

Joliet Technology LED streetlight evaluation

Dual roadway configuration with JOL6 LED street lights

Joliet ref.: Paris 4
Client ref.: Paris
Client org.: Paris local council

Date: 20.08.2008
Operator: JOLIET TECHNOLOGY

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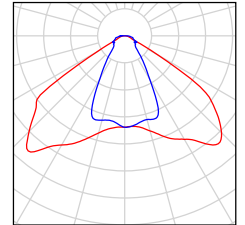
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Joliet Technology LED streetlight evaluation / Luminaire parts list

29 Pieces JOLIET TECHNOLOGY LED STREETLIGHT
JOL6-W-120X60deg-SC
Article No.:
Luminaire Luminous Flux: 11199 lm
Luminaire Wattage: 1.0 W
Luminaire classification according to UTE: 0.90C
CIE flux code: 57 91 98 100 91
Fitting: 1 x LED 168W/168PCS (Correction
Factor 1.000).

See our luminaire
catalog for an image of
the luminaire.



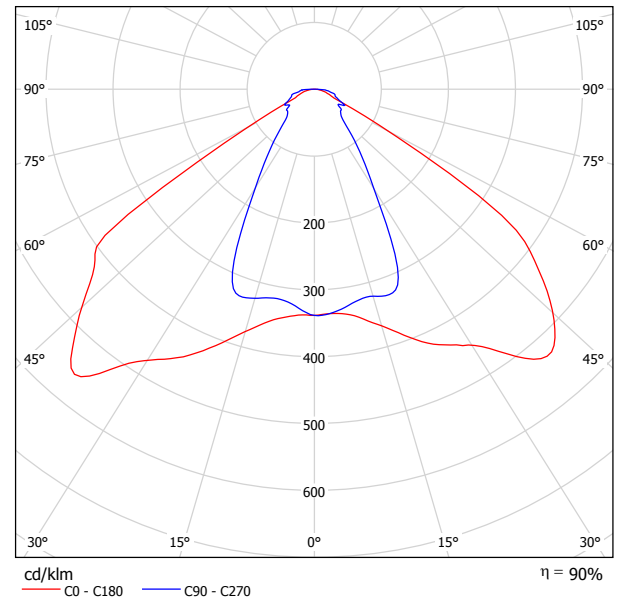
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JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC / Luminaire Data Sheet

See our luminaire catalog for an image of the luminaire.

Luminous emittance 1:



Luminaire classification according to UTE: 0.90C
CIE flux code: 57 91 98 100 91

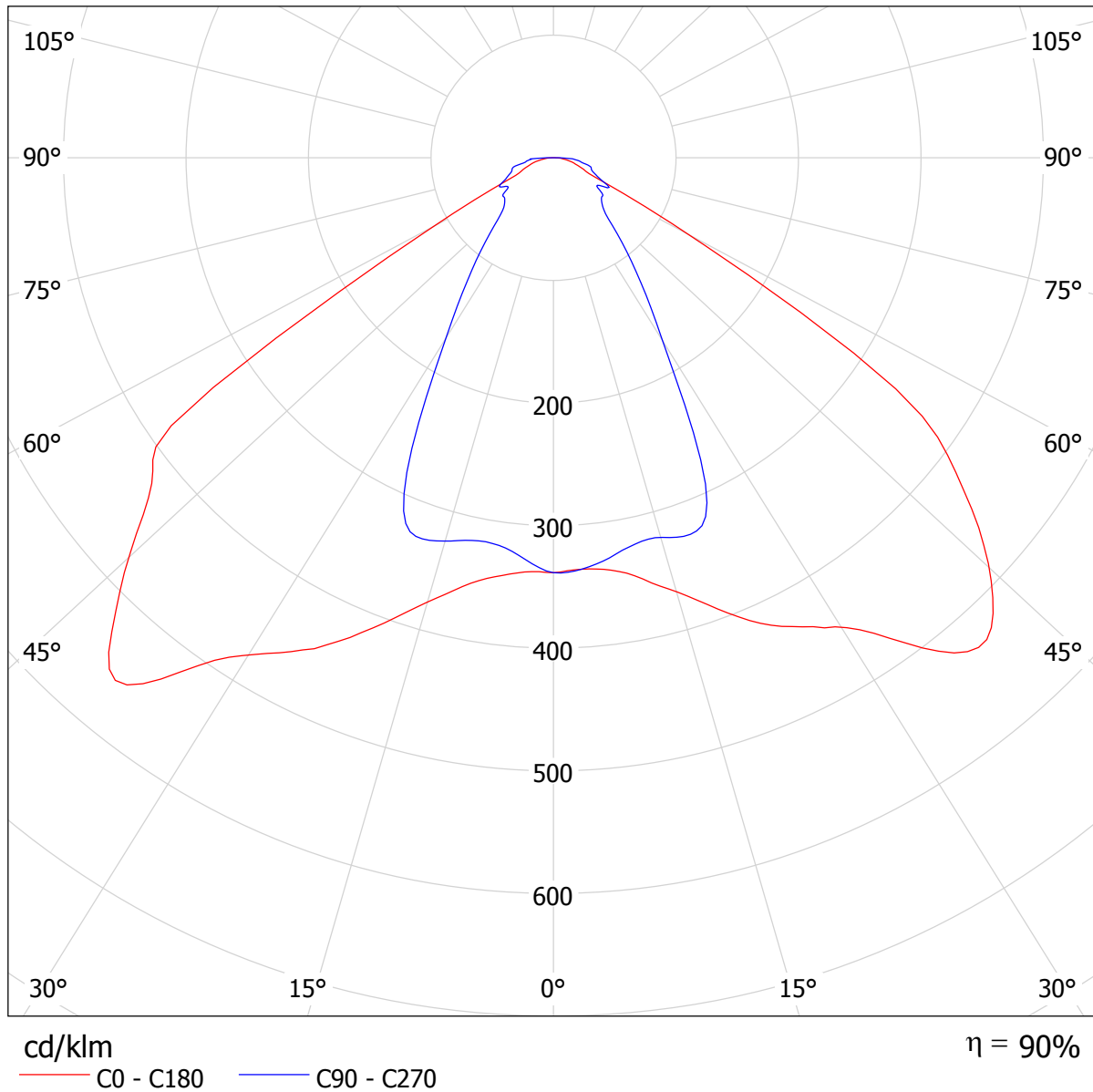
Due to missing symmetry properties, no UGR table can be displayed for this luminaire.

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JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC / LDC (Polar)

Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC
Lamps: 1 x LED 168W/168PCS

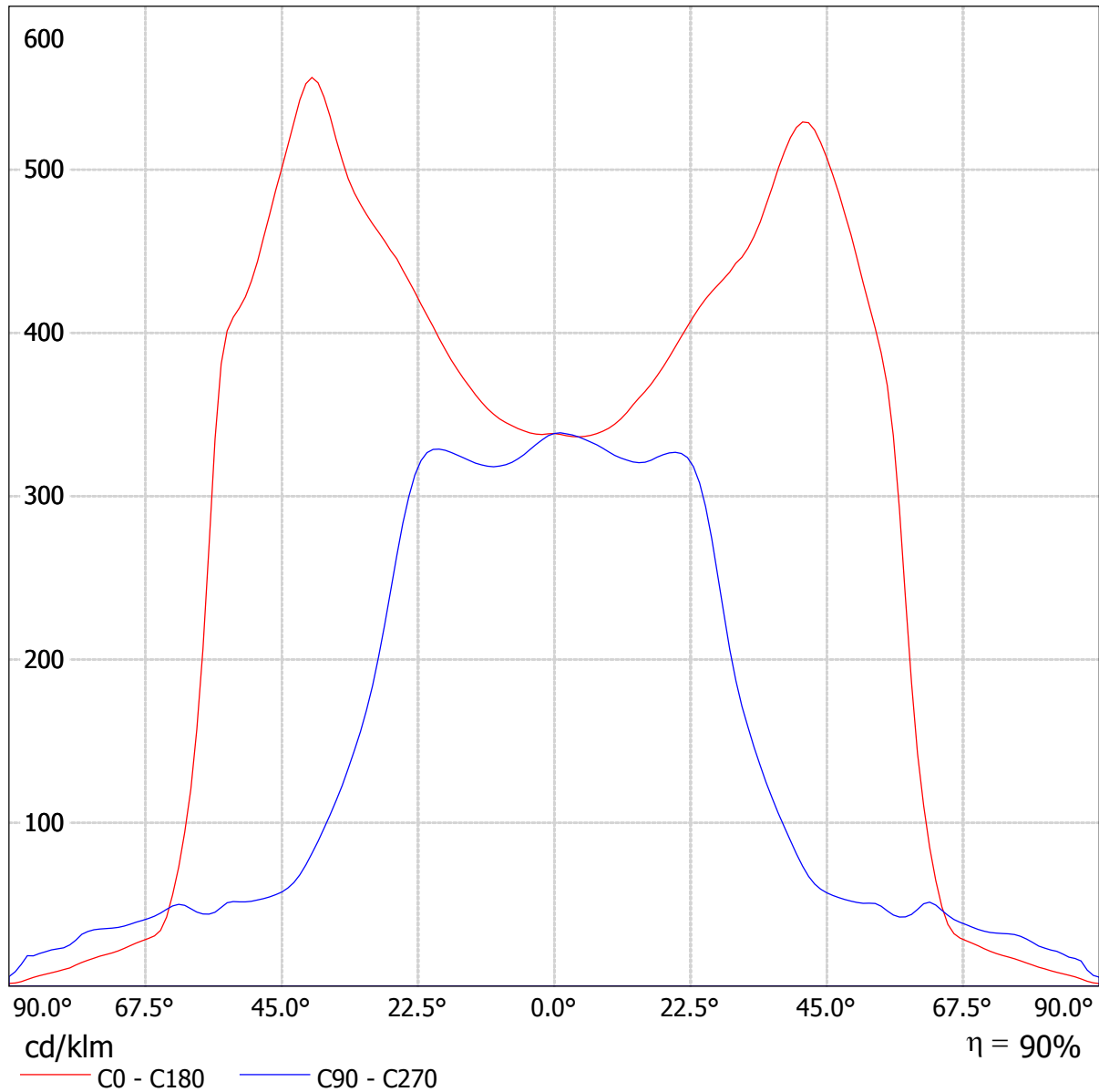


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JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC / LDC (Linear)

Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC
Lamps: 1 x LED 168W/168PCS

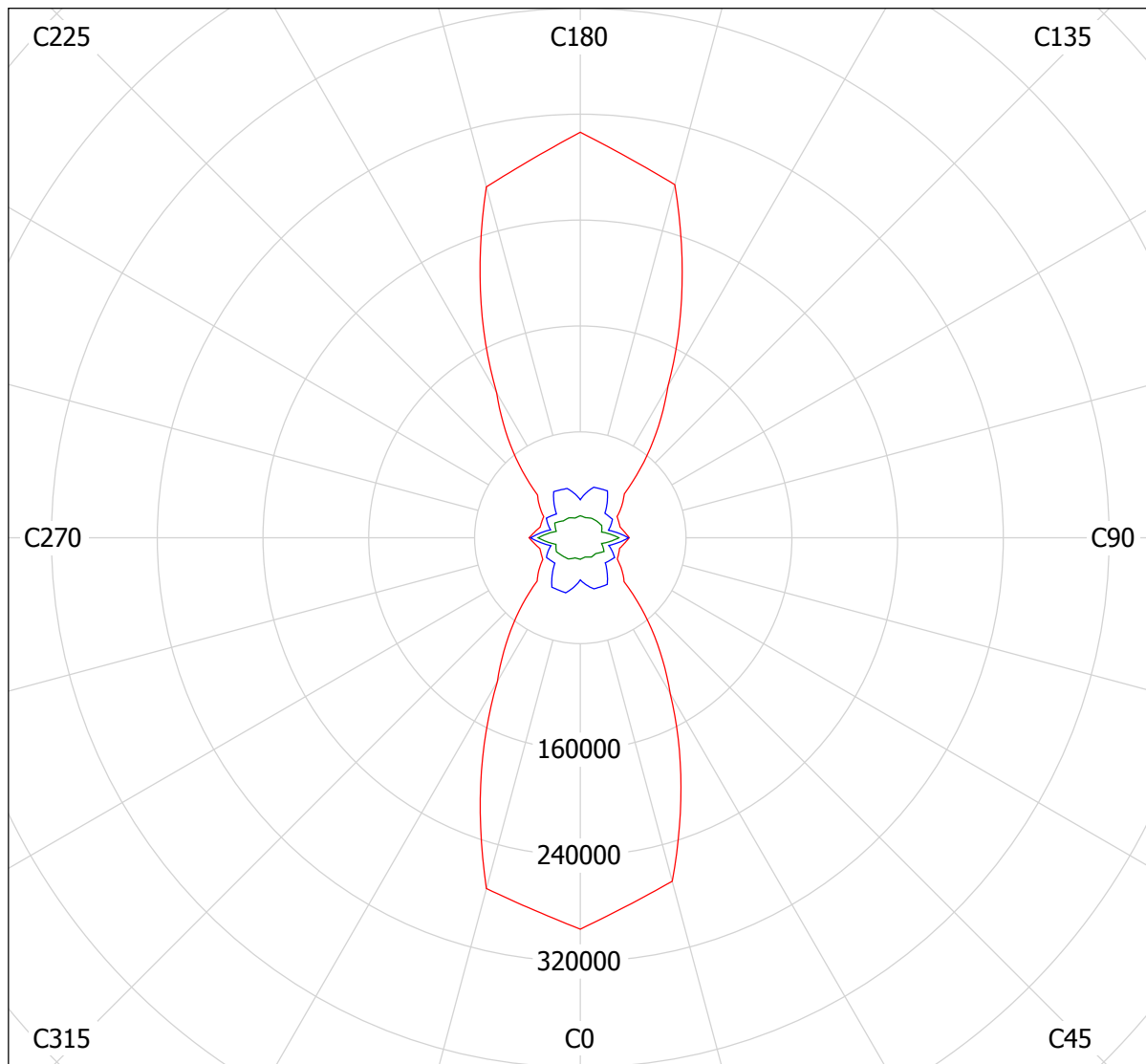


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JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC / Luminance Diagram

Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC
Lamps: 1 x LED 168W/168PCS



cd/m²
— g = 55.0° — g = 65.0° — g = 75.0°

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JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC / Luminous intensity table

Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC

Lamps: 1 x LED 168W/168PCS

Gamma	C 0°	C 15°	C 30°	C 45°	C 60°	C 75°	C 90°	C 105°	C 120°	C 135°
0.0°	338	338	338	338	338	338	338	338	338	338
5.0°	337	336	335	334	333	333	335	335	336	338
10.0°	344	340	335	330	326	323	325	327	333	340
15.0°	364	356	344	332	325	320	321	324	331	345
20.0°	392	379	359	345	335	328	327	332	343	356
25.0°	421	404	383	366	339	308	294	310	348	378
30.0°	443	424	403	379	282	205	187	203	284	390
35.0°	478	455	439	338	180	131	125	127	173	331
40.0°	526	513	482	225	118	86	81	83	112	203
45.0°	507	534	477	148	78	58	57	58	76	139
50.0°	446	477	340	111	55	48	51	49	55	107
55.0°	368	378	206	72	49	43	46	44	49	73
60.0°	142	175	123	52	46	36	47	36	45	51
65.0°	38	55	60	41	44	30	43	30	42	40
70.0°	25	28	37	31	39	25	35	25	36	32
75.0°	18	19	24	24	29	21	32	21	26	26
80.0°	12	12	15	18	22	16	24	16	21	19
85.0°	6.57	7.38	9.08	9.67	12	14	18	14	11	9.91
90.0°	1.46	1.74	2.23	2.81	3.35	5.01	5.39	4.33	3.44	3.20

Values in cd/klm

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JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC / Luminous intensity table

Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC

Lamps: 1 x LED 168W/168PCS

Gamma	C 150°	C 165°	C 180°	C 195°	C 210°	C 225°	C 240°	C 255°	C 270°	C 285°
0.0°	338	338	338	338	338	338	338	338	338	338
5.0°	340	341	340	338	334	330	328	325	325	326
10.0°	346	351	350	345	336	327	322	318	318	319
15.0°	358	368	372	362	346	333	326	323	324	326
20.0°	376	395	404	390	367	350	338	329	329	333
25.0°	401	426	438	417	390	369	338	297	283	298
30.0°	423	449	467	428	409	371	271	200	184	196
35.0°	444	478	506	455	433	314	173	128	123	123
40.0°	442	526	556	520	451	209	113	85	81	82
45.0°	430	494	501	519	424	140	76	58	58	57
50.0°	320	423	432	451	317	103	54	49	52	48
55.0°	201	389	381	386	191	71	48	44	48	44
60.0°	119	160	121	159	116	49	45	37	47	37
65.0°	61	54	34	53	60	39	44	32	45	32
70.0°	38	29	25	28	38	31	40	28	38	28
75.0°	24	20	18	20	25	26	31	24	35	25
80.0°	16	12	11	12	16	19	25	18	25	18
85.0°	8.82	7.38	6.29	7.36	8.85	9.87	13	15	20	15
90.0°	2.24	1.92	1.58	2.06	2.82	3.60	4.63	6.38	5.76	6.29

Values in cd/klm

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JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC / Luminous intensity table

Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC

Lamps: 1 x LED 168W/168PCS

Gamma	C 300°	C 315°	C 330°	C 345°	C 360°
0.0°	338	338	338	338	338
5.0°	328	331	334	336	337
10.0°	322	328	336	342	344
15.0°	330	336	347	359	364
20.0°	342	350	360	341	392
25.0°	337	366	381	403	421
30.0°	263	369	407	422	443
35.0°	164	305	437	459	478
40.0°	107	195	438	524	526
45.0°	74	135	396	525	507
50.0°	54	103	298	457	446
55.0°	49	71	190	386	368
60.0°	47	52	120	189	142
65.0°	44	41	64	59	38
70.0°	38	34	40	29	25
75.0°	29	28	26	20	18
80.0°	23	21	17	13	12
85.0°	13	11	10	7.73	6.57
90.0°	4.55	3.98	2.74	2.08	1.46

Values in cd/klm

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JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC / Luminance Table

Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC
Lamps: 1 x LED 168W/168PCS

Gamma	C 0°	C 15°	C 30°	C 45°	C 60°	C 75°	C 90°	C 105°	C 120°	C 135°
0.0°	378956	378956	378956	378956	378956	378956	378956	378956	378956	378956
5.0°	347913	340909	336198	334034	334819	338355	346117	340626	337839	338384
10.0°	332603	318339	306803	300258	298744	301981	314163	306195	305010	309310
15.0°	332982	310645	291982	279069	275860	279432	293330	282480	281254	290009
20.0°	342129	312396	285817	271823	266803	270057	285583	273286	272684	279935
25.0°	354558	317620	289010	272728	256266	242544	247404	243829	262910	281232
30.0°	362980	321177	291589	269999	203767	155364	153239	153720	205120	277409
35.0°	384647	334842	306699	232362	125763	96565	100203	93456	120824	227453
40.0°	418039	370148	328258	150238	80544	61663	64343	60165	76413	135867
45.0°	401720	380392	319619	97206	52176	41008	45150	40991	50963	90916
50.0°	354323	338041	225344	71841	36651	34149	40647	34516	36346	69499
55.0°	295643	268626	136078	46861	32253	30784	37014	31169	32113	47036
60.0°	116728	125377	81757	33618	30607	26076	38437	26019	29945	33372
65.0°	31814	39967	40713	26709	29868	22283	36471	21962	28041	26257
70.0°	21486	21100	25764	20754	26972	19106	30292	18939	24534	21220
75.0°	16222	14982	16773	16722	20648	16616	29206	16691	18652	17726
80.0°	11150	9792	10964	12804	16475	13262	23665	12999	15127	13612
85.0°	6794	6323	7023	7236	9196	12158	18267	12016	8869	7418

Values in Candela/m².

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Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC

Lamps: 1 x LED 168W/168PCS

Gamma	C 150°	C 165°	C 180°	C 195°	C 210°	C 225°	C 240°	C 255°	C 270°	C 285°
0.0°	378956	378956	378956	378956	378956	378956	378956	378956	378956	378956
5.0°	341546	346249	351419	342915	335768	330516	329062	330050	336426	330910
10.0°	317073	328230	338503	322396	307520	298036	295010	297776	307381	298356
15.0°	304129	321422	340321	315918	293613	280373	277113	281708	295875	284503
20.0°	299672	325202	352889	321674	291843	275684	269196	271528	287128	274494
25.0°	302487	335047	369495	328194	294763	274523	255501	233932	238657	234450
30.0°	305500	340067	382676	324284	295628	264007	195786	151570	150844	148444
35.0°	309909	352092	406650	334749	302558	215398	120971	94203	98796	90752
40.0°	301080	379557	442320	374605	306889	139553	77100	61150	64546	58801
45.0°	288012	351860	396497	369782	283639	91695	50690	41228	45551	40288
50.0°	212148	299521	343144	319267	210022	66627	35554	34394	41270	34130
55.0°	132773	276151	306382	274459	126591	45777	32005	31445	38721	31583
60.0°	79458	115117	98795	114160	77057	31836	30043	26716	38796	26723
65.0°	40961	39515	28666	38523	40281	25461	29626	23297	37614	23033
70.0°	26343	21531	21636	21271	26368	21103	27396	21031	33055	20787
75.0°	17049	15723	16690	15425	17417	18104	22294	18792	31925	19066
80.0°	11827	9870	10700	9615	11996	13528	18170	14634	24335	14809
85.0°	6819	6326	6500	6308	6847	7387	10017	12840	20612	13214

Values in Candela/m².

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Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC

Lamps: 1 x LED 168W/168PCS

Gamma	C 300°	C 315°	C 330°	C 345°	C 360°
0.0°	378956	378956	378956	378956	378956
5.0°	329655	331079	335373	340745	347913
10.0°	295290	298666	307765	319632	332603
15.0°	279783	282406	294244	313111	332982
20.0°	272135	274989	286301	281404	342129
25.0°	254476	272400	287767	316665	354558
30.0°	190092	262853	294077	319420	362980
35.0°	114910	209707	305176	337938	384647
40.0°	73170	130511	298131	377787	418039
45.0°	49415	88345	264878	373618	401720
50.0°	35728	66965	197520	323376	354323
55.0°	32733	46142	125471	274353	295643
60.0°	31496	33574	79609	135563	116728
65.0°	29591	27126	43069	43033	31814
70.0°	26393	22681	27879	21642	21486
75.0°	20929	19200	18416	15692	16222
80.0°	17165	14660	12794	10280	11150
85.0°	10107	8223	7787	6625	6794

Values in Candela/m².

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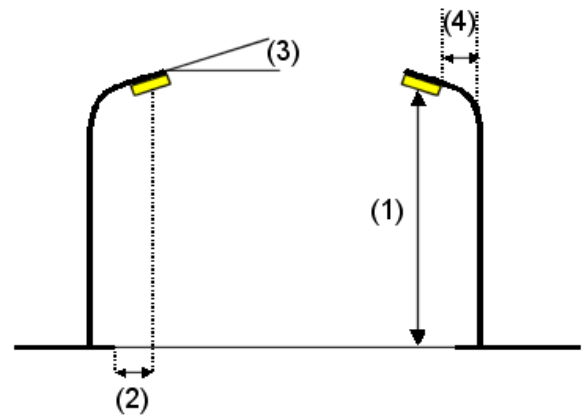
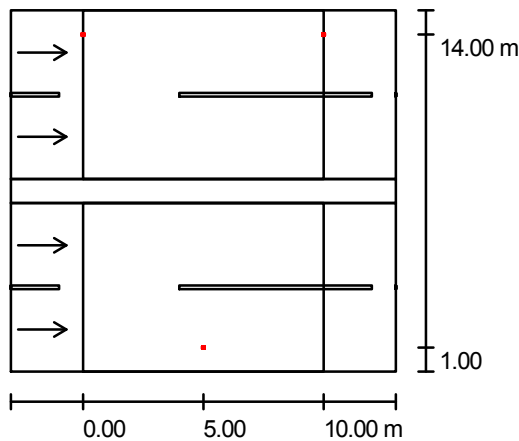
Street 1 / Planning data

Street Profile

Roadway 2 (Width: 7.000 m, Number of lanes: 2, tarmac: R3, q0: 0.070)
 Median 1 (Width: 1.000 m, Height: 0.000 m)
 Roadway 1 (Width: 7.000 m, Number of lanes: 2, tarmac: R3, q0: 0.070)

Maintenance factor: 0.80

Luminaire Arrangements



Luminaire: JOLIET TECHNOLOGY LED STREETLIGHT JOL6-W-120X60deg-SC
 Luminaire Luminous Flux: 11199 lm
 Luminaire Wattage: 1.0 W
 Arrangement: Double row, with offset
 Pole Distance: 10.000 m
 Mounting Height (1): 8.100 m
 Height above working plane: 8.000 m
 Overhang (2): 1.000 m
 Boom Angle (3): 0.0 °
 Boom Length (4): 1.500 m

Maximum luminous intensities
 at 70°: 40 cd/klm
 at 80°: 25 cd/klm
 at 90°: 6.17 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 G5.
 Arrangement complies with glare index class D.6.

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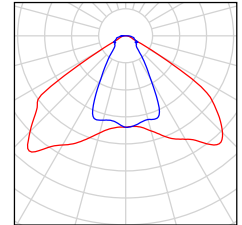
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Street 1 / Luminaire parts list

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JOL6-W-120X60deg-SC
Article No.:
Luminaire Luminous Flux: 11199 lm
Luminaire Wattage: 1.0 W
Luminaire classification according to UTE: 0.90C
CIE flux code: 57 91 98 100 91
Fitting: 1 x LED 168W/168PCS (Correction
Factor 1.000).

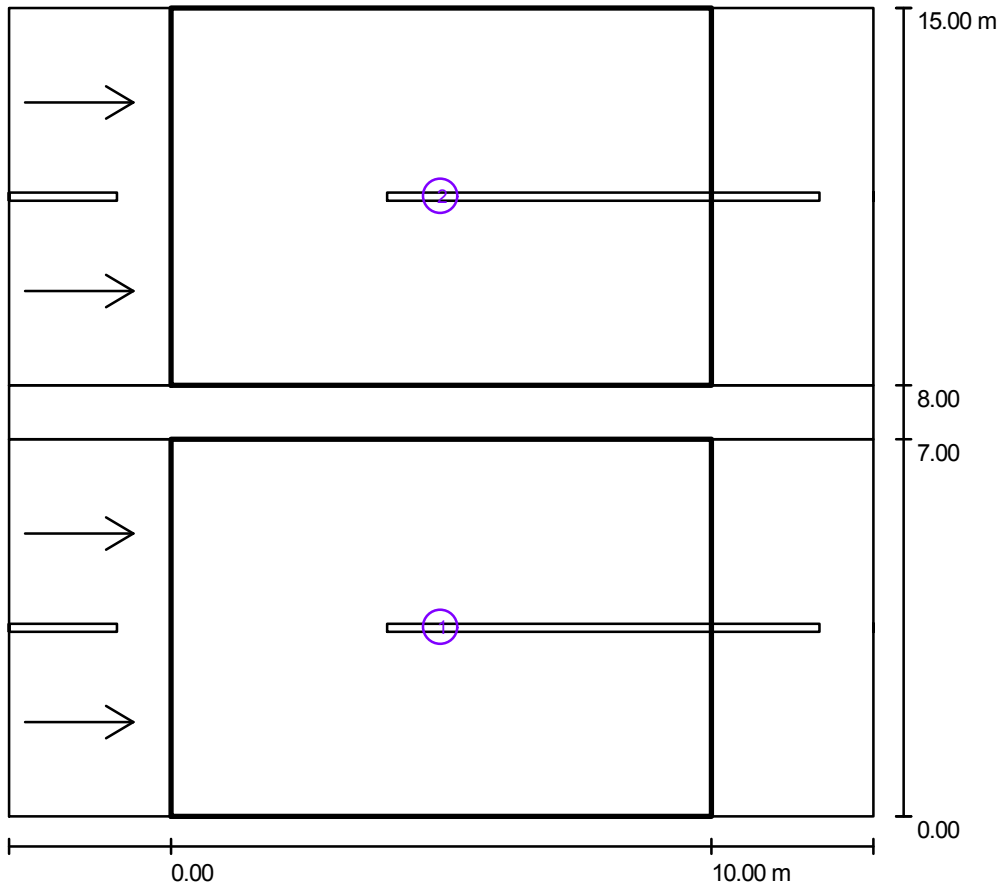
See our luminaire
catalog for an image of
the luminaire.



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Street 1 / Photometric Results



Maintenance factor: 0.80

Scale 1:140

Calculation Field List

- 1 Valuation Field Roadway 1
Length: 10.000 m, Width: 7.000 m
Grid: 10 x 6 Points
Accompanying Street Elements: Roadway 1.
tarmac: R3, q0: 0.070
Selected Lighting Class: ME4a

(All lighting performance requirements are met.)

	L_{av} [cd/m ²]	U0	UI	TI [%]	SR
Calculated values:	3.01	0.4	0.8	2	0.8
Required values according to class:	≥ 0.75	≥ 0.4	≥ 0.6	≤ 15	≥ 0.5
Fulfilled/Not fulfilled:	✓	✓	✓	✓	✓

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Street 1 / Photometric Results

Calculation Field List

- 2 Valuation Field Roadway 2
Length: 10.000 m, Width: 7.000 m
Grid: 10 x 6 Points
Accompanying Street Elements: Roadway 2.
tarmac: R3, q0: 0.070
Selected Lighting Class: ME4a

(All lighting performance requirements are met.)

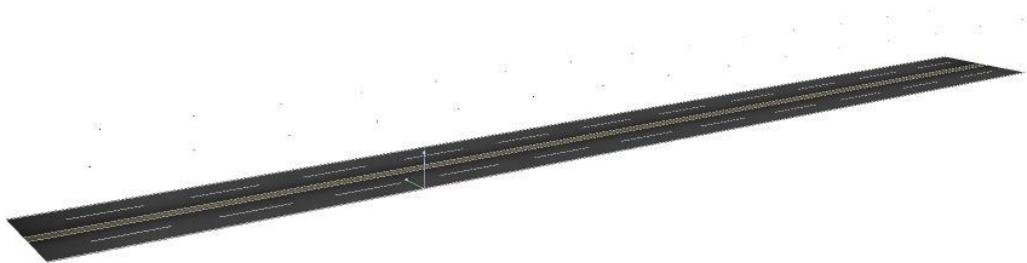
	L_{av} [cd/m ²]	U0	UI	TI [%]	SR
Calculated values:	3.03	0.4	0.8	2	0.8
Required values according to class:	≥ 0.75	≥ 0.4	≥ 0.6	≤ 15	≥ 0.5
Fulfilled/Not fulfilled:	✓	✓	✓	✓	✓

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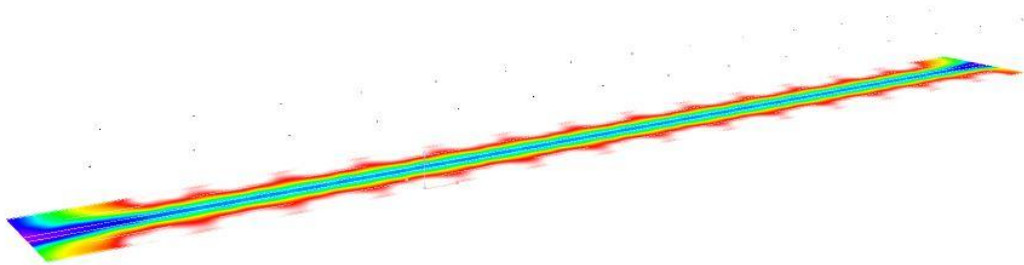
Street 1 / 3D Rendering



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Street 1 / False Colour Rendering



0 10 20 30 40 50 60 70 80 lx