8	396.8	396.3	395.5
35	372.5	371.1	370.3	370.3	370.3	371.7	371.7	371.9	371.7	371.9	370.9	370.1
40	344.6	343.6	342.8	342.8	343.1	344.4	344.4	343.9	344.1	343.9	343.1	342.3
45	314.2	314.4	313.9	314.2	313.4	312.3	312.3	313.1	312.1	312.6	313.1	313.7
50	282.1	281.1	280.5	280.8	280.3	280.8	281.3	281.3	281.3	281.3	281.1	280.5
55	247.2	247.4	246.6	246.9	246.4	245.6	245.6	246.6	245.8	246.6	246.6	246.1
60	210.3	210.9	210.3	210.6	209.8	209.5	209.5	210.3	209.5	210.3	210.3	210.1
65	173.6	173.5	173.4	173.2	173.1	173.1	173.0	172.9	172.8	172.7	172.6	172.5
70	136.1	136.0	135.8	135.7	135.6	135.5	135.4	135.3	135.2	135.1	135.0	134.9
75	99.9	99.8	99.6	99.6	99.4	99.3	99.2	99.1	99.0	98.9	98.9	98.8
80	67.2	67.0	67.0	66.9	66.8	66.7	66.7	66.5	66.5	66.4	66.3	66.2
85	41.7	41.6	41.6	41.5	41.5	41.4	41.3	41.2	41.2	41.1	41.1	41.0
90	25.0	25.0	24.9	24.9	24.8	24.8	24.7	24.7	24.6	24.6	24.6	24.6
95	16.3	16.3	16.3	16.2	16.2	16.2	16.2	16.1	16.1	16.1	16.1	16.1
100	13.1	13.1	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
105	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
110	9.5	9.6	10.6	10.8	10.6	11.1	11.9	12.2	12.2	12.3	12.3	12.3
115	10.5	10.3	10.8	11.3	11.4	11.7	12.2	12.8	13.1	13.3	13.3	13.3
120	10.5	10.4	10.5	11.0	11.3	11.5	11.7	12.1	12.6	12.9	13.1	13.1
125	10.2	10.1	10.1	10.5	10.8	11.0	11.1	11.4	11.6	12.0	12.3	12.4
130	9.8	9.7	9.7	9.9	10.1	10.2	10.3	10.5	10.6	10.9	11.1	11.3
135	9.1	9.1	9.1	9.2	9.5	9.7	9.8	10.0	10.1	10.3	10.6	10.8
140	8.1	8.1	8.1	8.2	8.4	8.6	8.7	8.8	9.0	9.1	9.3	9.5
145	7.9	7.9	7.9	8.0	8.1	8.3	8.4	8.5	8.6	8.7	8.8	9.0
150	8.7	8.7	8.7	8.7	8.8	9.0	9.0	9.1	9.2	9.3	9.4	9.5
155	11.1	11.1	11.1	11.1	11.2	11.3	11.4	11.4	11.5	11.6	11.6	11.7
160	14.0	14.0	14.0	14.0	14.1	14.1	14.2	14.3	14.3	14.4	14.4	14.5
165	14.9	14.9	15.0	15.0	15.1	15.2	15.2	15.3	15.4	15.4	15.5	15.5
170	14.3	14.3	14.3	14.4	14.4	14.5	14.5	14.6	14.6	14.7	14.7	14.8
175	12.8	12.8	12.8	12.8	12.8	12.9	13.0	13.0	13.0	13.0	13.1	13.1
180	12.4	12.4	12.5	12.5	12.5	12.5	12.5	12.5	12.6	12.6	12.6	12.6

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**Table 6 Continued...**

Gamma	240	245	250	255	260	265	270	275	280	285	290	295
0	469.2	468.4	471.0	468.4	470.2	469.7	468.4	470.2	468.9	469.2	470.2	470.2
5	467.6	466.5	466.8	468.9	467.0	466.2	466.0	468.1	467.8	466.0	468.1	467.3
10	459.9	459.9	460.9	462.5	461.5	459.6	460.1	459.6	460.9	462.0	461.5	462.3
15	450.6	450.1	450.9	451.7	450.6	449.0	449.3	449.3	450.6	451.1	451.4	451.7
20	437.1	437.1	437.1	436.8	436.0	434.7	435.8	434.7	434.4	434.7	435.8	434.4
25	416.7	416.4	417.0	418.3	418.6	418.8	418.3	418.8	417.8	417.2	416.4	418.0
30	395.0	395.5	395.0	394.4	394.4	395.0	394.4	394.4	395.2	395.5	396.6	394.7
35	369.8	370.3	370.1	369.5	371.7	371.4	371.4	371.4	371.4	371.1	370.1	371.4
40	342.3	342.3	342.0	342.0	342.3	343.1	342.0	342.0	342.8	342.8	343.6	342.3
45	313.4	313.7	313.4	313.4	313.1	312.3	313.1	312.9	312.3	312.3	311.8	313.1
50	280.0	280.3	280.0	279.5	279.5	279.5	279.7	279.5	279.5	280.8	280.8	279.7
55	245.6	246.1	245.6	244.8	244.8	244.8	245.0	244.8	244.8	244.8	245.6	244.5
60	209.8	210.1	210.1	209.5	209.3	208.7	209.5	209.5	209.0	208.7	208.5	209.3
65	172.4	172.3	172.2	172.2	172.2	172.2	172.1	172.1	172.1	172.1	172.1	172.0
70	134.8	134.8	134.7	134.7	134.6	134.5	134.5	134.5	134.5	134.4	134.4	134.4
75	98.7	98.7	98.6	98.5	98.5	98.4	98.4	98.4	98.4	98.3	98.4	98.4
80	66.2	66.1	66.1	66.0	66.0	66.0	66.0	66.0	66.0	65.9	65.9	66.0
85	41.0	41.0	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9
90	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.7	24.7
95	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.2	16.2	16.3	16.3	16.3
100	13.0	13.0	13.0	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.2
105	12.3	12.3	12.3	12.4	12.4	12.4	12.5	12.5	12.5	12.5	12.5	12.5
110	12.3	12.3	12.3	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
115	13.3	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
120	13.1	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
125	12.5	12.4	12.4	12.4	12.4	12.3	12.3	12.3	12.3	12.2	12.2	12.2
130	11.4	11.5	11.5	11.5	11.5	11.5	11.6	11.6	11.7	11.7	11.7	11.8
135	11.0	11.1	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.1
140	9.6	9.8	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.8	9.8
145	9.1	9.2	9.4	9.4	9.5	9.5	9.5	9.5	9.5	9.4	9.2	9.2
150	9.6	9.7	9.8	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.8	9.7
155	11.7	11.8	11.9	12.0	12.0	12.1	12.1	12.1	12.0	12.0	11.9	11.8
160	14.5	14.6	14.6	14.6	14.7	14.8	14.8	14.8	14.8	14.7	14.6	14.6
165	15.6	15.6	15.7	15.7	15.7	15.8	15.8	15.8	15.8	15.8	15.7	15.7
170	14.8	14.9	15.0	15.0	15.1	15.1	15.1	15.1	15.1	15.1	15.0	14.9
175	13.1	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
180	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7

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**Table 6 Continued...**

Gamma	300	305	310	315	320	325	330	335	340	345	350	355
0	468.4	471.0	468.1	468.1	470.7	468.9	469.7	470.7	469.4	468.6	471.0	468.9
5	468.6	467.0	466.8	466.8	468.6	466.8	466.8	468.4	468.6	468.4	466.2	467.8
10	460.4	459.9	460.1	459.6	461.5	462.3	460.7	460.1	460.1	460.1	462.0	462.5
15	450.6	449.5	449.0	449.8	449.0	450.1	451.7	451.7	451.9	451.9	451.1	450.1
20	436.0	436.8	436.6	436.8	437.1	436.8	435.2	434.7	435.0	434.7	435.0	435.5
25	417.0	416.4	416.4	416.7	416.4	416.7	417.5	417.8	419.1	418.8	418.3	418.3
30	395.8	395.8	396.6	395.2	396.6	396.6	396.6	396.8	396.6	396.8	396.8	396.6
35	370.9	370.9	370.1	371.4	370.9	370.3	369.8	370.1	371.1	370.6	370.1	369.8
40	343.3	343.3	343.9	342.3	343.1	343.6	343.9	343.9	343.6	343.9	344.1	344.1
45	312.3	312.1	311.5	312.9	312.6	312.3	311.5	311.8	312.3	312.3	312.3	312.1
50	280.8	280.8	280.8	280.5	280.8	280.8	280.8	281.1	280.8	281.1	281.1	281.1
55	245.0	245.0	245.8	244.8	245.6	245.8	246.1	245.8	245.6	245.8	246.1	246.4
60	208.7	208.7	208.5	209.5	209.0	208.7	208.5	208.7	209.3	209.3	209.0	208.7
65	172.1	172.1	172.0	172.1	172.1	172.1	172.1	172.1	172.1	172.2	172.2	172.3
70	134.4	134.4	134.4	134.5	134.5	134.5	134.5	134.5	134.6	134.6	134.6	134.7
75	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.5	98.5	98.5	98.5	98.6
80	66.0	66.0	66.0	66.1	66.1	66.1	66.1	66.1	66.2	66.2	66.2	66.2
85	41.0	41.0	41.1	41.1	41.1	41.2	41.2	41.2	41.2	41.2	41.2	41.2
90	24.7	24.8	24.8	24.8	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9
95	16.3	16.4	16.4	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.4
100	13.2	13.2	13.2	13.2	13.2	13.3	13.3	13.3	13.2	13.2	13.2	13.2
105	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.4	12.4
110	12.5	12.5	12.5	12.5	12.5	12.4	12.1	11.2	10.8	11.0	11.0	9.9
115	13.4	13.4	13.4	13.3	12.8	12.9	12.2	11.3	10.8	10.8	10.9	10.1
120	13.2	13.2	13.2	13.1	12.4	11.6	10.4	9.9	9.7	8.6	8.1	6.2
125	12.2	12.2	12.1	11.8	11.4	11.1	10.7	10.7	10.6	10.2	9.4	9.1
130	11.7	11.7	11.4	11.2	10.9	10.6	10.5	10.5	10.4	10.0	9.3	9.1
135	11.0	10.8	10.6	10.4	10.3	10.2	10.1	9.9	9.6	9.4	9.1	8.9
140	9.6	9.5	9.3	9.2	9.1	9.0	9.0	8.8	8.5	8.3	8.1	7.9
145	9.1	9.0	9.0	8.8	8.7	8.6	8.5	8.3	8.1	7.9	7.8	7.7
150	9.2	9.2	9.4	9.4	9.3	9.2	9.1	8.9	8.6	8.4	8.3	8.2
155	11.8	11.7	11.6	11.4	11.4	11.2	11.1	11.0	11.0	10.9	10.8	10.7
160	14.5	14.5	14.4	14.3	14.3	14.1	14.0	13.9	13.8	13.7	13.6	13.6
165	15.6	15.5	15.4	15.3	15.3	15.1	15.0	14.9	14.8	14.7	14.6	14.6
170	14.8	14.8	14.7	14.6	14.5	14.4	14.4	14.3	14.2	14.1	14.0	14.0
175	13.2	13.1	13.1	13.0	13.0	12.9	12.9	12.8	12.8	12.7	12.7	12.7
180	12.7	12.6	12.6	12.6	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5

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## PRODUCT DIAGRAM & IDENTIFICATION OF PHOTOMETRIC CENTRE

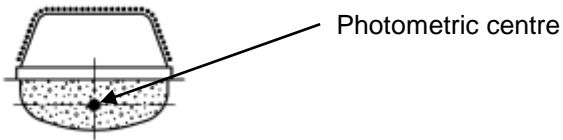


Figure 2. *Product photometric centre*

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## ILLUSTRATION



Figure 3. Product image

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