



Proposal FOR 250W HPS Replacement



Requirements

- **Pole Height: 10m**
- **Pole Distance Spacing: 30m**
- **Installation Type: Twin Central**
- **Median: 2.00m**
- **Lux Requirement: 2.0 Candela**
- **Overhang: 2.00m**
- **Tilt: 0.00 degree**
- **Road Width: 7.00m**

Luminaire Datasheet

- Luminaire: B&M Optics Co., Ltd. L701-RX XPG**

Article No.: L701-RX XPG

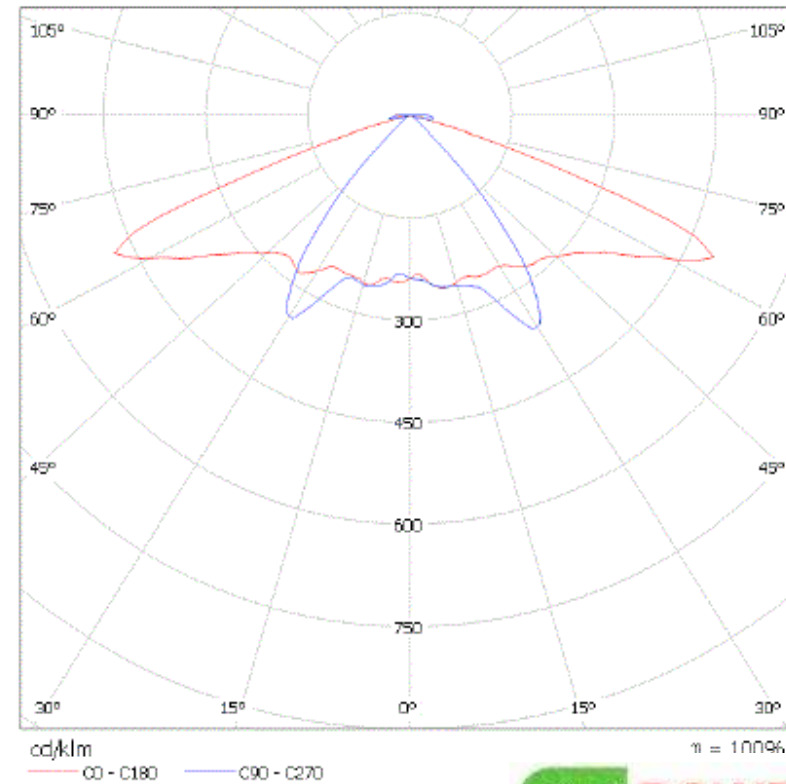
Luminaire Luminous Flux: 11500 lm

Luminaire Wattage: 150.0 W

Luminaire classification according to CIE: 100

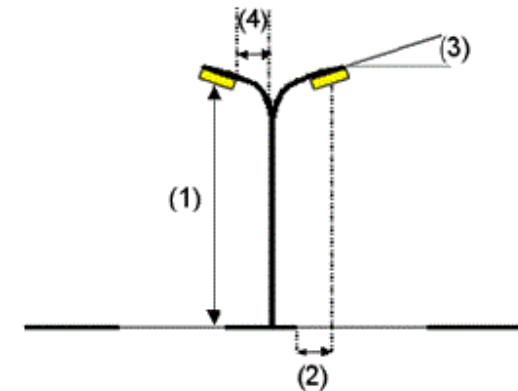
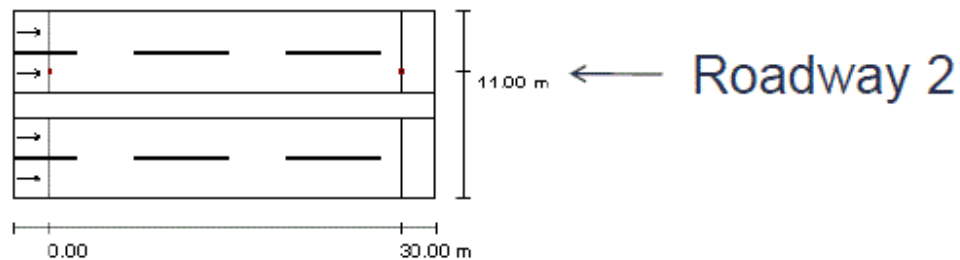
CIE flux code: 44 81 97 100 100

Fitting: 1 x User defined (Correction Factor 1.000).



Planning Data

Luminaire Arrangements



Luminaire:	B&M Optics Co., Ltd. L701-RX XPG
Luminaire Luminous Flux:	11500 lm
Luminaire Wattage:	150.0 W
Arrangement:	on Median
Pole Distance:	30.000 m
Mounting Height (1):	10.000 m
Height:	9.950 m
Overhang (2):	2.000 m
Boom Angle (3):	0.0 °
Boom Length (4):	3.000 m

Maximum luminous intensities	
at 70°:	271 cd/klm
at 80°:	40 cd/klm
at 90°:	27 cd/klm

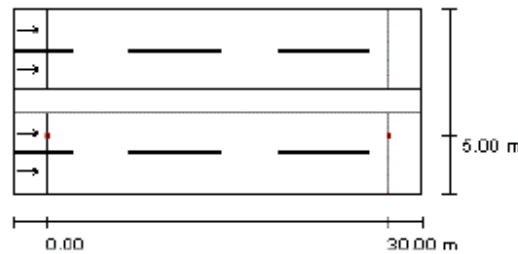
Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.

No luminous intensities above 90°.

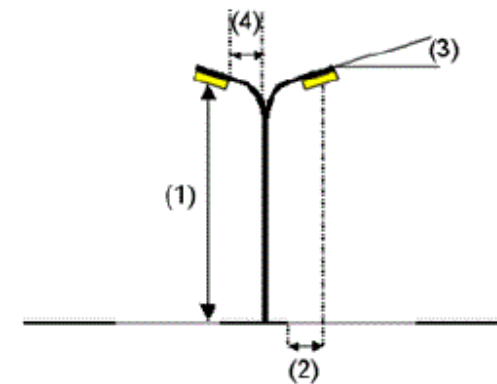
Arrangement complies with luminous intensity class G2.

Arrangement complies with glare index class D.6.

Planning Data

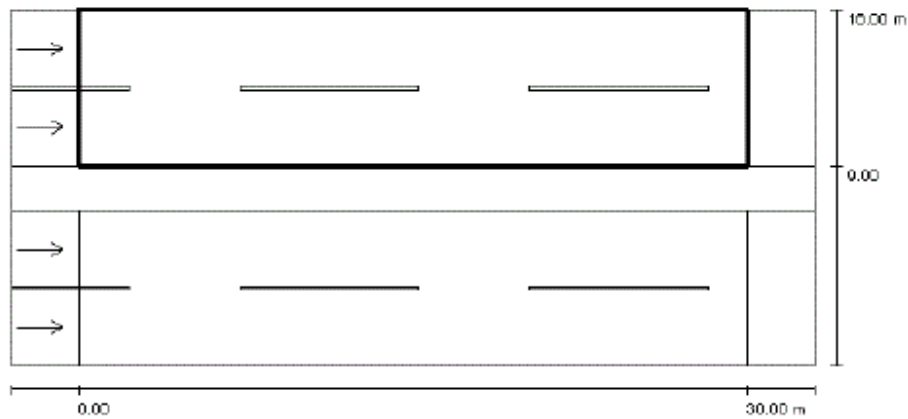


← Roadway 1



Luminaire:	B&M Optics Co., Ltd. L701-RX XPG		
Luminaire Luminous Flux:	11500 lm	Maximum luminous intensities	
Luminaire Wattage:	150.0 W	at 70°:	271 cd/klm
Arrangement:	on Median	at 80°:	40 cd/klm
Pole Distance:	30.000 m	at 90°:	27 cd/klm
Mounting Height (1):	10.000 m	Any direction forming the specified angle from the downward vertical, with the luminaire installed for use.	
Height:	9.950 m	No luminous intensities above 90°.	
Overhang (2):	-4.000 m	Arrangement complies with luminous intensity class G2.	
Boom Angle (3):	0.0 °	Arrangement complies with glare index class D.6.	
Boom Length (4):	3.000 m		

Result Overview



Light loss factor: 1.00

Scale 1:258

Grid: 10 x 6 Points

Accompanying Street Elements: Roadway 2.

tarmac: R3, q0: 0.070

Selected Lighting Class: ME1

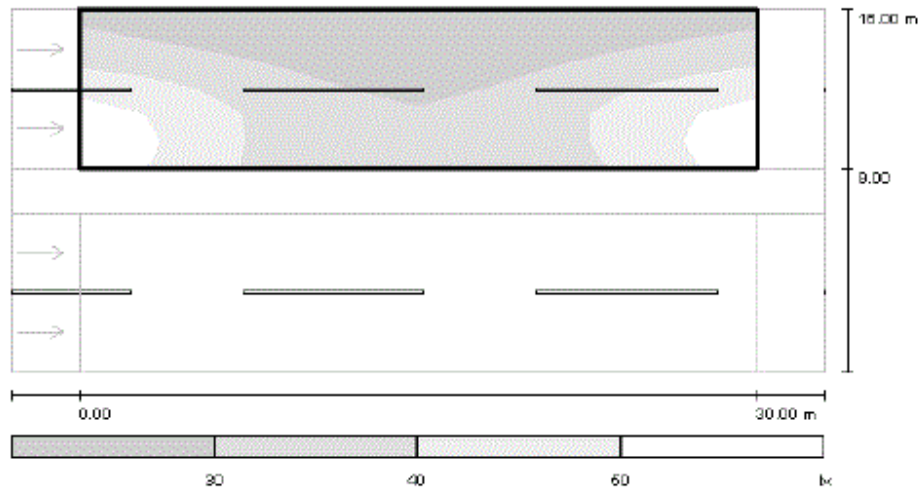
(All lighting performance requirements are met.)

	L_{av} [cd/m ²]	U0	UI	Ti [%]	SR
Calculated values:	2.0	0.5	0.7	7	0.9
Required values according to class:	≥ 2.0	≥ 0.4	≥ 0.7	≤ 10	≥ 0.5
Fulfilled/Not fulfilled:	✓	✓	✓	✓	✓

Assigned viewer (2 Pieces):

No.	Observer	Position [m]	L_{av} [cd/m ²]	U0	UI	Ti [%]
1	Observer 3	(-60.000, 10.750, 1.500)	2.0	0.5	0.7	7
2	Observer 4	(-60.000, 14.250, 1.500)	2.1	0.5	0.7	5

Result Overview (Grey Scale)



Scale 1 : 258

Grid: 10 x 6 Points

E_{av} [lx]
35

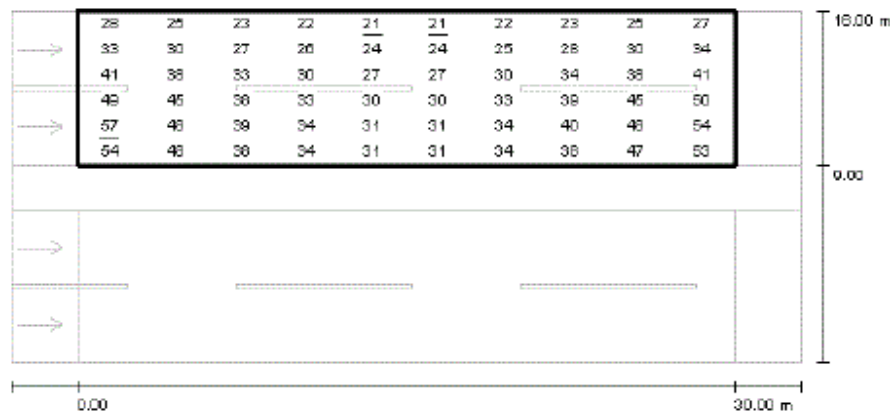
E_{min} [lx]
21

E_{max} [lx]
57

$u0$
0.615

E_{min} / E_{max}
0.374

Result Overview (Value Chart)



Values in Lux, Scale 1 : 258

Grid: 10 x 6 Points

E_{av} [lx]
35

E_{min} [lx]
21

E_{max} [lx]
57

$u0$
0.615

E_{min} / E_{max}
0.374



LED Selection

System: Target Lumens : 11,500 Optical Efficiency: 90% Electrical Efficiency: 90%

Current (A)	LED 1				LED 2				LED 3			
	Model	Cree XLamp XP-G {NW}			Model	Cree XLamp XP-G {NW}			Model	Cree XLamp XP-G {WW}		
	Flux	R4 [130]	Tsp (°C)	60	Flux	R3 [122]	Tsp (°C)	60	Flux	Q4 [100]	Tsp (°C)	60
	SYS # LED	SYS lm tot	SYS W	SYS lm/W	SYS # LED	SYS lm tot	SYS W	SYS lm/W	SYS # LED	SYS lm tot	SYS W	SYS lm/W
0.700	60	11640	145.33	80.1	63	11529	152.6	75.6	78	11622	188.93	61.5
0.750	56	11536	146.84	78.6	60	11580	157.33	73.6	73	11534	191.42	60.3
0.800	53	11501	149.58	76.9	57	11571	160.87	71.9	69	11523	194.73	59.2
0.850	51	11577	153.57	75.4	54	11502	162.6	70.7	66	11550	198.73	58.1
0.900	49	11613	157.89	73.6	52	11544	167.56	68.9	63	11529	203	56.8
0.950	47	11609	160.84	72.2	50	11550	171.11	67.5	61	11590	208.76	55.5
1.000	45	11520	163	70.7	48	11520	173.87	66.3	59	11623	213.71	54.4
1.100	42	11508	168.93	68.1	45	11565	181	63.9	55	11605	221.22	52.5
1.200	40	11600	176.89	65.6	43	11696	190.16	61.5	52	11596	229.96	50.4
1.300	38	11590	184.09	63	41	11726	198.62	59	49	11515	237.38	48.5
1.400	37	11803	194.04	60.8	39	11661	204.53	57	47	11515	246.49	46.7
1.500	35	11550	197.17	58.6	37	11507	208.43	55.2	46	11730	259.13	45.3

Note: Warm White require 20% more LED and power compare to Neutral White



cree.com



PORTABLE



RESIDENTIAL



OFFICE



RETAIL



ARCHITECTURAL



OUTDOOR

LED lighting: Energy efficient & planet friendly.

Leading the LED lighting revolution.

