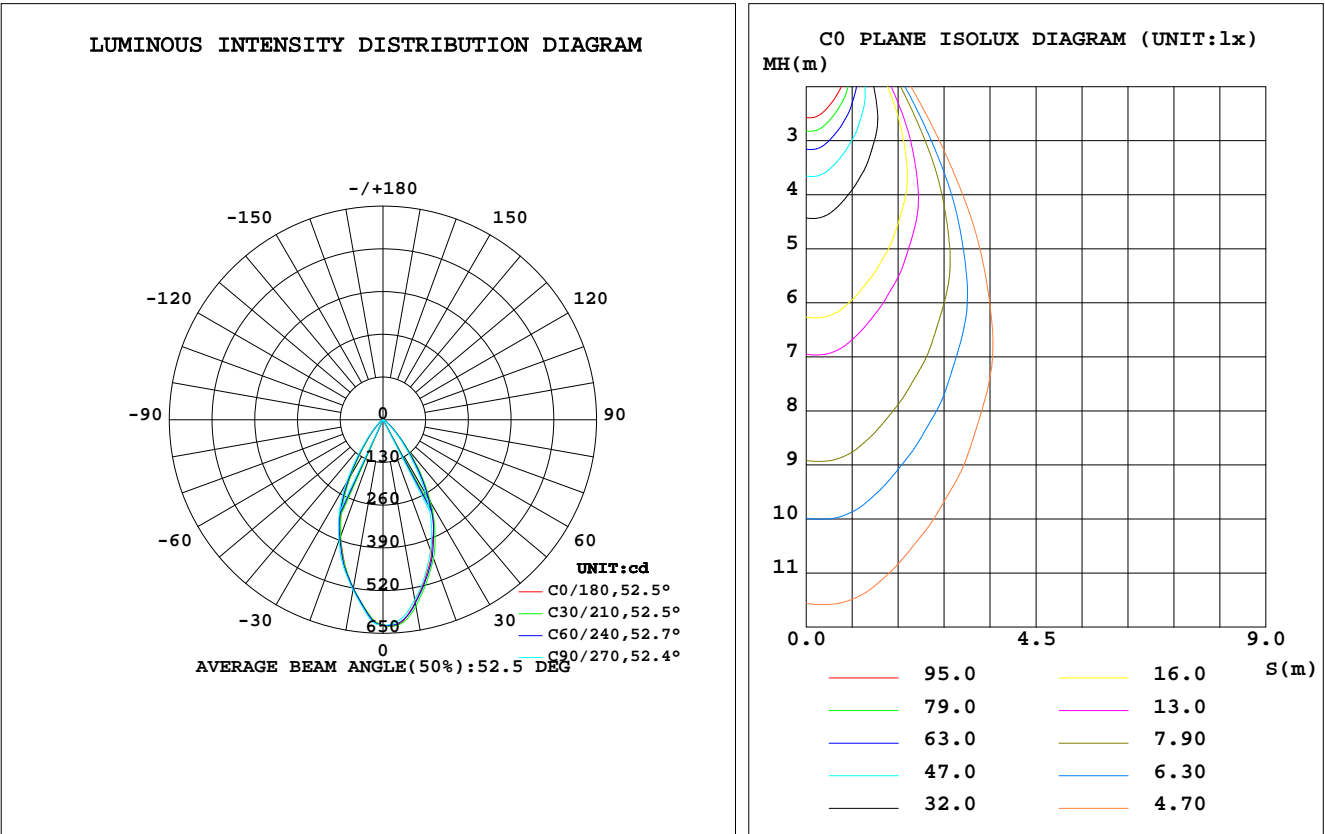


LUMINAIRE PHOTOMETRIC TEST REPORT

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

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 64.96 lm/W
MODEL	M012-8W-927-S-60	Imax(cd)	629.2	S/MH(C0/180)	0.83	
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.81	
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	503.45	η UP,DN(C0-180)	1.2,51.8	
NOMINAL FLUX(lm)	503.449	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.3,45.6	
LAMPS INSIDE	1	η up(%)	2.6	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	226.5	η down(%)	97.4	CIBSE SHR MAX	0.85	



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	564.6	571.5	555.5	534.9	522.8	520.6	526.3	545.1	0- 10	55.50	55.50	11,11
20	432.1	444.2	423.6	389.9	378.7	380.6	391.2	410.6	10- 20	132.9	188.4	37.4,37.4
30	284.5	282.6	258.9	224.1	200.4	204.0	225.5	259.9	20- 30	150.1	338.5	67.2,67.2
40	110.8	112.3	97.54	76.33	61.34	63.23	71.55	91.51	30- 40	96.25	434.7	86.4,86.4
50	31.40	33.55	26.67	18.13	14.77	14.20	16.41	23.73	40- 50	36.39	471.1	93.6,93.6
60	10.26	10.42	8.400	6.284	5.671	5.714	6.140	7.791	50- 60	11.77	482.9	95.9,95.9
70	2.960	2.947	2.543	2.164	2.018	2.028	2.196	2.589	60- 70	4.345	487.2	96.8,96.8
80	1.546	1.519	1.316	1.140	1.100	1.713	1.300	1.412	70- 80	1.992	489.2	97.2,97.2
90	0.7787	1.054	0.8476	0.8732	0.9420	1.386	1.005	0.8958	80- 90	1.171	490.4	97.4,97.4
100	0.8579	1.268	1.020	1.155	1.164	1.555	1.257	1.037	90-100	1.202	491.6	97.6,97.6
110	1.094	1.468	1.258	1.451	1.470	1.873	1.512	1.307	100-110	1.384	493.0	97.9,97.9
120	1.492	1.728	1.653	1.724	1.913	2.064	1.922	1.707	110-120	1.612	494.6	98.2,98.2
130	2.052	2.160	2.206	2.238	2.468	2.562	2.447	2.237	120-130	1.813	496.4	98.6,98.6
140	2.695	2.821	2.837	2.880	3.021	3.188	3.000	2.789	130-140	2.009	498.4	99,99
150	3.210	3.403	3.367	3.414	3.454	3.712	3.413	3.256	140-150	1.993	500.4	99.4,99.4
160	3.524	3.679	3.650	3.569	3.690	3.851	3.623	3.522	150-160	1.635	502.0	99.7,99.7
170	3.709	3.718	3.720	3.724	3.794	3.758	3.701	3.683	160-170	1.042	503.1	99.9,99.9
180	3.889	3.883	3.869	3.865	3.909	3.888	3.861	3.864	170-180	0.3607	503.4	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

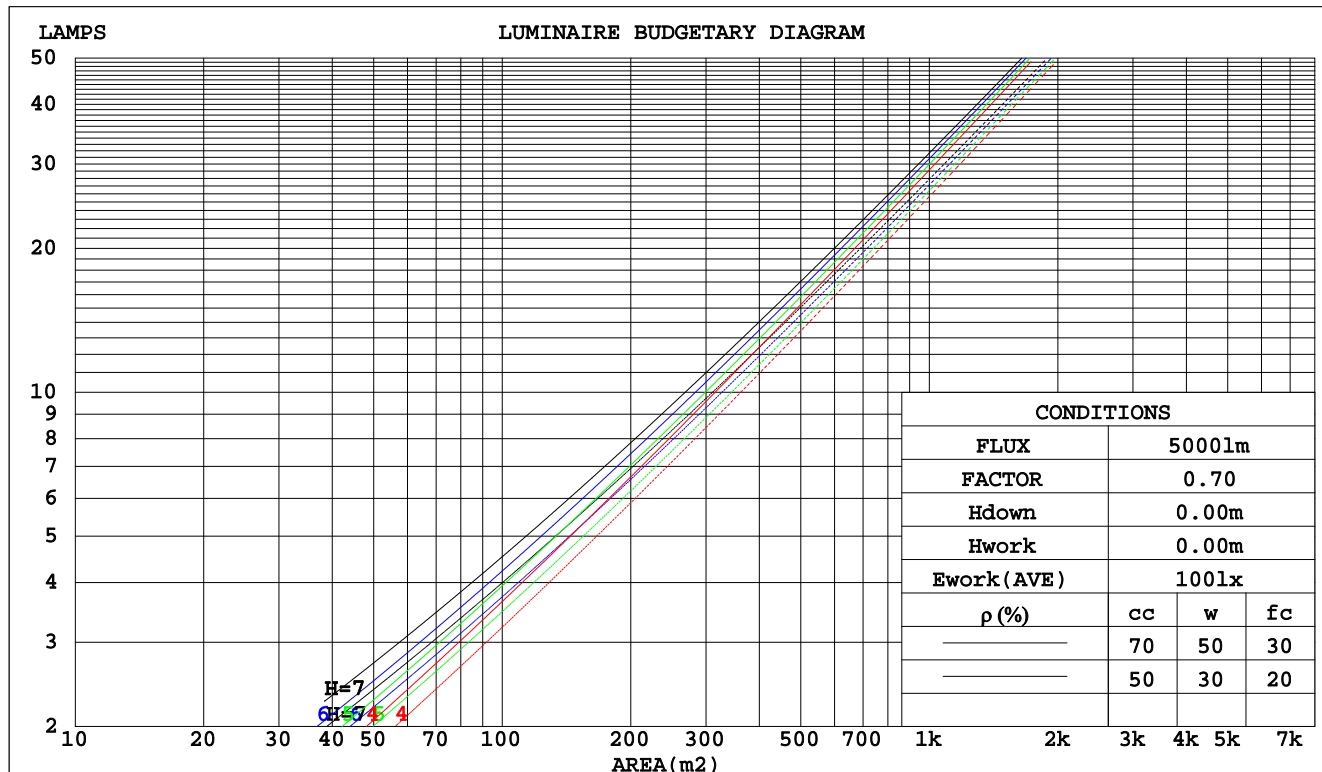
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ 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	RCR:Room Cavity Ratio															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	1.10	1.07	1.05	1.07	1.05	1.03	1.03	1.01	.99	.99	.97	.96	.95	.94	.93	.91														
2.0	1.02	.97	.94	.00	.96	.93	.96	.93	.90	.93	.90	.88	.89	.87	.86	.84														
3.0	.94	.89	.85	.93	.88	.84	.90	.86	.83	.87	.84	.81	.84	.82	.79	.78														
4.0	.88	.82	.78	.87	.81	.77	.84	.80	.76	.82	.78	.75	.80	.76	.74	.72														
5.0	.82	.76	.72	.81	.75	.71	.79	.74	.70	.77	.73	.70	.75	.72	.69	.67														
6.0	.77	.71	.66	.76	.70	.66	.74	.69	.65	.73	.68	.65	.71	.67	.64	.63														
7.0	.72	.66	.62	.71	.66	.62	.70	.65	.61	.69	.64	.61	.67	.63	.60	.59														
8.0	.68	.62	.58	.67	.62	.58	.66	.61	.57	.65	.60	.57	.64	.59	.56	.55														
9.0	.64	.58	.54	.64	.58	.54	.62	.57	.54	.61	.57	.53	.60	.56	.53	.52														
10.0	.61	.55	.51	.60	.55	.51	.59	.54	.51	.58	.54	.50	.57	.53	.50	.49														



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	.187 .106 .034	.180 .102 .033	.165 .095 .030	.152 .088 .028	.140 .081 .026	
2.0	.178 .098 .030	.172 .095 .029	.160 .089 .028	.149 .084 .026	.139 .078 .025	
3.0	.169 .090 .027	.164 .088 .026	.154 .083 .025	.144 .079 .024	.135 .075 .023	
4.0	.161 .084 .025	.156 .082 .024	.147 .078 .023	.139 .074 .022	.131 .071 .022	
5.0	.153 .078 .023	.149 .076 .022	.141 .073 .022	.133 .070 .021	.126 .067 .020	
6.0	.146 .073 .021	.142 .072 .021	.135 .069 .020	.128 .067 .020	.122 .064 .019	
7.0	.139 .069 .019	.135 .067 .019	.129 .065 .019	.123 .063 .018	.117 .061 .018	
8.0	.132 .065 .018	.129 .064 .018	.124 .062 .018	.118 .060 .017	.113 .058 .017	
9.0	.127 .061 .017	.124 .060 .017	.119 .059 .017	.114 .057 .016	.109 .055 .016	
10.0	.121 .058 .016	.119 .057 .016	.114 .056 .016	.110 .054 .015	.105 .053 .015	

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	.192 .177 .164	.164 .152 .141	.112 .105 .098	.065 .061 .057	.021 .019 .018	
2.0	.177 .153 .132	.152 .131 .114	.104 .091 .079	.060 .053 .047	.019 .017 .015	
3.0	.165 .134 .109	.142 .115 .094	.097 .080 .066	.056 .047 .039	.018 .015 .013	
4.0	.155 .119 .092	.133 .103 .080	.092 .072 .056	.053 .042 .033	.017 .014 .011	
5.0	.147 .108 .079	.126 .093 .069	.087 .065 .049	.050 .038 .029	.016 .012 .009	
6.0	.140 .099 .069	.120 .085 .060	.083 .060 .043	.048 .035 .025	.015 .012 .008	
7.0	.133 .091 .062	.115 .079 .054	.079 .055 .038	.046 .033 .023	.015 .011 .008	
8.0	.127 .085 .056	.110 .074 .049	.076 .052 .035	.044 .031 .021	.014 .010 .007	
9.0	.122 .080 .051	.105 .069 .045	.073 .049 .032	.043 .029 .019	.014 .009 .006	
10.0	.118 .076 .048	.101 .066 .041	.070 .046 .029	.041 .027 .018	.013 .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					23.0	23.9	23.2	24.2	24.4	22.4	23.4	22.7	23.6	23.8
3H					22.9	23.8	23.2	24.0	24.2	22.3	23.2	22.6	23.4	23.7
4H					22.8	23.6	23.1	23.9	24.2	22.2	23.1	22.6	23.3	23.6
6H					22.7	23.5	23.1	23.8	24.1	22.2	23.0	22.5	23.3	23.6
8H					22.7	23.5	23.1	23.8	24.1	22.2	22.9	22.5	23.2	23.5
12H					22.7	23.4	23.0	23.7	24.0	22.1	22.8	22.5	23.2	23.5
4H 2H					22.8	23.6	23.1	23.9	24.2	22.3	23.1	22.6	23.4	23.6
3H					22.7	23.4	23.0	23.7	24.0	22.1	22.9	22.5	23.2	23.5
4H					22.6	23.3	23.0	23.6	24.0	22.1	22.7	22.5	23.1	23.4
6H					22.6	23.2	23.0	23.5	23.9	22.0	22.6	22.5	23.0	23.4
8H					22.6	23.1	23.0	23.5	23.9	22.0	22.6	22.5	23.0	23.4
12H					22.6	23.0	23.0	23.5	23.9	22.0	22.5	22.5	22.9	23.4
8H 4H					22.5	23.0	22.9	23.4	23.9	22.0	22.5	22.4	22.9	23.3
6H					22.5	22.9	23.0	23.4	23.8	21.9	22.4	22.4	22.8	23.3
8H					22.5	22.9	23.0	23.3	23.8	22.0	22.3	22.4	22.8	23.3
12H					22.5	22.8	23.0	23.3	23.8	22.0	22.3	22.5	22.8	23.3
12H 4H					22.5	22.9	22.9	23.4	23.8	21.9	22.4	22.4	22.8	23.3
6H					22.4	22.8	22.9	23.3	23.8	21.9	22.3	22.4	22.8	23.2
8H					22.5	22.8	23.0	23.3	23.8	21.9	22.3	22.4	22.7	23.3
Variations with the observer position at spacings:														
S = 1.0H					+ 2.3 / - 5.3					+ 2.2 / - 5.2				
1.5H					+ 3.8 / - 4.6					+ 3.4 / - 4.1				
2.0H					+ 4.3 / - 3.5					+ 4.2 / - 3.5				

CIE Pub.117 Corrected 503.4 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:

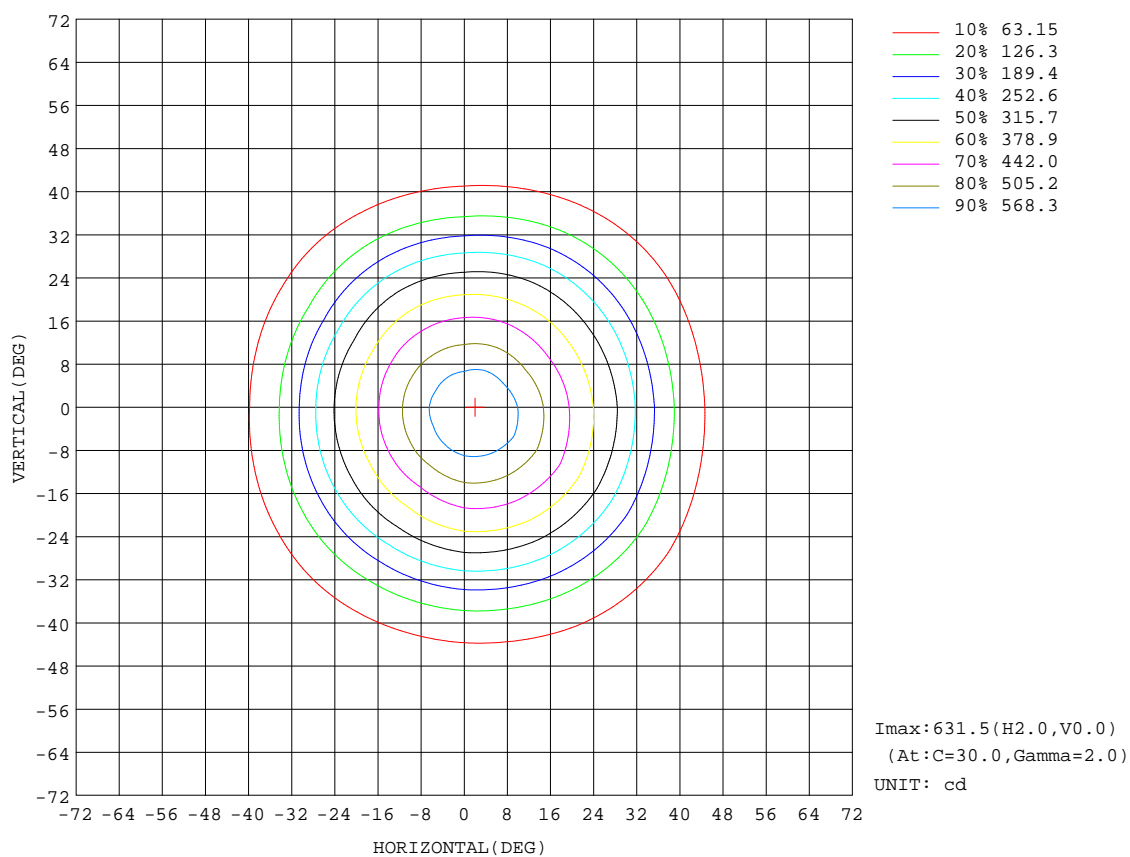
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	83	76	72	82	76	72	81	75	71	68
0.80	91	84	80	90	84	80	89	83	79	75
1.00	96	90	86	95	89	85	93	89	85	80
1.25	100	95	91	99	94	90	97	92	89	84
1.50	103	98	94	102	97	94	99	95	92	87
2.00	106	102	98	105	101	97	102	98	96	90
2.50	108	104	101	107	103	100	103	100	98	91
3.00	110	106	103	108	105	102	104	102	99	92
4.00	112	109	107	110	107	105	106	104	102	94
5.00	114	111	109	111	109	107	107	105	104	95
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:



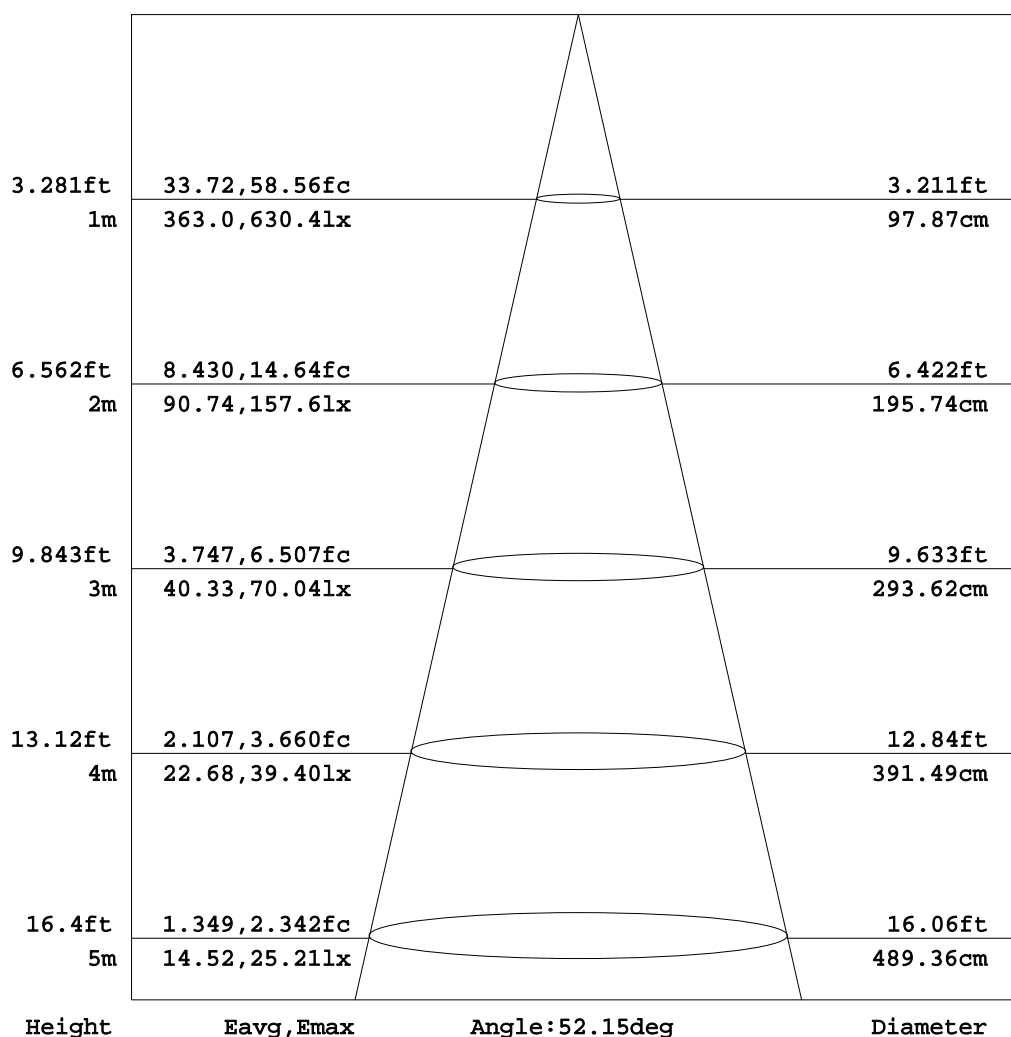
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-28

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:

AAI Figure

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

Flux out:296.0 lm



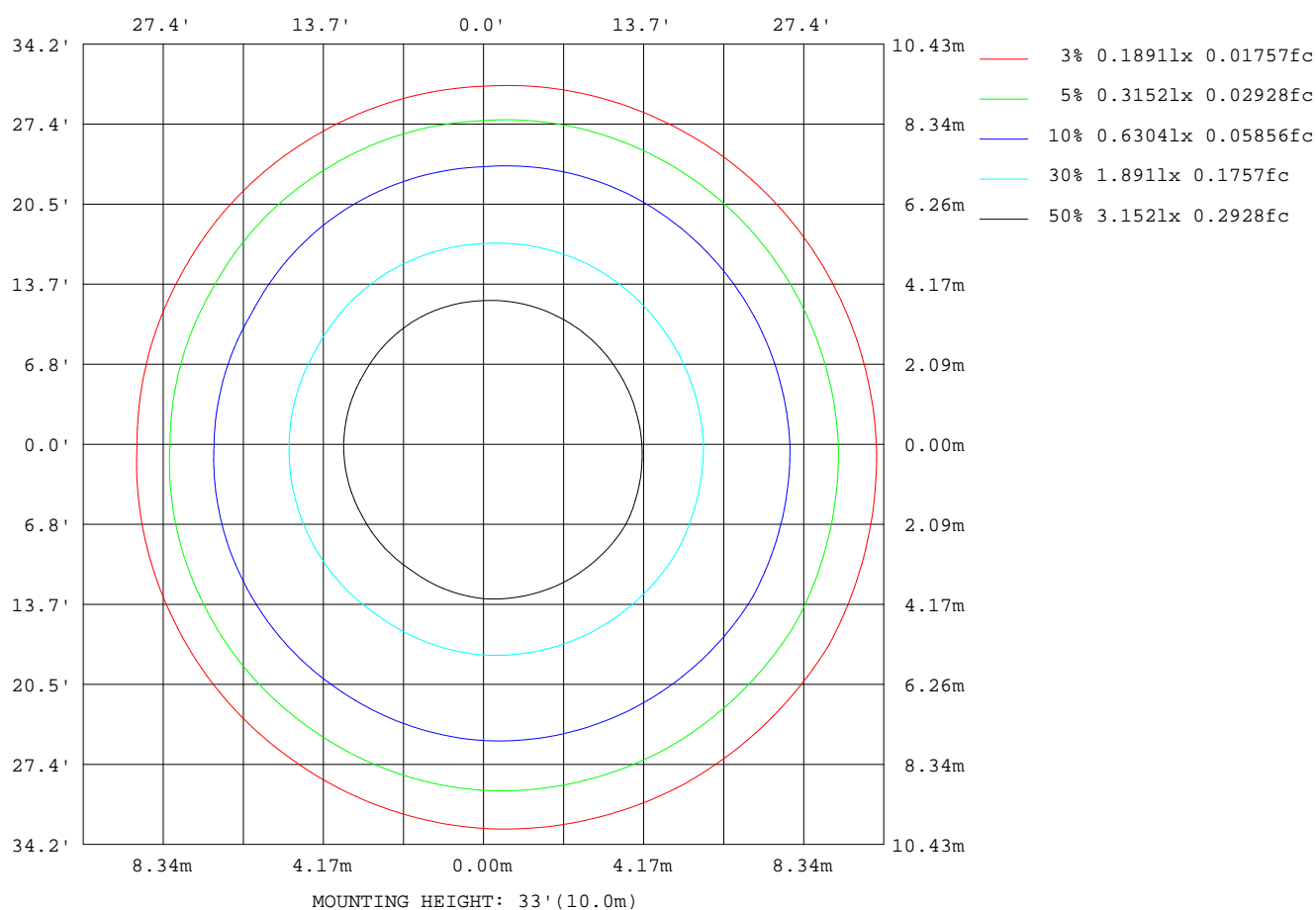
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

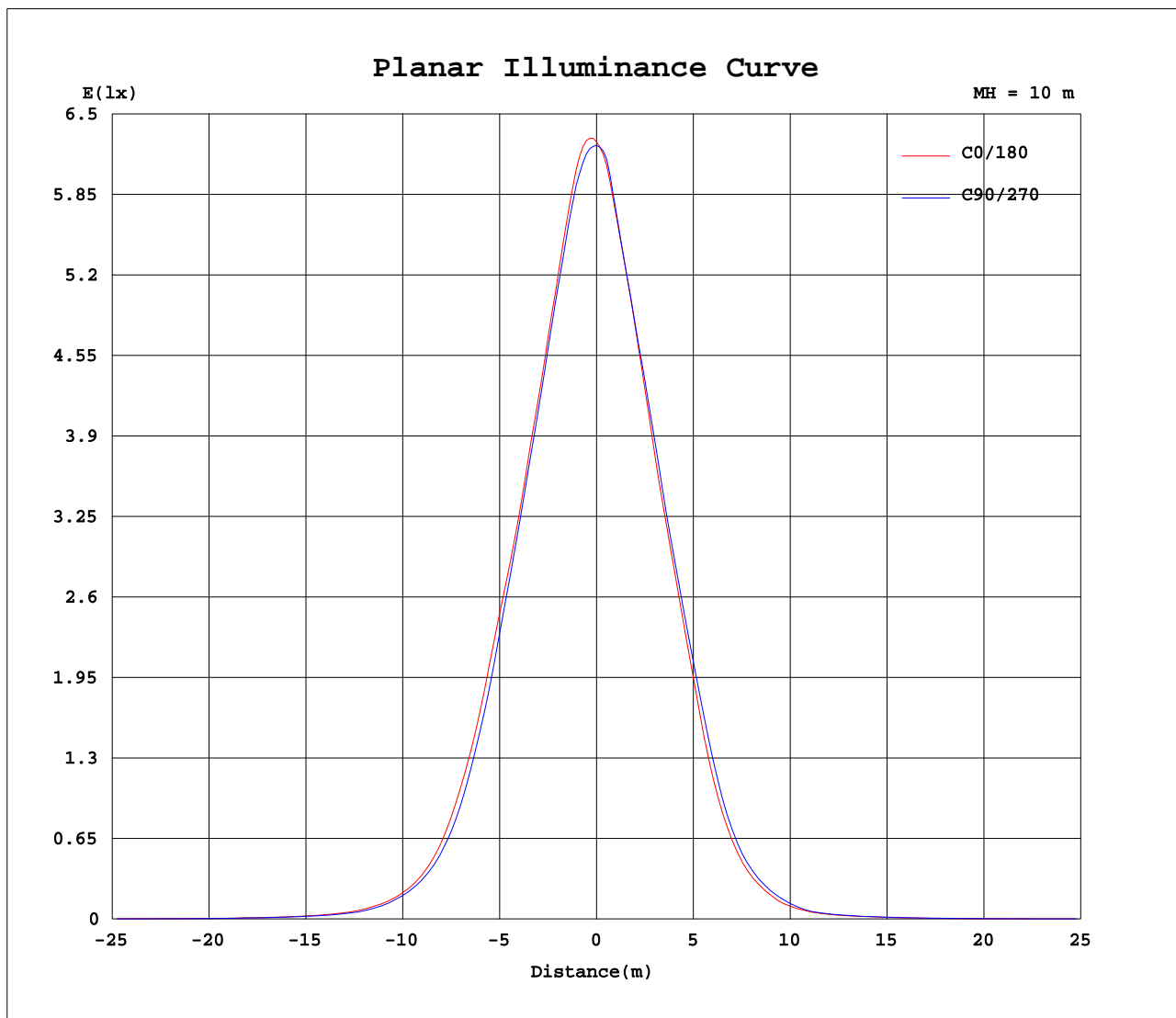
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:



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	625	625	625	625	625	625	625	625	625	625	625	625							
5	620	623	617	609	598	591	584	583	586	591	606	616							
10	565	576	567	555	540	530	523	520	521	526	540	550							
15	499	512	504	491	469	461	453	454	459	464	475	484							
20	432	450	439	424	396	384	379	376	385	391	404	417							
25	364	374	365	349	321	308	299	295	307	316	336	349							
30	284	290	276	259	233	215	200	197	211	225	251	269							
35	194	201	187	168	145	129	115	110	122	132	155	175							
40	111	116	108	97.5	82.2	70.5	61.3	61.3	65.2	71.6	84.8	98.2							
45	60.1	65.0	61.4	53.8	43.6	34.1	29.3	25.9	31.2	35.4	44.0	52.5							
50	31.4	34.5	32.6	26.7	20.0	16.3	14.8	13.5	14.9	16.4	20.6	26.9							
55	16.3	16.5	16.4	14.5	11.5	10.2	9.58	8.99	9.50	10.2	12.0	13.8							
60	10.3	10.4	10.4	8.40	6.70	5.86	5.67	5.56	5.87	6.14	6.93	8.65							
65	5.59	6.09	5.31	4.63	3.53	3.05	2.91	2.89	3.03	3.36	4.28	4.87							
70	2.96	3.14	2.75	2.54	2.25	2.08	2.02	2.02	2.03	2.20	2.48	2.70							
75	2.14	2.21	2.04	1.90	1.70	1.56	1.49	1.47	2.87	1.68	1.84	1.99							
80	1.55	1.56	1.48	1.32	1.19	1.09	1.10	1.17	2.25	1.30	1.35	1.48							
85	1.03	1.06	1.12	0.90	0.82	0.81	0.88	0.96	1.52	1.00	0.98	1.02							
90	0.78	0.84	1.27	0.85	0.78	0.96	0.94	1.04	1.74	1.01	0.93	0.86							
95	0.79	0.89	1.50	0.93	0.84	1.27	1.04	1.16	1.83	1.14	1.00	0.93							
100	0.86	0.95	1.59	1.02	0.90	1.41	1.16	1.30	1.81	1.26	1.07	1.00							
105	0.96	1.04	1.67	1.12	1.03	1.61	1.30	1.42	1.87	1.38	1.19	1.12							
110	1.09	1.16	1.77	1.26	1.17	1.73	1.47	1.56	2.19	1.51	1.36	1.26							
115	1.28	1.35	2.18	1.44	1.37	1.67	1.67	1.79	2.10	1.70	1.55	1.44							
120	1.49	1.56	1.90	1.65	1.61	1.84	1.91	1.98	2.15	1.92	1.76	1.66							
125	1.76	1.82	2.04	1.92	1.88	2.00	2.18	2.24	2.32	2.17	1.99	1.90							
130	2.05	2.10	2.22	2.21	2.18	2.29	2.47	2.52	2.61	2.45	2.30	2.17							
135	2.36	2.42	2.54	2.52	2.50	2.62	2.76	2.83	2.91	2.74	2.54	2.46							
140	2.69	2.75	2.89	2.84	2.81	2.95	3.02	3.11	3.26	3.00	2.82	2.75							
145	2.97	3.04	3.23	3.14	3.08	3.25	3.26	3.37	3.62	3.25	3.07	3.01							
150	3.21	3.29	3.51	3.37	3.30	3.53	3.45	3.53	3.90	3.41	3.28	3.23							
155	3.39	3.46	3.66	3.51	3.46	3.51	3.60	3.66	3.84	3.54	3.44	3.40							
160	3.52	3.60	3.76	3.65	3.55	3.59	3.69	3.78	3.92	3.62	3.54	3.50							
165	3.62	3.64	3.63	3.63	3.62	3.67	3.73	3.74	3.79	3.66	3.62	3.59							
170	3.71	3.73	3.70	3.72	3.71	3.74	3.79	3.76	3.76	3.70	3.70	3.67							
175	3.80	3.82	3.79	3.80	3.80	3.81	3.85	3.82	3.83	3.79	3.78	3.76							
180	3.89	3.90	3.86	3.87	3.87	3.86	3.91	3.89	3.89	3.86	3.87	3.86							

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: