

T e s t R e p o r t

Report No : L16931A

Client: : Penhale Quantock Ltd
Units 13 – 15 Roughmoor Enterprise Centre
Roughmoor Trading Estate
Williton
Somerset
TA4 4AT

Description : 300mm Luminaires in a Metre Length of Handrail

Manufacturer : Not disclosed

Type/Model : 48mm Continulux

Test Specification : BS EN 13032-4:2015 clause 4.5.4

Date Testing Started : 04/01/2018

Conclusion : Refer to body of report

Date of Issue : 05/01/2018

Date of Expiry : 04/01/2023

Tested by: N. GABIR
Position: Photometry Technician



Approved by: M. ALI
Position: Head of Photometry



INTRODUCTION

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

PRODUCT DETAILS

Table 1. Test Sample Details

Product Description	300mm Luminaires in a Metre Length of Handrail
Model No.	48mm Continulux
Number of Samples	One
Condition on Receipt	Good
Nominal Dimensions (mm)	L- 900mm; W- 50mm; H- 50mm
Product Supply Requirement	100-240V AC, 50/60Hz
Lamp Type and Power	LED, 15W
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	BS EN 13032-4:2015 clause 4.5.4
Equipment Used	LMT GO-DS 2000 goniophotometer (408)
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	Single phase power analyser (395)
Temperature Measurement	Testo 925 Thermocouple reader (142)

Table 3. Lamp Conditioning and Setup

Lamp ageing Time (Hours)	0
Stabilisation Time (Hours)	1
Total Operating Time (Hours)	1.33
Support Structure	LMT Goniophotometer Mounting Fixture

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TEST RESULTS

Table 4. Test Environmental and Operating Conditions

Ambient Temperature (°C)	25.4
Voltage (V)	240.4
Current (mA)	146.04
Power (W)	15.2
Power Factor	0.43

Table 5. Beam Angle Results

Luminous Flux of Luminaire (lm)	Centre Beam Intensity (cd)	Beam Angle (Lamp orientation)	Beam Angle Result (°)
1151	503	Horizontal	106.3
		Vertical	91.3

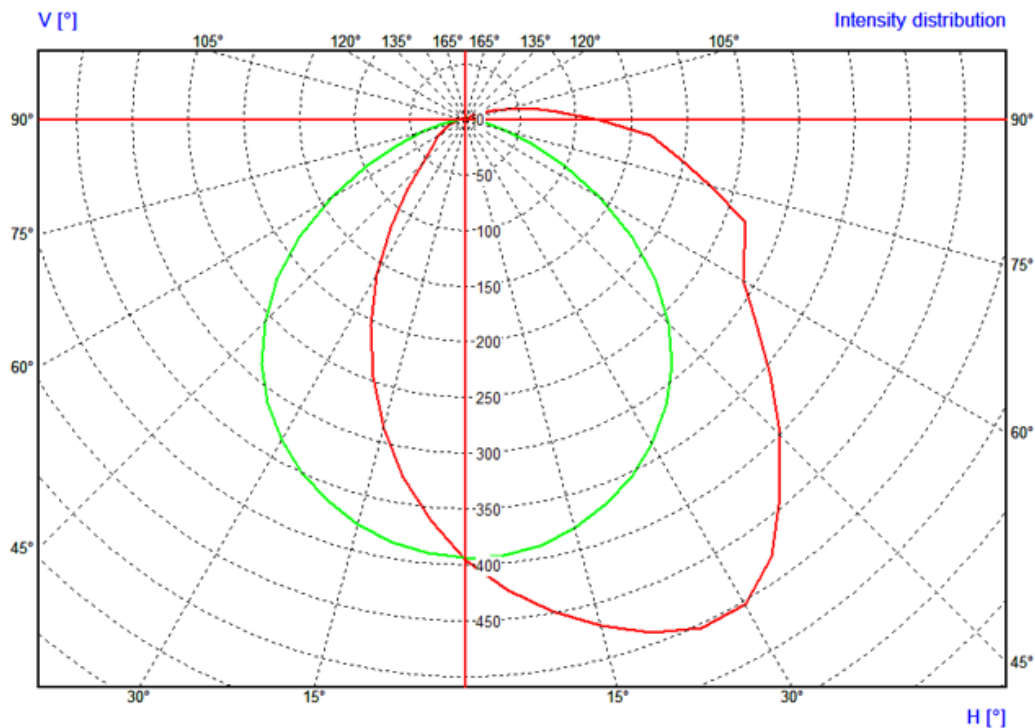


Figure 1. Polar Diagram

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Table 6. Luminous Intensities (cd)

Gamma	0	5	10	15	20	25	30	35	40	45	50	55
0	395.0	395.2	397.4	396.3	396.0	396.3	396.6	396.6	396.0	397.1	398.2	398.7
5	422.5	423.6	424.9	423.6	422.5	422.3	421.2	419.9	417.5	416.7	416.7	414.1
10	447.7	448.2	449.0	447.4	445.0	444.3	441.6	439.2	435.8	433.1	430.7	427.3
15	468.9	469.4	469.9	467.3	464.4	463.1	459.4	455.4	450.6	446.6	442.9	437.6
20	488.8	488.8	488.5	485.3	481.6	478.7	474.2	469.4	463.1	456.7	450.9	444.3
25	502.3	503.3	503.1	498.3	493.8	490.9	485.8	478.4	470.7	462.5	455.4	446.6
30	501.7	502.3	502.3	498.8	494.3	491.7	486.9	479.5	472.3	463.6	455.9	444.5
35	478.2	478.2	477.6	476.8	474.5	473.7	472.3	468.4	462.8	454.8	446.9	435.2
40	439.5	438.7	437.9	437.1	436.0	436.8	438.7	437.4	435.5	430.5	424.9	415.4
45	398.4	397.6	396.6	395.5	393.9	394.4	396.3	396.0	395.5	393.1	389.9	384.1
50	357.1	356.6	356.0	355.0	353.1	352.6	352.3	350.7	348.4	346.5	345.2	341.7
55	318.7	318.4	316.6	314.4	311.3	308.9	306.2	302.3	299.1	294.8	292.2	289.3
60	288.2	287.7	285.3	282.7	277.4	271.0	263.6	255.1	248.7	242.7	237.9	232.9
65	276.0	275.5	272.3	267.6	258.8	249.0	237.4	224.1	210.9	198.4	188.3	179.1
70	267.3	267.3	264.1	258.8	249.3	239.7	227.3	211.9	194.4	175.1	156.0	139.1
75	226.8	226.5	222.3	216.2	206.9	198.4	188.9	178.8	167.7	153.9	136.4	115.2
80	194.9	194.8	190.0	181.9	170.0	157.1	143.0	129.2	117.3	106.7	96.5	85.1
85	166.4	165.6	161.5	155.6	146.7	135.4	120.9	104.6	90.0	76.3	64.2	53.4
90	119.6	118.8	116.8	115.3	112.2	107.0	97.9	85.6	72.9	60.8	49.7	39.4
95	82.3	81.6	81.0	81.4	81.6	80.8	76.9	69.3	59.6	49.6	40.1	30.8
100	59.1	58.6	57.8	57.4	56.6	55.4	52.7	47.9	41.5	33.9	27.0	20.8
105	37.7	37.4	36.8	36.4	35.9	35.4	34.1	31.8	28.4	23.7	18.9	14.1
110	25.2	25.2	24.9	24.5	23.9	23.1	21.8	20.0	17.0	13.8	10.2	6.0
115	14.4	14.2	13.9	13.5	12.9	12.2	11.2	9.7	7.9	3.2	0.3	0.3
120	7.3	7.2	7.1	6.8	6.4	5.1	1.7	0.3	0.3	0.3	0.3	0.3
125	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
130	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.7
135	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.9
140	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8
145	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.2	1.2	1.3
150	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.5	1.5
155	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
160	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
165	2.3	2.2	2.2	2.2	2.3	2.3	2.4	2.5	2.5	2.4	2.4	2.3
170	2.9	2.9	3.0	3.0	3.1	3.2	3.2	3.2	3.1	2.9	2.8	2.7
175	3.7	3.7	3.7	3.8	3.9	3.8	3.7	3.5	3.3	3.2	3.0	2.9
180	4.0	4.0	3.8	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0

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Table 6 Continued...

Gamma	60	65	70	75	80	85	90	95	100	105	110	115
0	399.0	397.9	396.3	396.6	393.4	391.3	393.7	386.8	393.1	395.0	395.0	395.0
5	412.2	409.0	405.0	403.2	397.1	392.3	392.3	382.8	386.2	385.4	382.8	380.1
10	423.3	417.8	410.9	406.4	397.4	389.4	387.3	375.4	375.9	372.5	367.2	361.3
15	431.8	423.3	414.6	406.6	395.5	384.4	379.1	364.5	362.1	356.3	348.6	340.7
20	435.2	424.6	413.5	403.2	388.9	375.1	367.2	350.7	345.2	337.0	326.6	315.5
25	436.0	423.3	409.3	396.8	380.1	364.0	352.6	333.5	325.0	313.9	301.2	287.2
30	432.1	417.2	402.1	387.3	368.5	348.6	334.6	313.4	302.0	287.7	272.9	257.2
35	423.1	407.7	390.2	373.0	352.3	330.1	312.9	289.8	276.0	259.1	241.6	224.9
40	404.0	389.2	370.3	353.1	331.9	307.6	287.4	262.8	246.9	228.4	208.2	190.2
45	374.6	360.5	342.5	325.0	304.1	278.9	257.5	232.1	214.3	194.4	172.5	153.1
50	335.1	323.7	306.8	289.3	268.9	244.0	222.0	197.9	179.1	158.2	136.4	117.6
55	284.5	277.1	264.1	247.4	226.5	202.9	181.7	159.2	140.7	120.8	100.9	85.0
60	227.3	222.0	213.5	199.7	180.4	158.7	138.8	119.2	103.3	86.1	70.7	58.5
65	171.7	164.5	157.9	147.8	132.7	114.2	97.5	82.7	70.2	57.7	47.4	39.7
70	125.6	115.2	107.0	99.1	88.5	75.5	63.3	53.0	44.8	37.4	31.5	27.3
75	95.9	80.3	69.7	61.5	53.5	45.3	37.6	31.8	27.0	23.0	20.4	18.5
80	72.4	59.1	47.4	38.0	31.1	25.0	20.3	17.0	14.8	13.4	12.6	12.2
85	43.7	34.8	27.4	21.1	15.9	11.6	8.2	6.6	6.2	6.4	6.8	7.3
90	30.2	22.2	15.6	10.5	6.6	3.7	1.8	1.8	2.3	2.9	3.7	4.4
95	22.5	15.5	10.1	6.4	3.8	2.3	1.7	1.8	2.0	2.2	2.6	3.1
100	15.5	10.8	6.6	3.2	2.2	1.9	1.7	1.9	1.9	1.9	2.2	2.6
105	9.6	5.7	1.8	1.8	1.7	1.7	1.6	1.9	1.9	1.8	1.7	1.7
110	0.3	0.4	1.3	1.5	1.5	1.5	1.6	1.7	1.9	1.8	1.7	1.3
115	0.3	0.4	1.2	1.3	1.4	1.4	1.5	1.7	1.8	1.8	1.7	1.3
120	0.4	0.5	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.6	1.2
125	0.5	1.0	1.1	1.2	1.3	1.4	1.4	1.5	1.5	1.2	0.7	0.8
130	1.0	1.1	1.1	1.1	1.2	1.1	0.9	0.7	0.7	0.9	1.3	1.6
135	0.9	0.8	0.7	0.7	0.7	0.8	0.9	1.3	1.7	1.7	1.7	1.7
140	0.9	1.0	1.1	1.3	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.8
145	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	1.9
150	1.6	1.7	1.7	1.7	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0
155	1.6	1.7	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9
160	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9
165	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2
170	2.6	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5
175	2.8	2.8	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7
180	2.9	2.9	2.8	2.8	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.9

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Table 6 Continued...

Gamma	120	125	130	135	140	145	150	155	160	165	170	175
0	395.2	394.4	394.7	393.7	394.4	395.0	395.0	394.4	393.7	393.7	393.7	393.9
5	377.8	374.8	373.3	369.8	368.8	367.7	365.8	364.2	362.4	361.9	361.3	360.8
10	357.1	351.5	347.8	342.5	339.6	336.7	333.3	330.3	328.0	326.6	325.3	324.2
15	333.5	325.6	319.5	312.1	307.0	302.5	297.8	293.8	290.9	288.7	286.9	286.1
20	305.7	295.9	288.2	278.7	272.3	266.8	260.9	255.9	251.7	249.0	246.9	245.6
25	275.5	264.6	254.8	244.8	236.6	229.1	222.3	216.7	211.4	208.2	205.3	203.4
30	243.7	231.5	219.9	208.2	198.7	189.9	182.0	175.4	169.3	165.0	161.9	159.7
35	209.8	196.6	182.3	169.5	158.4	149.1	140.9	133.8	128.0	123.7	120.5	118.4
40	173.8	158.7	144.1	131.1	120.0	110.7	102.8	95.9	90.6	86.9	84.0	82.1
45	137.0	121.3	107.6	95.4	85.6	77.4	70.7	65.7	61.7	58.8	56.7	55.4
50	102.0	87.7	76.0	66.2	58.8	53.2	49.0	45.8	43.7	42.1	41.1	40.3
55	71.5	60.4	52.2	45.8	41.6	38.7	36.6	35.2	34.4	33.6	33.4	33.1
60	49.0	41.9	37.1	33.9	31.8	30.7	29.7	29.1	28.9	28.6	28.6	28.3
65	34.2	30.2	27.8	26.2	25.2	24.6	24.4	23.8	23.6	23.3	23.3	23.0
70	24.4	22.3	21.2	20.1	19.6	19.1	18.8	18.3	18.0	17.7	17.7	17.5
75	17.5	16.7	16.2	15.6	15.4	14.8	14.6	14.3	14.0	14.0	13.8	13.8
80	12.1	12.0	12.0	11.9	11.8	11.7	11.6	11.5	11.4	11.4	11.3	11.3
85	7.8	8.2	8.6	8.9	9.1	9.2	9.3	9.3	9.3	9.3	9.2	9.2
90	5.1	5.7	6.2	6.6	6.9	7.2	7.3	7.4	7.5	7.4	7.4	7.3
95	3.7	4.2	4.8	5.3	5.6	5.9	6.1	6.3	6.4	6.4	6.3	6.2
100	3.0	3.4	3.9	4.3	4.6	4.9	5.1	5.3	5.4	5.4	5.3	5.2
105	2.4	2.6	3.2	3.5	3.8	4.1	4.3	4.4	4.5	4.5	4.5	4.4
110	0.7	0.8	2.0	2.4	2.8	3.3	3.5	3.7	3.8	3.8	3.7	3.7
115	0.8	0.8	0.8	0.8	1.9	2.4	2.6	2.8	3.0	3.1	3.1	3.1
120	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.5	2.2	2.5	2.6	2.6
125	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0
130	1.3	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
135	1.7	1.5	1.4	1.4	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.2
140	1.8	1.8	1.7	1.6	1.4	1.3	1.3	1.4	1.4	1.4	1.4	1.4
145	1.9	1.9	1.7	1.6	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.7
150	2.0	1.9	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9
155	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2
160	2.0	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.5
165	2.3	2.3	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
170	2.6	2.6	2.7	2.8	2.8	2.9	2.9	2.9	2.9	2.8	2.9	2.9
175	2.8	2.8	2.9	3.0	3.1	3.2	3.4	3.5	3.5	3.5	3.4	3.4
180	2.9	3.0	3.0	3.1	3.1	3.2	3.3	3.3	3.4	3.5	3.5	3.5

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Table 6 Continued...

Gamma	180	185	190	195	200	205	210	215	220	225	230	235
0	394.4	393.9	393.1	394.2	392.6	393.7	393.7	394.2	393.7	394.4	395.5	396.6
5	361.1	361.1	360.8	362.1	361.6	364.0	364.8	366.6	368.0	370.6	373.5	376.7
10	325.0	325.3	325.8	327.4	327.7	330.9	333.3	336.4	339.3	343.9	348.9	354.4
15	286.1	286.1	286.9	289.0	290.3	294.3	298.0	303.3	307.3	313.7	320.5	328.0
20	245.3	245.3	246.1	249.3	251.7	256.4	260.9	267.6	273.4	280.8	289.8	299.3
25	203.4	203.7	205.0	208.2	211.4	217.2	222.5	229.7	237.4	246.6	256.7	267.8
30	159.7	160.0	161.9	165.3	169.0	174.8	181.5	189.7	198.4	208.7	220.9	233.6
35	117.9	118.7	120.5	124.0	128.2	133.8	140.7	148.9	158.4	169.3	182.5	197.1
40	81.6	82.4	84.2	87.4	91.1	96.4	103.0	111.3	120.5	131.4	144.6	159.5
45	55.1	55.6	57.0	59.3	62.3	66.2	71.5	78.1	86.4	96.4	108.6	122.7
50	40.3	40.5	41.3	42.7	44.2	46.6	49.8	54.3	59.9	67.6	77.4	89.5
55	32.8	33.1	33.6	34.2	35.0	35.8	37.1	39.2	42.4	46.9	53.2	62.0
60	28.3	28.6	28.9	29.1	29.4	29.7	29.9	31.0	32.3	34.4	38.1	43.2
65	22.8	23.0	23.6	23.8	24.1	24.4	24.6	24.9	25.7	26.8	28.3	31.3
70	17.2	17.5	17.7	18.3	18.5	18.8	19.1	19.6	19.9	20.7	21.7	23.0
75	13.5	13.8	14.0	14.3	14.6	14.8	15.1	15.4	15.9	16.2	16.7	17.5
80	11.2	11.2	11.4	11.6	11.7	11.8	12.0	12.1	12.3	12.5	12.6	12.7
85	9.1	9.2	9.3	9.4	9.5	9.5	9.6	9.6	9.5	9.4	9.2	8.9
90	7.3	7.3	7.4	7.5	7.5	7.6	7.5	7.4	7.3	7.0	6.7	6.3
95	6.2	6.2	6.3	6.4	6.4	6.4	6.3	6.1	5.9	5.6	5.1	4.7
100	5.2	5.2	5.3	5.4	5.4	5.3	5.2	5.1	4.8	4.6	4.2	3.7
105	4.4	4.4	4.4	4.5	4.5	4.4	4.3	4.2	4.0	3.7	3.3	2.8
110	3.7	3.7	3.7	3.8	3.8	3.7	3.5	3.3	2.9	2.6	2.2	1.6
115	3.1	3.1	3.1	3.1	3.0	2.9	2.7	2.5	2.2	1.1	0.9	0.8
120	2.7	2.7	2.6	2.6	2.5	2.0	1.0	0.9	0.9	0.9	0.8	0.8
125	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	1.1
130	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.3	1.4
135	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.5	1.6	1.6
140	1.4	1.5	1.4	1.4	1.4	1.4	1.5	1.6	1.7	1.7	1.7	1.7
145	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.7	1.8	1.9	1.9	1.9
150	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1
155	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2
160	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.1
165	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.5
170	2.9	2.9	3.0	3.0	3.1	3.1	3.2	3.2	3.1	3.0	3.0	2.9
175	3.4	3.4	3.5	3.6	3.7	3.7	3.6	3.5	3.3	3.2	3.1	3.0
180	3.7	3.7	3.6	3.7	3.5	3.5	3.4	3.4	3.3	3.3	3.2	3.2

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Table 6 Continued...

Gamma	240	245	250	255	260	265	270	275	280	285	290	295
0	395.8	395.0	393.1	393.7	391.3	389.7	392.9	385.4	392.9	394.4	394.7	395.0
5	378.3	379.9	380.4	383.6	383.9	385.2	390.2	386.5	395.8	399.5	402.7	405.3
10	358.2	361.6	365.0	370.1	373.0	377.2	384.6	383.3	395.8	402.1	407.4	412.5
15	334.0	340.4	346.2	353.9	359.2	365.8	375.1	377.2	392.1	401.1	409.0	416.4
20	307.6	315.8	324.8	335.1	343.1	352.1	363.5	369.5	386.5	397.6	408.5	418.8
25	278.7	289.3	300.1	312.9	323.7	335.4	349.4	357.9	377.8	391.8	405.0	417.2
30	246.6	259.3	272.1	286.9	301.2	315.0	331.1	343.1	365.3	382.0	397.1	411.4
35	211.9	227.3	241.9	259.1	276.0	291.7	309.9	325.0	349.1	368.2	383.9	400.3
40	175.9	192.9	209.5	228.6	247.7	264.6	285.0	302.8	328.2	348.1	364.5	381.2
45	138.5	156.0	174.3	195.0	215.6	233.9	255.9	276.6	301.5	321.6	337.5	353.9
50	103.8	120.5	138.8	158.9	180.1	199.7	221.5	244.2	268.4	287.7	302.8	319.7
55	73.6	87.4	103.6	122.1	142.0	161.1	182.0	204.8	227.6	247.2	263.3	277.9
60	50.9	60.9	73.4	88.5	104.6	121.3	139.3	160.5	182.3	200.8	215.1	226.0
65	35.8	41.6	49.8	60.4	72.3	85.0	98.5	116.6	134.3	149.7	161.6	169.5
70	25.4	28.6	33.4	39.5	47.2	55.4	64.6	77.9	90.1	101.2	109.9	118.1
75	18.3	19.6	21.7	24.6	28.9	33.4	38.9	47.2	55.1	62.8	70.7	80.0
80	12.9	13.1	13.5	14.3	15.6	17.6	20.3	24.8	30.1	36.2	43.4	53.4
85	8.6	8.3	7.8	7.4	7.2	7.3	8.3	10.9	14.8	19.3	24.8	31.4
90	5.7	5.1	4.5	3.7	3.0	2.5	2.0	2.9	5.4	8.7	13.0	18.5
95	4.2	3.6	3.1	2.6	2.3	2.2	2.1	2.2	2.8	4.8	7.8	12.3
100	3.3	2.9	2.6	2.0	2.1	2.3	2.1	2.0	2.3	2.0	5.0	8.3
105	2.5	2.4	1.9	1.9	2.1	2.3	2.0	1.9	2.1	2.0	1.7	2.7
110	0.8	1.2	1.9	1.9	2.1	2.1	1.9	1.7	1.8	1.8	1.1	0.3
115	0.8	1.3	1.8	1.9	2.0	2.0	1.7	1.6	1.6	1.6	1.0	0.4
120	1.1	1.4	1.8	1.8	1.9	1.8	1.6	1.5	1.5	1.4	1.1	0.5
125	1.4	1.6	1.7	1.7	1.8	1.7	1.6	1.5	1.4	1.3	1.3	0.9
130	1.6	1.7	1.7	1.7	1.7	1.6	1.6	1.5	1.4	1.3	1.2	1.2
135	1.7	1.7	1.8	1.7	1.7	1.7	1.6	1.5	1.5	1.4	1.4	1.3
140	1.8	1.8	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.4
145	1.9	1.9	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.6
150	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9
155	2.2	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1
160	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1
165	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
170	2.8	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7
175	3.0	2.9	2.9	2.9	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9
180	3.1	3.0	3.0	3.0	2.9	2.9	2.9	2.9	2.9	3.0	3.0	3.0

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Table 6 Continued...

Gamma	300	305	310	315	320	325	330	335	340	345	350	355
0	395.0	394.4	395.5	395.5	396.0	396.0	396.6	396.0	395.5	396.3	396.0	396.0
5	407.4	409.0	412.2	414.3	416.2	418.3	420.1	420.9	421.5	423.1	423.1	423.6
10	417.5	421.5	426.2	430.5	434.7	437.9	441.6	442.9	444.3	446.6	447.7	448.2
15	423.9	431.0	437.9	443.7	449.5	454.3	459.1	462.0	464.4	467.8	468.6	469.9
20	428.1	437.6	446.1	453.5	460.7	468.1	473.7	478.2	481.3	485.8	487.4	488.8
25	428.1	440.0	450.1	459.6	468.9	478.2	485.3	490.3	494.6	499.4	501.7	502.5
30	424.4	439.0	450.9	461.7	472.3	480.5	487.2	492.7	496.4	500.7	501.7	502.5
35	414.3	430.2	444.0	455.1	463.9	469.9	474.7	477.1	479.0	481.6	481.1	480.0
40	395.8	411.4	424.1	433.4	439.7	442.7	444.8	445.3	445.3	446.1	443.7	441.9
45	368.8	381.2	391.8	397.4	401.1	402.7	404.0	403.5	403.2	404.0	402.4	400.5
50	332.7	341.7	348.1	351.3	353.7	356.3	358.7	360.0	360.8	362.7	360.8	359.2
55	286.6	292.2	296.2	298.8	302.5	306.0	309.7	312.6	315.8	318.4	318.4	318.7
60	231.5	237.4	242.4	245.8	250.6	257.8	265.2	272.1	277.6	282.1	284.5	286.6
65	176.2	183.3	190.5	198.9	210.9	224.1	237.4	249.3	258.0	264.9	269.7	273.7
70	126.9	137.8	152.1	169.8	189.7	208.2	224.4	238.2	248.2	255.4	260.4	264.6
75	92.7	109.7	129.3	148.1	164.0	175.9	186.0	195.8	204.8	212.7	219.3	224.1
80	65.9	79.1	91.7	102.5	112.6	123.0	135.1	149.5	163.7	175.9	185.4	191.6
85	39.4	48.7	59.0	69.6	81.2	94.9	110.2	127.0	142.0	152.9	160.1	164.6
90	25.9	34.7	44.3	54.5	65.9	77.9	90.1	102.0	111.0	116.1	118.6	119.6
95	18.5	26.3	34.9	43.9	53.8	63.5	72.3	79.0	82.7	83.4	83.5	83.2
100	12.7	18.0	23.7	29.9	37.2	44.7	50.7	54.7	57.2	58.8	59.5	59.5
105	7.8	11.9	16.2	20.9	26.1	30.6	33.5	35.1	36.1	36.9	37.6	37.7
110	0.3	3.2	8.8	12.4	16.4	19.3	21.4	22.8	23.8	24.6	25.1	25.2
115	0.3	0.3	0.3	1.1	7.4	9.6	11.1	12.2	13.3	14.1	14.4	14.5
120	0.3	0.3	0.3	0.3	0.2	0.2	0.7	3.9	6.3	6.8	7.0	7.2
125	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
130	0.9	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
135	1.2	1.0	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
140	1.4	1.3	1.2	1.0	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6
145	1.5	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.8	0.8
150	1.9	1.8	1.7	1.7	1.6	1.5	1.3	1.3	1.3	1.3	1.3	1.2
155	2.0	2.0	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
160	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
165	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3
170	2.7	2.8	2.9	2.9	3.0	3.1	3.1	3.1	3.1	3.0	3.0	2.9
175	3.0	3.0	3.1	3.2	3.3	3.5	3.7	3.8	3.9	3.8	3.8	3.7
180	3.1	3.2	3.2	3.3	3.4	3.4	3.6	3.7	3.8	3.9	3.9	3.9

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DEVIATION(S) FROM TEST STANDARD

No reported deviations from test standard.

Continued on following page

IDENTIFICATION OF PHOTOMETRIC CENTRE

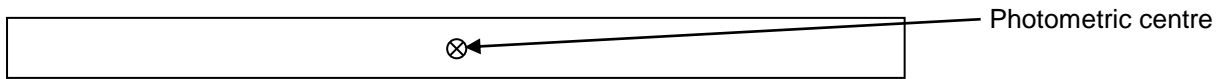


Figure 2. *Product photometric centre*

ILLUSTRATION

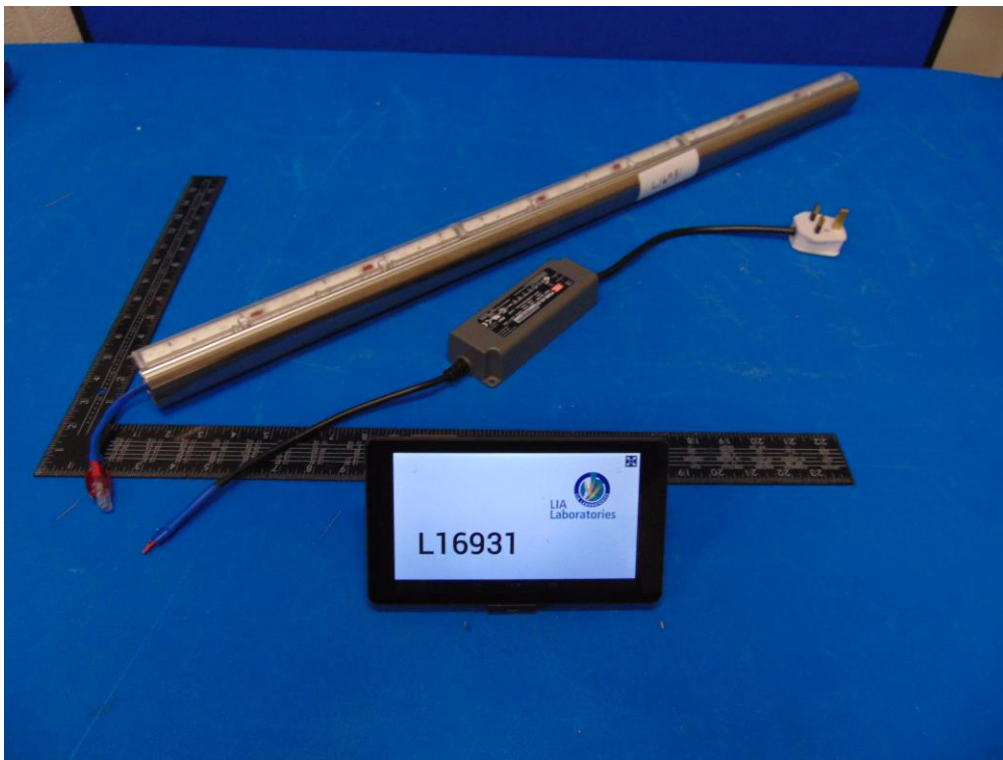


Figure 3. *Product image*

End