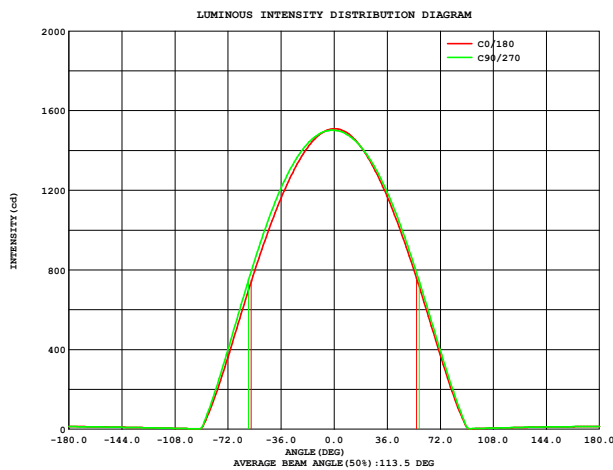


LUMINAIRE PHOTOMETRIC TEST REPORT

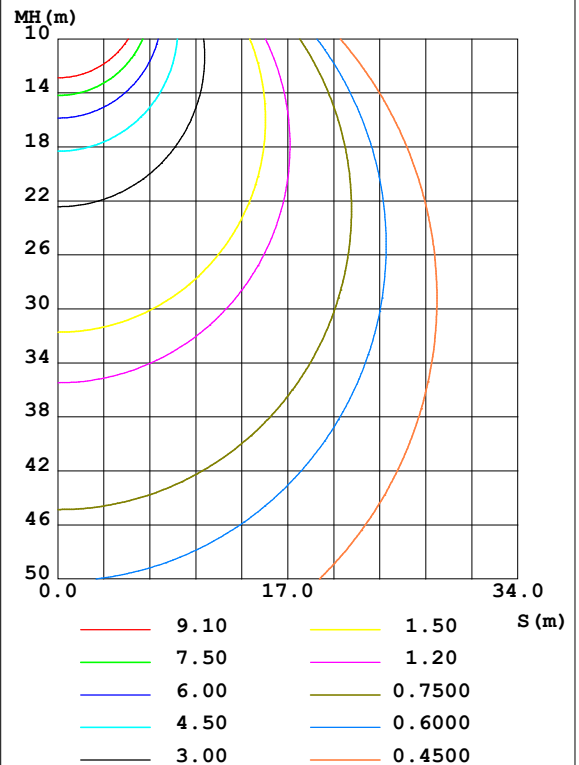
Test:U:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 5000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 115.53 lm/W			
MODEL		Imax(cd)	1510	S/MH(C0/180)	1.24
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	4441.4	η UP,DN(C0-180)	0.6,49.5
NOMINAL FLUX(lm)	4441.35	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.5,49.4
LAMPS INSIDE	1	η up(%)	1.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	99.0	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: 2017-07-01

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum,lamp
10	1482	1475	1479	1483					0- 10	142.5	142.5	3.21,3.21
20	1400	1402	1394	1417					10- 20	408.6	551.1	12.4,12.4
30	1267	1284	1260	1303					20- 30	620.5	1172	26.4,26.4
40	1096	1121	1086	1140					30- 40	750.3	1922	43.3,43.3
50	892.1	919.7	880.9	936.0					40- 50	781.1	2703	60.9,60.9
60	663.3	690.1	651.9	700.8					50- 60	710.0	3413	76.8,76.8
70	421.4	446.2	409.6	449.3					60- 70	548.8	3962	89.2,89.2
80	190.1	210.3	179.7	205.7					70- 80	328.9	4291	96.6,96.6
90	9.354	10.94	4.634	5.274					80- 90	104.5	4395	99,99
100	4.038	4.335	3.309	3.287					90-100	3.532	4399	99,99
110	5.847	6.229	4.889	4.849					100-110	4.847	4404	99.2,99.2
120	7.678	8.127	6.410	6.359					110-120	6.243	4410	99.3,99.3
130	9.420	9.817	8.108	7.966					120-130	7.167	4417	99.5,99.5
140	10.82	11.04	9.406	9.297					130-140	7.349	4424	99.6,99.6
150	11.87	12.11	10.71	10.36					140-150	6.714	4431	99.8,99.8
160	12.65	12.76	12.09	11.70					150-160	5.433	4437	99.9,99.9
170	13.19	13.07	12.96	12.66					160-170	3.587	4440	100,100
180	13.28	13.04	13.28	13.01					170-180	1.247	4441	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

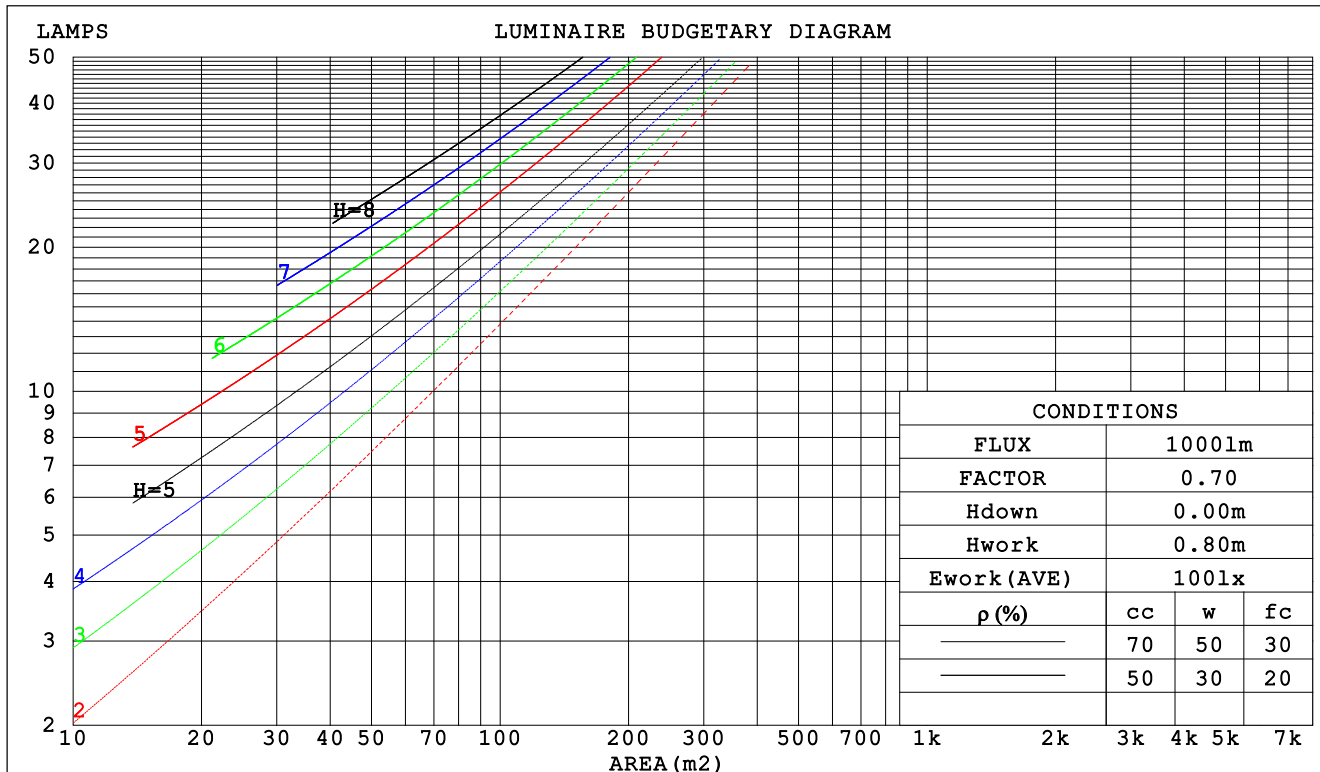
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-07-01

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:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 5000K	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	.96	.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	.63	.59	.57
4.0	.70	.61	.54	.68	.60	.53	.65	.58	.52	.63	.57	.52	.61	.55	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.45	.56	.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	.35	.50	.41	.35	.48	.40	.35	.46	.40	.35	.45	.39	.34	.32
8.0	.46	.38	.32	.45	.37	.31	.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	.25	.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:2017-07-01

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:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm					
NAME: LED panel light			TYPE:		WEIGHT:
SPEC.:PL603X603 40W 5000K			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	.317	.180	.057	.310	.177	.056	.296	.170	.054	.283	.163	.052	.271	.157	.051		
2.0	.296	.162	.050	.290	.160	.049	.277	.154	.048	.266	.149	.047	.256	.145	.046		
3.0	.273	.145	.044	.267	.143	.043	.256	.139	.042	.246	.135	.041	.237	.131	.041		
4.0	.251	.131	.038	.246	.129	.038	.237	.125	.037	.228	.122	.037	.219	.119	.036		
5.0	.232	.118	.034	.227	.117	.034	.219	.114	.034	.211	.111	.033	.203	.109	.033		
6.0	.215	.108	.031	.211	.107	.031	.203	.104	.030	.196	.102	.030	.189	.100	.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	.162	.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	.198	.198	.198	.170	.170	.170	.116	.116	.116	.066	.066	.066	.021	.021	.021	
1.0	.189	.164	.142	.162	.141	.122	.110	.097	.084	.064	.056	.049	.020	.018	.016	
2.0	.181	.140	.105	.155	.120	.091	.106	.083	.064	.061	.048	.037	.020	.016	.012	
3.0	.173	.122	.082	.148	.106	.071	.102	.073	.050	.059	.043	.029	.019	.014	.010	
4.0	.166	.109	.066	.142	.094	.057	.098	.066	.040	.057	.038	.024	.018	.013	.008	
5.0	.158	.099	.055	.136	.085	.048	.093	.060	.034	.054	.035	.020	.017	.011	.007	
6.0	.151	.090	.047	.130	.078	.041	.089	.055	.029	.052	.032	.017	.017	.011	.006	
7.0	.144	.084	.041	.124	.072	.036	.086	.051	.025	.050	.030	.015	.016	.010	.005	
8.0	.137	.078	.037	.118	.067	.032	.082	.047	.023	.048	.028	.014	.015	.009	.004	
9.0	.131	.073	.033	.113	.063	.029	.078	.044	.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:2017-07-01

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:

UGR(Unified Glare Rating) Table

Test:U:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm										
NAME: LED panel light					TYPE:			WEIGHT:		
SPEC.:PL603X603 40W 5000K					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	20.2	21.8	20.5	22.0	22.2	20.4	21.9	20.7	22.1	22.4
3H	21.8	23.2	22.1	23.5	23.7	22.0	23.4	22.3	23.7	23.9
4H	22.4	23.8	22.8	24.1	24.3	22.7	24.0	23.0	24.3	24.6
6H	22.9	24.2	23.3	24.5	24.8	23.2	24.5	23.6	24.8	25.1
8H	23.1	24.3	23.5	24.6	24.9	23.4	24.6	23.8	24.9	25.3
12H	23.2	24.4	23.6	24.7	25.0	23.6	24.7	23.9	25.1	25.4
4H 2H	20.9	22.2	21.2	22.5	22.8	21.0	22.3	21.3	22.6	22.9
3H	22.6	23.8	23.0	24.1	24.4	22.8	24.0	23.2	24.3	24.6
4H	23.4	24.5	23.8	24.8	25.2	23.6	24.7	24.0	25.0	25.4
6H	24.0	25.0	24.4	25.4	25.7	24.3	25.2	24.7	25.6	26.0
8H	24.3	25.2	24.7	25.5	25.9	24.6	25.4	25.0	25.8	26.2
12H	24.4	25.3	24.9	25.7	26.1	24.8	25.6	25.2	26.0	26.4
8H 4H	23.7	24.6	24.1	25.0	25.4	23.9	24.8	24.3	25.2	25.6
6H	24.5	25.2	25.0	25.7	26.1	24.7	25.5	25.2	25.9	26.4
8H	24.8	25.5	25.3	25.9	26.4	25.1	25.8	25.6	26.2	26.7
12H	25.1	25.7	25.6	26.1	26.6	25.4	26.0	25.9	26.5	27.0
12H 4H	23.7	24.6	24.2	25.0	25.4	23.9	24.7	24.4	25.1	25.6
6H	24.6	25.2	25.1	25.7	26.2	24.8	25.5	25.3	25.9	26.4
8H	25.0	25.5	25.5	26.0	26.5	25.2	25.8	25.7	26.3	26.8
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 4441 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:2017-07-01

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:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 5000K	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	56	74	63	56	71	65	56	48
1.25	82	72	64	81	71	64	78	69	63	55
1.50	87	77	70	85	76	69	82	74	68	61
2.00	94	85	79	92	84	78	89	82	76	68
2.50	98	90	84	96	89	83	92	86	81	72
3.00	102	94	89	99	93	88	95	90	85	76
4.00	106	100	95	103	98	93	99	94	91	81
5.00	108	103	99	106	101	97	101	97	94	84
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: 2017-07-01

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:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 5000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:

Conical surface Flux(90deg):

2315.1 lm

%lum = 52.1%

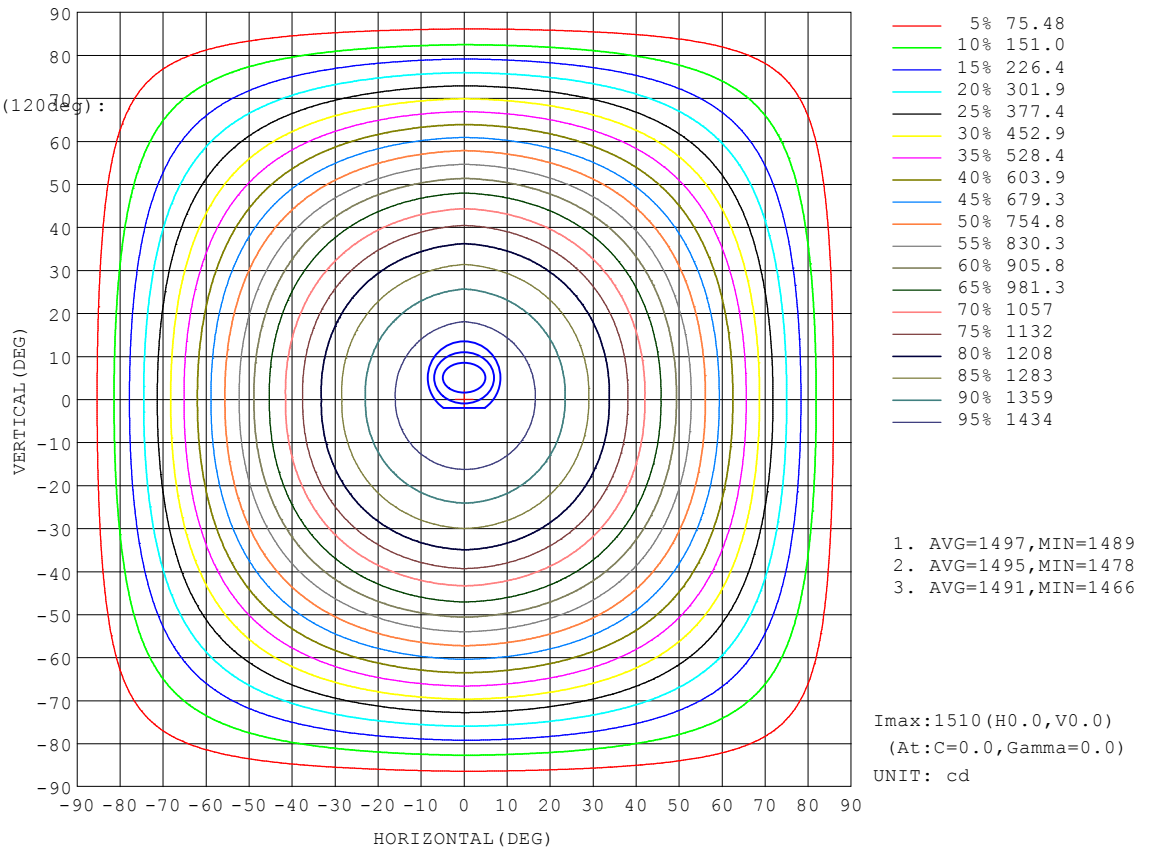
%lamp = 52.1%

Conical surface Flux(120deg):

3413 lm

%lum = 76.8%

%lamp = 76.8%

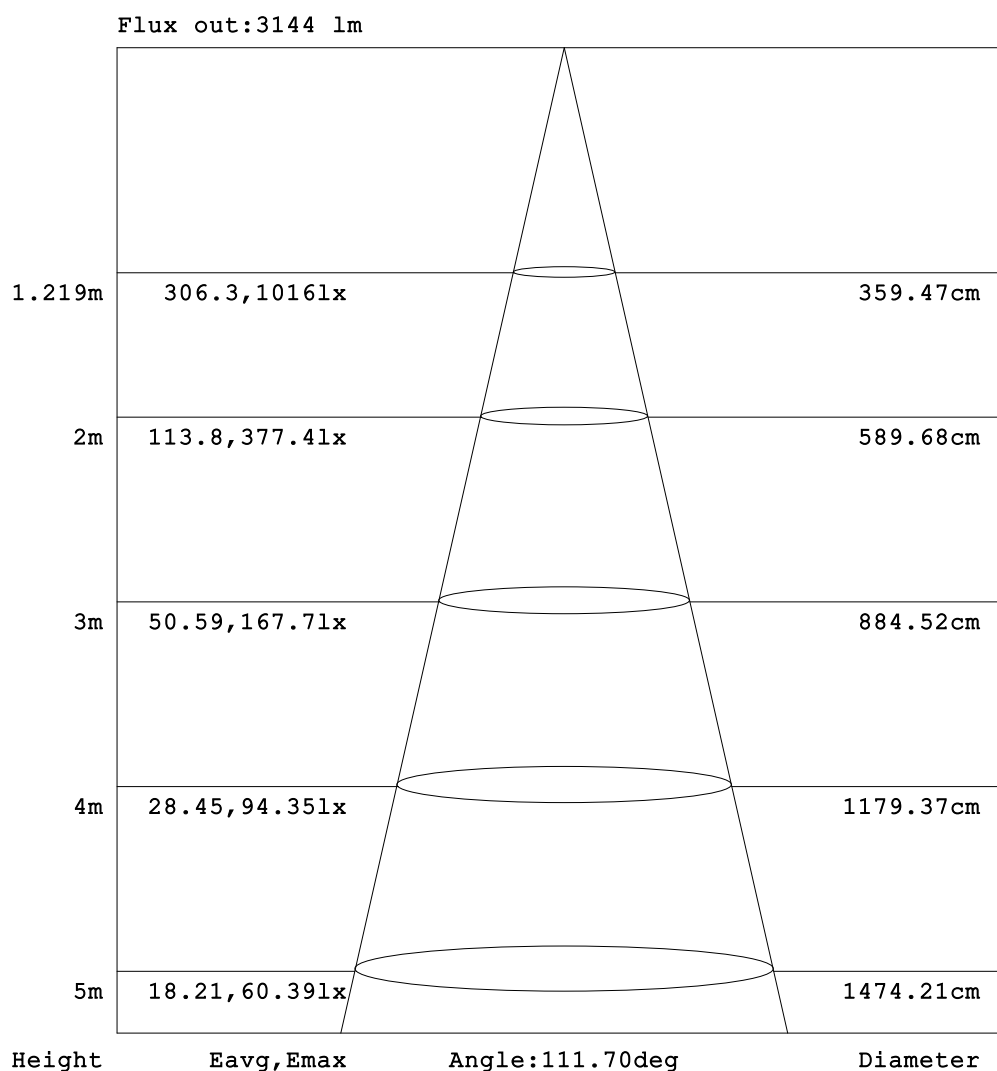


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Bonnie
Test Date:2017-07-01

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:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 5000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:



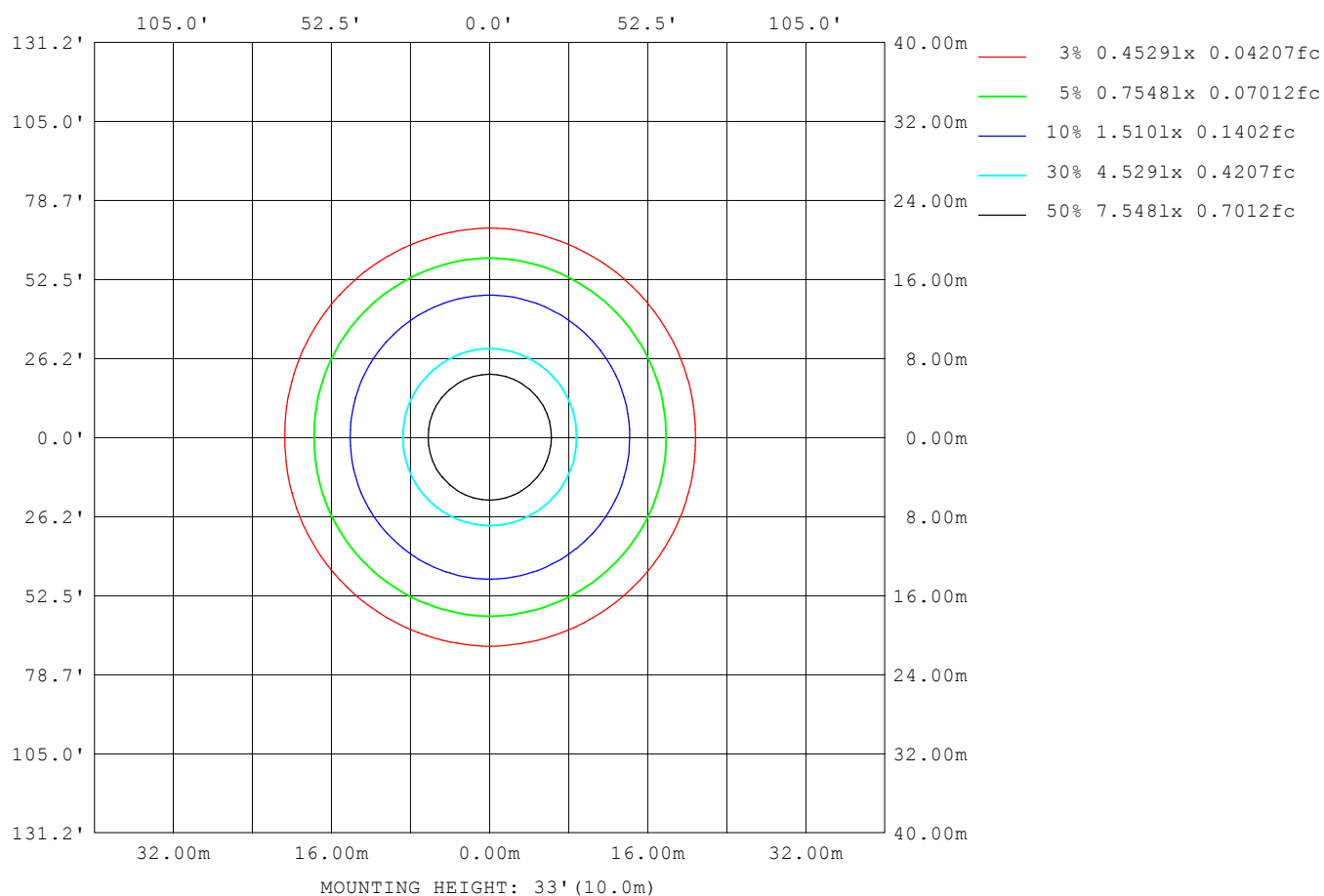
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Bonnie
 Test Date: 2017-07-01

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:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 5000K	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:2017-07-01

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:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 5000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:

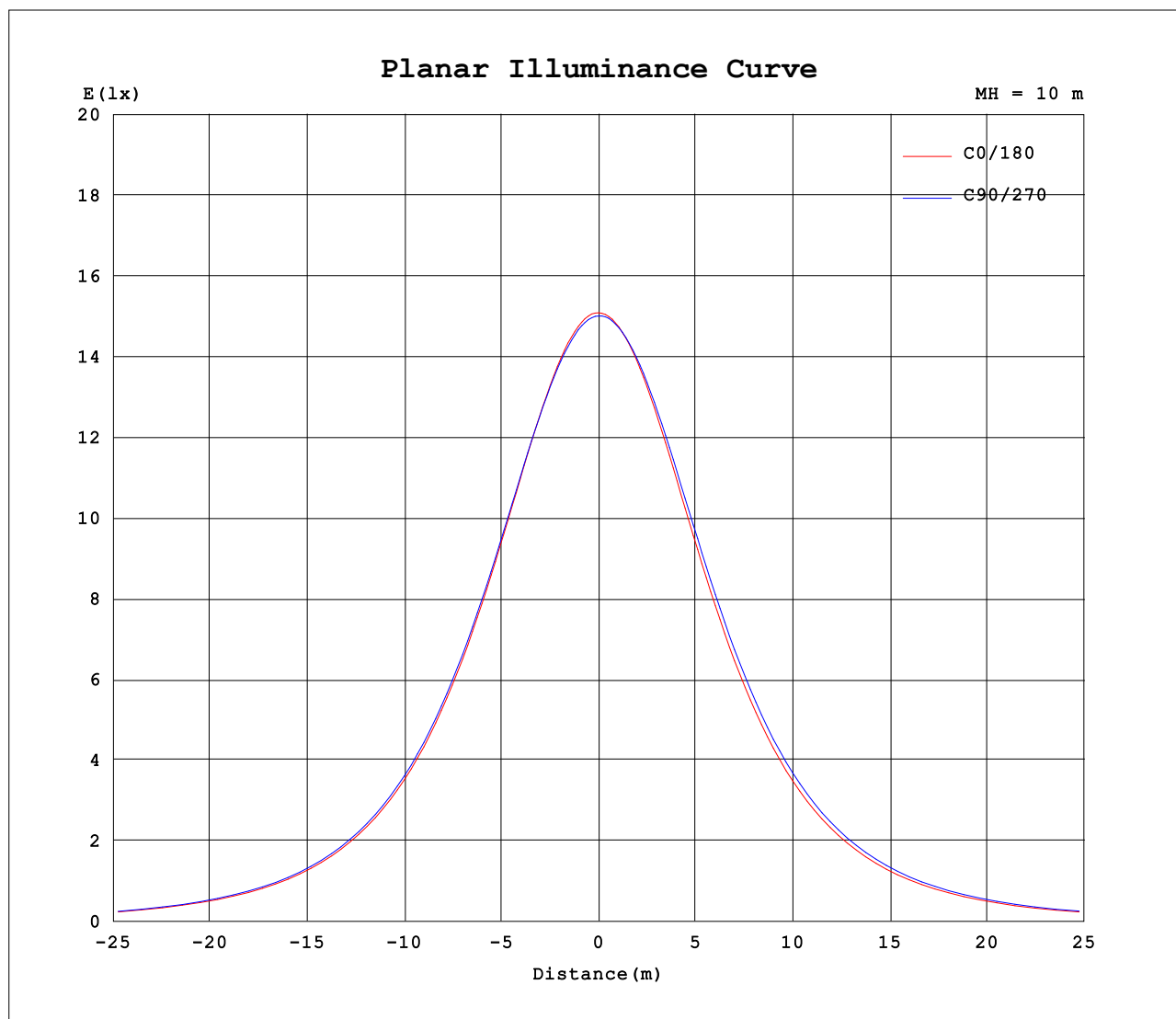
AvgL	cd/m2
L_0~180 (65) av	7946
L_0~180 (75) av	7158
L_0~180 (85) av	6170
L_90~270 (65) av	8464
L_90~270 (75) av	7851
L_90~270 (85) av	7212
L_45 (65) av	8264
L_45 (75) av	7582
L_45 (85) av	6800

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-07-01

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: 2017-07-01

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:120.3V I:0.3253A P:38.44W PF:0.9827 Lamp Flux:4441.35x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X603 40W 5000K	DIM.:	SERIAL No.:1
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	1510	1502	1510	1502															
5	1503	1494	1501	1498															
10	1482	1475	1479	1483															
15	1447	1444	1443	1457															
20	1400	1402	1394	1417															
25	1339	1349	1332	1366															
30	1267	1284	1260	1303															
35	1187	1207	1177	1227															
40	1096	1121	1086	1140															
45	998	1025	987	1043															
50	892	920	881	936															
55	780	808	769	821															
60	663	690	652	701															
65	543	569	531	576															
70	421	446	410	449															
75	302	325	290	325															
80	190	210	180	206															
85	90.7	105	81.4	96.6															
90	9.35	10.9	4.63	5.27															
95	3.16	3.42	2.60	2.58															
100	4.04	4.33	3.31	3.29															
105	4.94	5.27	4.08	4.06															
110	5.85	6.23	4.89	4.85															
115	6.78	7.18	5.65	5.62															
120	7.68	8.13	6.41	6.36															
125	8.64	9.01	7.30	7.13															
130	9.42	9.82	8.11	7.97															
135	10.2	10.5	8.74	8.69															
140	10.8	11.0	9.41	9.30															
145	11.4	11.6	10.0	9.79															
150	11.9	12.1	10.7	10.4															
155	11.2	12.5	11.4	11.0															
160	12.7	12.8	12.1	11.7															
165	13.0	13.0	12.6	12.3															
170	13.2	13.1	13.0	12.7															
175	13.3	13.1	13.2	12.9															
180	13.3	13.0	13.3	13.0															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-07-01

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: