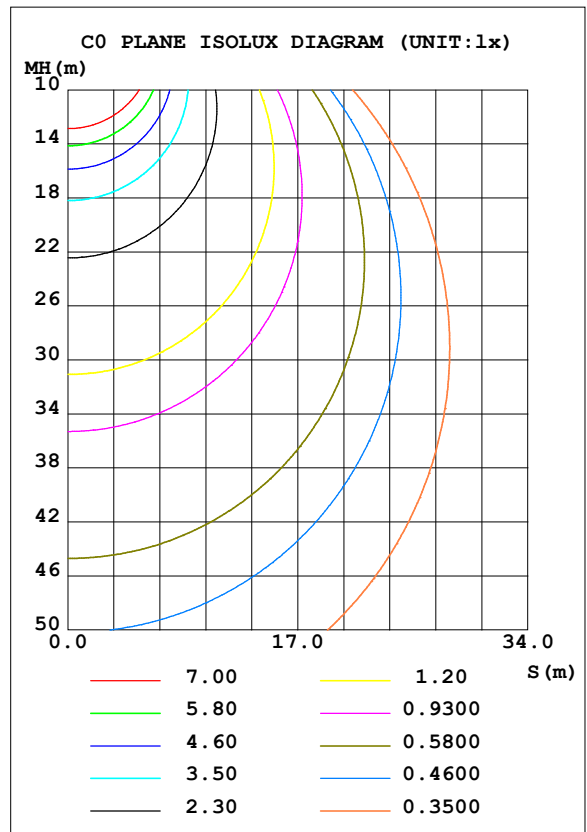
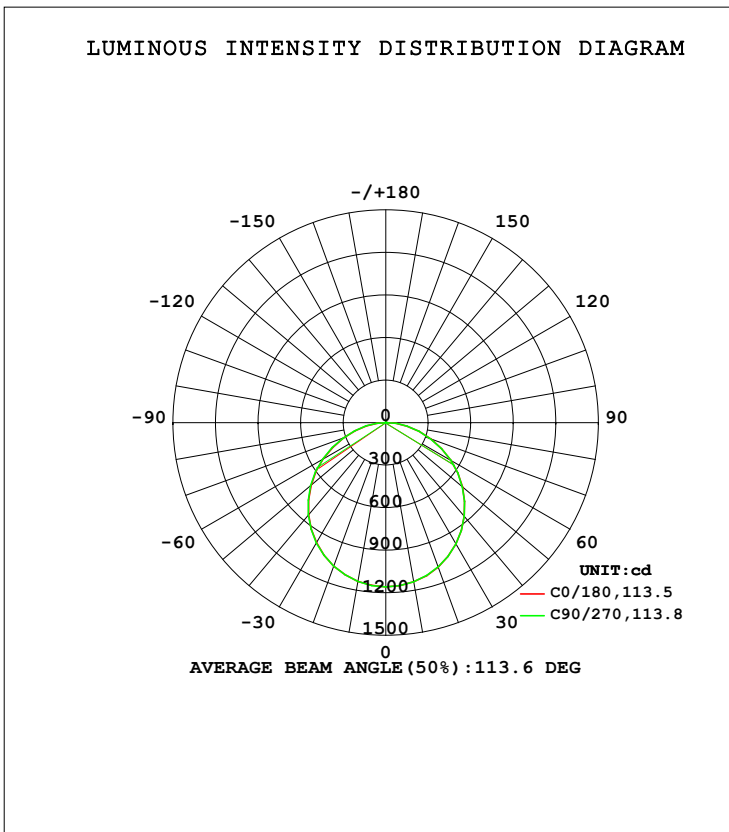


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME:VERONA PLS3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.05 lm/W			
MODEL	PLS3060-36W	I _{max} (cd)	1158	S/MH (C0/180)	1.26
NOMINAL POWER (W)	36	LOR (%)	100.0	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	3386.0	η UP, DN (C0-180)	0.1, 50.5
NOMINAL FLUX (lm)	3386	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.1, 49.2
LAMPS INSIDE	1	η up (%)	0.3	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.0	η down (%)	99.7	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: King
 Test Date: 2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
 Humidity: 65.0%
 Test Distance: 9.950m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

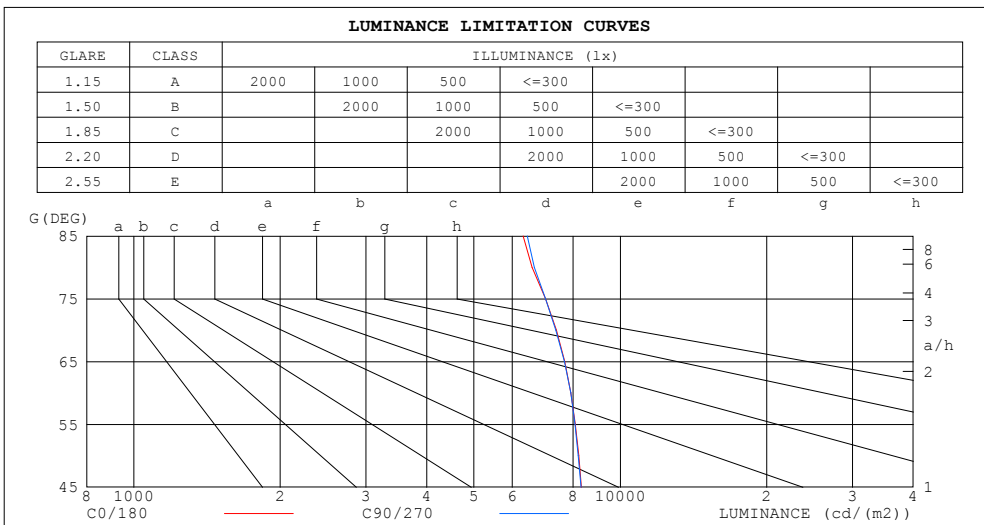
γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	1140	1140	1137	1137				0- 10	109.6	109.6	3.24,3.24
20	1083	1083	1076	1076				10- 20	314.3	423.9	12.5,12.5
30	988.8	989.1	977.8	979.5				20- 30	477.5	901.4	26.6,26.6
40	862.1	861.2	847.8	850.0				30- 40	577.6	1479	43.7,43.7
50	707.1	705.9	688.7	693.3				40- 50	601.6	2081	61.5,61.5
60	529.8	530.7	508.1	514.4				50- 60	546.8	2627	77.6,77.6
70	338.5	337.7	315.4	323.7				60- 70	421.0	3048	90,90
80	153.3	155.1	139.0	142.6				70- 80	249.8	3298	97.4,97.4
90	7.237	5.137	1.310	1.588				80- 90	78.84	3377	99.7,99.7
100	1.670	1.734	2.079	2.163				90-100	2.380	3379	99.8,99.8
110	2.501	2.608	2.973	3.154				100-110	2.489	3382	99.9,99.9
120	3.346	3.467	3.880	4.001				110-120	3.207	3385	100,100
130	0	0	0	0				120-130	0.8491	3386	100,100
140	0	0	0	0				130-140	0	3386	100,100
150	0	0	0	0				140-150	0	3386	100,100
160	0	0	0	0				150-160	0	3386	100,100
170	0	0	0	0				160-170	0	3386	100,100
180	0	0	0	0				170-180	0	3386	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:King
 Test Date:2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
 γ Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
 Humidity:65.0%
 Test Distance:9.950m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME:VERONA PL3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	6310	6442
80	6589	6662
75	7020	7025
70	7389	7365
65	7688	7676
60	7911	7917
55	8078	8064
50	8213	8192
45	8316	8301

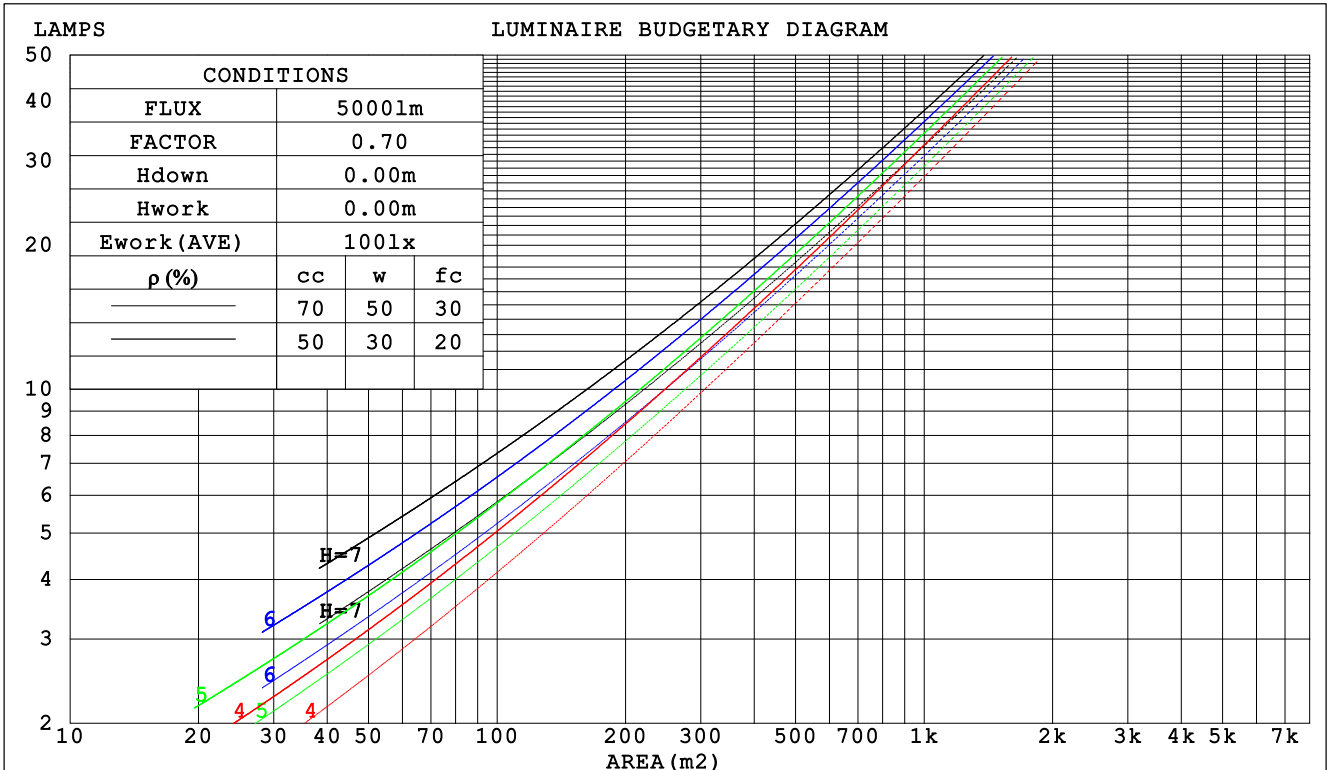
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:King
 Test Date:2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
 Humidity:65.0%
 Test Distance:9.950m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME:VERONA PL3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.03	.99	.95	1.01	.97	.93	.97	.94	.90	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.83	.77	.88	.82	.76	.84	.79	.74	.81	.77	.73	.78	.74	.71	.69
3.0	.79	.70	.64	.77	.69	.63	.74	.68	.62	.71	.66	.61	.69	.64	.60	.58
4.0	.70	.61	.54	.68	.60	.54	.66	.59	.53	.63	.57	.52	.61	.56	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.46	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.40	.51	.45	.39	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.41	.35	.48	.41	.35	.47	.40	.35	.45	.39	.35	.33
8.0	.46	.38	.32	.46	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.29
9.0	.42	.34	.29	.42	.34	.28	.41	.33	.28	.40	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.30	.26	.37	.30	.25	.36	.30	.25	.24



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:King
 Test Date:2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
 Humidity:65.0%
 Test Distance:9.950m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME:VERONA PL3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.317	.180	.057	.310	.177	.056	.296	.170	.054	.284	.164	.053	.273	.158	.051	
2.0	.296	.162	.050	.290	.160	.049	.278	.155	.048	.267	.150	.047	.257	.145	.046	
3.0	.273	.145	.044	.268	.143	.043	.257	.139	.042	.247	.136	.042	.238	.132	.041	
4.0	.252	.131	.038	.247	.129	.038	.237	.126	.038	.229	.123	.037	.221	.120	.037	
5.0	.232	.118	.034	.228	.117	.034	.220	.114	.034	.212	.112	.033	.205	.109	.033	
6.0	.215	.108	.031	.211	.107	.031	.204	.104	.030	.197	.102	.030	.190	.100	.030	
7.0	.200	.099	.028	.197	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027	
8.0	.187	.091	.026	.184	.090	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025	
9.0	.175	.085	.024	.172	.084	.024	.167	.082	.023	.162	.081	.023	.157	.080	.023	
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.152	.076	.022	.148	.075	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.192	.192	.192	.165	.165	.165	.112	.112	.112	.065	.065	.065	.021	.021	.021	
1.0	.183	.158	.136	.156	.136	.117	.107	.093	.081	.062	.054	.047	.020	.017	.015	
2.0	.175	.134	.100	.150	.115	.086	.103	.080	.060	.059	.046	.035	.019	.015	.011	
3.0	.167	.116	.076	.143	.100	.066	.098	.070	.046	.057	.041	.027	.018	.013	.009	
4.0	.159	.103	.060	.137	.089	.052	.094	.062	.037	.054	.036	.022	.018	.012	.007	
5.0	.152	.093	.049	.131	.080	.043	.090	.056	.030	.052	.033	.018	.017	.011	.006	
6.0	.145	.084	.041	.124	.073	.036	.086	.051	.025	.050	.030	.015	.016	.010	.005	
7.0	.138	.077	.035	.119	.067	.031	.082	.047	.022	.048	.028	.013	.015	.009	.004	
8.0	.131	.072	.031	.113	.062	.027	.078	.044	.019	.046	.026	.011	.015	.008	.004	
9.0	.125	.067	.027	.108	.058	.024	.075	.041	.017	.044	.024	.010	.014	.008	.003	
10.0	.120	.062	.024	.103	.054	.021	.072	.038	.015	.042	.023	.009	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:King
 Test Date:2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
 Humidity:65.0%
 Test Distance:9.950m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm										
NAME:VERONA PL3060-160100					TYPE:LED			WEIGHT:		
SPEC.:6500K					DIM.:			SERIAL No.:01		
MANUFACTURE:BBT LIGHTING					SUR.:			Shielding Angle:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	20.2	21.7	20.5	21.9	22.1	20.2	21.7	20.5	21.9	22.1
3H	21.8	23.2	22.1	23.4	23.7	21.7	23.2	22.1	23.4	23.6
4H	22.4	23.7	22.7	24.0	24.3	22.4	23.7	22.7	24.0	24.3
6H	22.9	24.1	23.2	24.4	24.7	22.9	24.2	23.2	24.4	24.7
8H	23.0	24.3	23.4	24.5	24.8	23.0	24.3	23.4	24.6	24.9
12H	23.1	24.3	23.5	24.6	24.9	23.2	24.3	23.5	24.6	25.0
4H 2H	20.8	22.2	21.1	22.4	22.7	20.8	22.2	21.1	22.4	22.7
3H	22.6	23.8	22.9	24.1	24.4	22.6	23.7	22.9	24.0	24.4
4H	23.3	24.4	23.7	24.7	25.1	23.3	24.4	23.7	24.7	25.1
6H	23.9	24.9	24.4	25.3	25.6	24.0	24.9	24.4	25.3	25.6
8H	24.2	25.1	24.6	25.4	25.8	24.2	25.1	24.6	25.5	25.8
12H	24.3	25.1	24.7	25.5	25.9	24.3	25.2	24.8	25.6	26.0
8H 4H	23.6	24.5	24.0	24.9	25.3	23.6	24.5	24.0	24.9	25.3
6H	24.4	25.1	24.8	25.5	26.0	24.4	25.1	24.8	25.6	26.0
8H	24.7	25.4	25.2	25.8	26.2	24.7	25.4	25.2	25.8	26.3
12H	24.9	25.5	25.4	26.0	26.4	25.0	25.5	25.5	26.0	26.5
12H 4H	23.6	24.5	24.1	24.9	25.3	23.6	24.5	24.1	24.9	25.3
6H	24.5	25.1	24.9	25.6	26.0	24.5	25.1	24.9	25.6	26.0
8H	24.8	25.4	25.3	25.8	26.3	24.8	25.4	25.3	25.9	26.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 3386 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 4.2$)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:King
Test Date:2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
Humidity:65.0%
Test Distance:9.950m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME: VERONA PL3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

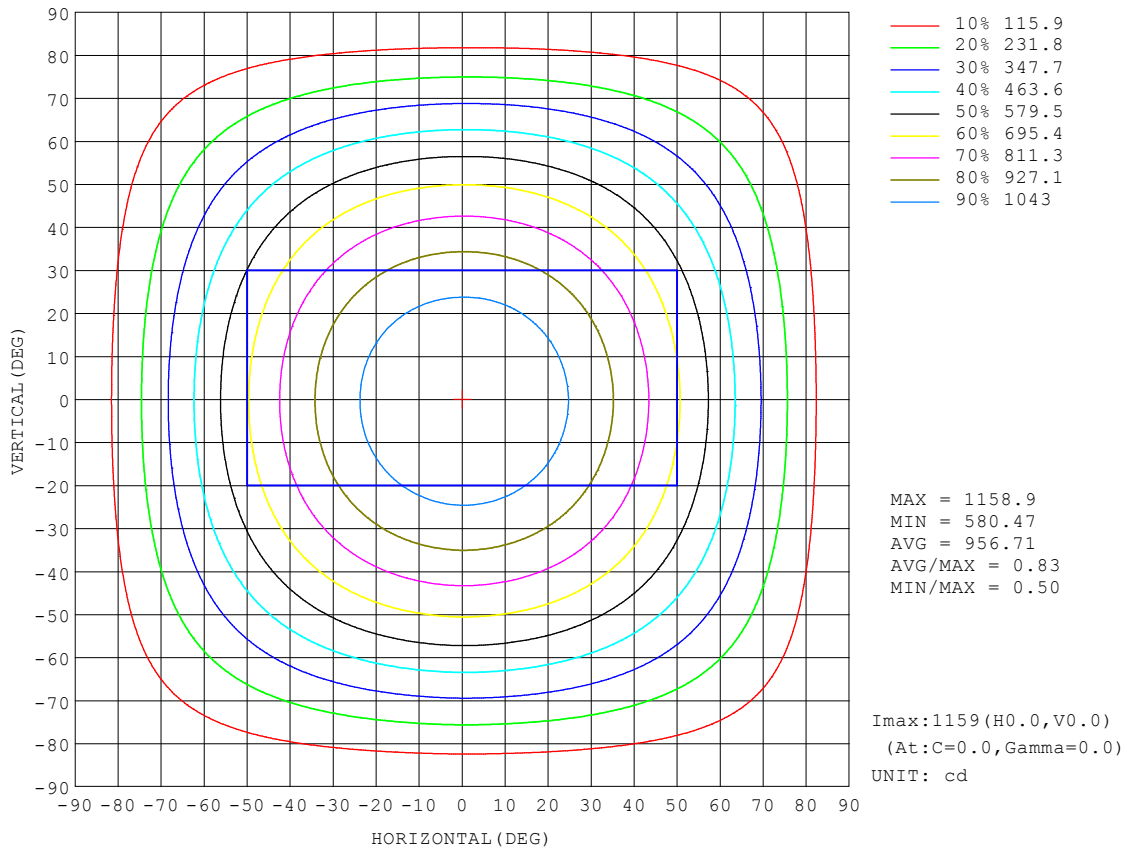
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	45	38	31
0.80	67	55	48	66	55	48	64	54	47	40
1.00	75	64	57	74	64	56	72	65	56	49
1.25	82	72	65	81	71	64	78	70	63	56
1.50	88	77	70	86	77	70	83	75	69	61
2.00	94	86	79	93	84	78	89	82	77	69
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	100	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	95	91	82
5.00	108	103	99	106	101	98	101	98	94	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:King
Test Date:2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
Humidity:65.0%
Test Distance:9.950m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME:VERONA PL3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

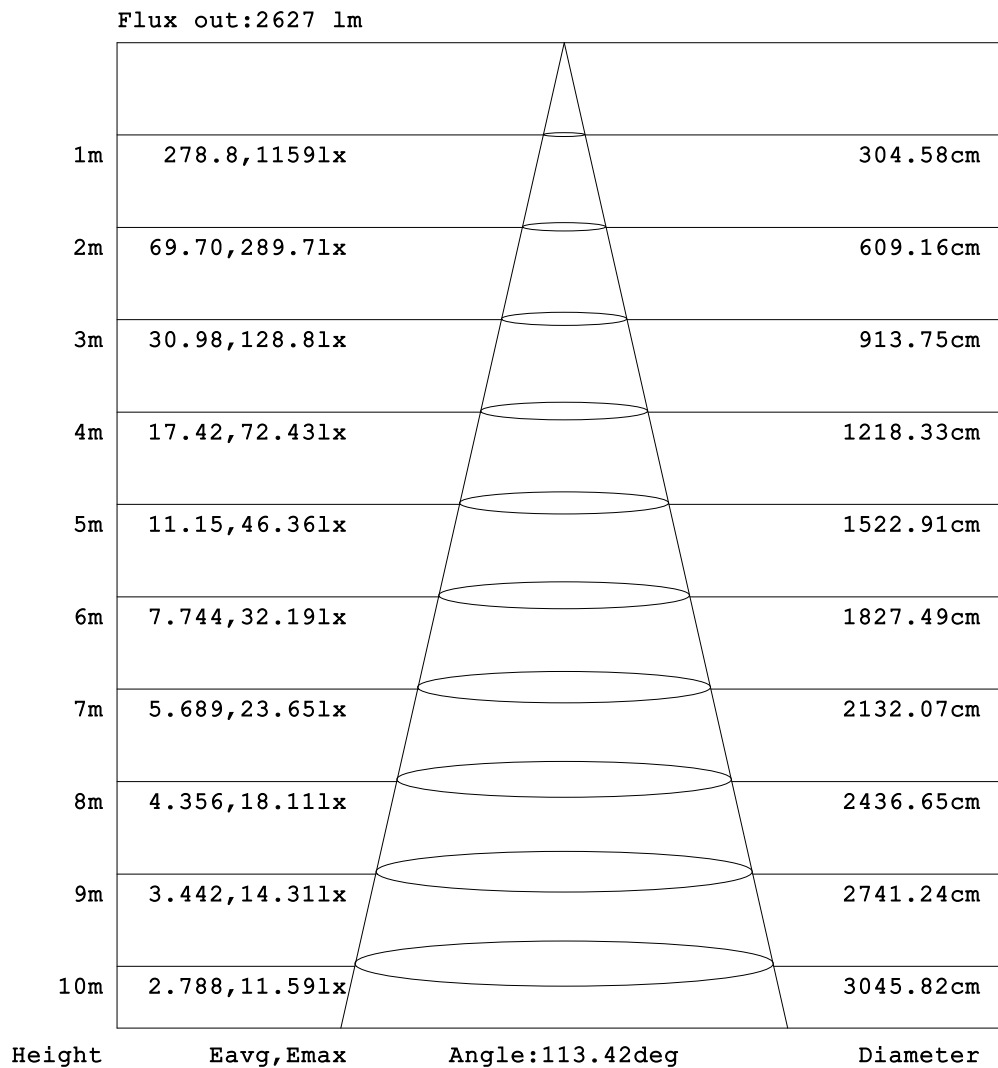


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
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γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
 Humidity:65.0%
 Test Distance:9.950m [K=1.0000]
 Remarks:

AAI Figure

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME:VERONA PL3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:



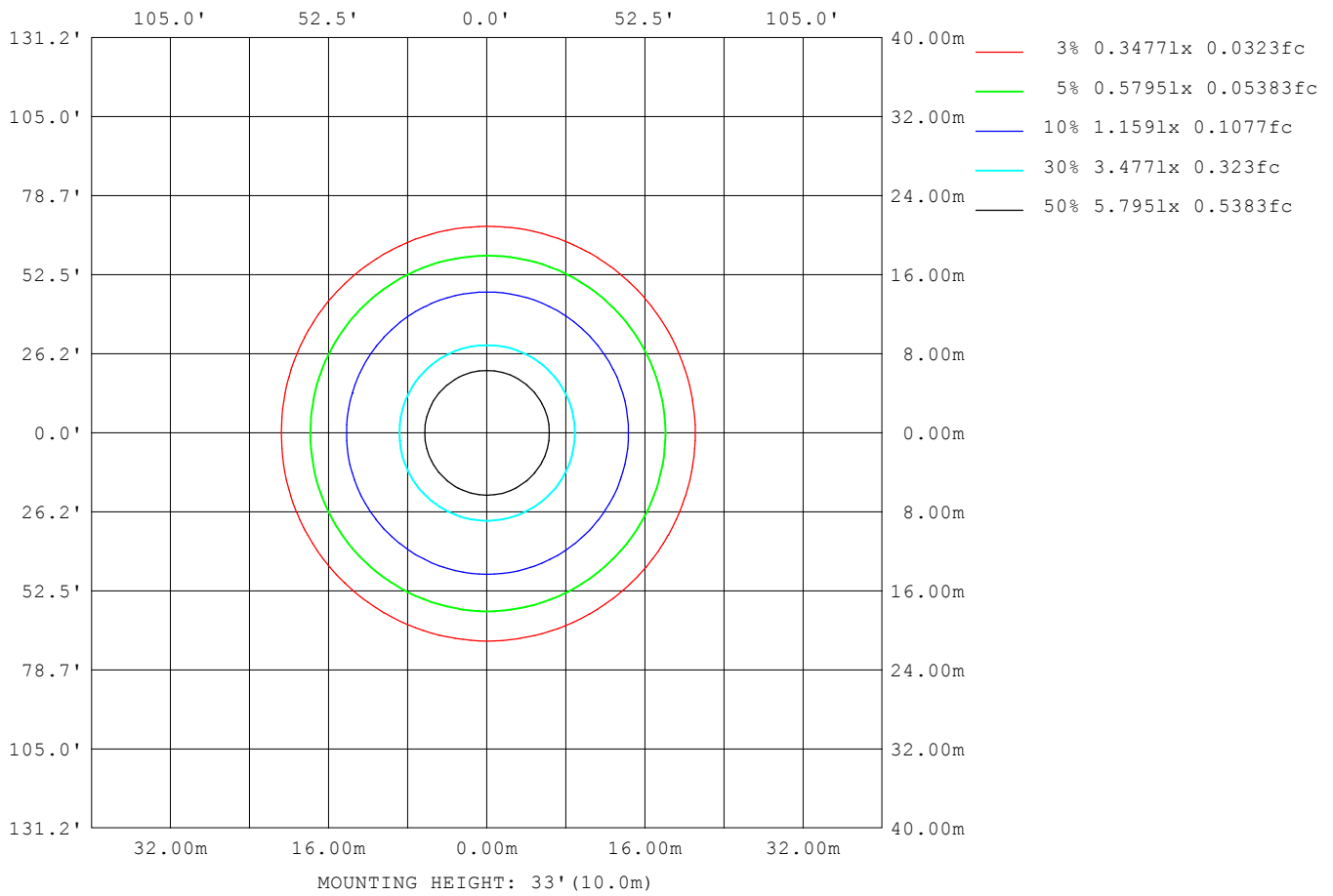
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:King
 Test Date:2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
 Humidity:65.0%
 Test Distance:9.950m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME:VERONA PL3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:King
 Test Date:2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
 Humidity:65.0%
 Test Distance:9.950m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME:VERONA PL3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

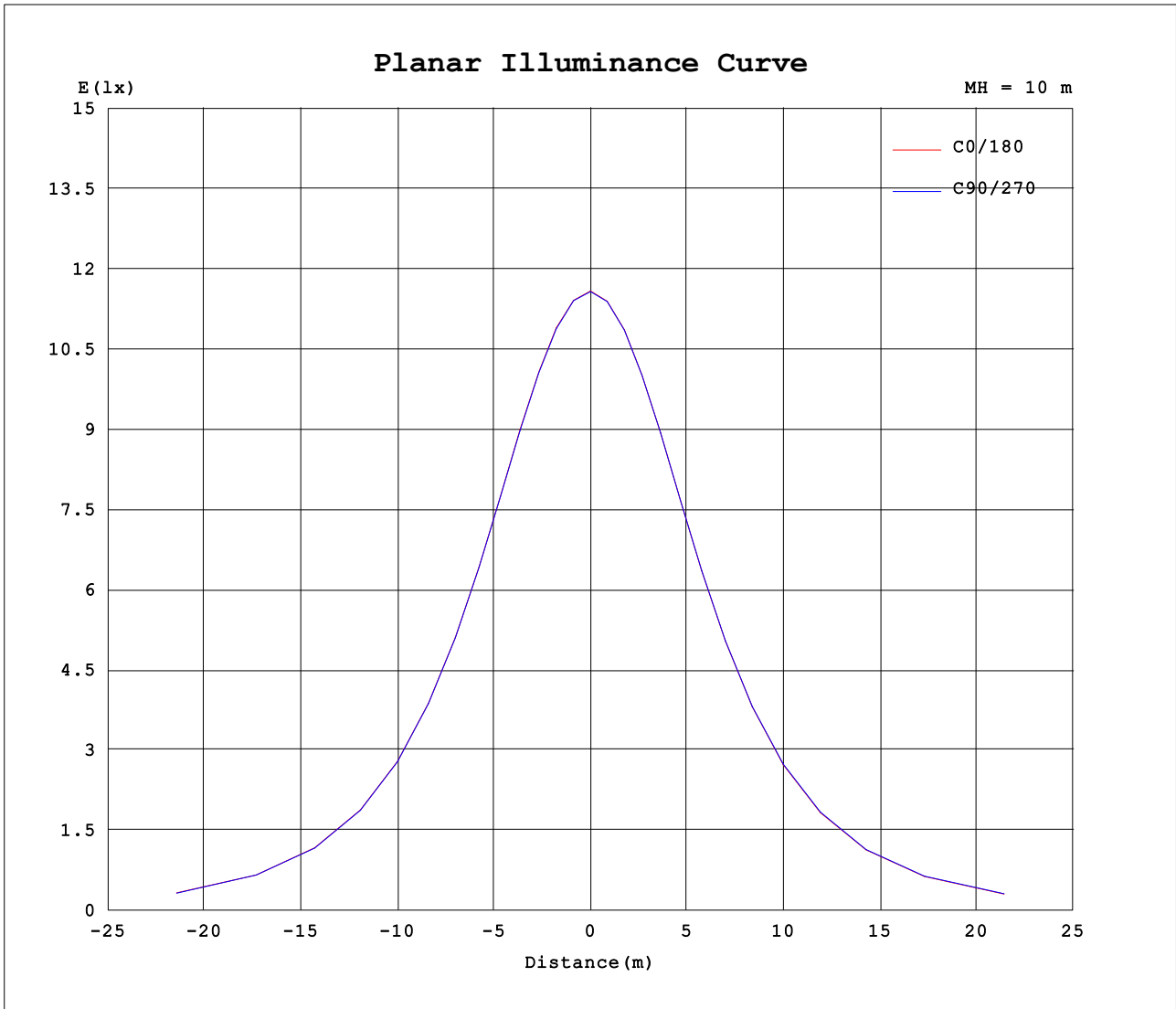
AvgL	cd/m2
L_0~180 (65) av	7478
L_0~180 (75) av	6729
L_0~180 (85) av	5827
L_90~270 (65) av	7545
L_90~270 (75) av	6831
L_90~270 (85) av	6012
L_45 (65) av	7507
L_45 (75) av	6775
L_45 (85) av	5912

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:King
Test Date:2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
Humidity:65.0%
Test Distance:9.950m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: King
 Test Date: 2023-06-08

γ Range: 0 - 120DEG
 γ Interval: 5.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.404.6
 Humidity: 65.0%
 Test Distance: 9.950m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.25V I:0.1596A P:34.183W PF:0.9725 Freq:49.99Hz Lamp Flux:3386x1 lm		
NAME:VERONA PL3060-160100	TYPE:LED	WEIGHT:
SPEC.:6500K	DIM.:	SERIAL No.:01
MANUFACTURE:BBT LIGHTING	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	1158	1158	1158	1158															
5	1154	1154	1152	1153															
10	1140	1140	1137	1137															
15	1116	1116	1111	1111															
20	1083	1083	1076	1076															
25	1040	1040	1031	1032															
30	989	989	978	980															
35	929	929	917	919															
40	862	861	848	850															
45	788	787	771	775															
50	707	706	689	693															
55	621	620	601	606															
60	530	531	508	514															
65	435	435	412	420															
70	338	338	315	324															
75	243	244	223	230															
80	153	155	139	143															
85	73.7	75.3	62.4	65.2															
90	7.24	5.14	1.31	1.59															
95	1.27	1.36	1.62	1.73															
100	1.67	1.73	2.08	2.16															
105	2.08	2.16	2.52	2.63															
110	2.50	2.61	2.97	3.15															
115	2.92	3.01	3.42	3.56															
120	3.35	3.47	3.88	4.00															
125	0.00	0.00	0.00	0.00															
130	0.00	0.00	0.00	0.00															
135	0.00	0.00	0.00	0.00															
140	0.00	0.00	0.00	0.00															
145	0.00	0.00	0.00	0.00															
150	0.00	0.00	0.00	0.00															
155	0.00	0.00	0.00	0.00															
160	0.00	0.00	0.00	0.00															
165	0.00	0.00	0.00	0.00															
170	0.00	0.00	0.00	0.00															
175	0.00	0.00	0.00	0.00															
180	0.00	0.00	0.00	0.00															

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