

DATE: 8 March 2022
DESIGNER: DKPI
PROJECT No: M88
PROJECT NAME: Bessborough - phase 2 -Farm

**LIGHTING
REALITY**

Calculations for main feeder road comply with Cat P3 (Eav of 7.5 Lux & Emin of 1.5 Lux.)
Calculations for inner estate roads and footpaths comply with Cat P4 (Eav of 5 Lux & Emin of 1 Lux.)
Junction at feeder road complies with Cat P2 & C3 class.
Fittings used;
1A to 6A = upgraded to Philips BGP307 LED 28W on existing 6 mtr columns- 3000K.
7A to 14A = new Philips BGP307 LED 28W on new 6 mtr columns- 3000K.
1C to 23C = Philips BGP760 LED 19W on 4.5 mtr column 3000K.
Columns, cabling and ducting all to latest Local Authority Standards and Guidelines.

3 of 3 MAIN ROAD

Public Lighting design for above mentioned project :
Public lighting for estate roads and pedestrian pathways for this development has been designed to comply with EN13201-2015 and according to the Public Lighting - Local Authority Guidelines.
Maintanance factor is taken as 0.80, all fittings to be LED and have CLO function. Colour to be 3000K, with Nema socket, dimming to dim to U15 satisfying energy saving during low traffic hrs.

PREPARED BY: Ben van Deventer
DKP International
CBG House
Kenmare
Co Kerry
Design Software from:
Lighting Reality Ltd

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin 97.8m x -133.3m
Area 85.4m x 160.7m
Sample Spacing 0.42m x 0.87m

Luminaires

Luminaire A Data

Supplier	
Type	BGP307 T25 DM50 LED40/740 NO
Lamp(s)	LED40-4S/740
Lamp Flux (klm)	4.00
File Name	ofmt1_bgp307t25xled40-4s740dm50.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	889.0, 63.6, 0.0
No. in Project	14

Luminaire C Data

Supplier	
Type	BGP760 T25 DS50 LED27/740 NO
Lamp(s)	LED27-4S/740
Lamp Flux (klm)	2.70
File Name	ofmt1_bgp760t25xled27-4s740ds50.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	302.7, 88.4, 0.0
No. in Project	23

Layout

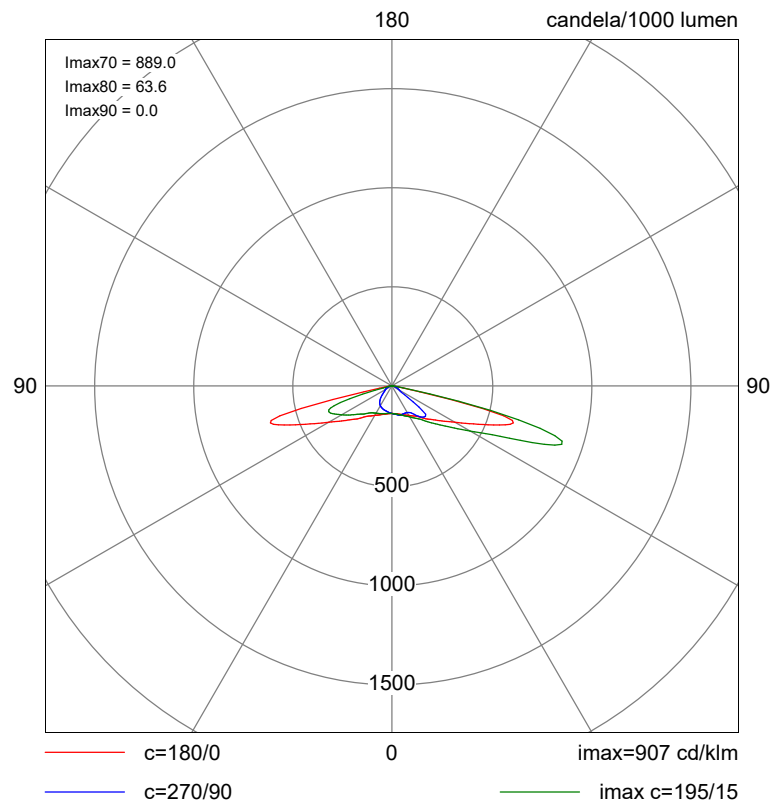
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
13	A	47.00	-127.68	6.00	1.00	0.00	0.00	0.50			
11	A	47.00	-155.94	6.00	2.00	0.00	0.00	0.50			
7	A	46.90	-211.48	6.00	355.00	0.00	0.00	0.50			
8	A	62.10	-197.55	6.00	180.00	5.00	0.00	0.50			
8	C	92.91	-72.87	4.50	183.00	0.00	0.00	0.00			
12	A	61.73	-139.44	6.00	177.00	0.00	0.00	0.50			
14	A	61.95	-108.94	6.00	178.00	0.00	0.00	0.50			
1	C	57.88	-230.49	4.50	356.00	0.00	0.00	0.00			
10	A	61.53	-171.66	6.00	173.00	5.00	0.00	0.50			
23	C	67.85	-150.62	4.50	183.00	0.00	0.00	0.00			
20	C	127.19	-131.15	4.50	183.00	0.00	0.00	0.00			
15	C	137.54	-65.18	4.50	183.00	0.00	0.00	0.00			
3	C	59.12	-96.12	4.50	183.00	0.00	0.00	0.00			
2	C	49.20	-110.18	4.50	321.00	0.00	0.00	0.00			
9	C	97.69	-54.65	4.50	183.00	0.00	0.00	0.00			
10	C	96.91	-42.87	4.50	183.00	0.00	0.00	0.00			
11	C	96.57	-30.92	4.50	183.00	0.00	0.00	0.00			
12	C	96.09	-18.83	4.50	183.00	0.00	0.00	0.00			
13	C	95.48	-6.26	4.50	183.00	0.00	0.00	0.00			
4	C	71.78	-78.85	4.50	183.00	0.00	0.00	0.00			

Layout Continued

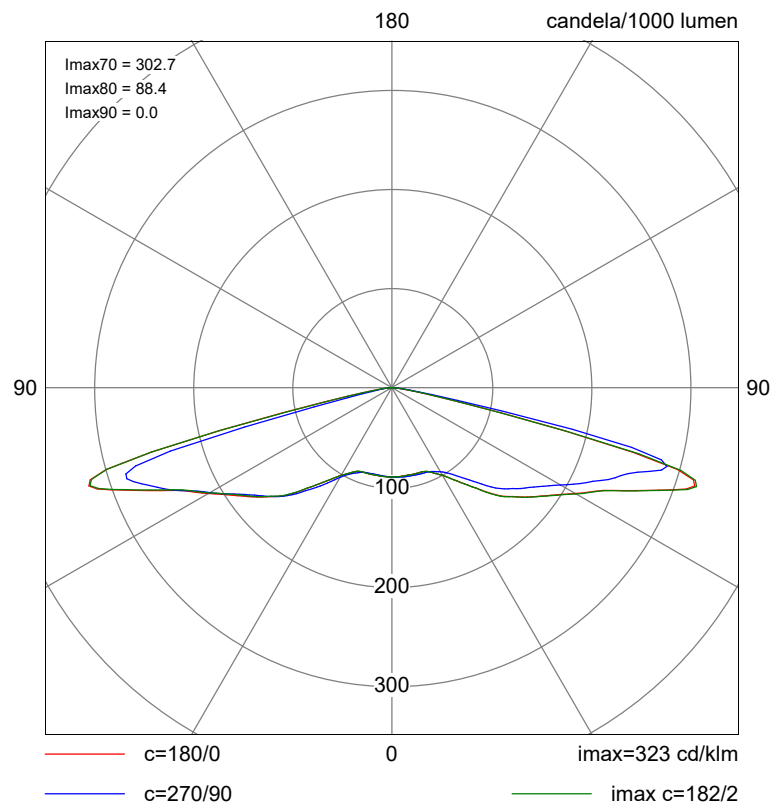
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
14	C	116.22	-69.01	4.50	183.00	0.00	0.00	0.00			
22	C	87.55	-143.03	4.50	183.00	0.00	0.00	0.00			
21	C	105.77	-137.16	4.50	183.00	0.00	0.00	0.00			
18	C	148.07	-117.97	4.50	183.00	0.00	0.00	0.00			
2	A	152.03	-93.15	6.00	45.00	0.00	0.00	0.50			
1	A	170.50	-111.13	6.00	36.00	0.00	0.00	0.50			
3	A	148.74	-65.25	6.00	198.00	0.00	0.00	0.50			
4	A	135.97	-43.09	6.00	6.00	0.00	0.00	0.50			
5	A	133.81	-14.74	6.00	6.00	0.00	0.00	0.50			
6	A	125.91	6.17	6.00	31.00	0.00	0.00	0.50			
5	C	91.12	-90.92	4.50	183.00	0.00	0.00	0.00			
6	C	110.92	-102.38	4.50	183.00	0.00	0.00	0.00			
7	C	119.03	-92.11	4.50	183.00	0.00	0.00	0.00			
19	C	129.92	-112.70	4.50	183.00	0.00	0.00	0.00			
16	C	139.24	-90.90	4.50	183.00	0.00	0.00	0.00			
9	A	46.61	-183.81	6.00	2.00	0.00	0.00	0.50			
17	C	149.78	-104.77	4.50	183.00	0.00	0.00	0.00			

Polar Diagrams

Luminaire A BGP307 T25 DM50 LED40/740 NO

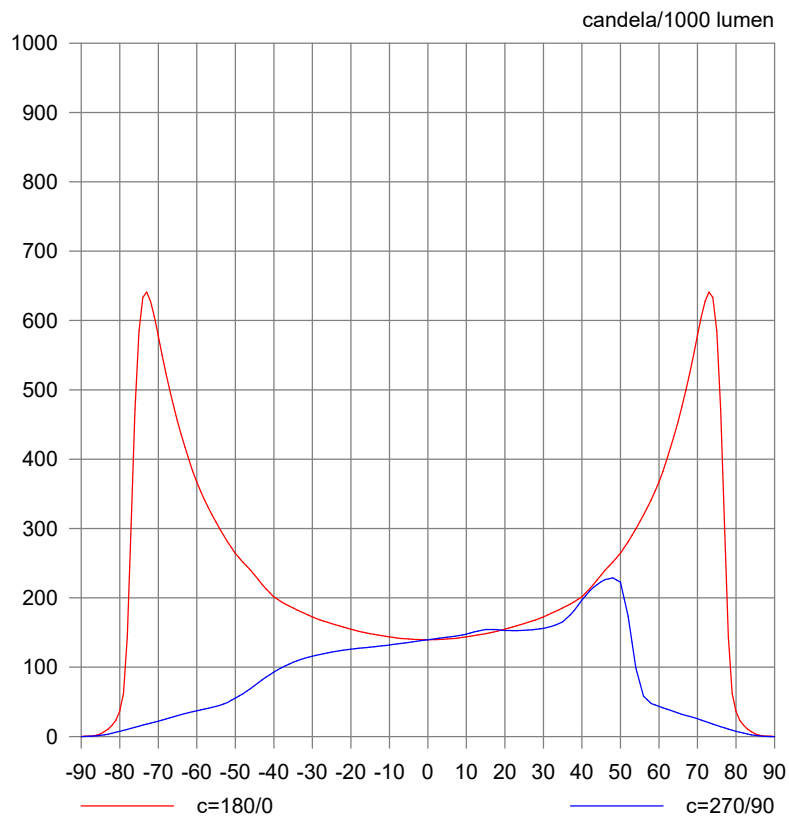


Luminaire C BGP760 T25 DS50 LED27/740 NO

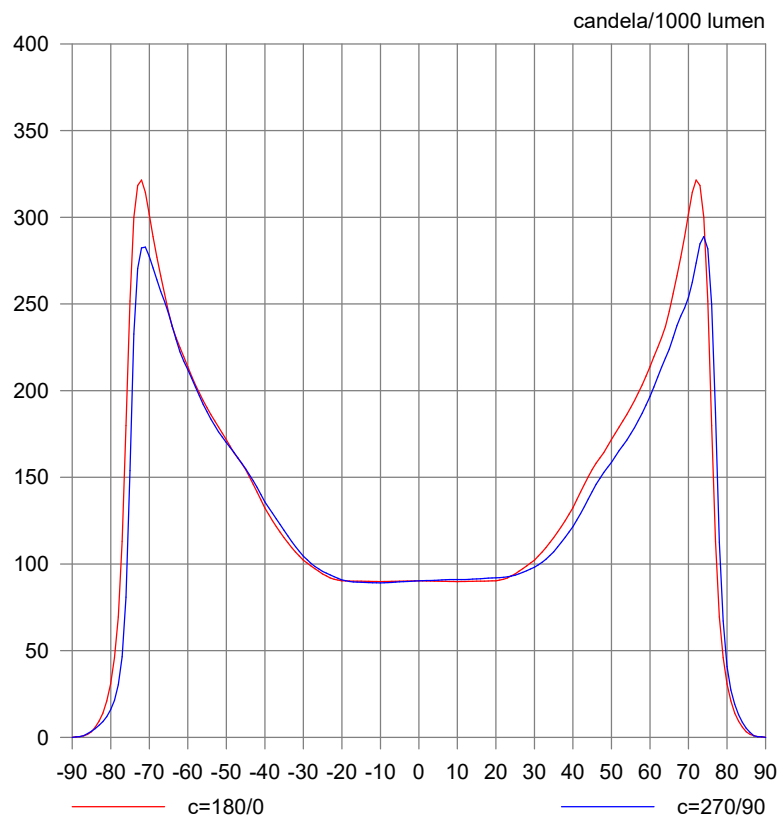


Cartesian Diagrams

Luminaire A BGP307 T25 DM50 LED40/740 NO



Luminaire C BGP760 T25 DS50 LED27/740 NO



Horizontal Illuminance (lux)

MAIN ROAD



Results

Eav	8.70
Emin	2.46
Emax	15.01
Emin/Emax	0.16
Emin/Eav	0.28