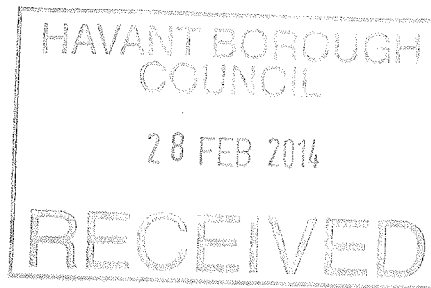


Condition 11



PERMIT

Footpath, Warblington - Hants

Date: 28-05-2010
Customer: SEC, Hedge End
Customer Representative: Chris Weatherall

Designer: Stephen Bowen

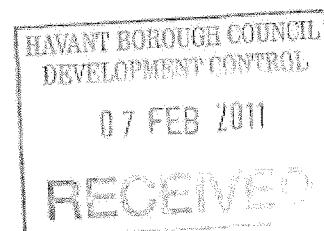
Description: Design Parameters:
- Lighting Class BS5489 S6
- 6m column located just off footpath
- Post Top Mini Iridium LED 24 x Warm White MB
- MF 0.61

Comments:
- Aimed to achieve a uniformity of 40%

Results:
- Emin 1.03 lux, Eave 2.55 lux, Uo 0.40

The nominal values shown in this report are the result of precision calculations, based upon precisely positioned luminaires in a fixed relationship to each other and to the area under examination. In practice the values may vary due to tolerances on luminaires, luminaire positioning, reflection properties and electrical supply.

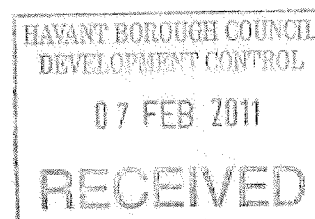
Philips Lighting
Philips Centre
Guildford Business Park
Guildford
Surrey
GU2 8XH
Telephone: 07881 775082
Fax: 01666 665334
E-Mail: stephen.bowen@philips.com



CalcuLuX Area 7.5.0.1

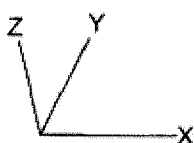
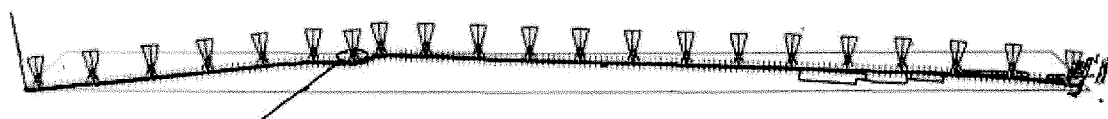
Table of Contents

1.	Project Description	3
1.1	3-D Project Overview	3
2.	Summary	4
2.1	General Information	4
2.2	Project Luminaires	4
2.3	Calculation Results	4
3.	Calculation Results	5
3.1	Footpath: Filled Iso Contour	5
4.	Luminaire Details	6
4.1	Project Luminaires	6
5.	Installation Data	7
5.1	Legends	7
5.2	Luminaire Positioning and Orientation	7

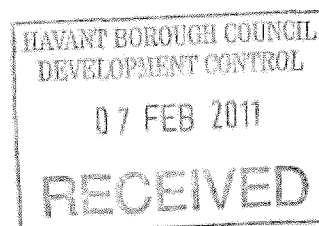


1. Project Description

1.1 3-D Project Overview



A → BGS451 MB



2. Summary

2.1 General Information

The overall maintenance factor used for this project is 0.61.

2.2 Project Luminaires

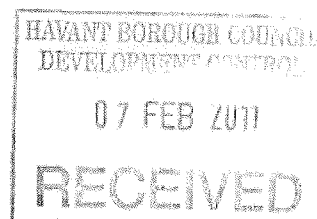
Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
A	21	BGS451 MB	24 * LED-REBEL-60-350/WW	30.2	24 * 65

The total installed power: 0.63 (kWatt)

2.3 Calculation Results

(II)luminance Calculations:

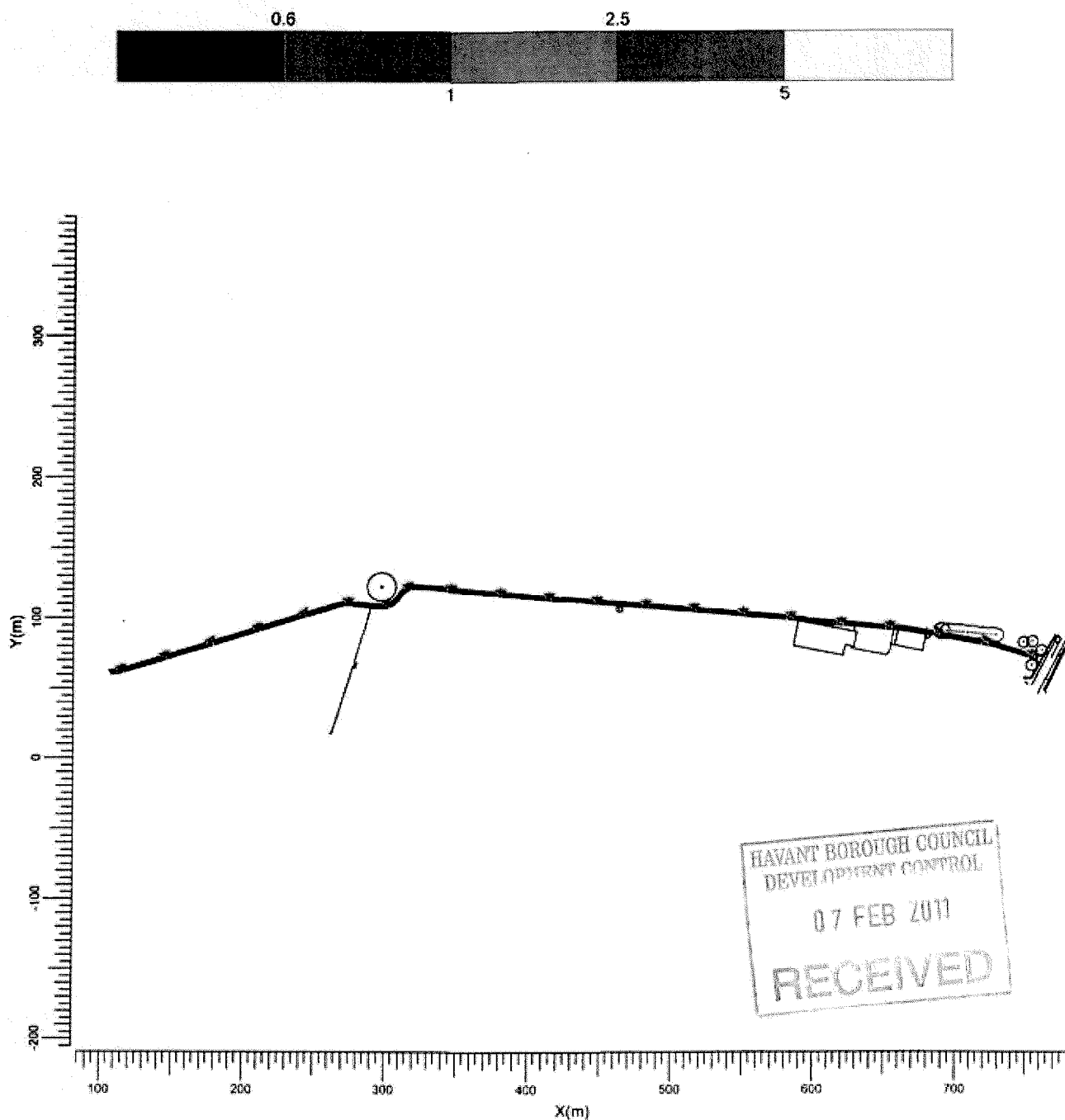
Calculation	Type	Unit	Ave	Min	Min/Ave
Footpath	Surface Illuminance	lux	2.55	1.03	0.40



3. Calculation Results

3.1 Footpath: Filled Iso Contour

Grid : Footpath at Z = -0.00 m
Calculation : Surface Illuminance (lux)



Average
2.55

Minimum
1.03

Min/Ave
0.40

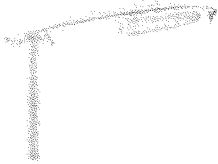
Project maintenance factor
0.61

Scale
1:4000

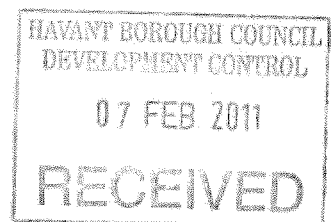
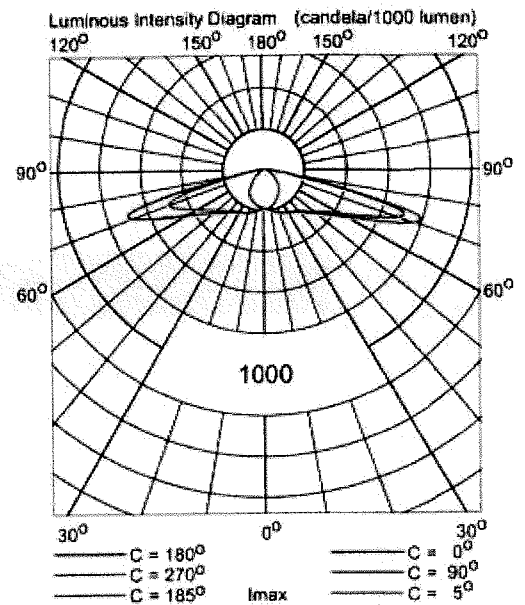
4. Luminaire Details

4.1 Project Luminaires

Mini Iridium LED
BGS451 24xLED-REBEL-60-350/WW MB



Light output ratios	
DLOR	: 0.79
ULOR	: 0.00
TLOR	: 0.79
Ballast	: N/A
Lamp flux	: 65 lm
Luminaire wattage	: 30.2 W
Measurement code	: LVM0955700



5. Installation Data

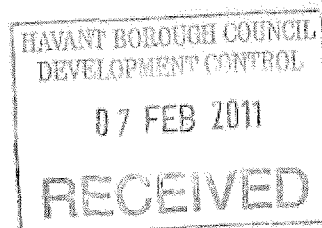
5.1 Legends

Project Luminaires:

Code	Qty	Luminaire Type	Lamp Type	Flux (lm)
A	21	BGS451 MB	24 * LED-REBEL-60-350/WW	24 * 65

5.2 Luminaire Positioning and Orientation

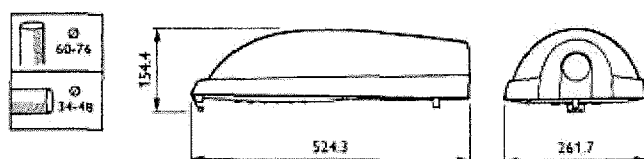
Qty and Code	Position			Aiming Angles		
	X (m)	Y (m)	Z (m)	Rot.	Tilt90	Tilt0
1 * A	113.66	63.95	6.00	-71.9	10.0	0.0
1 * A	144.26	73.31	6.00	-71.9	10.0	0.0
1 * A	177.07	83.35	6.00	-71.9	10.0	0.0
1 * A	209.65	93.29	6.00	-71.9	10.0	0.0
1 * A	242.49	103.37	6.00	-71.9	10.0	0.0
1 * A	273.28	111.82	6.00	-90.7	10.0	0.0
1 * A	300.38	110.04	6.00	-72.6	10.0	0.0
1 * A	315.77	122.73	6.00	-66.0	10.0	0.0
1 * A	345.64	122.00	6.00	-94.2	10.0	0.0
1 * A	380.49	118.93	6.00	-94.2	10.0	0.0
1 * A	414.60	115.75	6.00	-94.2	10.0	0.0
1 * A	448.09	112.81	6.00	-94.2	10.0	0.0
1 * A	482.45	110.03	6.00	-94.2	10.0	0.0
1 * A	516.66	106.99	6.00	-94.2	10.0	0.0
1 * A	550.96	104.04	6.00	-94.2	10.0	0.0
1 * A	584.66	101.12	6.00	-94.2	10.0	0.0
1 * A	620.08	96.95	6.00	-94.2	10.0	0.0
1 * A	654.41	94.04	6.00	-94.2	10.0	0.0
1 * A	687.56	89.01	6.00	-99.3	10.0	0.0
1 * A	721.58	83.05	6.00	-99.3	10.0	0.0
1 * A	755.03	73.56	6.00	-106.2	10.0	0.0



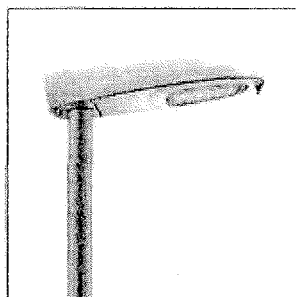
Mini Iridium LED

Mini Iridium LED	
Type	BGS451
Light source	16, 24 x LED-HR 20, 31 W
Light colour	Warm white (WW)
Driver (integrated)	Driver 350 mA with Constant Light Output function (CLO)
Optic	Narrow street (NSO) Medium street (MSO)
Optical cover	Polycarbonate cover
Cable gland	PG 13.5 mm
Options	Light regulation: Lumistep LS-6, LS-8 and LS-10 PhotoCell: minicell 70lx (P3), minicell 30lx (P3-30) Pre-equipped cables without plug: cable lengths of 9 m (C9K), 12 m (C12K), 14 m (C14K)
Materials and finishing	Housing: high-pressure die-cast aluminium, non-corrosive Gasket: silicone rubber, heat-resistant Cover: polycarbonate, frosted with clear lenses Heat sink (internal): high-pressure die-cast aluminium, non-corrosive
Colour	Canopy: brilliant grey approx. RAL7043 (GR) Frame and spigot: aluminium, unpainted sandblasted

Installation	Flexifit spigot for post top mounting; axial entry Ø 60 - 76 mm at 10° tilt or side entry mounting lateral entry Ø 34 - 48 mm Operating temperature: -20°C < T _a < 35°C (version 90 W max 25°C) Recommended mounting height: 3.5 to 6 m and 6 to 9 m Standard tilt angle post top: 10° standard Max SCx value by side: 0.032 m² (GB/G8D versions), 0.032 m² (FG/FGD versions)
Maintenance	From below by opening the housing with a single quick-release clip all supported by a retention cable Multiblock for easy cabling and electrical connection Simple LED module and driver replacement Hinged front glass with quick-release clips for replacement
Accessories	Wall mounting bracket Dedicated mast and wall brackets available for different mounting possibilities Side entry reducer from 60 to 48 mm
Main applications	Residential streets, pedestrian and cycle paths and minor roads



BGS451



Mini Iridium LED BGS451

Preferred selection

Product ID	Weight (kg)	European Order Code (EOC)
BGS451 LXML/WW 22W 1 NSO CO GR 60/76P	4.41	961382 00
BGS451 LXML/WW 22W 1 MSO CO GR P3 60/76P	4.51	961351 00
BGS451 LXML/WW 31W 1 NSO CO GR 60/76P	4.41	961375 00
BGS451 LXML/WW 31W 1 MSO CO GR P3 60/76P	4.51	961344 00
BGS451 LXML/WW 31W 1 MSO CO GR 60/76P	4.41	961399 00
BGS451 LXML/WW 31W 1 MSO CO GR P3 60/76P	4.51	961368 00

Please contact your local Philips representative for additional configurations

