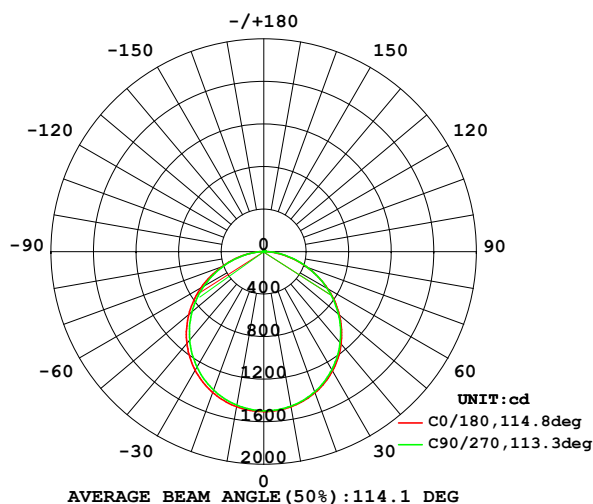


LUMINAIRE PHOTOMETRIC TEST REPORT

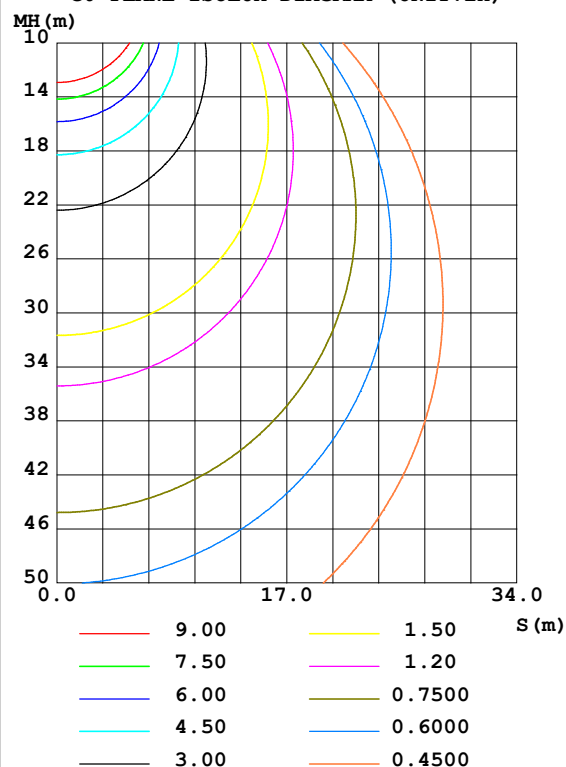
Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 3500K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 113.23 lm/W			
MODEL		I _{max} (cd)	1504	S/MH (C0/180)	1.27
NOMINAL POWER (W)	40	LOR (%)	100.0	S/MH (C90/270)	1.25
RATED VOLTAGE (V)	277	TOTAL FLUX (lm)	4433.6	η UP, DN (C0-180)	0.6, 50.2
NOMINAL FLUX (lm)	4433.61	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.5, 48.8
LAMPS INSIDE	1	η up (%)	1.1	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	277	η down (%)	98.9	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Bonnie
Test Date: 2017-10-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G01900_V2 (N) SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 8.690m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	1481	1475	1480	1466					0- 10	142.0	142.0	3.2,3.2
20	1411	1403	1409	1384					10- 20	407.8	549.9	12.4,12.4
30	1295	1282	1290	1255					20- 30	620.7	1171	26.4,26.4
40	1132	1118	1126	1085					30- 40	752.5	1923	43.4,43.4
50	929.7	916.8	920.8	881.3					40- 50	785.0	2708	61.1,61.1
60	693.6	687.4	682.3	651.0					50- 60	713.3	3421	77.2,77.2
70	436.7	441.6	424.1	406.9					60- 70	547.8	3969	89.5,89.5
80	189.2	203.9	180.3	174.8					70- 80	321.1	4290	96.8,96.8
90	7.737	13.00	4.134	2.459					80- 90	96.39	4387	98.9,98.9
100	4.152	4.070	3.373	3.453					90-100	3.522	4390	99,99
110	6.086	6.005	4.950	5.073					100-110	4.874	4395	99.1,99.1
120	7.989	7.879	6.573	6.751					110-120	6.350	4401	99.3,99.3
130	9.712	9.527	8.369	8.465					120-130	7.330	4409	99.4,99.4
140	11.09	10.88	9.660	9.822					130-140	7.499	4416	99.6,99.6
150	12.01	11.77	10.92	11.14					140-150	6.848	4423	99.8,99.8
160	12.72	12.61	12.27	12.37					150-160	5.535	4429	99.9,99.9
170	13.23	13.22	13.15	13.10					160-170	3.643	4432	100,100
180	13.40	13.37	13.48	13.35					170-180	1.268	4434	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

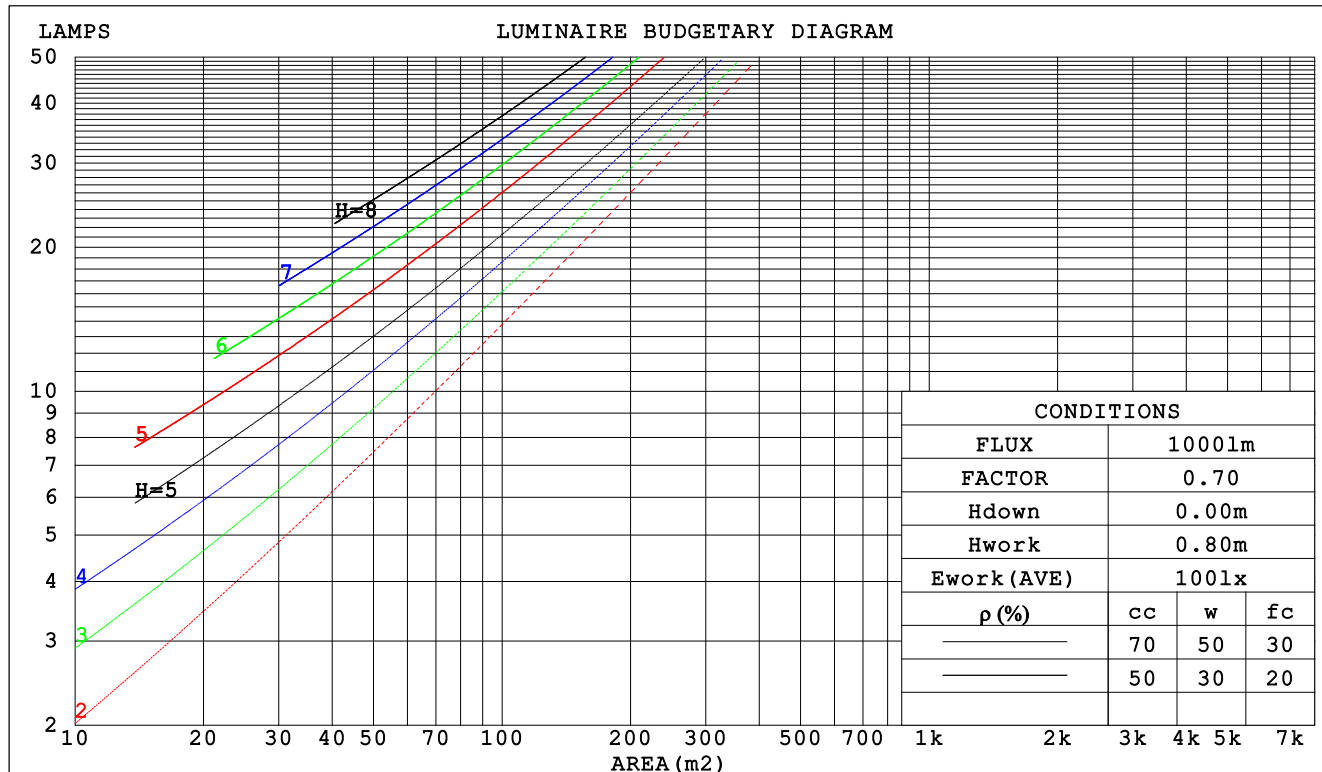
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO1900_V2(N) SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 3500K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	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	1.01	1.01	1.01	.99
1.0	1.03	.99	.95	1.01	.97	.93	.97	.93	.90	.92	.90	.87	.89	.86	.84	.82
2.0	.90	.83	.77	.88	.81	.76	.84	.79	.74	.81	.76	.72	.77	.74	.70	.68
3.0	.79	.70	.64	.77	.69	.63	.74	.67	.62	.71	.65	.61	.68	.64	.60	.57
4.0	.70	.61	.54	.68	.60	.54	.66	.58	.53	.63	.57	.52	.61	.55	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.45	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.40	.51	.44	.39	.49	.43	.39	.37
7.0	.51	.42	.36	.50	.41	.35	.48	.41	.35	.47	.40	.35	.45	.39	.34	.32
8.0	.46	.38	.32	.45	.37	.32	.44	.37	.31	.43	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO1900_V2(N) SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm					
NAME: LED panel light			TYPE:		WEIGHT:
SPEC.:PL603X603 40W 3500K			DIM.:		SERIAL No.:1
MFR.:			SUR.:		Shielding Angle:

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.315	.179	.057	.307	.175	.056	.293	.168	.054	.281	.162	.052	.269	.156	.050		
2.0	.295	.162	.050	.288	.159	.049	.276	.153	.048	.265	.149	.046	.254	.144	.045		
3.0	.272	.145	.043	.266	.143	.043	.256	.138	.042	.245	.135	.041	.236	.131	.040		
4.0	.251	.130	.038	.246	.129	.038	.236	.125	.037	.227	.122	.037	.219	.119	.036		
5.0	.232	.118	.034	.227	.117	.034	.218	.114	.033	.210	.111	.033	.203	.108	.033		
6.0	.215	.108	.031	.211	.106	.031	.203	.104	.030	.196	.102	.030	.189	.099	.030		
7.0	.200	.099	.028	.196	.098	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027		
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025		
9.0	.175	.084	.024	.172	.084	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023		
10.0	.164	.079	.022	.161	.078	.022	.156	.077	.022	.152	.075	.021	.147	.074	.021		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.199	.199	.199	.170	.170	.170	.116	.116	.116	.067	.067	.067	.021	.021	.021	
1.0	.189	.164	.142	.162	.141	.122	.110	.097	.085	.064	.056	.049	.020	.018	.016	
2.0	.181	.140	.106	.155	.121	.091	.106	.083	.064	.061	.049	.037	.020	.016	.012	
3.0	.173	.123	.082	.148	.106	.071	.102	.073	.050	.059	.043	.029	.019	.014	.010	
4.0	.166	.109	.066	.142	.094	.058	.098	.066	.041	.056	.039	.024	.018	.013	.008	
5.0	.158	.099	.055	.136	.086	.048	.094	.060	.034	.054	.035	.020	.017	.011	.007	
6.0	.151	.091	.047	.130	.078	.041	.089	.055	.029	.052	.032	.017	.017	.011	.006	
7.0	.144	.084	.041	.124	.073	.036	.086	.051	.026	.050	.030	.015	.016	.010	.005	
8.0	.138	.078	.037	.118	.068	.032	.082	.047	.023	.048	.028	.014	.015	.009	.005	
9.0	.131	.073	.033	.113	.063	.029	.078	.045	.021	.046	.026	.012	.015	.009	.004	
10.0	.126	.069	.031	.108	.060	.027	.075	.042	.019	.044	.025	.011	.014	.008	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G01900_V2(N) SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm											
NAME: LED panel light					TYPE:			WEIGHT:			
SPEC.:PL603X603 40W 3500K					DIM.:			SERIAL No.:1			
MFR.:					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	2H	17.7	19.2	17.9	19.4	19.6	17.6	19.1	17.9	19.4	19.6
	3H	19.2	20.6	19.5	20.9	21.1	19.2	20.6	19.5	20.9	21.1
	4H	19.8	21.2	20.2	21.4	21.7	19.9	21.2	20.2	21.5	21.8
	6H	20.3	21.6	20.6	21.8	22.2	20.4	21.6	20.7	21.9	22.2
	8H	20.5	21.7	20.8	22.0	22.3	20.6	21.8	20.9	22.1	22.4
	12H	20.5	21.7	20.9	22.0	22.4	20.7	21.9	21.1	22.2	22.5
4H	2H	18.3	19.6	18.6	19.9	20.2	18.2	19.6	18.6	19.8	20.1
	3H	20.0	21.2	20.4	21.5	21.8	20.0	21.2	20.4	21.5	21.8
	4H	20.8	21.8	21.2	22.2	22.5	20.8	21.9	21.2	22.2	22.6
	6H	21.4	22.3	21.8	22.7	23.1	21.5	22.4	21.9	22.8	23.2
	8H	21.6	22.5	22.0	22.8	23.3	21.7	22.6	22.1	23.0	23.4
	12H	21.7	22.5	22.2	22.9	23.4	21.9	22.7	22.3	23.1	23.5
8H	4H	21.1	21.9	21.5	22.3	22.7	21.1	22.0	21.5	22.4	22.8
	6H	21.8	22.6	22.3	23.0	23.4	21.9	22.6	22.4	23.1	23.5
	8H	22.1	22.8	22.6	23.2	23.7	22.2	22.9	22.7	23.3	23.8
	12H	22.4	22.9	22.8	23.4	23.9	22.5	23.1	23.0	23.6	24.1
12H	4H	21.1	21.9	21.5	22.3	22.7	21.1	21.9	21.6	22.3	22.8
	6H	21.9	22.5	22.4	23.0	23.5	22.0	22.6	22.4	23.1	23.5
	8H	22.2	22.8	22.7	23.3	23.8	22.4	22.9	22.9	23.4	23.9
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	+ 0.1 / - 0.3					+ 0.1 / - 0.3					

CIE Pub.117 Corrected 4434 lm Total Lamp Luminous Flux. (8log(F/F0) = 5.2)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO1900_V2(N) SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 3500K	DIM.:	SERIAL No.:1
MFR.:	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	44	38	31
0.80	67	55	48	66	55	47	64	54	47	40
1.00	75	64	57	74	63	56	72	65	56	48
1.25	82	72	64	81	71	64	78	69	63	56
1.50	87	77	70	86	76	70	82	74	68	61
2.00	94	86	79	92	84	78	89	82	77	68
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	99	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	94	91	82
5.00	108	103	99	106	101	97	101	97	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: Bonnie
 Test Date: 2017-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO1900_V2 (N) SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 8.690m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 3500K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:

Conical surface Flux(90deg):

2318.1 lm

%lum = 52.3%

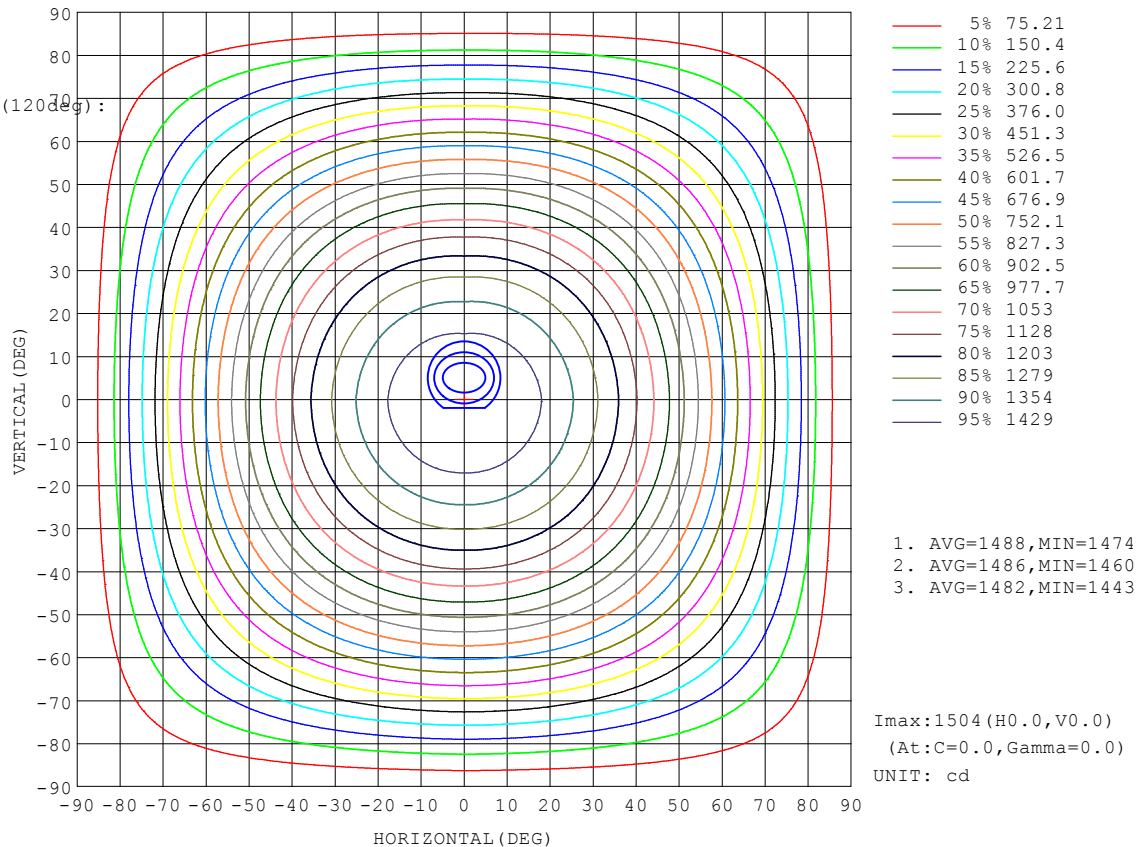
%lamp = 52.3%

Conical surface Flux(120deg):

3421.4 lm

%lum = 77.2%

%lamp = 77.2%

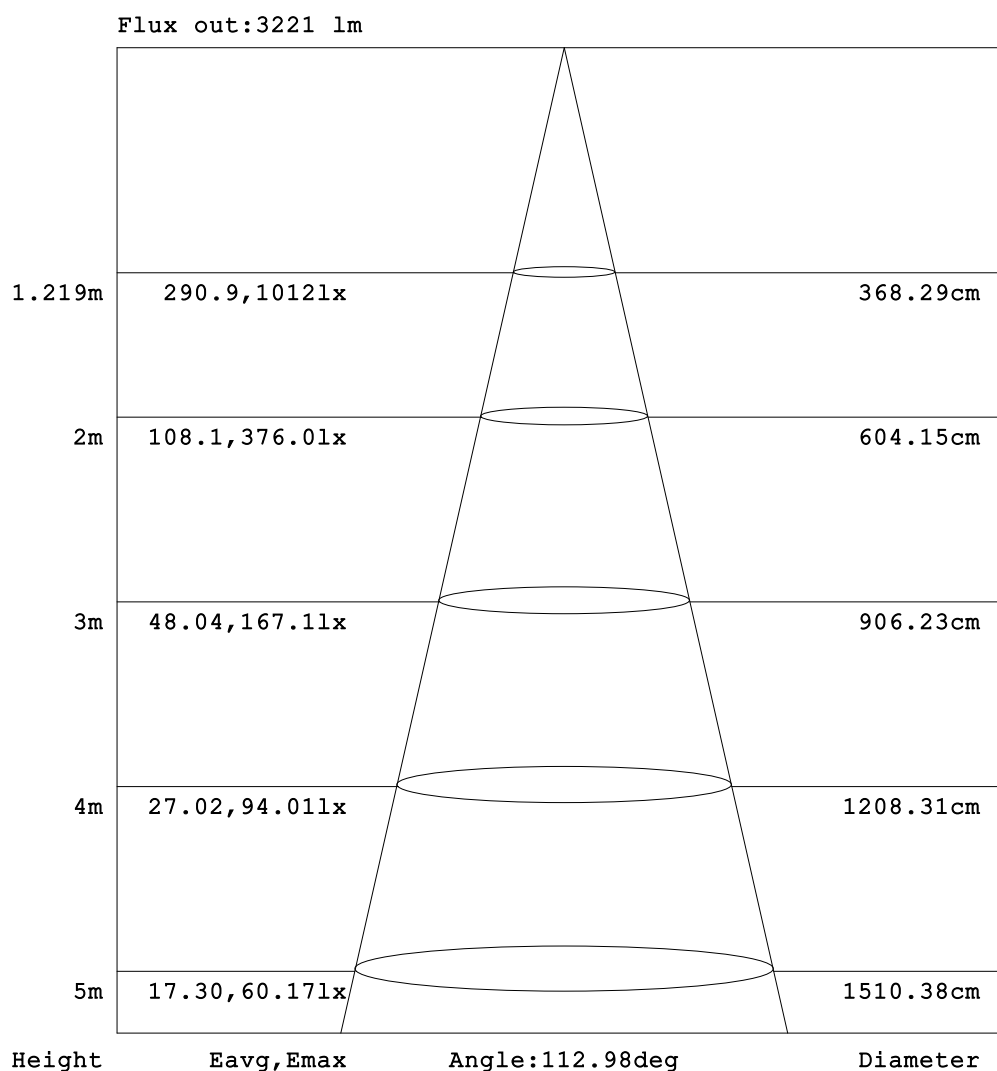


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Bonnie
Test Date:2017-10-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G01900_V2(N) SYSTEM V2.0.295
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

AAI Figure

Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 3500K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:



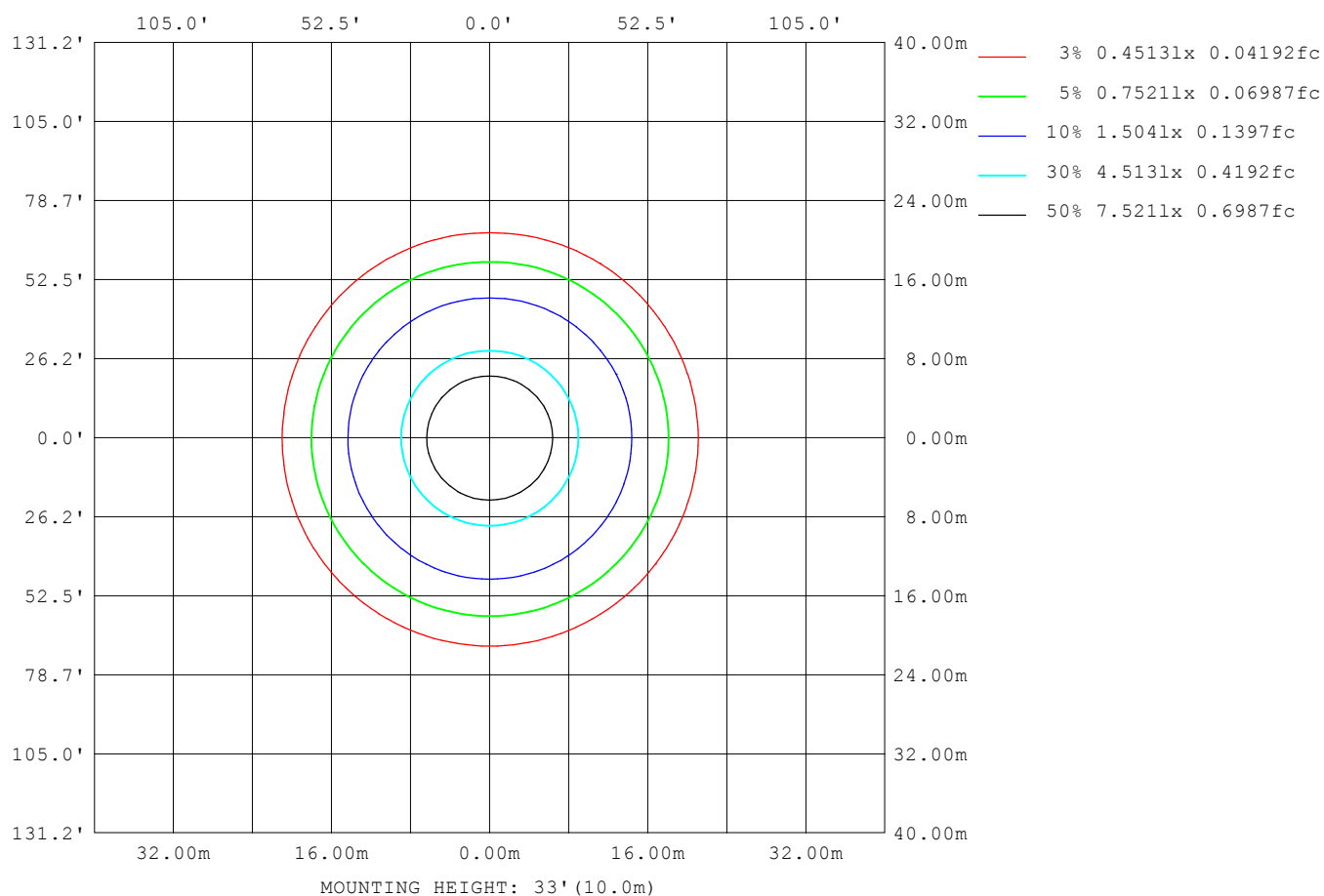
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Bonnie
 Test Date: 2017-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO1900_V2(N) SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 8.690m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 3500K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO1900_V2(N) SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 3500K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:

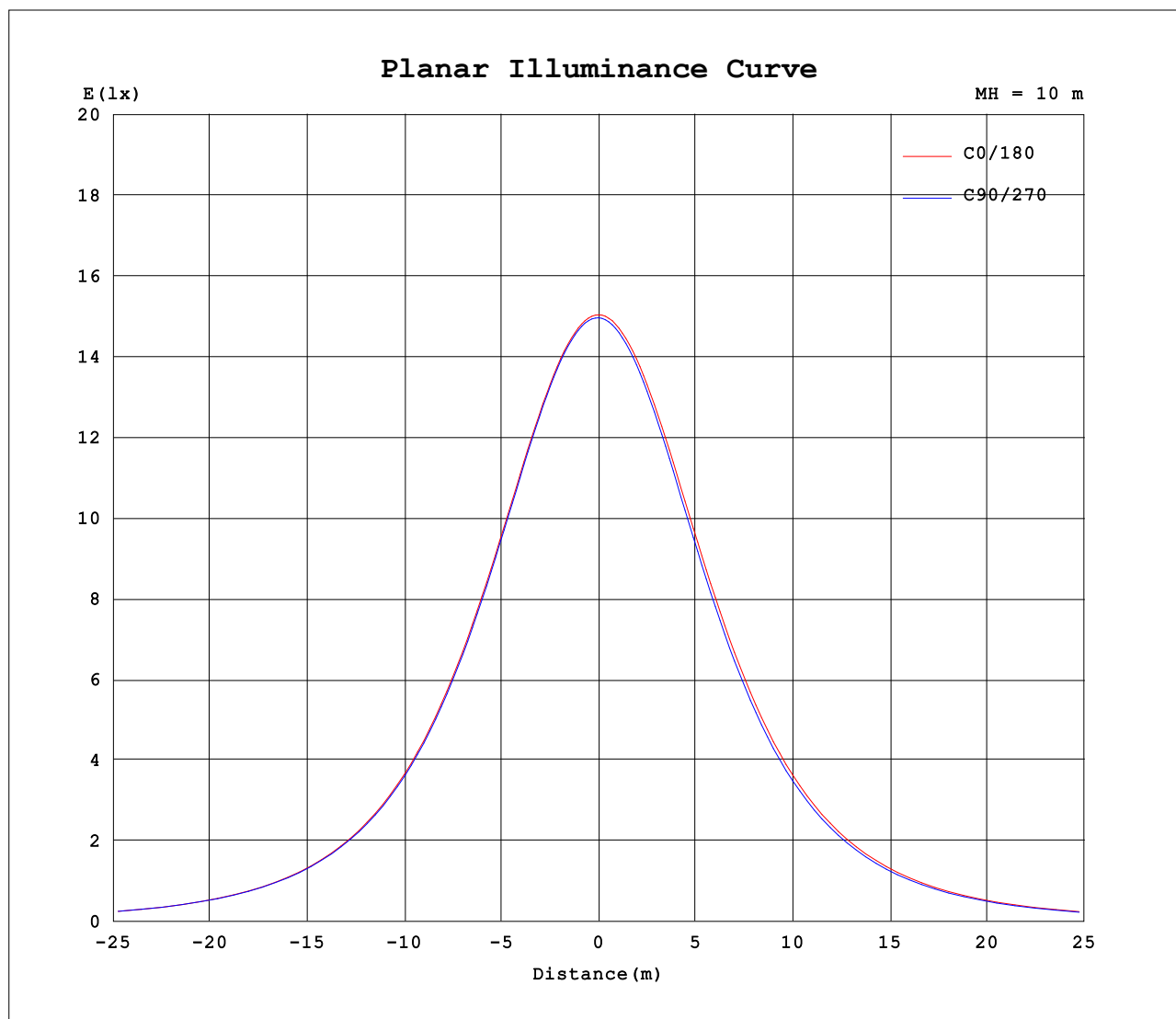
AvgL	cd/m2
L_0~180 (65) av	3683
L_0~180 (75) av	3252
L_0~180 (85) av	2629
L_90~270 (65) av	3599
L_90~270 (75) av	3256
L_90~270 (85) av	2806
L_45 (65) av	3628
L_45 (75) av	3250
L_45 (85) av	2733

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Bonnie
Test Date:2017-10-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO1900_V2(N) SYSTEM V2.0.295
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Bonnie
Test Date: 2017-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO1900_V2 (N) SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 8.690m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:277.8V I:0.1493A P:39.16W PF:0.9439 Lamp Flux:4433.61x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 3500K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	1504	1497	1504	1497															
5	1499	1493	1498	1488															
10	1481	1475	1480	1466															
15	1452	1445	1450	1431															
20	1411	1403	1409	1384															
25	1359	1348	1355	1325															
30	1295	1282	1290	1255															
35	1219	1205	1213	1175															
40	1132	1118	1126	1085															
45	1036	1021	1028	987															
50	930	917	921	881															
55	815	805	805	769															
60	694	687	682	651															
65	567	565	554	530															
70	437	442	424	407															
75	309	320	297	287															
80	189	204	180	175															
85	86.3	100	78.7	75.8															
90	7.74	13.0	4.13	2.46															
95	3.21	3.16	2.63	2.73															
100	4.15	4.07	3.37	3.45															
105	5.11	5.05	4.15	4.25															
110	6.09	6.01	4.95	5.07															
115	7.03	6.96	5.74	5.89															
120	7.99	7.88	6.57	6.75															
125	8.90	8.76	7.48	7.66															
130	9.71	9.53	8.37	8.47															
135	10.5	10.2	9.01	9.14															
140	11.1	10.9	9.66	9.82															
145	11.6	11.3	10.3	10.5															
150	12.0	11.8	10.9	11.1															
155	12.4	12.2	11.6	11.8															
160	12.7	12.6	12.3	12.4															
165	13.0	13.0	12.8	12.9															
170	13.2	13.2	13.2	13.1															
175	13.3	13.3	13.4	13.3															
180	13.4	13.4	13.5	13.3															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO1900_V2(N) SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks: