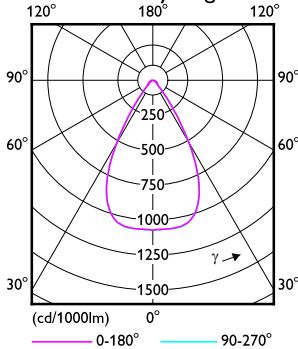


**BY687P LED250CW 1 x LED NB G2**  
1 x 25000 lm

Polar intensity diagram

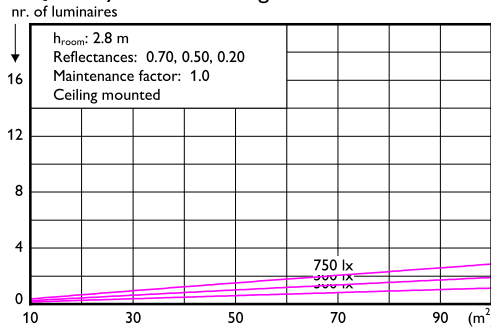


Light output ratio 1.00  
Service upward 0.00  
Service downward 1.00

CIE flux code 91 98 100 100 100

UGRcen (4Hx8H, 0.25H) 21

Quantity estimation diagram

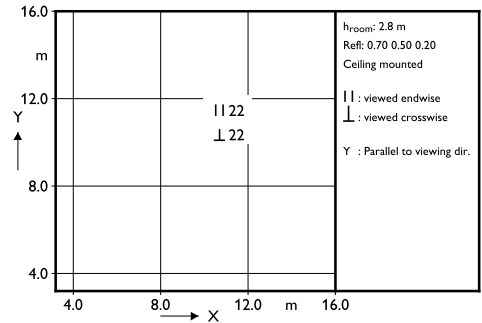


Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)									
	0.80	0.80	0.70	0.70	0.70	0.70	0.50	0.50	0.30	0.30
	0.30	0.10	0.30	0.20	0.10	0.10	0.10	0.10	0.10	0.00
0.60	0.79	0.75	0.78	0.76	0.75	0.71	0.70	0.68	0.70	0.68
0.80	0.86	0.81	0.85	0.83	0.81	0.77	0.76	0.73	0.76	0.73
1.00	0.93	0.86	0.92	0.89	0.86	0.82	0.81	0.79	0.81	0.78
1.25	0.99	0.90	0.97	0.93	0.90	0.86	0.86	0.83	0.85	0.83
1.50	1.03	0.93	1.01	0.97	0.93	0.90	0.89	0.87	0.88	0.86
2.00	1.10	0.98	1.07	1.02	0.97	0.95	0.94	0.92	0.93	0.91
2.50	1.14	1.01	1.12	1.06	1.00	0.98	0.97	0.96	0.96	0.95
3.00	1.18	1.03	1.15	1.08	1.02	1.01	0.99	0.98	0.98	0.97
4.00	1.21	1.05	1.18	1.10	1.04	1.03	1.01	1.01	1.00	0.99
5.00	1.23	1.06	1.20	1.12	1.05	1.04	1.03	1.02	1.01	0.98

Ceiling mounted

UGR diagram



Luminance Table

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	27795	25690	26631	27278	26740	27196	31635
50.0	25119	21146	21720	22600	21930	22241	27871
55.0	21458	18662	18494	18655	18145	17381	17656
60.0	16354	14331	14600	14915	15208	15131	15200
65.0	22506	14934	13697	13597	14033	13223	16482
70.0	16430	14720	12561	12359	13315	11943	12190
75.0	10789	10595	10774	11279	10506	9362	8411
80.0	6755	6955	7531	8084	7021	6490	7597
85.0	3398	3442	3663	3972	3751	3442	3663
90.0	-	-	-	-	-	-	-

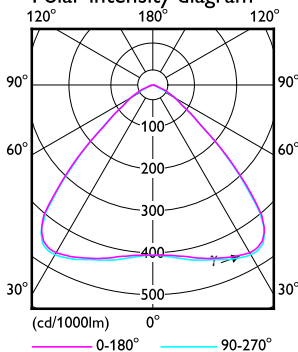
(cd/m²)

LVC1171595

2018-03-05

**BY687P LED210NW 1 x LED WB G2 PW9**  
1 x 21000 lm

Polar intensity diagram

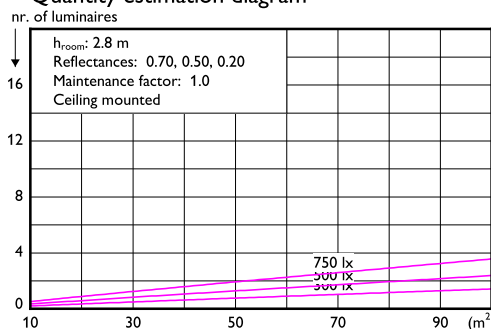


Light output ratio 1.00  
Service upward 0.00  
Service downward 1.00

CIE flux code 70 96 100 100 100

UGRcen (4Hx8H, 0.25H) 27

Quantity estimation diagram

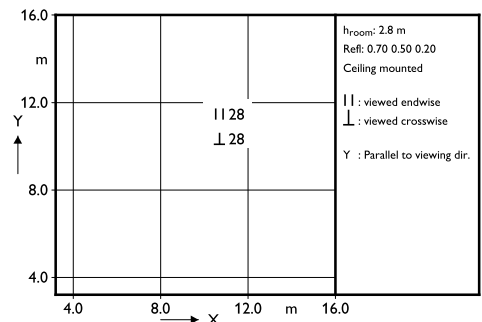


Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)									
	0.80	0.80	0.70	0.70	0.70	0.70	0.50	0.50	0.30	0.30
	0.30	0.10	0.30	0.20	0.10	0.10	0.10	0.10	0.10	0.00
0.60	0.62	0.59	0.62	0.60	0.59	0.53	0.53	0.49	0.52	0.49
0.80	0.73	0.69	0.72	0.70	0.68	0.62	0.62	0.58	0.61	0.58
1.00	0.82	0.76	0.80	0.78	0.75	0.70	0.69	0.66	0.69	0.65
1.25	0.90	0.82	0.88	0.85	0.81	0.77	0.76	0.72	0.75	0.72
1.50	0.95	0.86	0.93	0.89	0.86	0.81	0.80	0.77	0.79	0.77
2.00	1.04	0.93	1.01	0.96	0.92	0.88	0.87	0.85	0.86	0.84
2.50	1.09	0.96	1.06	1.01	0.95	0.93	0.91	0.89	0.90	0.88
3.00	1.13	0.99	1.10	1.03	0.98	0.95	0.94	0.92	0.93	0.91
4.00	1.17	1.01	1.14	1.07	1.00	0.98	0.97	0.95	0.95	0.94
5.00	1.20	1.03	1.16	1.08	1.02	1.00	0.98	0.97	0.97	0.96

Ceiling mounted

UGR diagram



Luminance Table

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	125099	128384	128663	126881	123715	123249	121828
50.0	74885	77001	79967	78760	77212	77529	76951
55.0	48593	49539	49156	49967	49449	49432	49393
60.0	39170	39441	38963	38537	40100	40223	40494
65.0	27551	27911	27391	27116	26496	25785	16535
70.0	12733	12365	12374	12469	11893	10825	9371
75.0	9587	9162	9375	9749	9362	9849	8526
80.0	8112	8726	6642	7312	7033	6456	6586
85.0	6784	3188	3262	3818	4003	3262	2854
90.0	-	-	-	-	-	-	-

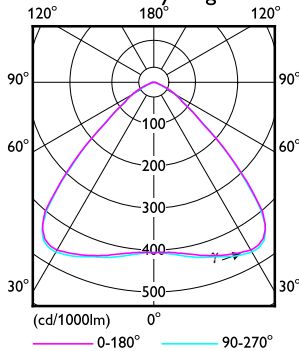
(cd/m²)

LVC1180027

2018-03-05

**BY687P LED250CW 1 x LED WB G2**

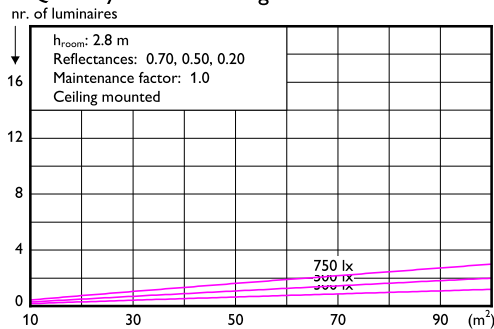
1 x 25000 lm

**Polar intensity diagram**

Light output ratio 1.00  
 Service upward 0.00  
 Service downward 1.00

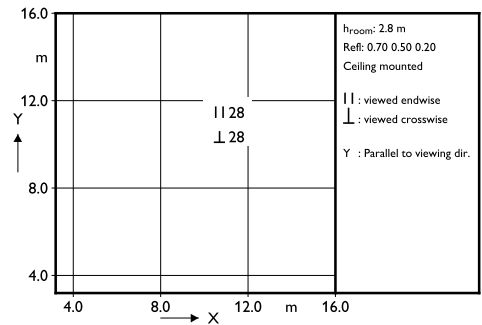
CIE flux code 70 96 100 100 100

UGRcen (4Hx8H, 0.25H) 27

**Quantity estimation diagram****Utilisation factor table**

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80	0.80	0.70	0.70	0.70	0.70	0.50	0.50	0.30	0.30	0.00	0.00
	0.50	0.50	0.50	0.50	0.50	0.30	0.10	0.10	0.10	0.10	0.00	0.00
0.60	0.62	0.59	0.62	0.60	0.59	0.53	0.53	0.49	0.52	0.49	0.47	
0.80	0.73	0.69	0.72	0.70	0.68	0.62	0.62	0.58	0.61	0.58	0.56	
1.00	0.82	0.76	0.80	0.78	0.75	0.70	0.69	0.66	0.69	0.65	0.63	
1.25	0.90	0.82	0.88	0.85	0.81	0.77	0.76	0.72	0.75	0.72	0.70	
1.50	0.95	0.86	0.93	0.89	0.86	0.81	0.80	0.77	0.79	0.77	0.75	
2.00	1.04	0.93	1.01	0.96	0.92	0.88	0.87	0.85	0.86	0.84	0.82	
2.50	1.09	0.96	1.06	1.01	0.95	0.93	0.91	0.89	0.90	0.88	0.86	
3.00	1.13	0.99	1.10	1.03	0.98	0.95	0.94	0.92	0.93	0.91	0.89	
4.00	1.17	1.01	1.14	1.07	1.00	0.98	0.97	0.95	0.95	0.94	0.92	
5.00	1.20	1.03	1.16	1.08	1.02	1.00	0.98	0.97	0.97	0.96	0.93	

Ceiling mounted

**UGR diagram****Luminance Table**

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	148928	152838	153170	151049	147279	146725	145033
50.0	89149	91668	95198	93762	91919	92296	91608
55.0	57849	58975	58519	59485	58868	58848	58801
60.0	46631	46954	46385	45877	47738	47885	48208
65.0	32799	33227	32608	32280	31543	30697	19685
70.0	15159	14720	14731	14844	14158	12887	11155
75.0	11413	10908	11160	11606	11145	11725	10150
80.0	9657	10388	7907	8705	8372	7686	7841
85.0	8076	3795	3883	4545	4766	3883	3398
90.0	-	-	-	-	-	-	-

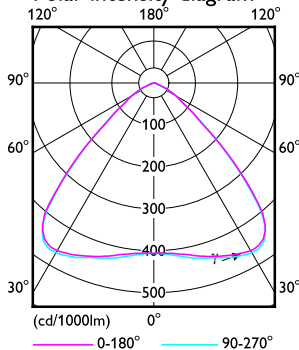
(cd/m<sup>2</sup>)

LVC1180027

2018-03-05

**BY687P LED250NW 1 x LED WB G2**

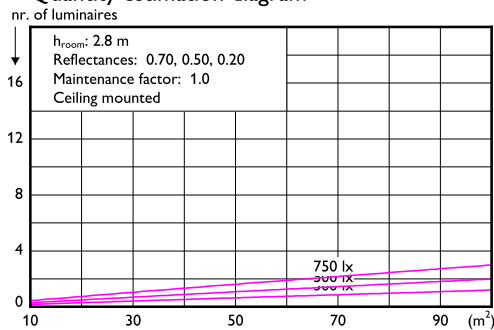
1 x 25000 lm

**Polar intensity diagram**

Light output ratio 1.00  
 Service upward 0.00  
 Service downward 1.00

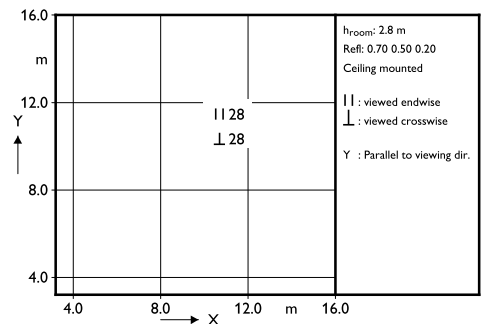
CIE flux code 70 96 100 100 100

UGRcen (4Hx8H, 0.25H) 27

**Quantity estimation diagram****Utilisation factor table**

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80	0.80	0.70	0.70	0.70	0.70	0.50	0.50	0.30	0.30	0.00	0.00
	0.50	0.50	0.50	0.50	0.50	0.30	0.10	0.10	0.10	0.10	0.00	0.00
0.60	0.62	0.59	0.62	0.60	0.59	0.53	0.53	0.49	0.52	0.49	0.47	
0.80	0.73	0.69	0.72	0.70	0.68	0.62	0.62	0.58	0.61	0.58	0.56	
1.00	0.82	0.76	0.80	0.78	0.75	0.70	0.69	0.66	0.69	0.65	0.63	
1.25	0.90	0.82	0.88	0.85	0.81	0.77	0.76	0.72	0.75	0.72	0.70	
1.50	0.95	0.86	0.93	0.89	0.86	0.81	0.80	0.77	0.79	0.77	0.75	
2.00	1.04	0.93	1.01	0.96	0.92	0.88	0.87	0.85	0.86	0.84	0.82	
2.50	1.09	0.96	1.06	1.01	0.95	0.93	0.91	0.89	0.90	0.88	0.86	
3.00	1.13	0.99	1.10	1.03	0.98	0.95	0.94	0.92	0.93	0.91	0.89	
4.00	1.17	1.01	1.14	1.07	1.00	0.98	0.97	0.95	0.95	0.94	0.92	
5.00	1.20	1.03	1.16	1.08	1.02	1.00	0.98	0.97	0.97	0.96	0.93	

Ceiling mounted

**UGR diagram****Luminance Table**

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	148928	152838	153170	151049	147279	146725	145033
50.0	89149	91668	95198	93762	91919	92296	91608
55.0	57849	58975	58519	59485	58868	58848	58801
60.0	46631	46954	46385	45877	47738	47885	48208
65.0	32799	33227	32608	32280	31543	30697	19685
70.0	15159	14720	14731	14844	14158	12887	11155
75.0	11413	10908	11160	11606	11145	11725	10150
80.0	9657	10388	7907	8705	8372	7686	7841
85.0	8076	3795	3883	4545	4766	3883	3398
90.0	-	-	-	-	-	-	-

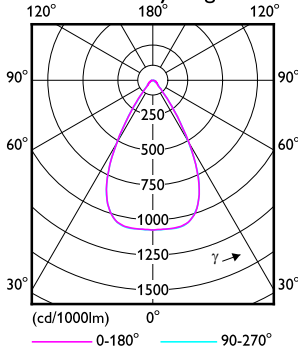
(cd/m<sup>2</sup>)

LVC1180027

2018-03-05

**BY687P LED250NW 1 x LED NB G2**  
1 x 25000 lm

Polar intensity diagram

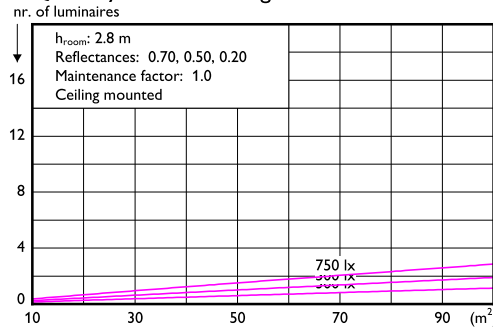


Light output ratio 1.00  
Service upward 0.00  
Service downward 1.00

CIE flux code 91 98 100 100 100

UGRcen (4Hx8H, 0.25H) 21

Quantity estimation diagram

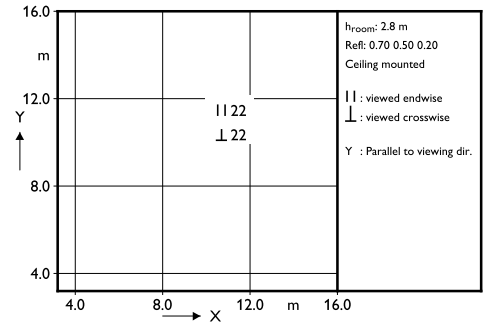


Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80			0.70			0.50			0.30		
	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
0.60	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
0.80	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.25	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.50	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
2.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
2.50	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
3.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
4.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
5.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00

Ceiling mounted

UGR diagram



Luminance Table

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	27795	25690	26631	27278	26740	27196	31635
50.0	25119	21146	21720	22600	21930	22241	27871
55.0	21458	18662	18494	18655	18145	17381	17656
60.0	16354	14331	14600	14915	15208	15131	15200
65.0	12506	10934	11397	11597	11403	11223	11482
70.0	10430	91720	12561	12359	13315	11943	12190
75.0	10789	10595	10774	11279	10506	9362	8411
80.0	6755	6955	7531	8084	7021	6490	7597
85.0	3398	3442	3663	3972	3751	3442	3663
90.0	-	-	-	-	-	-	-

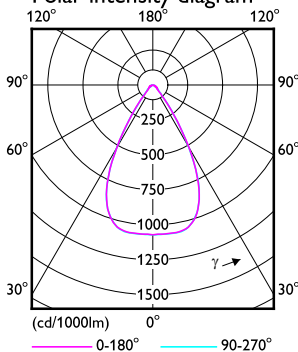
(cd/m²)

LVC1171595

2018-03-05

**BY687P LED210NW 1 x LED NB G2 PW9**  
1 x 21000 lm

Polar intensity diagram

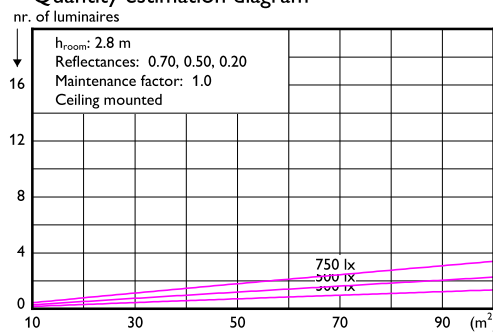


Light output ratio 1.00  
Service upward 0.00  
Service downward 1.00

CIE flux code 91 98 100 100 100

UGRcen (4Hx8H, 0.25H) 21

Quantity estimation diagram

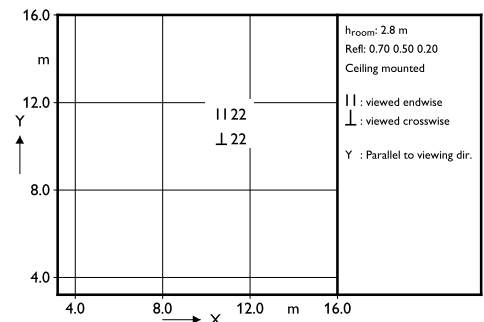


Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80			0.70			0.50			0.30		
	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
0.60	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
0.80	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.25	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.50	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
2.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
2.50	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
3.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
4.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
5.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00

Ceiling mounted

UGR diagram



Luminance Table

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	23348	21579	22370	22914	22461	22845	26573
50.0	21100	17763	18245	18984	18421	18682	23412
55.0	18025	15676	15535	15670	15242	14600	14831
60.0	13737	12038	12264	12529	12774	12710	12768
65.0	10905	12545	11505	11421	11788	11108	11844
70.0	13801	12365	10551	10381	11184	10032	10240
75.0	9062	8900	9050	9474	8825	7864	7065
80.0	5675	5842	6326	6791	5898	5451	6382
85.0	2854	2891	3077	3336	3151	2891	3077
90.0	-	-	-	-	-	-	-

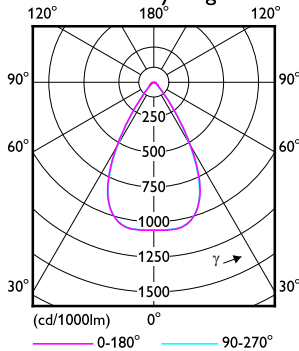
(cd/m²)

LVC1171595

2018-03-05

**BY688P LED160CW 1 x LED NB G2**  
1 x 16000 lm

Polar intensity diagram

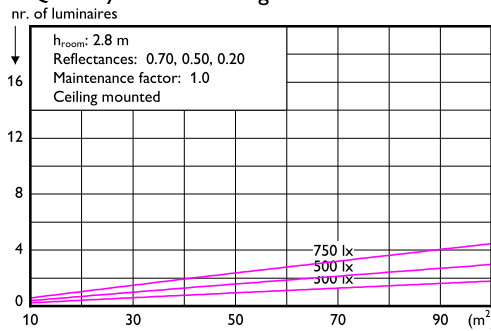


Light output ratio 1.00  
Service upward 0.00  
Service downward 1.00

CIE flux code 91 98 100 100 100

UGRcen (4Hx8H, 0.25H) 21

Quantity estimation diagram

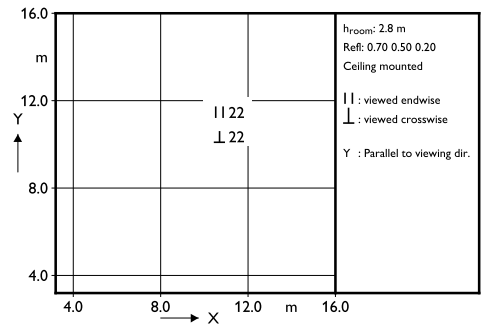


Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)															
	0.80				0.70				0.50				0.30			
	0.80	0.80	0.70	0.70	0.70	0.70	0.70	0.70	0.50	0.50	0.50	0.50	0.30	0.30	0.30	0.30
0.60	0.80	0.80	0.70	0.70	0.70	0.70	0.70	0.70	0.50	0.50	0.50	0.50	0.30	0.30	0.30	0.30
0.80	0.86	0.81	0.85	0.83	0.81	0.77	0.76	0.73	0.81	0.79	0.81	0.78	0.81	0.78	0.81	0.78
1.00	0.93	0.86	0.92	0.89	0.86	0.82	0.81	0.79	0.88	0.87	0.88	0.86	0.93	0.91	0.93	0.91
1.25	0.99	0.90	0.97	0.93	0.90	0.86	0.86	0.83	0.96	0.95	0.96	0.95	1.00	0.99	1.00	0.99
1.50	1.03	0.93	1.01	0.97	0.93	0.90	0.89	0.87	0.99	0.98	0.99	0.98	1.01	1.01	1.01	1.01
2.00	1.10	0.98	1.07	1.02	0.97	0.95	0.94	0.92	1.00	0.99	1.00	0.99	1.01	1.01	1.01	1.01
2.50	1.14	1.01	1.12	1.06	1.00	0.98	0.97	0.96	1.00	0.99	1.00	0.99	1.01	1.01	1.01	1.01
3.00	1.18	1.03	1.15	1.08	1.02	1.01	0.99	0.98	1.00	0.99	1.00	0.99	1.01	1.01	1.01	1.01
4.00	1.21	1.05	1.18	1.10	1.04	1.03	1.01	1.01	1.00	0.99	1.00	0.99	1.01	1.01	1.01	1.01
5.00	1.23	1.06	1.20	1.12	1.05	1.04	1.03	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01

Ceiling mounted

UGR diagram



Luminance Table

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	25995	23240	22460	23771	23236	22867	25976
50.0	21797	17992	17524	19997	17498	17761	21881
55.0	18176	15687	15487	16637	15410	15469	18306
60.0	16690	14965	14715	15276	14566	14586	17813
65.0	12406	14223	12718	12526	12718	12406	12278
70.0	12996	10583	11403	10751	11245	10385	11760
75.0	7842	8103	9123	10756	9149	8038	7620
80.0	4967	5493	6019	6760	5961	5630	5065
85.0	2484	2562	2833	3105	2950	2756	2562
90.0	-	-	-	-	-	-	-

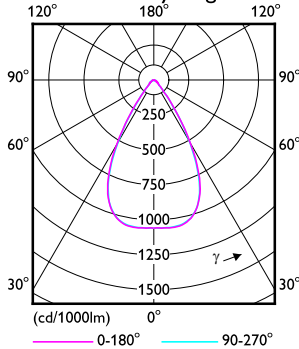
(cd/m²)

LVC1171597

2018-03-05

**BY688P LED160NW 1 x LED NB G2**  
1 x 16000 lm

Polar intensity diagram

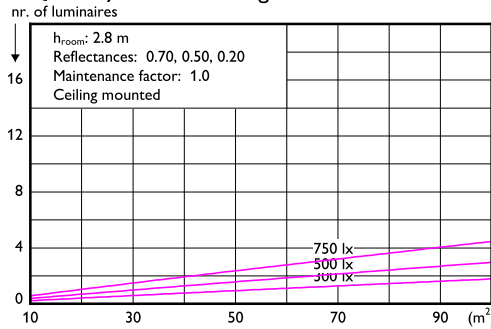


Light output ratio 1.00  
Service upward 0.00  
Service downward 1.00

CIE flux code 91 98 100 100 100

UGRcen (4Hx8H, 0.25H) 21

Quantity estimation diagram

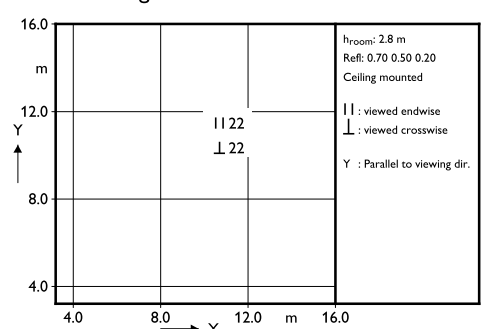


Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)															
	0.80				0.70				0.50				0.30			
	0.80	0.80	0.70	0.70	0.70	0.70	0.70	0.70	0.50	0.50	0.50	0.50	0.30	0.30	0.30	0.30
0.60	0.80	0.80	0.70	0.70	0.70	0.70	0.70	0.70	0.50	0.50	0.50	0.50	0.30	0.30	0.30	0.30
0.80	0.86	0.81	0.85	0.83	0.81	0.77	0.76	0.73	0.81	0.79	0.81	0.78	0.81	0.78	0.81	0.78
1.00	0.93	0.86	0.92	0.89	0.86	0.82	0.81	0.79	0.88	0.87	0.88	0.86	0.93	0.91	0.93	0.91
1.25	0.99	0.90	0.97	0.93	0.90	0.86	0.86	0.83	0.96	0.95	0.96	0.95	1.00	0.99	1.00	0.99
1.50	1.03	0.93	1.01	0.97	0.93	0.90	0.89	0.87	0.99	0.98	0.99	0.98	1.01	1.01	1.01	1.01
2.00	1.10	0.98	1.07	1.02	0.97	0.95	0.94	0.92	1.00	0.99	1.00	0.99	1.01	1.01	1.01	1.01
2.50	1.14	1.01	1.12	1.06	1.00	0.98	0.97	0.96	1.00	0.99	1.00	0.99	1.01	1.01	1.01	1.01
3.00	1.18	1.03	1.15	1.08	1.02	1.01	0.99	0.98	1.00	0.99	1.00	0.99	1.01	1.01	1.01	1.01
4.00	1.21	1.05	1.18	1.10	1.04	1.03	1.01	1.01	1.00	0.99	1.00	0.99	1.01	1.01	1.01	1.01
5.00	1.23	1.06	1.20	1.12	1.05	1.04	1.03	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01

Ceiling mounted

UGR diagram



Luminance Table

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	25995	23240	22460	23771	23236	22867	25976
50.0	21797	17992	17524	19997	17498	17761	21881
55.0	18176	15687	15487	16637	15410	15469	18306
60.0	16690	14965	14715	15276	14566	14586	17813
65.0	12406	14223	12718	12526	12718	12406	12278
70.0	12996	10583	11403	10751	11245	10385	11760
75.0	7842	8103	9123	10756	9149	8038	7620
80.0	4967	5493	6019	6760	5961	5630	5065
85.0	2484	2562	2833	3105	2950	2756	2562
90.0	-	-	-	-	-	-	-

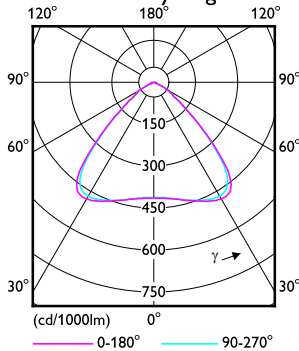
(cd/m²)

LVC1171597

2018-03-05

**BY688P LED160CW 1 x LED WB G2**

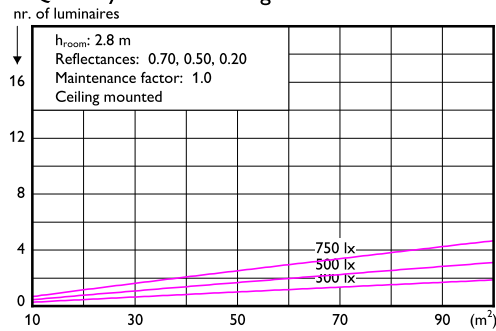
1 x 16000 lm

**Polar intensity diagram**

Light output ratio 1.00  
 Service upward 0.00  
 Service downward 1.00

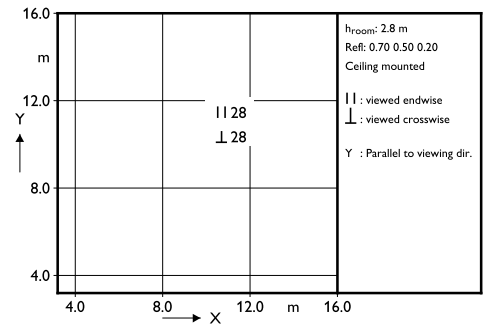
CIE flux code 71 96 100 100 100

UGRcen (4Hx8H, 0.25H) 27

**Quantity estimation diagram****Utilisation factor table**

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80			0.70			0.50			0.30		
	0.80	0.50	0.30	0.80	0.50	0.30	0.80	0.50	0.30	0.80	0.50	0.30
0.60	0.63	0.60	0.54	0.63	0.61	0.54	0.54	0.50	0.53	0.50	0.48	0.48
0.80	0.74	0.69	0.73	0.71	0.69	0.63	0.63	0.59	0.62	0.58	0.57	0.57
1.00	0.82	0.76	0.81	0.78	0.76	0.70	0.70	0.66	0.69	0.66	0.64	0.64
1.25	0.90	0.83	0.88	0.85	0.82	0.77	0.76	0.73	0.75	0.72	0.71	0.71
1.50	0.96	0.87	0.94	0.90	0.86	0.82	0.81	0.78	0.80	0.77	0.75	0.75
2.00	1.04	0.93	1.02	0.97	0.92	0.89	0.87	0.85	0.86	0.84	0.82	0.82
2.50	1.09	0.97	1.07	1.01	0.96	0.93	0.91	0.89	0.90	0.88	0.86	0.86
3.00	1.13	0.99	1.10	1.04	0.98	0.96	0.94	0.92	0.93	0.91	0.89	0.89
4.00	1.17	1.02	1.14	1.07	1.01	0.99	0.97	0.96	0.96	0.94	0.92	0.92
5.00	1.20	1.03	1.16	1.09	1.02	1.00	0.99	0.97	0.97	0.96	0.94	0.94

Ceiling mounted

**UGR diagram****Luminance Table**

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	129369	129900	128885	125785	125857	125953	124752
50.0	78911	79174	77985	77295	77243	76953	76953
55.0	50400	50300	50406	51344	51314	50424	49610
60.0	40842	40504	39915	41377	42364	42797	41992
65.0	11422	25237	27406	27030	27030	25653	24973
70.0	8703	10711	13045	13461	13441	13223	11938
75.0	8365	7776	8286	8861	8247	8927	7803
80.0	5493	4948	5474	5805	5396	6350	5863
85.0	1863	1941	2212	2678	2368	2368	2484
90.0	-	-	-	-	-	-	-

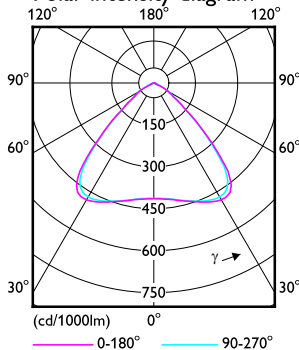
(cd/m²)

LVC1171691

2018-03-05

**BY688P LED160NW 1 x LED WB G2**

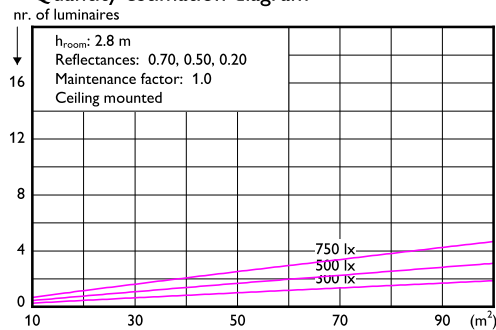
1 x 16000 lm

**Polar intensity diagram**

Light output ratio 1.00  
 Service upward 0.00  
 Service downward 1.00

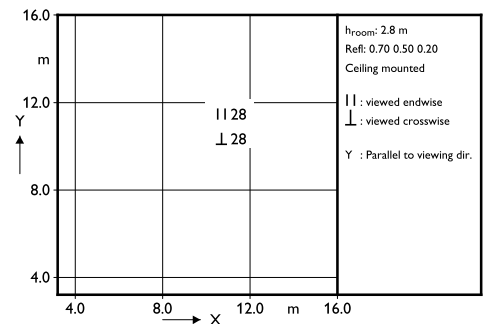
CIE flux code 71 96 100 100 100

UGRcen (4Hx8H, 0.25H) 27

**Quantity estimation diagram****Utilisation factor table**

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80			0.70			0.50			0.30		
	0.80	0.50	0.30	0.80	0.50	0.30	0.80	0.50	0.30	0.80	0.50	0.30
0.60	0.63	0.60	0.54	0.63	0.61	0.54	0.54	0.50	0.53	0.50	0.48	0.48
0.80	0.74	0.69	0.73	0.71	0.69	0.63	0.63	0.59	0.62	0.58	0.57	0.57
1.00	0.82	0.76	0.81	0.78	0.76	0.70	0.70	0.66	0.69	0.66	0.64	0.64
1.25	0.90	0.83	0.88	0.85	0.82	0.77	0.76	0.73	0.75	0.72	0.71	0.71
1.50	0.96	0.87	0.94	0.90	0.86	0.82	0.81	0.78	0.80	0.77	0.75	0.75
2.00	1.04	0.93	1.02	0.97	0.92	0.89	0.87	0.85	0.86	0.84	0.82	0.82
2.50	1.09	0.97	1.07	1.01	0.96	0.93	0.91	0.89	0.90	0.88	0.86	0.86
3.00	1.13	0.99	1.10	1.04	0.98	0.96	0.94	0.92	0.93	0.91	0.89	0.89
4.00	1.17	1.02	1.14	1.07	1.01	0.99	0.97	0.96	0.96	0.94	0.92	0.92
5.00	1.20	1.03	1.16	1.09	1.02	1.00	0.99	0.97	0.97	0.96	0.94	0.94

Ceiling mounted

**UGR diagram****Luminance Table**

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	129369	129900	128885	125785	125857	125953	124752
50.0	78911	79174	77985	77295	77243	76953	76953
55.0	50400	50300	50406	51344	51314	50424	49610
60.0	40842	40504	39915	41377	42364	42797	41992
65.0	11422	25237	27406	27030	27030	25653	24973
70.0	8703	10711	13045	13461	13441	13223	11938
75.0	8365	7776	8286	8861	8247	8927	7803
80.0	5493	4948	5474	5805	5396	6350	5863
85.0	1863	1941	2212	2678	2368	2368	2484
90.0	-	-	-	-	-	-	-

(cd/m²)

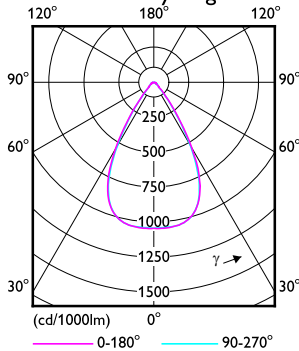
LVC1171691

2018-03-05

**BY689P LED110CW 1 x LED NB G2**

1 x 11000 lm

Polar intensity diagram



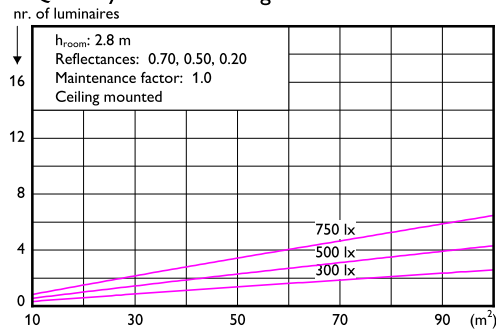
Light output ratio 1.00  
 Service upward 0.00  
 Service downward 1.00

CIE flux code 92 98 100 100 100

UGRcen (4Hx8H, 0.25H) 21

LVC1171690

Quantity estimation diagram

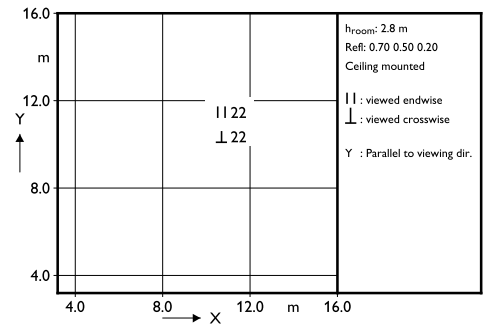


Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)															
	0.80				0.70				0.50				0.30			
	0.80	0.80	0.70	0.70	0.70	0.70	0.70	0.70	0.50	0.50	0.50	0.50	0.30	0.30	0.30	0.30
0.60	0.80	0.80	0.70	0.70	0.70	0.70	0.70	0.70	0.50	0.50	0.50	0.50	0.30	0.30	0.30	0.30
0.80	0.87	0.82	0.86	0.83	0.81	0.77	0.77	0.74	0.76	0.74	0.76	0.74	0.81	0.79	0.78	0.78
1.00	0.93	0.87	0.92	0.89	0.86	0.83	0.82	0.79	0.81	0.79	0.81	0.79	0.88	0.86	0.85	0.85
1.25	0.99	0.91	0.97	0.94	0.90	0.87	0.86	0.84	0.85	0.83	0.85	0.83	0.93	0.92	0.90	0.90
1.50	1.03	0.94	1.01	0.97	0.93	0.90	0.89	0.87	0.88	0.86	0.88	0.86	0.96	0.95	0.93	0.93
2.00	1.10	0.98	1.08	1.02	0.97	0.95	0.94	0.92	0.93	0.92	0.93	0.92	1.00	0.99	0.97	0.97
2.50	1.14	1.01	1.12	1.06	1.00	0.98	0.97	0.96	0.96	0.95	0.96	0.95	1.00	0.99	0.97	0.97
3.00	1.18	1.03	1.15	1.08	1.02	1.01	0.99	0.98	0.98	0.97	0.98	0.97	1.00	0.99	0.97	0.97
4.00	1.21	1.05	1.18	1.11	1.04	1.03	1.02	1.01	1.00	0.99	1.00	0.99	1.00	0.99	0.97	0.97
5.00	1.24	1.06	1.20	1.12	1.05	1.04	1.03	1.02	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99

Ceiling mounted

UGR diagram



Luminance Table

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	28541	24434	24424	25540	24759	24492	26933
50.0	23624	18847	18576	19879	18824	18542	22460
55.0	16279	15297	16111	16866	16324	16072	19133
60.0	13689	14126	15096	15170	14748	14607	16119
65.0	13531	11708	13146	12760	12699	14548	14197
70.0	11197	10071	11403	10851	10959	11024	13092
75.0	7184	7742	8772	10604	8858	8300	7956
80.0	6057	4906	5567	6441	5929	5396	4820
85.0	2252	2040	2380	2550	2507	2422	2125
90.0	-	-	-	-	-	-	-

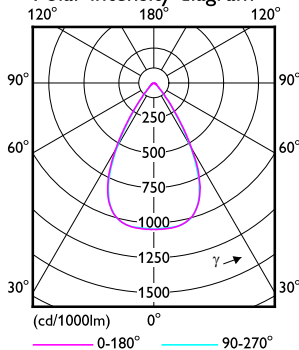
(cd/m²)

2018-03-05

**BY689P LED110NW 1 x LED NB G2**

1 x 11000 lm

Polar intensity diagram



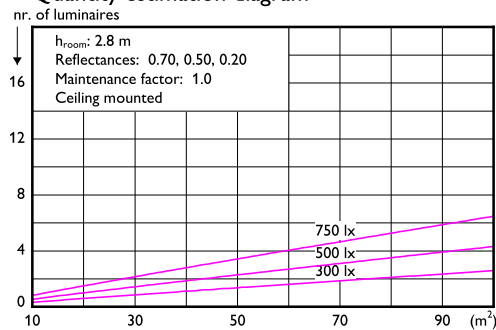
Light output ratio 1.00  
 Service upward 0.00  
 Service downward 1.00

CIE flux code 92 98 100 100 100

UGRcen (4Hx8H, 0.25H) 21

LVC1171690

Quantity estimation diagram

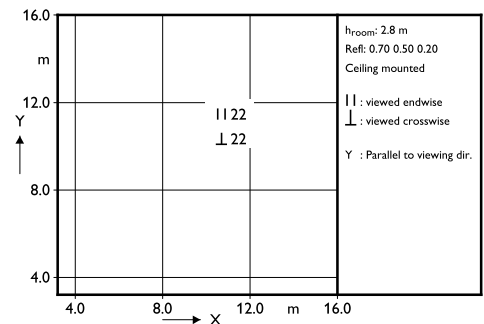


Utilisation factor table

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)															
	0.80				0.70				0.50				0.30			
	0.80	0.80	0.70	0.70	0.70	0.70	0.70	0.70	0.50	0.50	0.50	0.50	0.30	0.30	0.30	0.30
0.60	0.80	0.80	0.70	0.70	0.70	0.70	0.70	0.70	0.50	0.50	0.50	0.50	0.30	0.30	0.30	0.30
0.80	0.87	0.82	0.86	0.83	0.81	0.77	0.77	0.74	0.76	0.74	0.76	0.74	0.81	0.79	0.78	0.78
1.00	0.93	0.87	0.92	0.89	0.86	0.83	0.82	0.79	0.81	0.79	0.81	0.79	0.88	0.86	0.85	0.85
1.25	0.99	0.91	0.97	0.94	0.90	0.87	0.86	0.84	0.85	0.83	0.85	0.83	0.93	0.92	0.90	0.90
1.50	1.03	0.94	1.01	0.97	0.93	0.90	0.89	0.87	0.88	0.86	0.88	0.86	0.96	0.95	0.93	0.93
2.00	1.10	0.98	1.08	1.02	0.97	0.95	0.94	0.92	0.93	0.92	0.93	0.92	1.00	0.99	0.97	0.97
2.50	1.14	1.01	1.12	1.06	1.00	0.98	0.97	0.96	0.96	0.95	0.96	0.95	1.00	0.99	0.97	0.97
3.00	1.18	1.03	1.15	1.08	1.02	1.01	0.99	0.98	0.98	0.97	0.98	0.97	1.00	0.99	0.97	0.97
4.00	1.21	1.05	1.18	1.11	1.04	1.03	1.02	1.01	1.00	0.99	1.00	0.99	1.00	0.99	0.97	0.97
5.00	1.24	1.06	1.20	1.12	1.05	1.04	1.03	1.02	1.01	1.01	1.01	1.01	1.01	1.01	0.99	0.99

Ceiling mounted

UGR diagram



Luminance Table

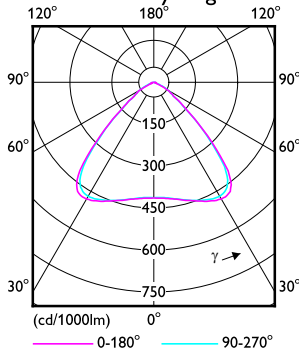
Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	28541	24434	24424	25540	24759	24492	26933
50.0	23624	18847	18576	19879	18824	18542	22460
55.0	16279	15297	16111	16866	16324	16072	19133
60.0	13689	14126	15096	15170	14748	14607	16119
65.0	13531	11708	13146	12760	12699	14548	14197
70.0	11197	10071	11403	10851	10959	11024	13092
75.0	7184	7742	8772	10604	8858	8300	7956
80.0	6057	4906	5567	6441	5929	5396	4820
85.0	2252	2040	2380	2550	2507	2422	2125
90.0	-	-	-	-	-	-	-

(cd/m²)

2018-03-05

**BY689P LED110CW 1 x LED WB G2**

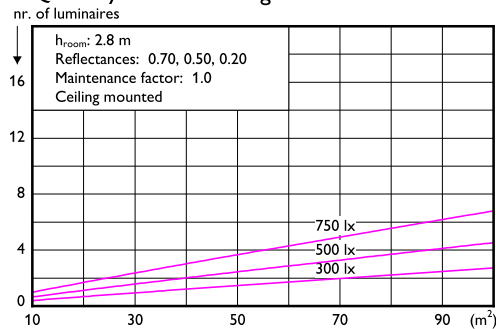
1 x 11000 lm

**Polar intensity diagram**

Light output ratio 1.00  
 Service upward 0.00  
 Service downward 1.00

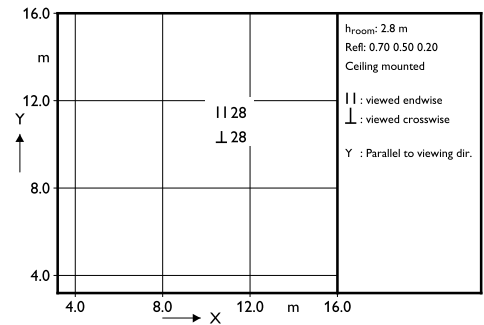
CIE flux code 71 96 100 100 100

UGRcen (4Hx8H, 0.25H) 27

**Quantity estimation diagram****Utilisation factor table**

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80			0.70			0.50			0.30		
	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
0.60	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
0.80	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.25	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.50	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
2.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
2.50	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
3.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
4.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
5.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00

Ceiling mounted

**UGR diagram****Luminance Table**

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	141647	142228	141118	137723	137802	137907	136592
50.0	86400	86688	85386	84631	84574	84257	84257
55.0	55183	55074	55190	56216	56184	55209	54318
60.0	44719	44348	43704	45304	46385	46859	45978
65.0	12506	27632	30007	29595	29595	28088	27343
70.0	9529	11728	14283	14738	14716	14478	13070
75.0	9158	8514	9073	9702	9030	9774	8543
80.0	6015	5418	5993	6356	5908	6953	6420
85.0	2040	2125	2422	2932	2592	2592	2720
90.0	-	-	-	-	-	-	-

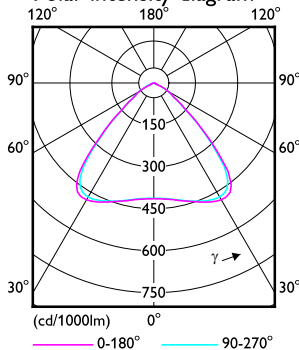
(cd/m<sup>2</sup>)

LVC1171691

2018-03-05

**BY689P LED110NW 1 x LED WB G2**

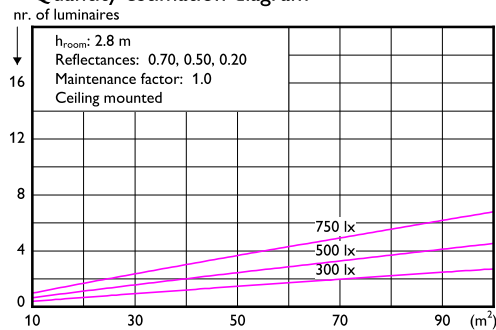
1 x 11000 lm

**Polar intensity diagram**

Light output ratio 1.00  
 Service upward 0.00  
 Service downward 1.00

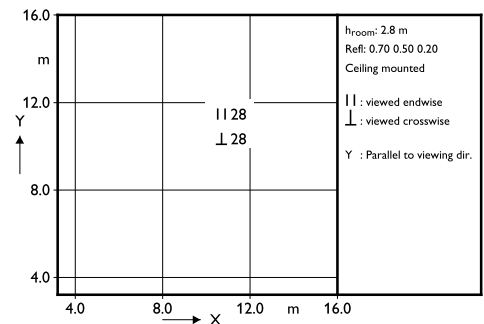
CIE flux code 71 96 100 100 100

UGRcen (4Hx8H, 0.25H) 27

**Quantity estimation diagram****Utilisation factor table**

Room Index k	Reflectances (%) for ceiling, walls and working plane (CIE)											
	0.80			0.70			0.50			0.30		
	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
0.60	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
0.80	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.25	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
1.50	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
2.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
2.50	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
3.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
4.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00
5.00	0.80	0.80	0.80	0.70	0.70	0.70	0.50	0.50	0.50	0.30	0.30	0.00

Ceiling mounted

**UGR diagram****Luminance Table**

Plane Cone	0.0	15.0	30.0	45.0	60.0	75.0	90.0
45.0	141647	142228	141118	137723	137802	137907	136592
50.0	86400	86688	85386	84631	84574	84257	84257
55.0	55183	55074	55190	56216	56184	55209	54318
60.0	44719	44348	43704	45304	46385	46859	45978
65.0	12506	27632	30007	29595	29595	28088	27343
70.0	9529	11728	14283	14738	14716	14478	13070
75.0	9158	8514	9073	9702	9030	9774	8543
80.0	6015	5418	5993	6356	5908	6953	6420
85.0	2040	2125	2422	2932	2592	2592	2720
90.0	-	-	-	-	-	-	-

(cd/m<sup>2</sup>)

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