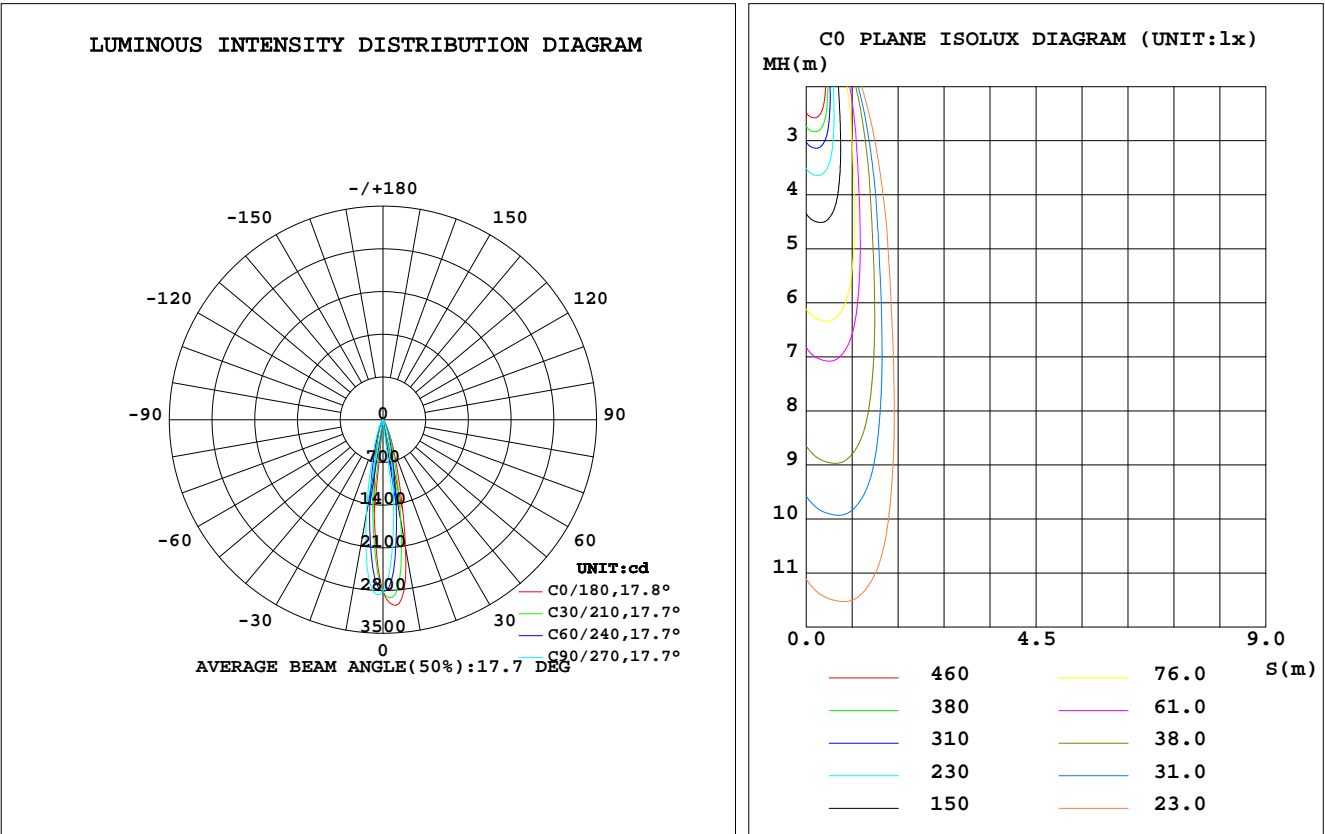


LUMINAIRE PHOTOMETRIC TEST REPORT

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

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 65.84 lm/W
MODEL	M012-8W-927-S-15	Imax(cd)	3077	S/MH(C0/180)	0.42	
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.25	
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	509.59	η UP,DN(C0-180)	1.3,45.5	
NOMINAL FLUX(lm)	509.589	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.4,51.8	
LAMPS INSIDE	1	η up(%)	2.7	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	226.5	η down(%)	97.3	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	2136	1432	913.7	715.1	731.0	1020	1571	2211	0- 10	187.8	187.8	36.9,36.9
20	485.5	336.3	213.3	171.8	178.4	232.3	343.5	496.0	10- 20	182.6	370.4	72.7,72.7
30	105.3	75.19	55.36	48.00	49.64	61.16	81.92	110.5	20- 30	72.80	443.2	87,87
40	30.12	24.96	20.95	18.57	18.56	21.05	26.78	31.67	30- 40	26.20	469.4	92.1,92.1
50	13.69	11.85	9.378	8.604	8.416	9.252	11.32	13.65	40- 50	12.60	482.0	94.6,94.6
60	6.777	6.111	4.568	4.143	4.024	4.546	5.348	6.439	50- 60	6.813	488.8	95.9,95.9
70	2.869	2.470	2.059	2.051	2.041	2.236	2.544	2.979	60- 70	3.591	492.4	96.6,96.6
80	2.005	1.430	1.215	1.141	1.167	1.276	1.462	1.594	70- 80	1.934	494.3	97,97
90	1.722	1.039	0.7912	0.7801	1.784	1.271	1.081	1.151	80- 90	1.305	495.6	97.3,97.3
100	1.888	0.7619	0.6215	0.6977	2.181	1.296	1.102	1.186	90-100	1.261	496.9	97.5,97.5
110	1.812	0.9853	0.8862	1.020	2.178	1.393	1.169	1.240	100-110	1.262	498.2	97.8,97.8
120	1.884	1.426	1.292	1.527	2.452	1.736	1.360	1.426	110-120	1.396	499.6	98,98
130	2.515	2.243	2.298	2.645	3.438	2.690	2.014	1.978	120-130	1.756	501.3	98.4,98.4
140	3.807	3.455	3.479	3.662	4.427	3.817	3.179	3.118	130-140	2.341	503.7	98.8,98.8
150	4.319	4.033	4.006	4.078	4.493	4.235	3.879	3.893	140-150	2.441	506.1	99.3,99.3
160	4.360	4.246	4.186	4.214	4.368	4.302	4.142	4.186	150-160	1.935	508.0	99.7,99.7
170	4.173	4.081	3.904	3.846	3.858	3.974	4.092	4.168	160-170	1.182	509.2	99.9,99.9
180	3.765	3.648	3.651	3.815	3.767	3.652	3.647	3.823	170-180	0.3682	509.6	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

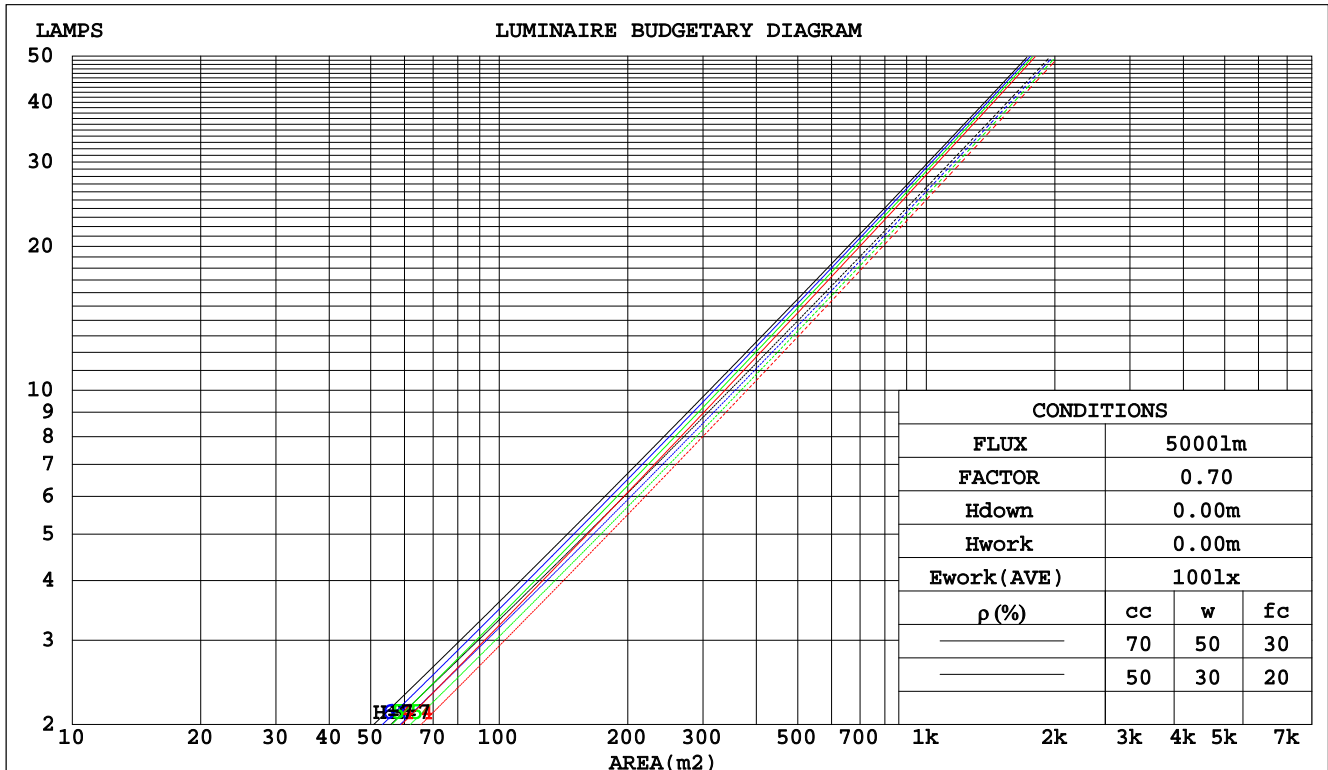
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-28

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	1.12	1.09	1.08	1.09	1.07	1.06	1.05	1.03	1.02	1.01	.99	.98	.97	.96	.95	.93
2.0	1.06	1.02	.00	1.04	1.01	.98	1.00	.98	.96	.97	.95	.93	.94	.92	.91	.89
3.0	1.01	.97	.94	.99	.96	.93	.96	.93	.91	.94	.91	.89	.91	.89	.88	.86
4.0	.96	.92	.89	.95	.91	.88	.93	.89	.87	.91	.88	.86	.89	.86	.84	.83
5.0	.92	.88	.85	.91	.87	.84	.90	.86	.83	.88	.85	.82	.86	.84	.81	.80
6.0	.89	.85	.81	.88	.84	.81	.87	.83	.80	.85	.82	.80	.84	.81	.79	.78
7.0	.86	.82	.78	.85	.81	.78	.84	.80	.78	.83	.79	.77	.81	.79	.76	.75
8.0	.83	.79	.76	.83	.78	.76	.81	.78	.75	.80	.77	.75	.79	.76	.74	.73
9.0	.81	.76	.73	.80	.76	.73	.79	.75	.73	.78	.75	.73	.77	.74	.72	.71
10.0	.78	.74	.71	.78	.74	.71	.77	.73	.71	.76	.73	.71	.75	.72	.70	.69



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	.150 .085 .027	.142 .081 .026	.128 .074 .024	.116 .067 .021	.104 .060 .019	
2.0	.139 .076 .023	.132 .073 .022	.121 .067 .021	.110 .062 .019	.100 .056 .018	
3.0	.129 .069 .021	.124 .066 .020	.114 .062 .019	.104 .057 .018	.096 .053 .016	
4.0	.120 .063 .018	.116 .061 .018	.107 .057 .017	.099 .053 .016	.092 .050 .015	
5.0	.113 .058 .017	.109 .056 .016	.102 .053 .016	.095 .050 .015	.088 .047 .014	
6.0	.106 .053 .015	.103 .052 .015	.097 .049 .014	.090 .047 .014	.085 .045 .013	
7.0	.101 .050 .014	.098 .049 .014	.092 .046 .013	.087 .044 .013	.082 .042 .012	
8.0	.096 .047 .013	.093 .046 .013	.088 .044 .013	.083 .042 .012	.079 .040 .012	
9.0	.091 .044 .012	.089 .043 .012	.084 .042 .012	.080 .040 .011	.076 .038 .011	
10.0	.087 .042 .012	.085 .041 .011	.081 .039 .011	.077 .038 .011	.073 .037 .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	.211 .211 .211	.181 .181 .181	.123 .123 .123	.071 .071 .071	.023 .023 .023	
1.0	.190 .179 .168	.163 .153 .145	.111 .105 .100	.064 .061 .058	.021 .020 .019	
2.0	.173 .154 .138	.148 .132 .119	.102 .092 .083	.059 .053 .049	.019 .017 .016	
3.0	.159 .135 .116	.136 .116 .100	.093 .081 .070	.054 .047 .041	.017 .015 .014	
4.0	.146 .119 .099	.126 .103 .086	.086 .072 .060	.050 .042 .036	.016 .014 .012	
5.0	.136 .107 .086	.117 .093 .075	.081 .065 .053	.047 .038 .031	.015 .012 .010	
6.0	.127 .098 .076	.110 .084 .066	.076 .059 .047	.044 .035 .028	.014 .011 .009	
7.0	.120 .089 .068	.103 .078 .059	.071 .054 .042	.041 .032 .025	.013 .010 .008	
8.0	.113 .083 .062	.098 .072 .054	.068 .050 .038	.039 .030 .023	.013 .010 .008	
9.0	.108 .077 .057	.093 .067 .049	.064 .047 .035	.037 .028 .021	.012 .009 .007	
10.0	.103 .073 .052	.089 .063 .046	.061 .044 .032	.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					15.2	15.9	15.4	16.1	16.3	13.3	14.0	13.6	14.2	14.4
3H					15.5	16.1	15.8	16.4	16.6	13.6	14.3	13.9	14.5	14.7
4H					15.6	16.2	15.9	16.5	16.7	13.8	14.4	14.1	14.6	14.9
6H					15.8	16.4	16.2	16.7	17.0	14.0	14.5	14.3	14.8	15.1
8H					16.1	16.6	16.4	16.9	17.2	14.1	14.6	14.4	14.9	15.2
12H					16.3	16.9	16.7	17.2	17.5	14.2	14.8	14.6	15.1	15.4
4H 2H					15.2	15.8	15.5	16.1	16.3	13.6	14.2	13.9	14.4	14.7
3H					15.6	16.1	16.0	16.5	16.8	13.9	14.5	14.3	14.8	15.1
4H					15.8	16.3	16.2	16.7	17.0	14.2	14.7	14.6	15.0	15.4
6H					16.2	16.6	16.6	17.0	17.4	14.5	14.9	14.9	15.3	15.7
8H					16.5	16.9	16.9	17.3	17.7	14.7	15.1	15.1	15.5	15.9
12H					16.9	17.3	17.3	17.7	18.1	15.0	15.3	15.4	15.8	16.2
8H 4H					15.8	16.2	16.3	16.6	17.0	14.3	14.7	14.7	15.1	15.5
6H					16.3	16.6	16.8	17.1	17.5	14.7	15.1	15.2	15.5	16.0
8H					16.7	17.0	17.2	17.5	18.0	15.1	15.4	15.6	15.8	16.3
12H					17.3	17.6	17.8	18.0	18.6	15.5	15.7	16.0	16.2	16.8
12H 4H					15.8	16.2	16.2	16.6	17.0	14.3	14.7	14.8	15.1	15.5
6H					16.3	16.6	16.8	17.1	17.6	14.8	15.1	15.3	15.6	16.1
8H					16.8	17.0	17.3	17.5	18.0	15.2	15.4	15.7	15.9	16.5
Variations with the observer position at spacings:														
S = 1.0H					+ 1.0 / - 1.0					+ 0.8 / - 1.1				
1.5H					+ 1.7 / - 0.7					+ 0.9 / - 0.9				
2.0H					+ 1.4 / - 1.1					+ 1.2 / - 1.1				

CIE Pub.117 Corrected 509.6 lm Total Lamp Luminous Flux.(8log(F/F0) = -2.3)

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:

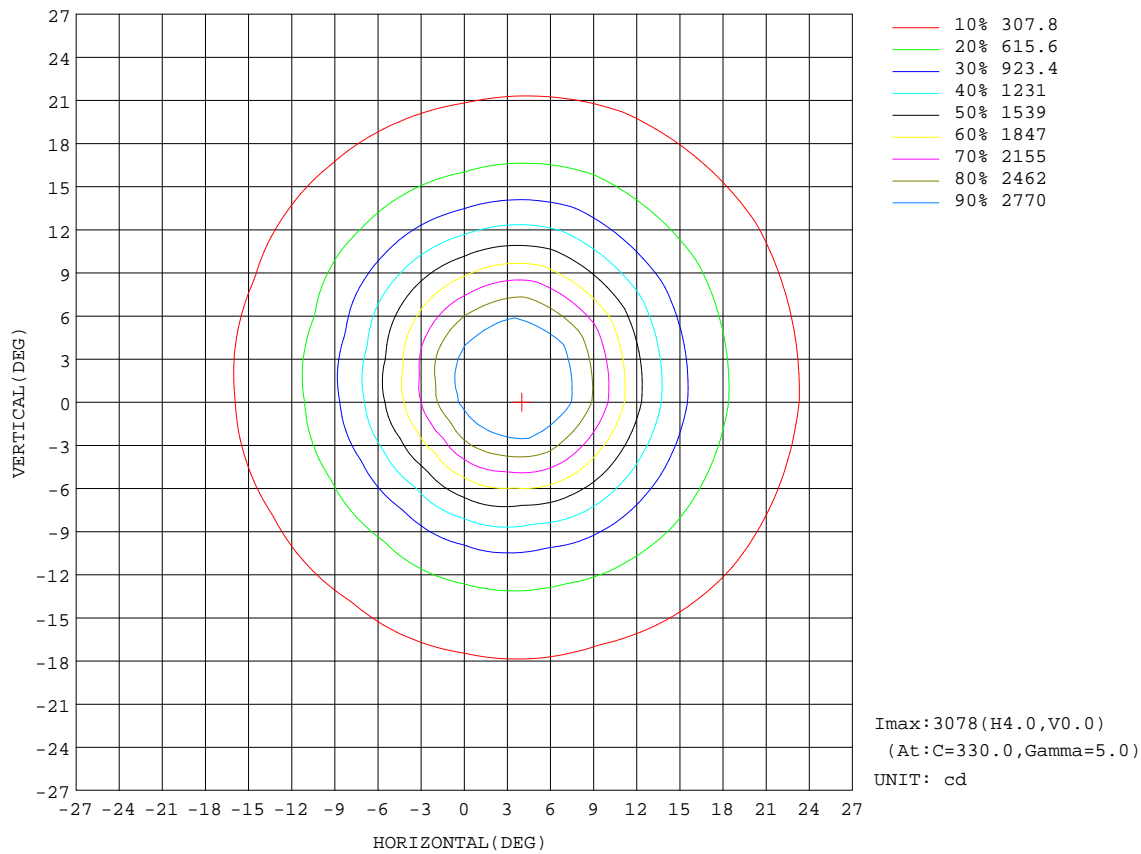
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	80	77	86	80	76	85	80	76	73
0.80	94	88	84	93	88	84	92	87	84	80
1.00	98	93	89	97	92	89	95	92	88	84
1.25	102	97	93	101	96	93	99	95	92	87
1.50	105	100	97	103	99	96	101	97	95	90
2.00	107	103	100	106	102	99	103	100	97	91
2.50	109	105	102	107	104	101	104	101	99	92
3.00	111	107	104	109	106	103	105	103	101	94
4.00	113	110	108	111	108	106	107	105	103	95
5.00	114	112	110	112	110	108	107	106	105	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:

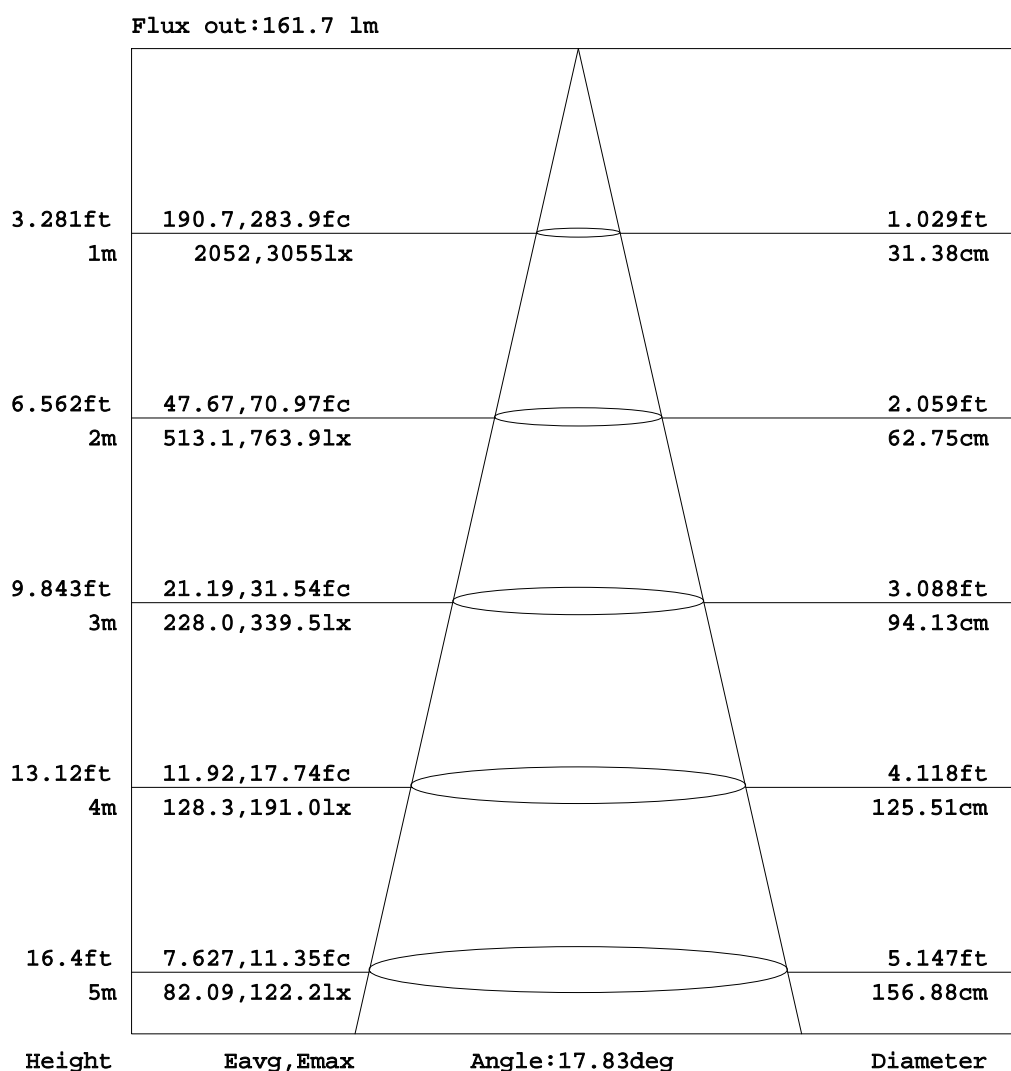


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-28

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:



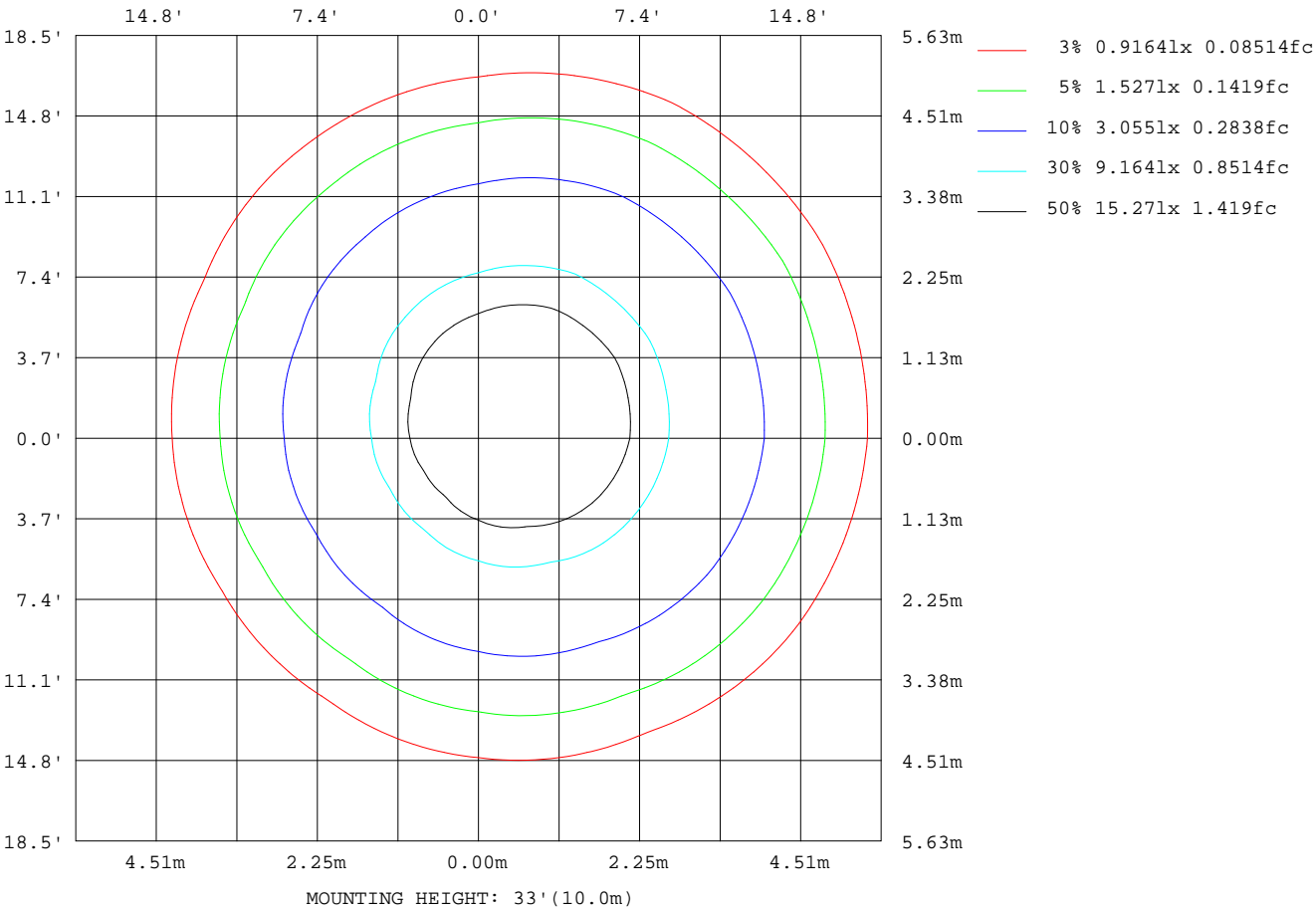
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

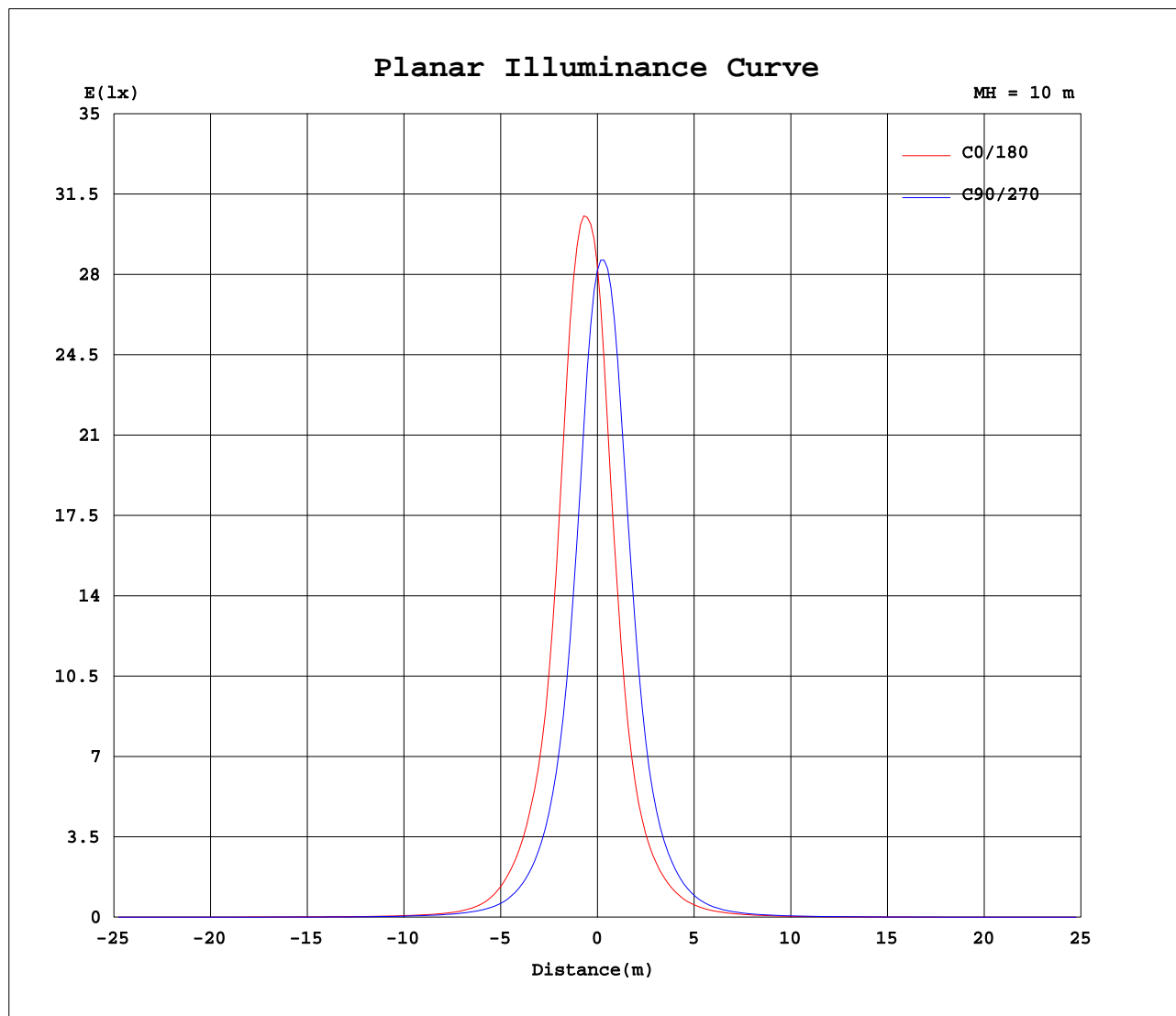
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:



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	2814	2814	2814	2814	2814	2814	2814	2814	2814	2814	2814	2814							
5	3022	2784	2283	1903	1633	1569	1637	1817	2225	2631	2968	3077							
10	2136	1682	1182	914	741	690	731	854	1185	1571	2099	2322							
15	987	790	572	434	350	327	346	397	534	717	1009	1099							
20	486	396	276	213	177	167	178	202	262	343	471	521							
25	238	190	131	104	88.9	85.9	90.8	103	133	167	227	256							
30	105	85.4	65.0	55.4	48.6	47.4	49.6	54.9	67.4	81.9	106	115							
35	51.4	44.2	36.7	33.1	29.5	28.3	29.2	31.7	37.6	44.4	54.3	55.9							
40	30.1	27.0	22.9	20.9	19.0	18.2	18.6	19.6	22.5	26.8	31.4	32.0							
45	19.9	18.8	15.9	14.1	12.7	12.2	12.2	12.9	14.8	17.1	19.7	20.6							
50	13.7	13.0	10.7	9.38	8.76	8.45	8.42	8.78	9.72	11.3	13.2	14.1							
55	9.26	9.36	7.81	6.54	6.16	5.94	5.87	6.16	6.65	7.63	8.74	9.19							
60	6.78	6.83	5.39	4.57	4.20	4.09	4.02	4.33	4.76	5.35	6.26	6.61							
65	4.29	4.11	3.48	2.98	2.77	2.74	2.75	3.04	3.32	3.75	4.43	4.45							
70	2.87	2.68	2.26	2.06	2.04	2.06	2.04	2.20	2.27	2.54	2.97	2.99							
75	2.07	1.96	1.77	1.66	1.57	1.52	1.57	1.74	1.76	1.94	2.12	2.12							
80	2.01	1.54	1.32	1.22	1.16	1.12	1.17	1.25	1.31	1.46	1.57	1.62							
85	1.65	1.19	1.09	0.98	0.95	0.91	1.24	1.12	1.18	1.15	1.17	1.29							
90	1.72	1.02	1.05	0.79	0.77	0.79	1.78	1.16	1.38	1.08	1.08	1.22							
95	1.92	0.86	0.94	0.63	0.65	0.69	2.19	1.19	1.42	1.10	1.10	1.24							
100	1.89	0.74	0.78	0.62	0.64	0.76	2.18	1.23	1.36	1.10	1.13	1.24							
105	1.63	0.77	0.86	0.73	0.78	0.90	2.29	1.29	1.40	1.13	1.16	1.24							
110	1.81	0.91	1.06	0.89	0.94	1.10	2.18	1.34	1.44	1.17	1.20	1.28							
115	1.91	1.09	1.29	1.05	1.12	1.33	2.02	1.47	1.54	1.23	1.25	1.36							
120	1.88	1.30	1.56	1.29	1.39	1.66	2.45	1.70	1.78	1.36	1.35	1.50							
125	2.11	1.57	1.92	1.70	1.86	2.15	2.83	2.06	2.10	1.59	1.54	1.72							
130	2.52	2.01	2.48	2.30	2.50	2.79	3.44	2.62	2.76	2.01	1.89	2.07							
135	3.13	2.63	3.11	2.95	3.13	3.38	4.07	3.21	3.38	2.60	2.43	2.61							
140	3.81	3.27	3.64	3.48	3.56	3.76	4.43	3.68	3.95	3.18	3.04	3.20							
145	4.34	3.68	3.94	3.81	3.84	3.99	4.49	3.95	4.23	3.61	3.53	3.67							
150	4.32	3.96	4.11	4.01	4.03	4.13	4.49	4.11	4.36	3.88	3.85	3.94							
155	4.09	4.15	4.20	4.14	4.15	4.22	4.43	4.22	4.39	4.05	4.05	4.10							
160	4.36	4.24	4.25	4.19	4.20	4.23	4.37	4.25	4.36	4.14	4.17	4.20							
165	4.24	4.23	4.20	4.13	4.13	4.10	4.11	4.15	4.15	4.16	4.19	4.21							
170	4.17	4.13	4.03	3.90	3.85	3.84	3.86	3.94	4.01	4.09	4.16	4.18							
175	3.99	3.88	3.70	3.56	3.57	3.63	3.60	3.62	3.71	3.86	3.99	4.06							
180	3.76	3.69	3.60	3.65	3.75	3.88	3.77	3.69	3.62	3.65	3.77	3.88							

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: