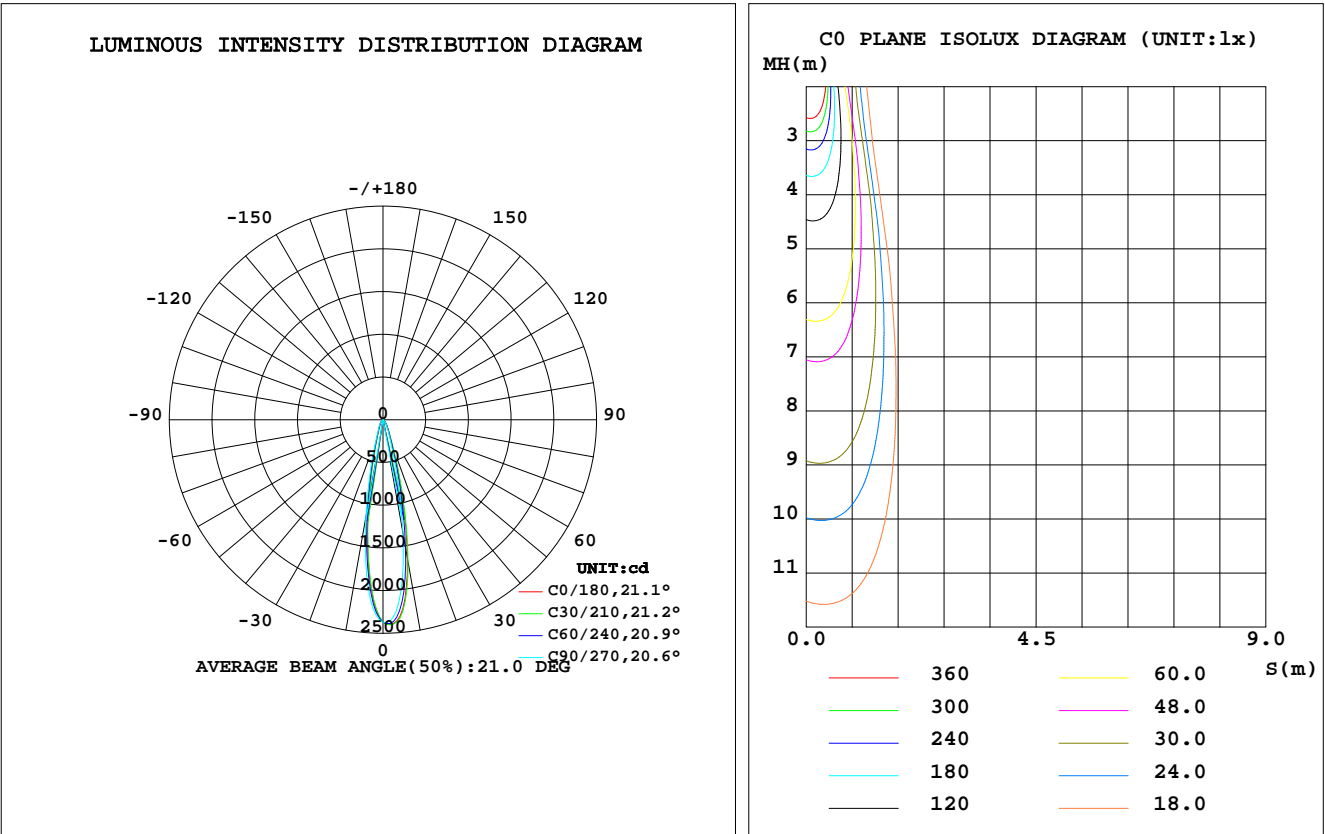


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 64.58 lm/W
MODEL	M012-8W-927-S-24	Imax(cd)	2399	S/MH(C0/180)	0.41	
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.36	
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	499.23	η UP,DN(C0-180)	1.2,52.4	
NOMINAL FLUX(lm)	499.233	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.4,45.0	
LAMPS INSIDE	1	η up(%)	2.6	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	226.5	η down(%)	97.4	CIBSE SHR MAX	1.00	



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-28

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:6.250m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1647	1603	1348	1075	971.8	1000	1150	1435	0- 10	171.0	171.0	34.3,34.3
20	332.9	320.3	256.7	203.1	178.7	182.2	216.0	275.5	10- 20	165.9	336.9	67.5,67.5
30	116.6	105.5	99.02	96.36	80.44	75.71	90.05	113.1	20- 30	68.26	405.2	81.2,81.2
40	57.01	49.75	44.27	42.47	38.88	39.51	43.44	53.55	30- 40	42.97	448.1	89.8,89.8
50	20.88	18.85	14.83	13.08	12.61	14.53	17.18	19.20	40- 50	22.50	470.6	94.3,94.3
60	7.755	6.753	5.240	4.521	4.087	4.048	4.990	6.663	50- 60	8.930	479.6	96.1,96.1
70	2.742	2.589	2.432	2.218	2.062	2.012	2.189	2.432	60- 70	3.388	482.9	96.7,96.7
80	1.660	1.736	1.568	1.399	1.244	1.299	1.434	1.530	70- 80	1.979	484.9	97.1,97.1
90	0.9424	1.130	0.9674	0.8115	1.059	1.259	1.130	1.027	80- 90	1.318	486.2	97.4,97.4
100	0.7546	0.9929	0.8961	0.7323	1.180	1.427	1.307	1.109	90-100	1.145	487.4	97.6,97.6
110	0.8959	1.179	1.134	1.005	1.324	1.534	1.410	1.224	100-110	1.189	488.6	97.9,97.9
120	1.252	1.440	1.491	1.379	1.635	1.731	1.665	1.445	110-120	1.335	489.9	98.1,98.1
130	1.891	2.060	2.255	2.227	2.471	2.532	2.434	2.091	120-130	1.620	491.5	98.5,98.5
140	2.963	3.124	3.323	3.285	3.438	3.494	3.393	3.102	130-140	2.131	493.7	98.9,98.9
150	3.603	3.849	3.915	3.767	3.869	3.922	3.866	3.690	140-150	2.245	495.9	99.3,99.3
160	3.918	4.197	4.364	3.992	4.090	4.346	4.062	3.923	150-160	1.822	497.7	99.7,99.7
170	3.962	3.958	3.912	3.849	3.855	3.823	3.862	3.905	160-170	1.145	498.9	99.9,99.9
180	3.750	3.705	3.664	3.658	3.766	3.702	3.643	3.662	170-180	0.3597	499.2	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

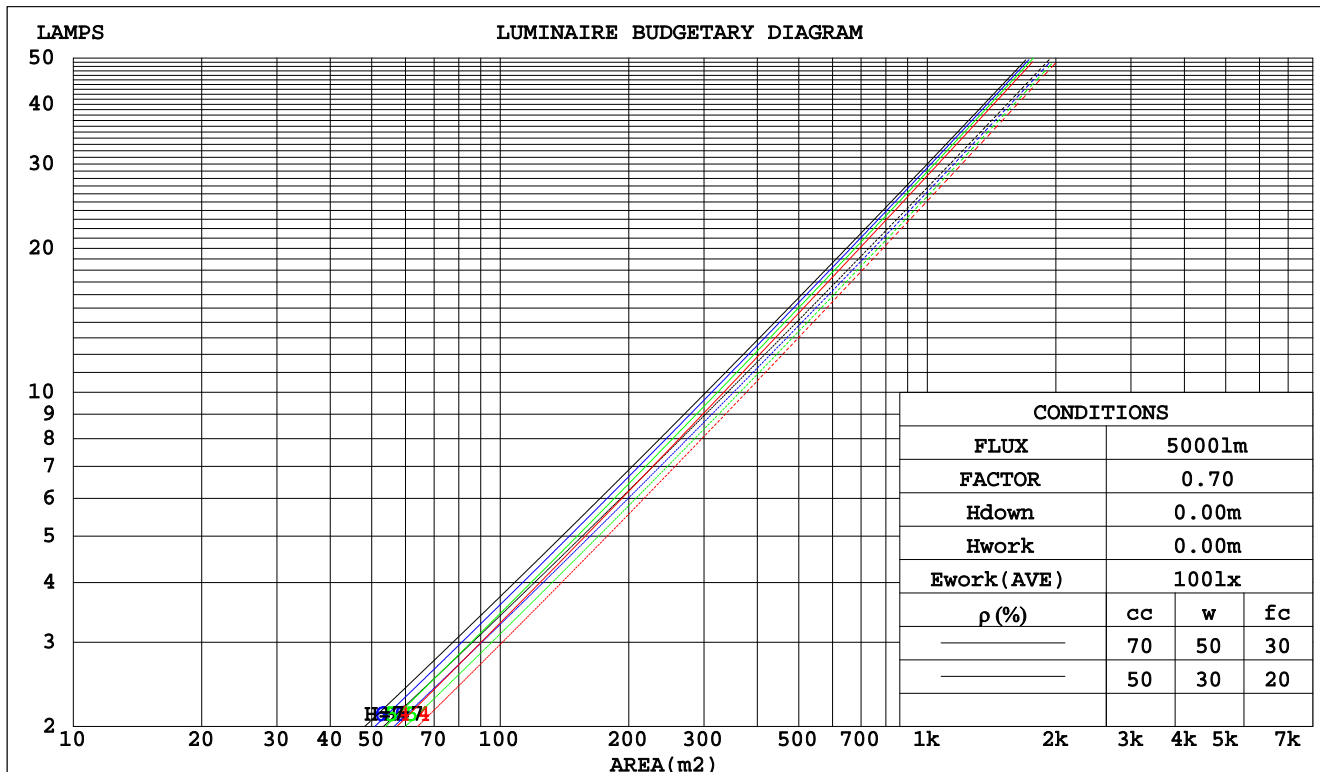
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-28

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:6.250m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION 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	Coefficients of Utilization(CU)															
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.10	1.10	1.10	1.04	1.04	1.04	.00	.00	.00	.97
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.04	1.03	1.01	1.00	.99	.98	.96	.96	.95	.93
2.0	1.05	1.02	.99	1.03	.00	.97	.00	.97	.95	.96	.94	.92	.93	.92	.90	.89
3.0	.00	.95	.92	.98	.94	.91	.95	.92	.89	.92	.90	.88	.90	.88	.86	.85
4.0	.95	.90	.87	.94	.89	.86	.91	.88	.85	.89	.86	.84	.87	.85	.83	.81
5.0	.91	.86	.82	.90	.85	.82	.88	.84	.81	.86	.83	.80	.84	.81	.79	.78
6.0	.87	.82	.79	.86	.82	.78	.84	.81	.78	.83	.80	.77	.81	.79	.76	.75
7.0	.84	.79	.76	.83	.78	.75	.81	.78	.75	.80	.77	.74	.79	.76	.74	.72
8.0	.81	.76	.73	.80	.76	.72	.79	.75	.72	.78	.74	.72	.77	.74	.71	.70
9.0	.78	.73	.70	.77	.73	.70	.76	.72	.70	.75	.72	.69	.74	.71	.69	.68
10.0	.75	.71	.68	.75	.71	.68	.74	.70	.68	.73	.70	.67	.72	.69	.67	.66



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-28

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 6.250m [K=1.0000]
Remarks:

WEC AND CCEC

NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION 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	.157 .089 .028	.149 .085 .027	.135 .078 .025	.122 .071 .023	.111 .064 .021	
2.0	.146 .080 .025	.140 .077 .024	.128 .071 .022	.117 .066 .021	.107 .061 .019	
3.0	.136 .073 .022	.131 .070 .021	.121 .066 .020	.112 .061 .019	.103 .057 .018	
4.0	.128 .066 .020	.123 .065 .019	.115 .061 .018	.107 .057 .017	.099 .054 .016	
5.0	.120 .061 .018	.116 .060 .017	.109 .057 .017	.102 .054 .016	.095 .051 .015	
6.0	.113 .057 .016	.110 .056 .016	.103 .053 .015	.097 .051 .015	.092 .048 .014	
7.0	.107 .053 .015	.104 .052 .015	.099 .050 .014	.093 .048 .014	.088 .046 .013	
8.0	.102 .050 .014	.099 .049 .014	.094 .047 .013	.089 .045 .013	.085 .043 .013	
9.0	.097 .047 .013	.095 .046 .013	.090 .044 .013	.086 .043 .012	.082 .041 .012	
10.0	.093 .044 .012	.090 .044 .012	.086 .042 .012	.082 .041 .012	.079 .040 .011	

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	.210 .210 .210	.180 .180 .180	.123 .123 .123	.070 .070 .070	.023 .023 .023	
1.0	.190 .177 .166	.162 .152 .143	.111 .105 .099	.064 .061 .058	.020 .020 .019	
2.0	.173 .153 .136	.148 .131 .117	.102 .091 .082	.059 .053 .048	.019 .017 .016	
3.0	.159 .134 .113	.136 .115 .098	.094 .080 .069	.054 .047 .041	.017 .015 .013	
4.0	.147 .119 .097	.126 .102 .084	.087 .071 .059	.050 .042 .035	.016 .014 .012	
5.0	.137 .107 .084	.118 .092 .073	.081 .064 .052	.047 .038 .031	.015 .012 .010	
6.0	.129 .097 .074	.111 .084 .064	.076 .059 .046	.044 .035 .027	.014 .011 .009	
7.0	.121 .089 .066	.104 .077 .058	.072 .054 .041	.042 .032 .024	.014 .010 .008	
8.0	.115 .082 .060	.099 .071 .052	.068 .050 .037	.040 .030 .022	.013 .010 .007	
9.0	.109 .077 .055	.094 .067 .048	.065 .047 .034	.038 .028 .020	.012 .009 .007	
10.0	.104 .072 .051	.090 .063 .044	.062 .044 .031	.036 .026 .019	.012 .009 .006	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-28

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:6.250m [K=1.0000]
Remarks:

Uncorrected UGR Table

NAME:					TYPE:					WEIGHT:				
DIM.:					SPEC.:					SERIAL No.:				
MFR.: Rayconn					SUR.:					PROTECTION 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					18.1	18.9	18.4	19.1	19.3	16.9	17.7	17.2	17.8	18.0
3H					18.2	18.8	18.4	19.1	19.3	17.0	17.6	17.2	17.9	18.1
4H					18.2	18.8	18.5	19.1	19.4	17.0	17.7	17.3	17.9	18.2
6H					18.2	18.9	18.6	19.1	19.4	17.1	17.7	17.4	18.0	18.3
8H					18.3	18.9	18.6	19.2	19.5	17.2	17.8	17.5	18.1	18.4
12H					18.3	18.9	18.7	19.2	19.5	17.3	17.8	17.6	18.2	18.5
4H 2H					18.0	18.7	18.3	18.9	19.2	16.9	17.5	17.2	17.8	18.0
3H					18.1	18.7	18.4	19.0	19.3	17.0	17.5	17.3	17.9	18.2
4H					18.2	18.7	18.6	19.0	19.4	17.1	17.6	17.5	17.9	18.3
6H					18.3	18.8	18.7	19.1	19.5	17.3	17.7	17.7	18.1	18.5
8H					18.4	18.8	18.8	19.2	19.6	17.5	17.9	17.9	18.3	18.7
12H					18.5	18.9	19.0	19.3	19.8	17.7	18.1	18.1	18.5	18.9
8H 4H					18.1	18.5	18.5	18.9	19.4	17.1	17.5	17.5	17.9	18.3
6H					18.3	18.7	18.8	19.1	19.6	17.5	17.8	17.9	18.2	18.7
8H					18.5	18.8	19.0	19.3	19.8	17.9	18.2	18.4	18.7	19.1
12H					18.7	19.0	19.2	19.5	20.0	18.2	18.5	18.7	19.0	19.5
12H 4H					18.1	18.5	18.5	18.9	19.3	17.0	17.4	17.5	17.8	18.3
6H					18.4	18.7	18.9	19.1	19.6	17.5	17.8	18.0	18.3	18.8
8H					18.6	18.8	19.1	19.3	19.9	18.0	18.3	18.5	18.8	19.3
Variations with the observer position at spacings:														
S = 1.0H					+ 1.6 / - 2.4					+ 1.3 / - 2.1				
1.5H					+ 2.5 / - 2.4					+ 1.9 / - 1.8				
2.0H					+ 3.5 / - 2.4					+ 2.6 / - 1.6				

CIE Pub.117 Corrected 499.2 lm Total Lamp Luminous Flux. (8log(F/F0) = -2.4)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-28

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 6.250m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:

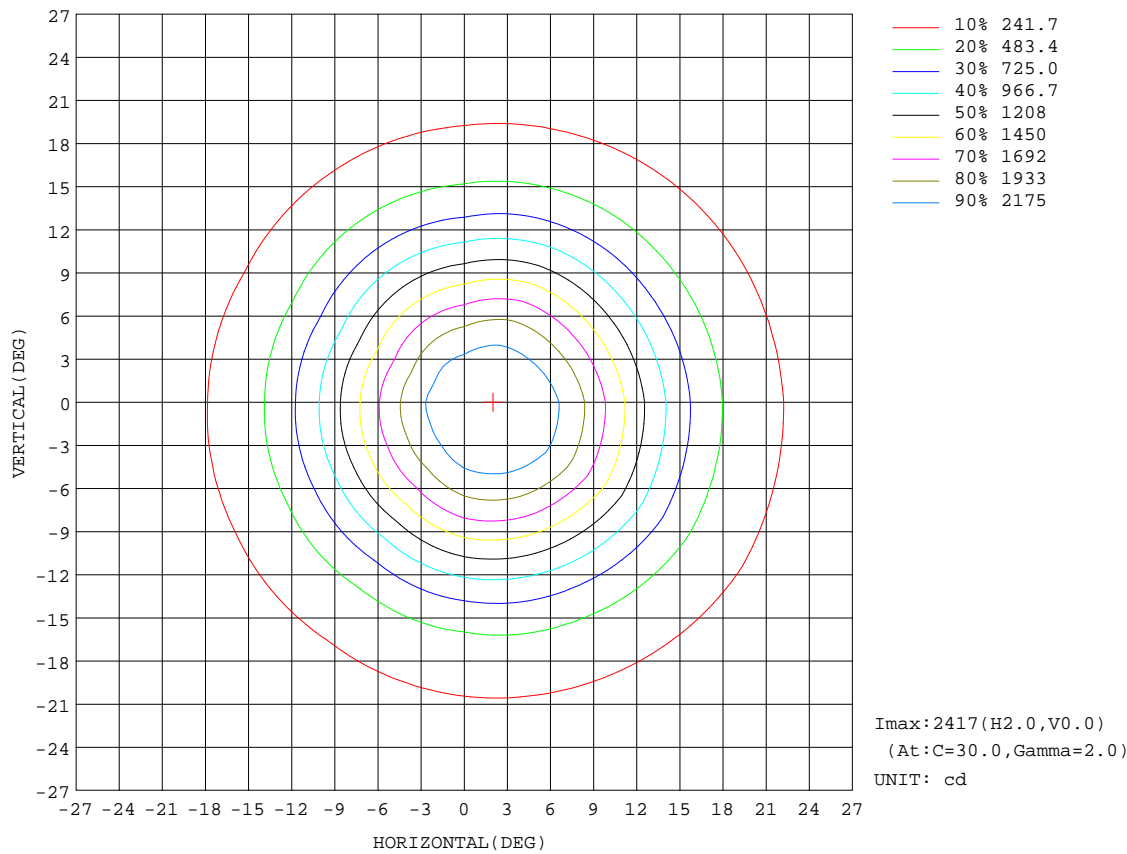
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	85	79	75	85	78	74	84	78	74	71
0.80	93	87	83	92	86	82	90	85	82	78
1.00	97	91	88	96	91	87	94	91	87	82
1.25	101	96	92	100	95	92	98	94	91	86
1.50	104	99	96	103	98	95	100	97	94	89
2.00	107	103	99	105	101	98	102	99	97	91
2.50	109	105	102	107	103	101	104	101	98	92
3.00	111	107	104	109	105	103	105	102	100	93
4.00	113	110	107	110	108	106	106	104	103	95
5.00	114	112	110	112	109	108	107	106	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 6.250m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:

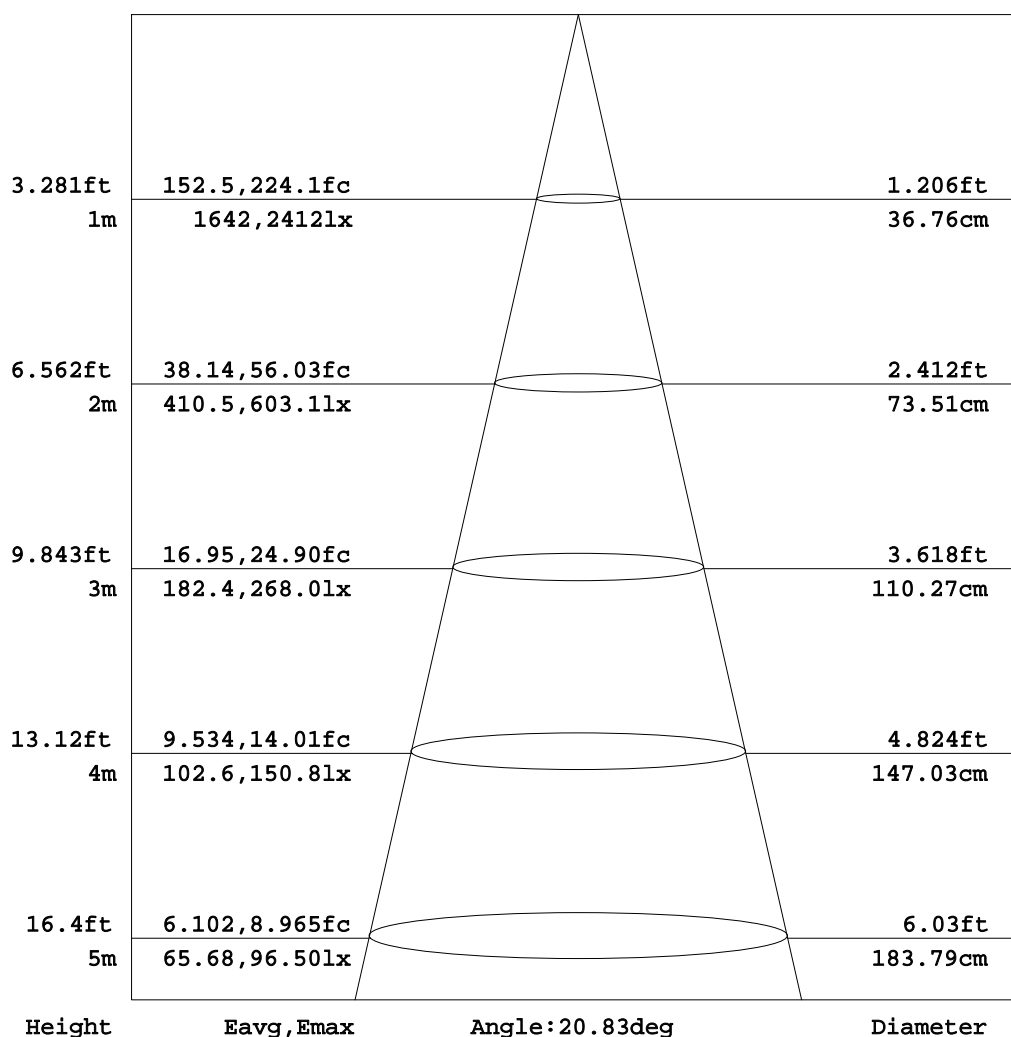


C Range: 0 - 360DEG	γ Range: 0 - 180DEG
C Interval: 30.0DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Temperature:25.3DEG	Humidity:65.0%
Operators:QiuMing	Test Distance:6.250m [K=1.0000]
Test Date:2016-06-28	Remarks:

AAI Figure

NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:

Flux out:194.9 lm



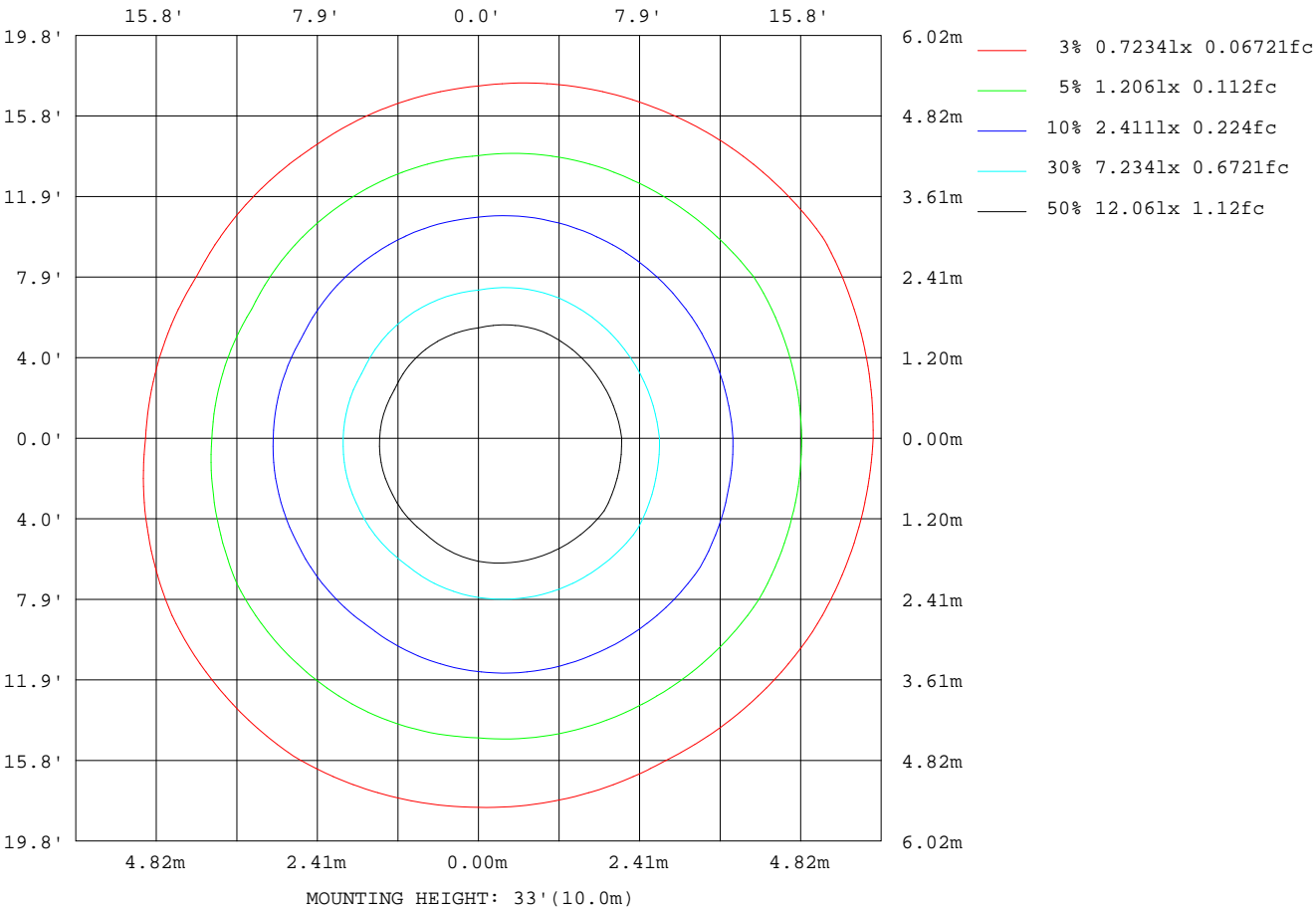
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-28

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 6.250m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

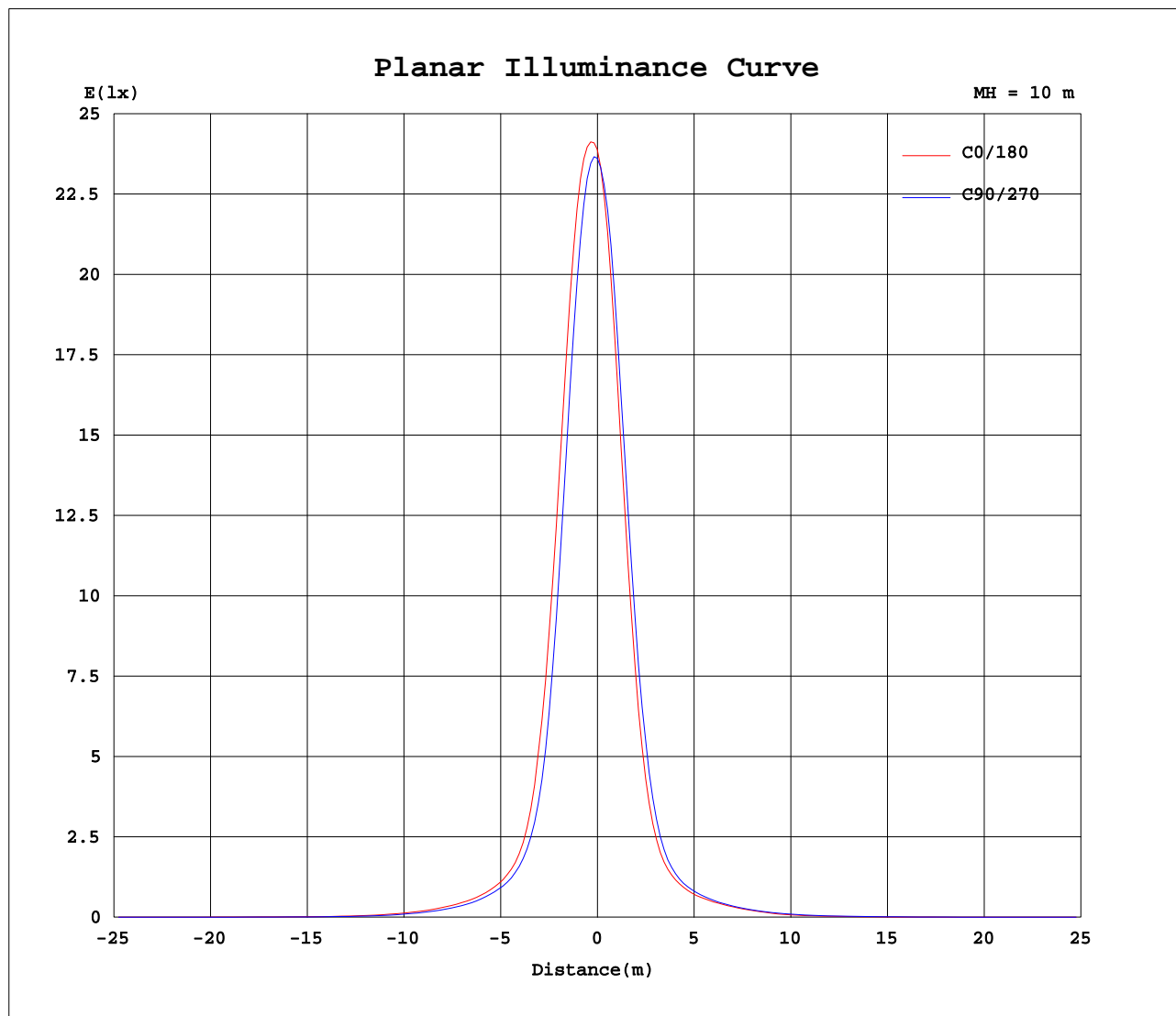
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-28

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 6.250m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity: 65.0%
Test Distance: 6.250m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	2369	2369	2369	2369	2369	2369	2369	2369	2369	2369	2369	2369							
5	2305	2324	2240	2141	1978	1888	1832	1801	1888	1980	2147	2240							
10	1647	1687	1519	1348	1125	1024	972	949	1051	1150	1364	1506							
15	813	848	709	582	466	416	391	383	441	501	615	713							
20	333	343	297	257	213	194	179	173	191	216	255	296							
25	177	178	161	147	144	132	112	107	114	128	148	170							
30	117	111	100.0	99.0	99.9	92.8	80.4	73.1	78.3	90.0	105	121							
35	82.5	74.3	66.5	66.6	69.0	66.1	58.7	53.4	57.7	64.0	76.2	85.4							
40	57.0	53.3	46.2	44.3	43.2	41.7	38.9	37.2	41.8	43.4	50.7	56.4							
45	36.9	34.9	30.2	27.5	24.6	24.2	21.2	21.8	26.2	27.7	32.6	35.7							
50	20.9	20.4	17.3	14.8	13.1	13.1	12.6	13.1	15.9	17.2	18.8	19.6							
55	12.0	11.2	9.89	8.67	7.91	8.18	7.90	8.00	9.47	10.7	11.2	11.5							
60	7.75	7.35	6.16	5.24	4.68	4.36	4.09	3.91	4.18	4.99	6.02	7.30							
65	4.23	4.07	3.81	3.52	2.94	2.74	2.60	2.52	2.50	2.81	3.37	3.79							
70	2.74	2.69	2.49	2.43	2.29	2.15	2.06	2.03	2.00	2.19	2.41	2.45							
75	2.16	2.12	1.99	1.95	1.86	1.75	1.59	1.59	1.64	1.79	1.91	1.95							
80	1.66	1.65	1.82	1.57	1.46	1.34	1.24	1.25	1.35	1.43	1.49	1.57							
85	1.21	1.19	1.49	1.17	1.02	0.94	1.06	1.03	1.29	1.12	1.08	1.14							
90	0.94	0.90	1.36	0.97	0.85	0.78	1.06	1.04	1.48	1.13	1.05	1.00							
95	0.83	0.79	1.39	0.90	0.75	0.71	1.11	1.10	1.61	1.24	1.11	1.02							
100	0.75	0.74	1.24	0.90	0.72	0.74	1.18	1.17	1.69	1.31	1.15	1.07							
105	0.76	0.78	1.29	0.97	0.80	0.87	1.25	1.23	1.75	1.37	1.21	1.12							
110	0.90	0.91	1.44	1.13	0.96	1.05	1.32	1.30	1.76	1.41	1.27	1.18							
115	1.06	1.08	1.53	1.31	1.13	1.19	1.43	1.43	1.76	1.51	1.37	1.26							
120	1.25	1.25	1.64	1.49	1.34	1.42	1.63	1.63	1.83	1.67	1.51	1.38							
125	1.49	1.50	1.73	1.80	1.67	1.76	1.99	1.97	2.13	1.98	1.76	1.61							
130	1.89	1.91	2.21	2.25	2.17	2.29	2.47	2.46	2.60	2.43	2.18	2.01							
135	2.42	2.46	2.72	2.81	2.73	2.84	3.00	2.98	3.11	2.95	2.69	2.52							
140	2.96	3.01	3.24	3.32	3.23	3.34	3.44	3.41	3.58	3.39	3.17	3.03							
145	3.35	3.45	3.70	3.74	3.55	3.69	3.70	3.70	3.83	3.71	3.50	3.42							
150	3.60	3.72	3.98	3.92	3.73	3.80	3.87	3.84	4.00	3.87	3.72	3.66							
155	3.78	3.87	4.06	4.06	3.87	3.89	3.98	3.95	4.20	3.97	3.85	3.81							
160	3.92	4.00	4.40	4.36	3.99	3.99	4.09	4.02	4.68	4.06	3.94	3.91							
165	3.98	4.03	4.31	4.15	4.01	3.99	4.00	3.99	3.97	3.99	3.97	3.97							
170	3.96	3.97	3.95	3.91	3.88	3.82	3.86	3.83	3.81	3.86	3.88	3.93							
175	3.81	3.79	3.74	3.70	3.64	3.61	3.70	3.66	3.62	3.65	3.68	3.75							
180	3.75	3.73	3.68	3.66	3.64	3.68	3.77	3.72	3.69	3.64	3.64	3.68							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-28

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.265
Humidity:65.0%
Test Distance:6.250m [K=1.0000]
Remarks: