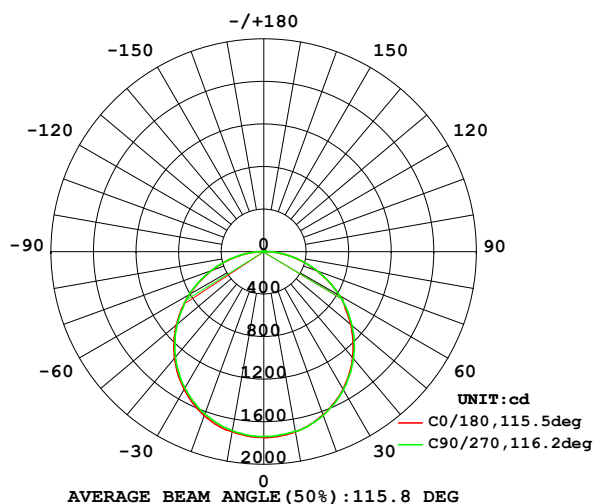


LUMINAIRE PHOTOMETRIC TEST REPORT

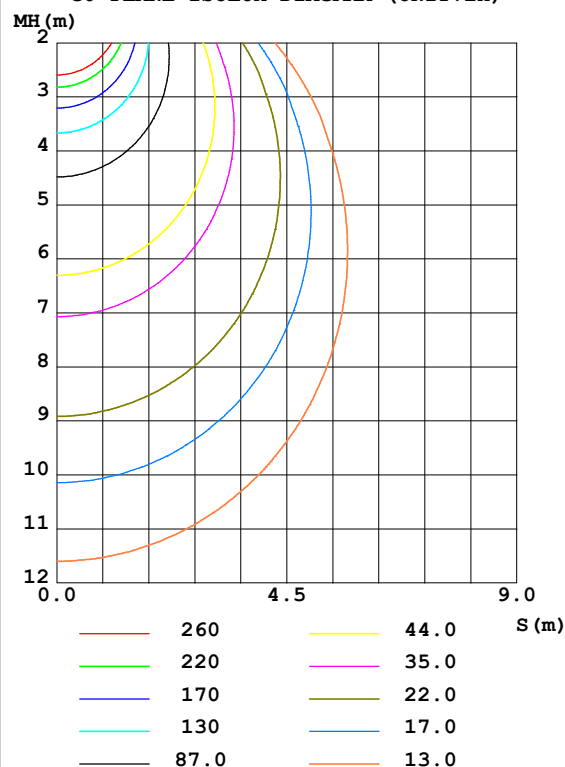
Test:U:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X1213 50W 5000K	DIM.:	SERIAL No.:01
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 112.18 lm/W			
MODEL		I _{max} (cd)	1749	S/MH (C0/180)	1.27
NOMINAL POWER (W)	50	LOR (%)	100.0	S/MH (C90/270)	1.27
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	5270.4	η UP, DN (C0-180)	0.5, 49.8
NOMINAL FLUX (lm)	5270.41	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.4, 49.3
LAMPS INSIDE	1	η up (%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	η down (%)	99.1	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: 2017-10-12

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	1720	1716	1718	1709					0- 10	165.0	165.0	3.13,3.13
20	1633	1637	1640	1623					10- 20	475.1	640.2	12.1,12.1
30	1492	1498	1497	1482					20- 30	723.4	1364	25.9,25.9
40	1300	1312	1306	1293					30- 40	877.9	2241	42.5,42.5
50	1069	1084	1073	1062					40- 50	919.3	3161	60,60
60	818.3	821.6	807.1	814.2					50- 60	845.1	4006	76,76
70	534.5	539.5	522.6	530.3					60- 70	667.4	4673	88.7,88.7
80	255.4	260.1	243.3	250.7					70- 80	412.0	5085	96.5,96.5
90	13.62	15.59	7.528	8.183					80- 90	137.3	5223	99.1,99.1
100	4.909	5.035	3.946	4.233					90-100	4.550	5227	99.2,99.2
110	6.785	6.688	5.497	5.723					100-110	5.664	5233	99.3,99.3
120	8.469	7.811	6.905	6.930					110-120	6.822	5240	99.4,99.4
130	10.04	8.789	8.538	8.208					120-130	7.370	5247	99.6,99.6
140	11.10	9.705	9.479	9.496					130-140	7.288	5254	99.7,99.7
150	11.78	10.39	10.75	10.33					140-150	6.519	5261	99.8,99.8
160	12.29	10.92	11.76	10.95					150-160	5.161	5266	99.9,99.9
170	12.49	11.32	12.30	11.29					160-170	3.310	5269	100,100
180	12.48	11.49	12.53	11.42					170-180	1.137	5270	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

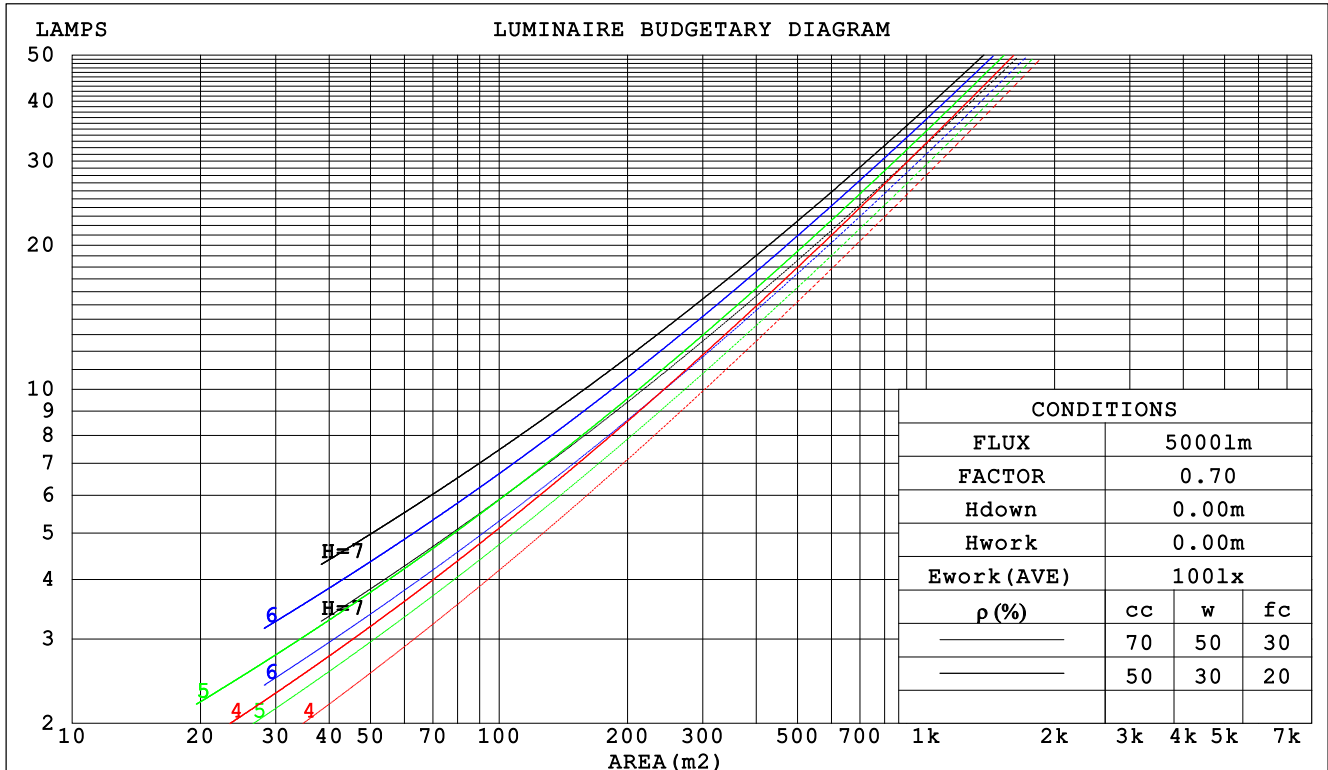
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-12

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:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X1213 50W 5000K	DIM.:	SERIAL No.:01
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	.98	.94	1.01	.97	.93	.96	.93	.90	.92	.89	.87	.88	.86	.84	.82
2.0	.89	.82	.76	.87	.81	.75	.84	.78	.73	.80	.76	.72	.77	.73	.70	.68
3.0	.78	.70	.63	.77	.69	.62	.73	.67	.61	.70	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.62	.52	.46	.60	.52	.45	.58	.51	.45	.56	.49	.44	.54	.48	.44	.41
6.0	.55	.46	.40	.54	.46	.39	.52	.45	.39	.51	.44	.39	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.41	.35	.48	.40	.34	.46	.39	.34	.45	.39	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.44	.36	.31	.42	.35	.31	.41	.35	.30	.28
9.0	.42	.34	.28	.41	.33	.28	.40	.33	.28	.39	.32	.27	.38	.32	.27	.25
10.0	.39	.31	.25	.38	.30	.25	.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:2017-10-12

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:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X1213 50W 5000K	DIM.:	SERIAL No.:01
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	.323	.184	.058	.316	.180	.057	.302	.173	.055	.289	.167	.053	.277	.161	.052	
2.0	.300	.165	.051	.294	.162	.050	.282	.157	.049	.270	.152	.047	.260	.147	.046	
3.0	.276	.147	.044	.270	.145	.044	.260	.141	.043	.250	.137	.042	.240	.133	.041	
4.0	.254	.132	.039	.249	.130	.038	.239	.127	.038	.230	.124	.037	.222	.120	.037	
5.0	.234	.119	.035	.229	.118	.034	.221	.115	.034	.213	.112	.033	.205	.110	.033	
6.0	.216	.108	.031	.212	.107	.031	.205	.105	.031	.198	.103	.030	.191	.100	.030	
7.0	.201	.099	.028	.197	.098	.028	.191	.096	.028	.184	.094	.027	.178	.093	.027	
8.0	.188	.092	.026	.184	.091	.026	.178	.089	.025	.172	.087	.025	.167	.086	.025	
9.0	.176	.085	.024	.173	.084	.024	.167	.083	.023	.162	.081	.023	.157	.080	.023	
10.0	.165	.079	.022	.162	.078	.022	.157	.077	.022	.153	.076	.022	.148	.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	.197	.197	.197	.169	.169	.169	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.188	.163	.140	.161	.140	.121	.110	.096	.084	.063	.056	.049	.020	.018	.016	
2.0	.180	.139	.104	.155	.120	.090	.106	.083	.063	.061	.048	.037	.020	.016	.012	
3.0	.173	.121	.080	.148	.105	.070	.102	.073	.049	.059	.042	.029	.019	.014	.009	
4.0	.165	.108	.065	.142	.093	.056	.097	.065	.040	.056	.038	.023	.018	.012	.008	
5.0	.158	.098	.054	.135	.085	.047	.093	.059	.033	.054	.035	.020	.017	.011	.006	
6.0	.150	.090	.046	.129	.078	.040	.089	.054	.028	.052	.032	.017	.017	.010	.006	
7.0	.143	.083	.040	.123	.072	.035	.085	.050	.025	.050	.030	.015	.016	.010	.005	
8.0	.137	.077	.036	.118	.067	.031	.082	.047	.022	.047	.028	.013	.015	.009	.004	
9.0	.131	.072	.032	.113	.062	.028	.078	.044	.020	.045	.026	.012	.015	.009	.004	
10.0	.125	.068	.029	.108	.059	.026	.075	.041	.018	.044	.024	.011	.014	.008	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-12

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:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm										
NAME: LED panel light					TYPE:			WEIGHT:		
SPEC.:PL603X1213 50W 5000K					DIM.:			SERIAL No.:01		
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	15.7	17.3	16.0	17.5	17.7	15.8	17.3	16.1	17.5	17.8
3H	17.4	18.8	17.7	19.1	19.3	17.4	18.9	17.8	19.1	19.4
4H	18.1	19.5	18.4	19.7	20.0	18.2	19.5	18.5	19.8	20.1
6H	18.7	19.9	19.0	20.2	20.5	18.7	20.0	19.1	20.3	20.6
8H	18.9	20.1	19.2	20.4	20.7	18.9	20.2	19.3	20.5	20.8
12H	19.0	20.2	19.4	20.5	20.9	19.1	20.3	19.5	20.6	20.9
4H 2H	16.4	17.8	16.7	18.0	18.3	16.4	17.8	16.8	18.0	18.3
3H	18.3	19.4	18.6	19.8	20.1	18.3	19.5	18.6	19.8	20.1
4H	19.1	20.2	19.5	20.5	20.9	19.1	20.2	19.5	20.6	20.9
6H	19.8	20.8	20.2	21.1	21.5	19.8	20.8	20.3	21.2	21.6
8H	20.1	21.0	20.5	21.4	21.8	20.1	21.0	20.6	21.4	21.8
12H	20.3	21.1	20.7	21.5	21.9	20.3	21.2	20.8	21.6	22.0
8H 4H	19.4	20.3	19.8	20.7	21.1	19.4	20.3	19.9	20.7	21.1
6H	20.3	21.0	20.8	21.5	21.9	20.3	21.1	20.8	21.5	22.0
8H	20.7	21.3	21.2	21.8	22.3	20.7	21.4	21.2	21.8	22.3
12H	21.0	21.6	21.5	22.0	22.5	21.1	21.6	21.5	22.1	22.6
12H 4H	19.4	20.3	19.9	20.7	21.1	19.5	20.3	19.9	20.7	21.1
6H	20.4	21.1	20.9	21.5	22.0	20.4	21.1	20.9	21.5	22.0
8H	20.8	21.4	21.3	21.9	22.4	20.9	21.4	21.4	21.9	22.4
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 5270 lm Total Lamp Luminous Flux. (8log(F/F0) = 5.8)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-12

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:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X1213 50W 5000K	DIM.:	SERIAL No.:01
MFR.:	SUR.:	Shielding Angle:

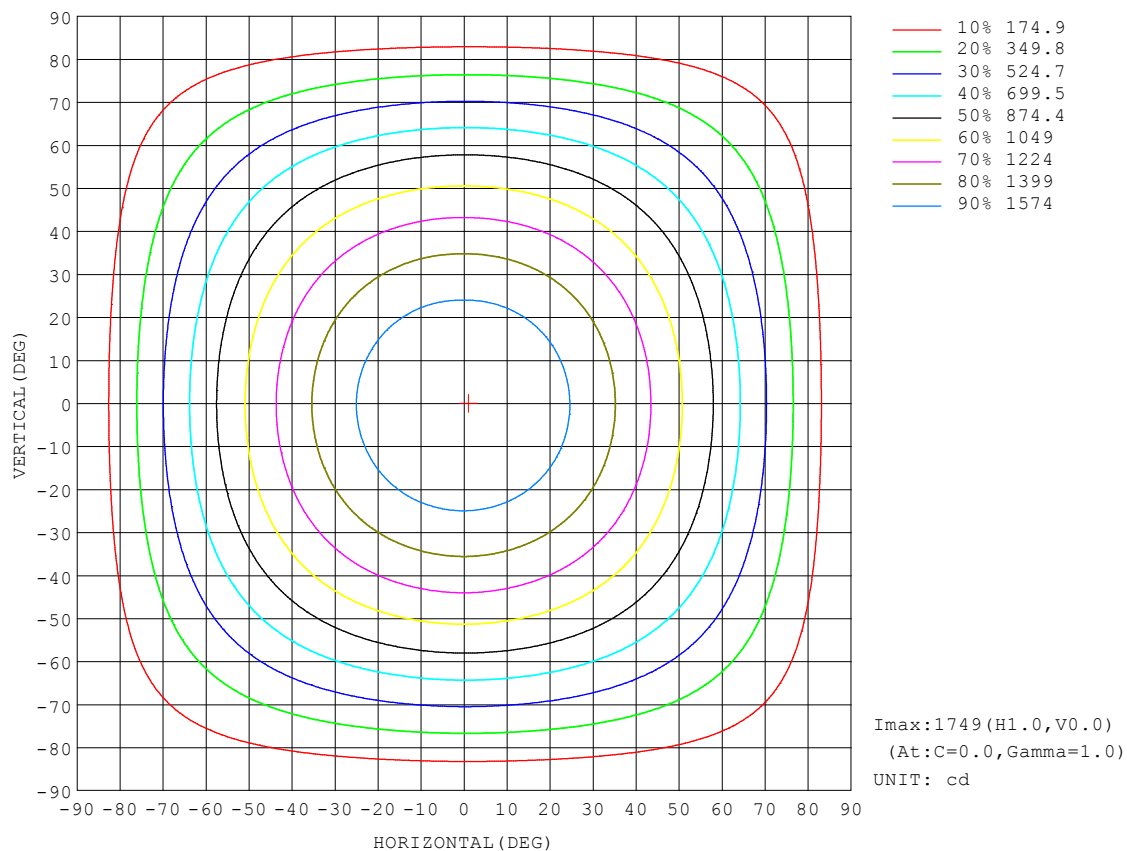
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	45	38	56	44	37	54	44	37	31
0.80	66	54	47	65	54	47	63	53	46	39
1.00	75	63	56	73	63	56	71	64	55	48
1.25	82	71	64	80	70	63	77	69	62	55
1.50	87	77	69	85	76	69	82	74	68	60
2.00	94	85	78	92	84	77	88	81	76	68
2.50	98	90	83	96	88	82	92	85	81	72
3.00	101	94	88	99	92	87	95	89	85	76
4.00	105	99	95	103	98	93	98	94	90	81
5.00	108	103	99	105	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: 2017-10-12

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:

ISOCANDELA DIAGRAM

Test:U:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X1213 50W 5000K	DIM.:	SERIAL No.:01
MFR.:	SUR.:	Shielding Angle:

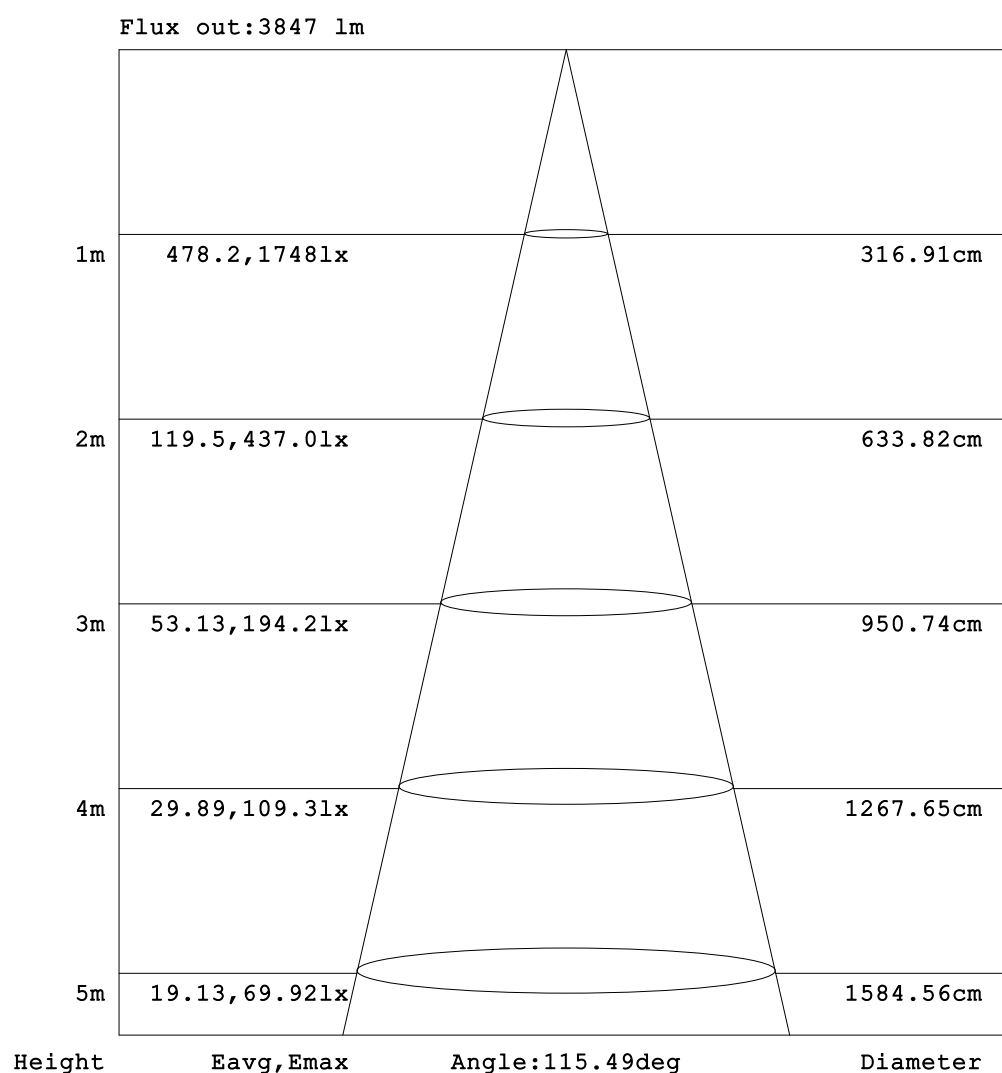


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Bonnie
Test Date:2017-10-12

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:

AAI Figure

Test:U:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X1213 50W 5000K	DIM.:	SERIAL No.:01
MFR.:	SUR.:	Shielding Angle:



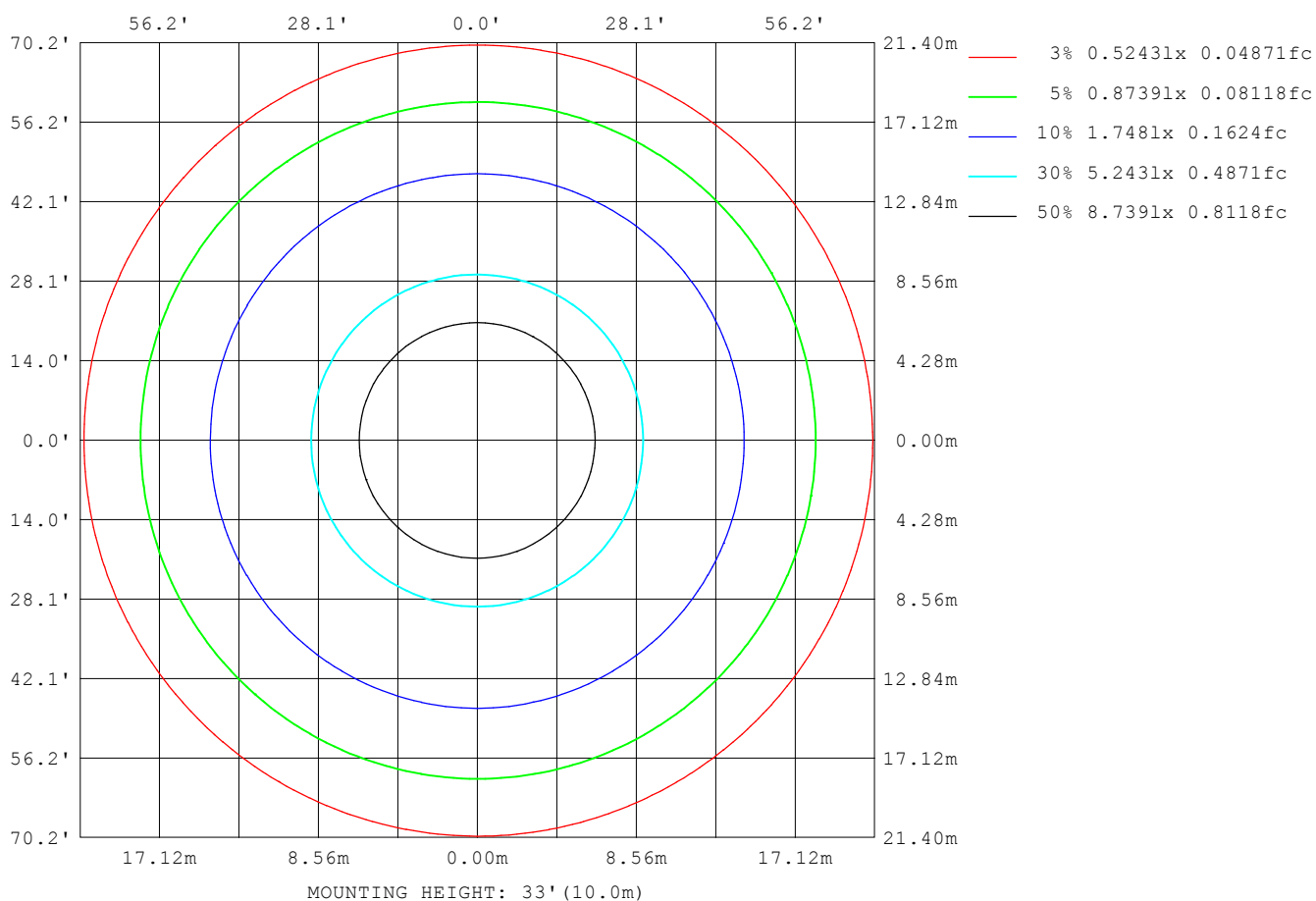
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Bonnie
 Test Date: 2017-10-12

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:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X1213 50W 5000K	DIM.:	SERIAL No.:01
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-12

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:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X1213 50W 5000K	DIM.:	SERIAL No.:01
MFR.:	SUR.:	Shielding Angle:

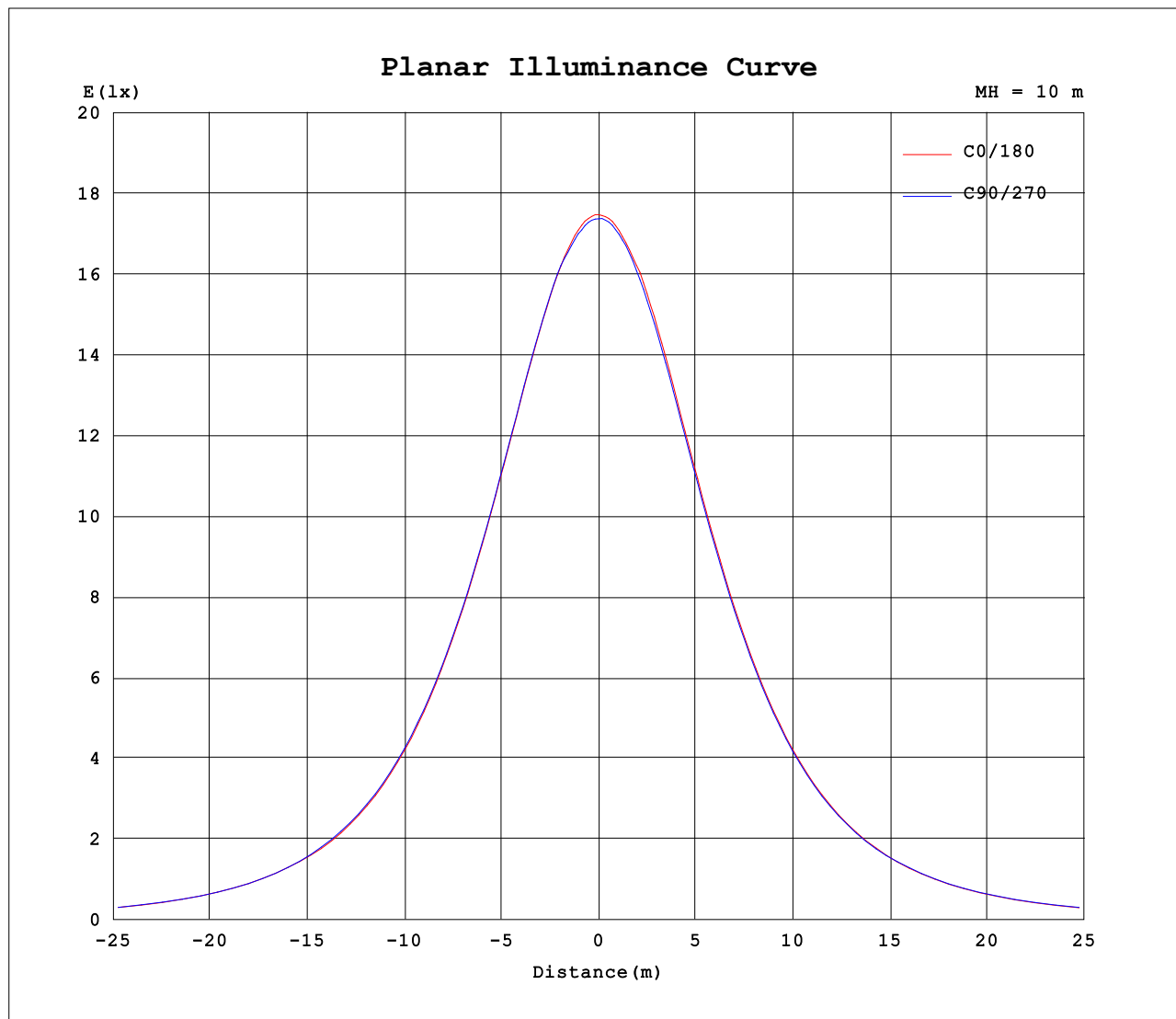
AvgL	cd/m2
L_0~180 (65) av	2208
L_0~180 (75) av	2073
L_0~180 (85) av	1933
L_90~270 (65) av	2227
L_90~270 (75) av	2110
L_90~270 (85) av	2007
L_45 (65) av	2219
L_45 (75) av	2094
L_45 (85) av	1973

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-12

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: 2017-10-12

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:120.6V I:0.3967A P:46.98W PF:0.9820 Lamp Flux:5270.41x1 lm		
NAME: LED panel light	TYPE:	WEIGHT:
SPEC.:PL603X1213 50W 5000K	DIM.:	SERIAL No.:01
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	1748	1738	1748	1738															
5	1741	1730	1741	1731															
10	1720	1716	1718	1709															
15	1683	1686	1691	1673															
20	1633	1637	1640	1623															
25	1568	1574	1575	1559															
30	1492	1498	1497	1482															
35	1402	1410	1407	1394															
40	1300	1312	1306	1293															
45	1189	1202	1194	1182															
50	1069	1084	1073	1062															
55	940	956	944	932															
60	818	822	807	814															
65	678	682	666	673															
70	535	540	523	530															
75	393	398	380	388															
80	255	260	243	251															
85	127	131	116	121															
90	13.6	15.6	7.53	8.18															
95	3.93	4.09	3.18	3.49															
100	4.91	5.03	3.95	4.23															
105	5.87	5.90	4.73	4.96															
110	6.79	6.69	5.50	5.72															
115	7.66	7.37	6.20	6.40															
120	8.47	7.81	6.91	6.93															
125	9.36	8.27	7.78	7.53															
130	10.0	8.79	8.54	8.21															
135	10.7	9.26	8.99	8.86															
140	11.1	9.70	9.48	9.50															
145	11.5	10.1	10.1	9.94															
150	11.8	10.4	10.7	10.3															
155	12.1	10.7	11.3	10.7															
160	12.3	10.9	11.8	10.9															
165	12.4	11.2	12.1	11.2															
170	12.5	11.3	12.3	11.3															
175	12.5	11.4	12.4	11.4															
180	12.5	11.5	12.5	11.4															

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Bonnie
 Test Date:2017-10-12

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: