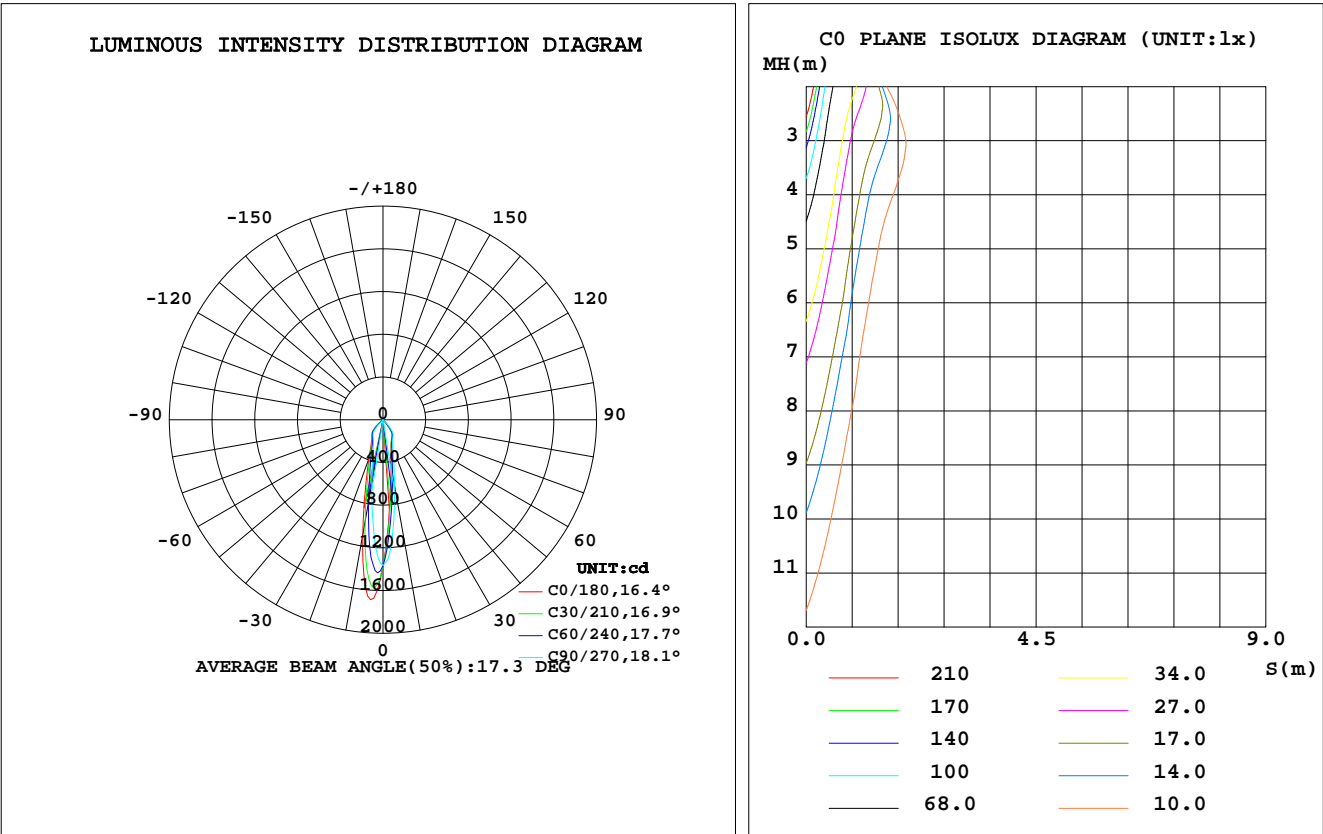


LUMINAIRE PHOTOMETRIC TEST REPORT

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

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 62.55 lm/W
MODEL	M011-8W-927-S-16	Imax(cd)	1689	S/MH(C0/180)	0.20	
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.31	
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	482.27	η UP,DN(C0-180)	1.2,46.1	
NOMINAL FLUX(lm)	482.272	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.2,51.6	
LAMPS INSIDE	1	η up(%)	2.3	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	226.5	η down(%)	97.7	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	436.2	486.3	628.7	884.9	1095	876.1	611.8	483.6	0- 10	92.38	92.38	19.2,19.2
20	226.5	236.9	270.6	336.0	385.6	335.2	268.0	238.2	10- 20	119.1	211.5	43.9,43.9
30	170.1	174.4	187.1	203.4	213.2	200.8	185.8	175.2	20- 30	104.1	315.6	65.4,65.4
40	52.19	72.92	115.6	152.4	160.3	152.6	119.7	76.28	30- 40	97.65	413.3	85.7,85.7
50	7.531	8.349	11.81	24.19	40.74	22.96	11.13	8.143	40- 50	43.20	456.5	94.6,94.6
60	3.799	4.127	4.780	5.839	6.542	5.844	4.625	4.021	50- 60	7.269	463.7	96.2,96.2
70	2.421	2.749	3.202	3.614	3.716	3.505	3.062	2.634	60- 70	3.870	467.6	97,97
80	0.8559	0.9227	1.072	1.880	2.196	1.750	0.9638	0.8915	70- 80	2.358	470.0	97.4,97.4
90	0.7263	0.7145	0.7166	0.7257	0.8052	0.8104	0.7998	0.8557	80- 90	0.9866	470.9	97.7,97.7
100	0.8531	0.8212	0.7581	0.7188	0.9164	0.9175	0.9614	1.047	90-100	0.8822	471.8	97.8,97.8
110	1.176	1.144	1.058	0.9538	1.126	1.133	1.194	1.294	100-110	1.055	472.9	98.1,98.1
120	1.580	1.521	1.407	1.291	1.395	1.414	1.507	1.648	110-120	1.282	474.2	98.3,98.3
130	2.284	2.176	1.962	1.765	1.814	1.871	2.044	2.267	120-130	1.539	475.7	98.6,98.6
140	2.941	2.876	2.721	2.531	2.504	2.569	2.745	2.918	130-140	1.836	477.5	99,99
150	3.252	3.228	3.166	3.078	3.043	3.076	3.161	3.259	140-150	1.859	479.4	99.4,99.4
160	3.508	3.490	3.435	3.376	3.336	3.357	3.426	3.518	150-160	1.522	480.9	99.7,99.7
170	3.569	3.623	3.663	3.639	3.619	3.617	3.640	3.659	160-170	1.002	481.9	99.9,99.9
180	3.669	3.707	3.724	3.723	3.686	3.706	3.722	3.726	170-180	0.3489	482.3	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

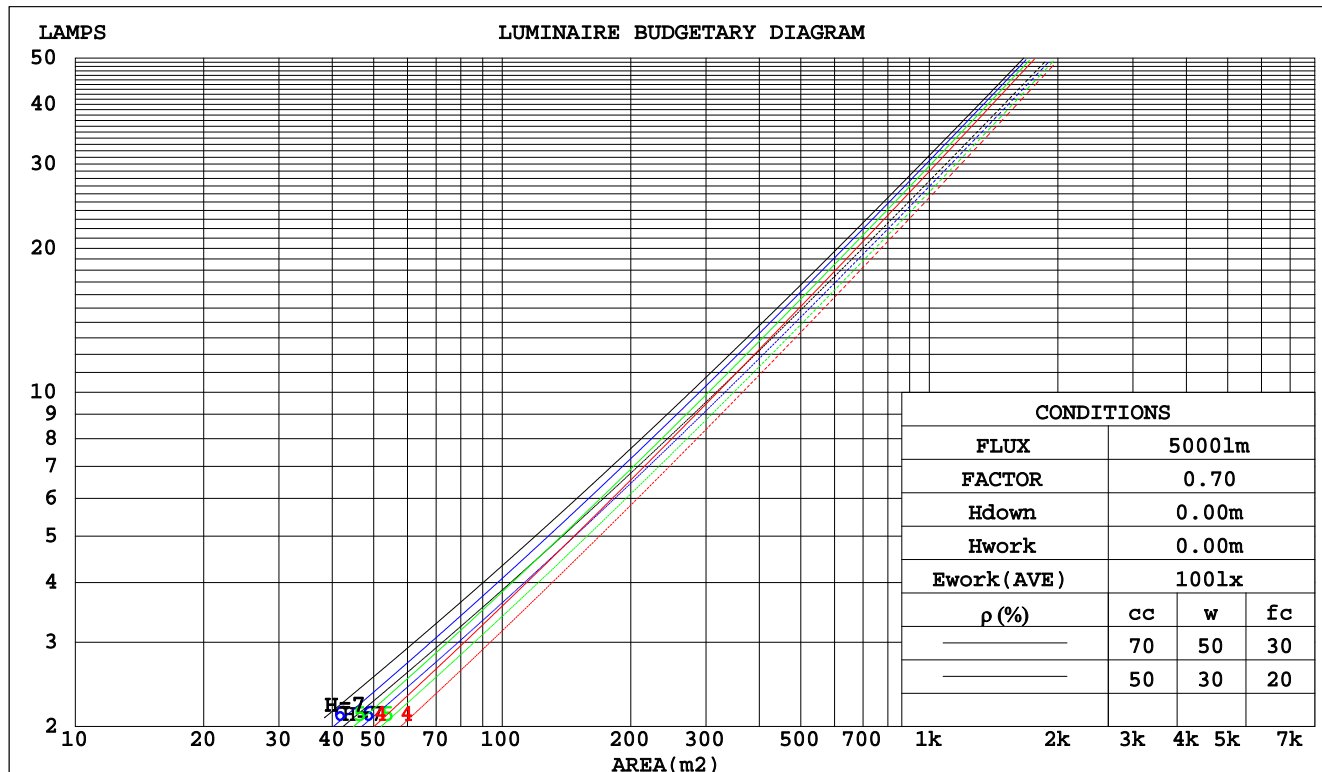
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-28

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	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	1.05	1.05	1.05	.00	.00	.00	.98
1.0	1.10	1.08	1.05	1.08	1.05	1.03	1.03	1.01	.00	.99	.98	.96	.95	.94	.93	.91
2.0	1.02	.98	.95	1.00	.97	.94	.97	.94	.91	.93	.91	.89	.90	.88	.87	.85
3.0	.95	.91	.87	.94	.89	.86	.91	.87	.84	.88	.85	.82	.86	.83	.81	.79
4.0	.89	.84	.80	.88	.83	.79	.86	.81	.78	.83	.80	.77	.81	.78	.76	.74
5.0	.84	.78	.74	.83	.77	.73	.81	.76	.73	.79	.75	.72	.77	.74	.71	.69
6.0	.79	.73	.69	.78	.73	.69	.76	.72	.68	.75	.71	.67	.73	.70	.67	.65
7.0	.75	.69	.65	.74	.68	.64	.72	.67	.64	.71	.67	.63	.70	.66	.63	.61
8.0	.71	.65	.61	.70	.64	.61	.69	.64	.60	.68	.63	.60	.66	.62	.59	.58
9.0	.67	.61	.58	.67	.61	.57	.65	.61	.57	.64	.60	.57	.63	.59	.56	.55
10.0	.64	.58	.55	.63	.58	.54	.62	.58	.54	.62	.57	.54	.61	.57	.54	.52



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	.181 .103 .033	.173 .099 .031	.159 .091 .029	.147 .085 .027	.135 .078 .025	
2.0	.172 .094 .029	.166 .091 .028	.154 .086 .027	.143 .080 .025	.133 .075 .024	
3.0	.163 .087 .026	.158 .084 .025	.147 .080 .024	.138 .076 .023	.129 .072 .022	
4.0	.154 .080 .024	.150 .078 .023	.141 .075 .022	.133 .071 .021	.125 .068 .021	
5.0	.147 .075 .022	.142 .073 .021	.135 .070 .021	.127 .067 .020	.121 .064 .019	
6.0	.139 .070 .020	.136 .068 .020	.129 .066 .019	.122 .063 .019	.116 .061 .018	
7.0	.132 .065 .019	.129 .064 .018	.123 .062 .018	.117 .060 .017	.112 .058 .017	
8.0	.126 .062 .017	.123 .061 .017	.118 .059 .017	.113 .057 .016	.108 .055 .016	
9.0	.120 .058 .016	.118 .057 .016	.113 .056 .016	.108 .054 .016	.104 .053 .015	
10.0	.115 .055 .015	.113 .054 .015	.108 .053 .015	.104 .052 .015	.100 .050 .014	

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	.208 .208 .208	.178 .178 .178	.122 .122 .122	.070 .070 .070	.022 .022 .022	
1.0	.189 .175 .163	.162 .150 .140	.111 .104 .097	.064 .060 .056	.020 .019 .018	
2.0	.174 .151 .131	.149 .130 .113	.102 .090 .079	.059 .052 .046	.019 .017 .015	
3.0	.162 .132 .108	.139 .114 .093	.095 .079 .065	.055 .046 .039	.018 .015 .013	
4.0	.152 .117 .091	.130 .101 .079	.090 .071 .056	.052 .041 .033	.017 .013 .011	
5.0	.143 .106 .078	.123 .091 .068	.085 .064 .048	.049 .037 .028	.016 .012 .009	
6.0	.136 .096 .068	.116 .083 .059	.080 .058 .042	.047 .034 .025	.015 .011 .008	
7.0	.129 .089 .061	.111 .077 .053	.077 .054 .038	.044 .032 .022	.014 .010 .007	
8.0	.123 .083 .055	.106 .072 .048	.073 .050 .034	.043 .030 .020	.014 .010 .007	
9.0	.118 .077 .050	.101 .067 .044	.070 .047 .031	.041 .028 .019	.013 .009 .006	
10.0	.113 .073 .046	.097 .063 .040	.068 .045 .029	.039 .026 .017	.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	18.6	19.5	18.8	19.7	19.9	20.1	21.0	20.4	21.2	21.4				
3H	18.5	19.4	18.8	19.6	19.8	20.1	20.9	20.3	21.1	21.4				
4H	18.5	19.3	18.8	19.5	19.8	20.0	20.8	20.4	21.1	21.4				
6H	18.4	19.2	18.7	19.4	19.7	20.0	20.8	20.3	21.0	21.3				
8H	18.4	19.1	18.7	19.4	19.7	20.0	20.7	20.3	21.0	21.3				
12H	18.4	19.1	18.7	19.4	19.7	20.0	20.6	20.3	21.0	21.3				
4H 2H	18.4	19.2	18.7	19.4	19.7	19.9	20.7	20.2	20.9	21.2				
3H	18.4	19.1	18.7	19.4	19.7	19.9	20.6	20.2	20.9	21.2				
4H	18.3	19.0	18.7	19.3	19.7	19.9	20.5	20.3	20.8	21.2				
6H	18.3	18.8	18.7	19.2	19.6	19.9	20.4	20.3	20.8	21.2				
8H	18.3	18.8	18.7	19.2	19.6	19.8	20.4	20.3	20.7	21.2				
12H	18.3	18.7	18.7	19.2	19.6	19.8	20.3	20.3	20.7	21.2				
8H 4H	18.2	18.7	18.7	19.1	19.6	19.8	20.3	20.2	20.7	21.1				
6H	18.2	18.6	18.7	19.1	19.5	19.8	20.2	20.2	20.6	21.1				
8H	18.2	18.6	18.7	19.0	19.5	19.8	20.1	20.2	20.6	21.1				
12H	18.3	18.6	18.8	19.1	19.6	19.8	20.1	20.3	20.6	21.1				
12H 4H	18.2	18.7	18.6	19.1	19.5	19.7	20.2	20.2	20.6	21.0				
6H	18.2	18.5	18.7	19.0	19.5	19.7	20.1	20.2	20.5	21.0				
8H	18.2	18.5	18.7	19.0	19.5	19.7	20.0	20.2	20.5	21.0				
Variations with the observer position at spacings:														
S = 1.0H	+ 3.2 / - 6.0					+ 3.5 / - 6.7								
1.5H	+ 5.7 / - 5.3					+ 5.8 / - 6.6								
2.0H	+ 2.1 / - 1.0					+ 6.9 / - 2.0								

CIE Pub.117 Corrected 482.3 lm Total Lamp Luminous Flux. (8log(F/F0) = -2.5)

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:

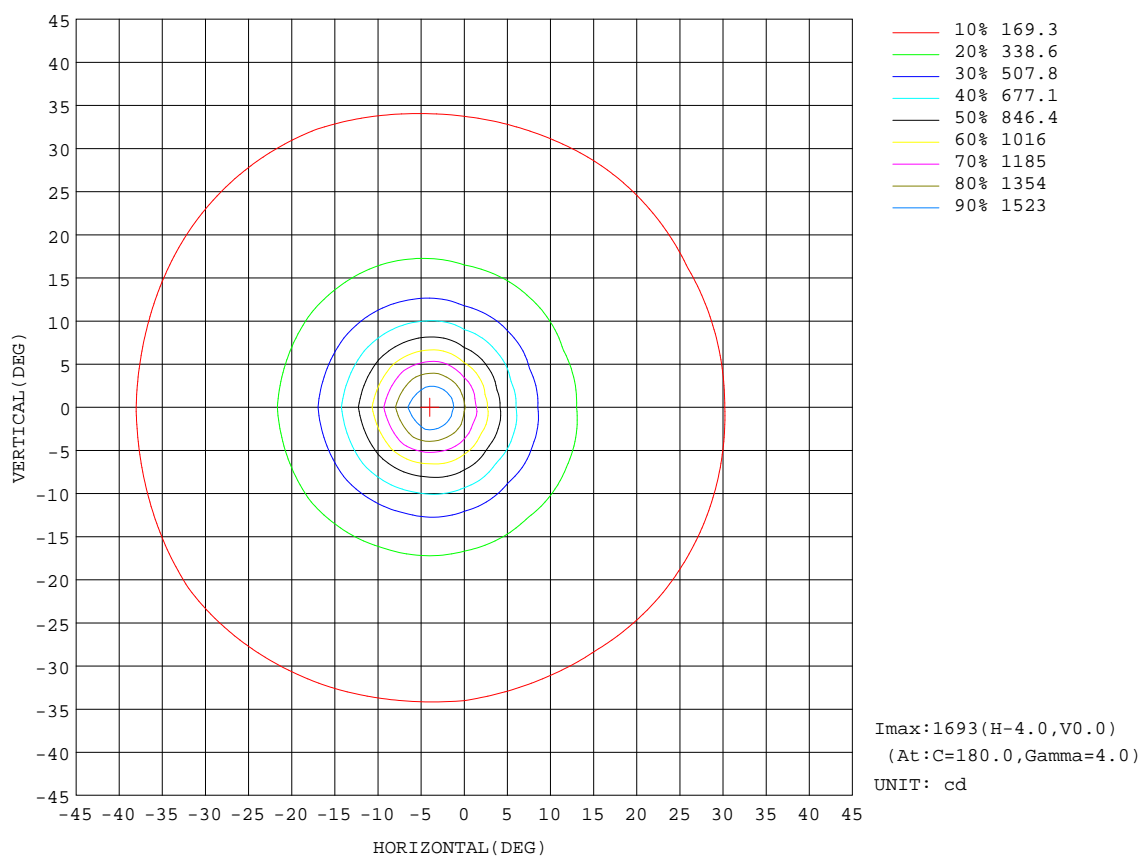
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	83	76	71	82	75	71	81	75	71	67
0.80	91	84	80	90	84	80	88	83	79	75
1.00	96	90	85	95	89	85	93	89	84	80
1.25	100	94	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	100	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:



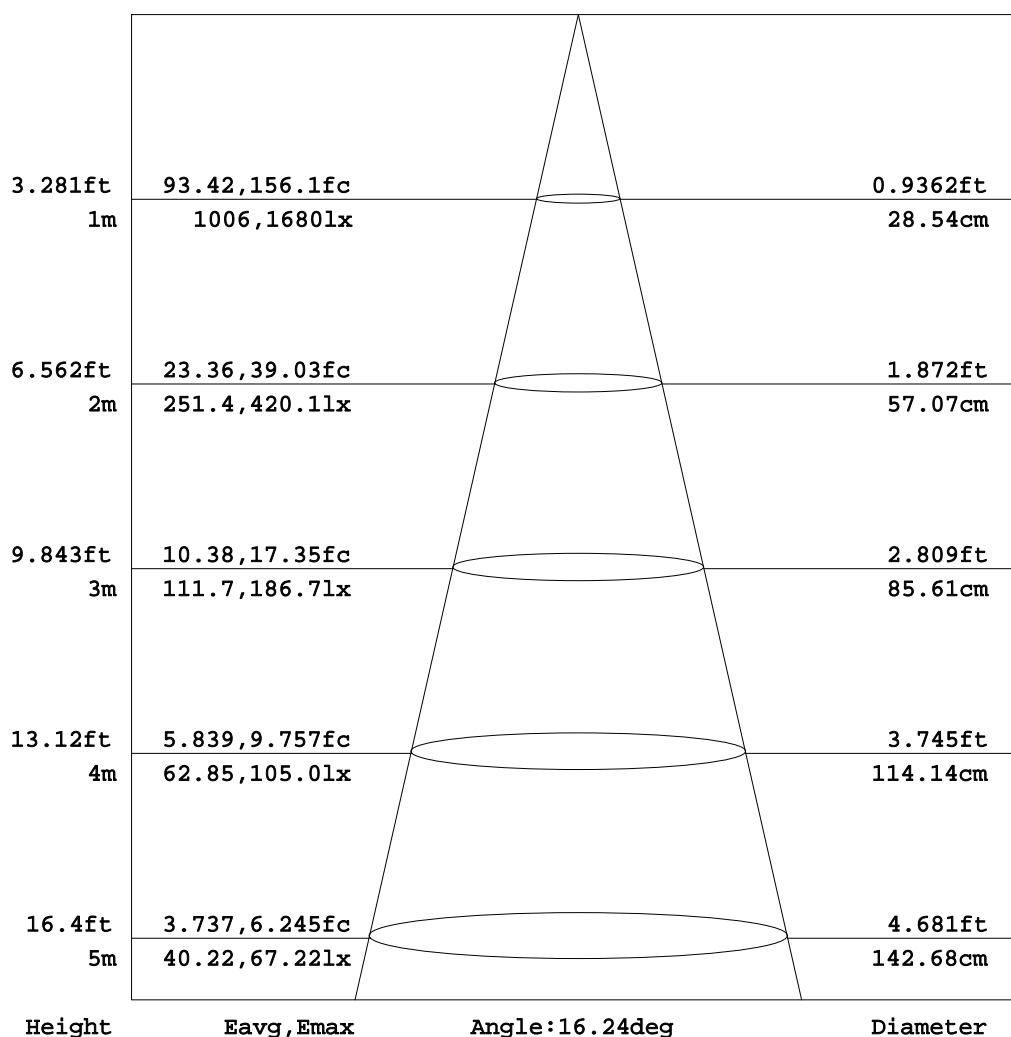
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-28

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ 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:79.25 lm



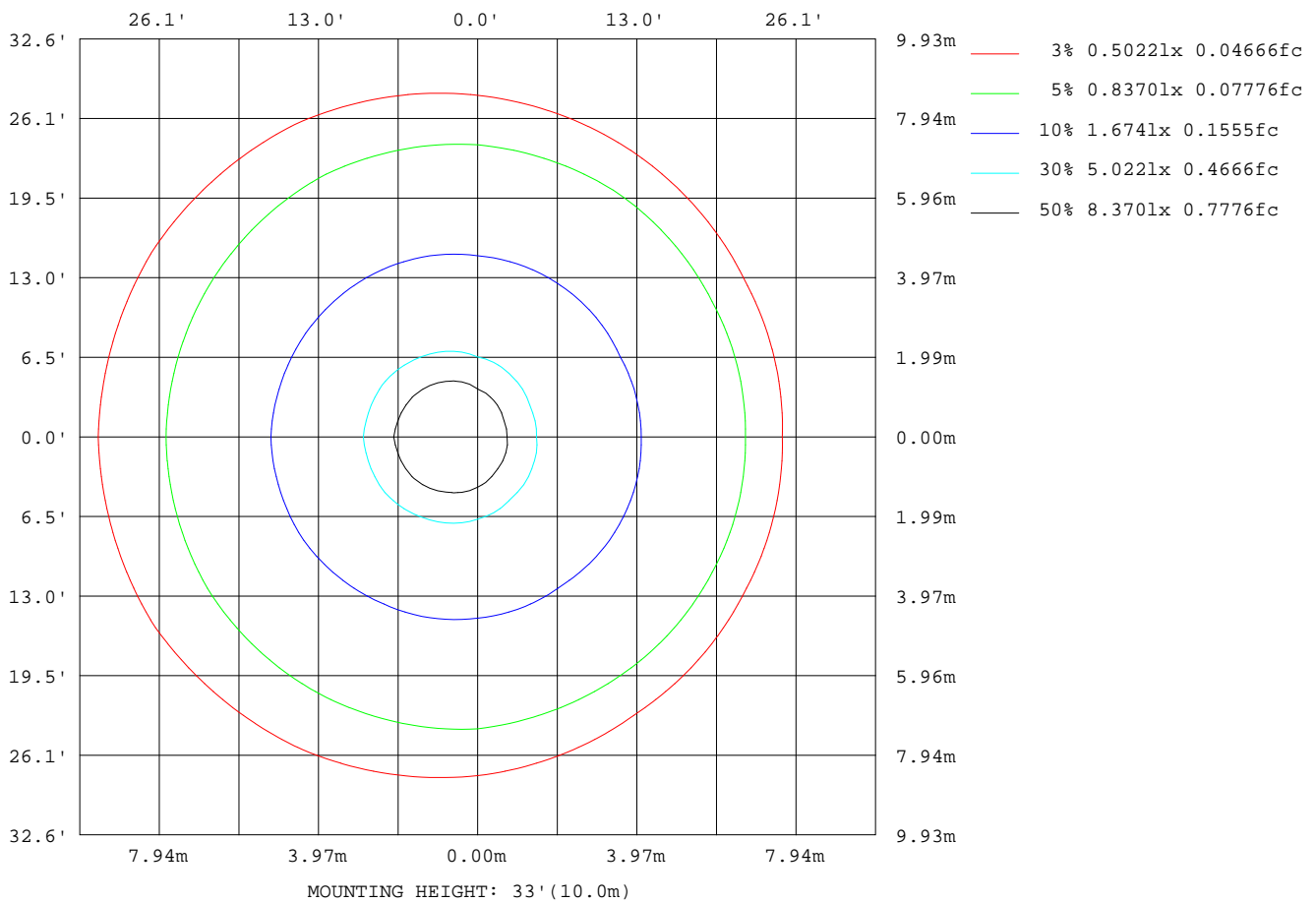
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

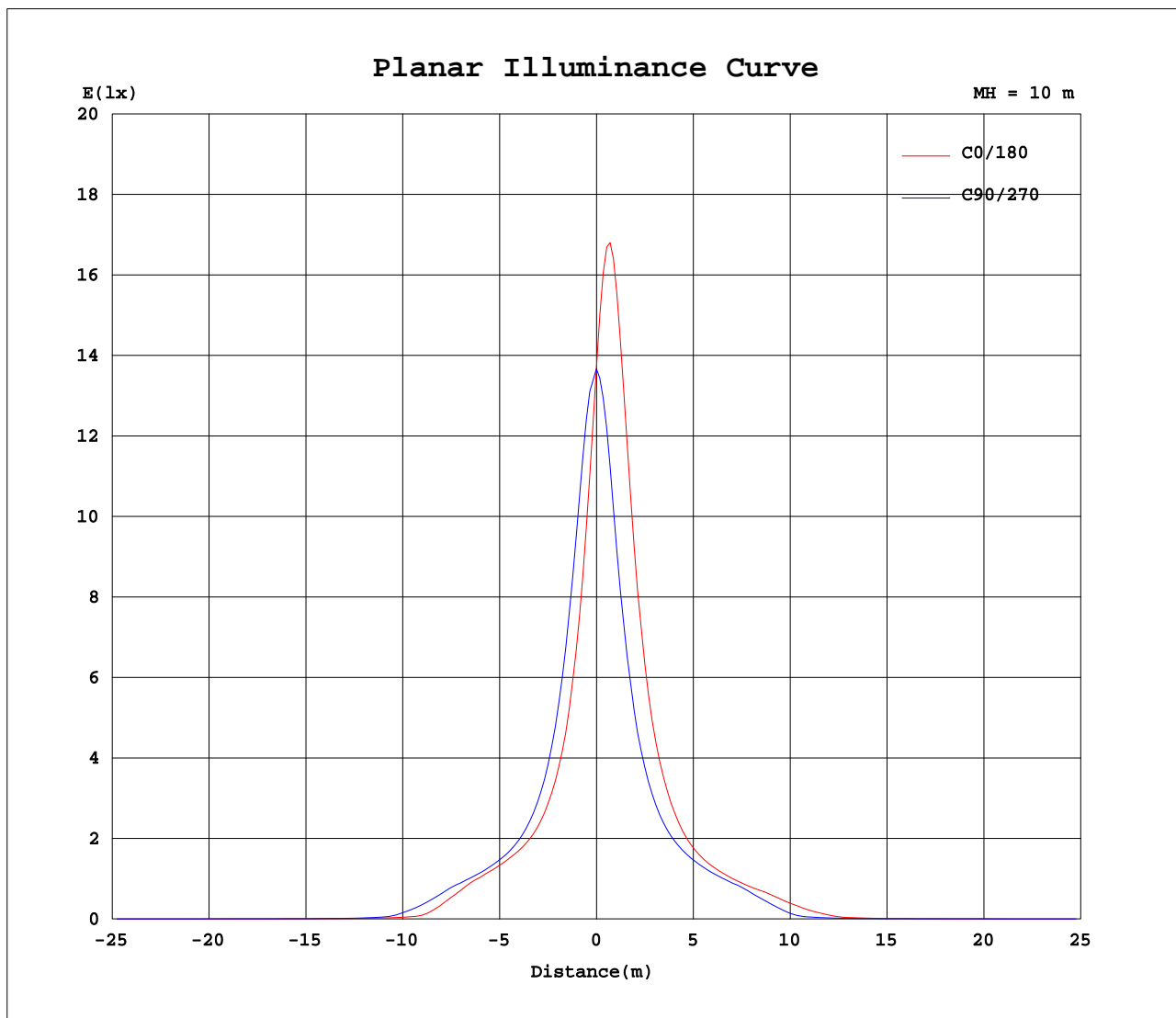
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:



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	1366	1366	1366	1366	1366	1366	1366	1366	1366	1366	1366	1366						
5	759	798	884	1060	1280	1551	1656	1503	1292	1029	887	782						
10	436	459	514	629	784	986	1095	966	785	612	517	450						
15	293	306	332	386	464	570	621	560	469	379	336	300						
20	227	231	243	271	310	362	386	355	315	268	247	230						
25	194	196	202	216	235	259	268	252	235	216	205	195						
30	170	172	177	187	197	210	213	204	198	186	179	171						
35	130	136	149	164	174	181	184	178	174	163	154	138						
40	52.2	63.4	82.5	116	145	160	160	158	148	120	91.2	61.3						
45	13.4	14.4	18.4	44.8	75.5	104	111	102	83.3	40.2	18.6	14.5						
50	7.53	7.64	9.06	11.8	16.9	31.4	40.7	28.1	17.7	11.1	8.79	7.50						
55	4.82	5.21	5.68	6.66	8.09	9.81	10.9	9.74	8.54	6.54	5.67	5.04						
60	3.80	3.97	4.28	4.78	5.42	6.26	6.54	6.16	5.52	4.62	4.19	3.86						
65	3.14	3.29	3.57	3.85	4.21	4.63	4.69	4.40	4.13	3.71	3.38	3.17						
70	2.42	2.61	2.89	3.20	3.49	3.74	3.72	3.59	3.42	3.06	2.74	2.52						
75	1.03	1.27	1.98	2.46	2.78	3.03	3.03	2.95	2.82	2.38	1.82	1.04						
80	0.86	0.86	0.98	1.07	1.62	2.14	2.20	2.04	1.45	0.96	0.90	0.88						
85	0.74	0.72	0.75	0.80	0.95	1.03	1.05	0.98	0.89	0.82	0.80	0.83						
90	0.73	0.71	0.72	0.72	0.73	0.73	0.81	0.80	0.82	0.80	0.85	0.86						
95	0.75	0.74	0.72	0.71	0.71	0.71	0.84	0.83	0.86	0.87	0.93	0.96						
100	0.85	0.85	0.79	0.76	0.72	0.71	0.92	0.89	0.94	0.96	1.03	1.06						
105	1.03	1.01	0.96	0.89	0.82	0.79	1.01	0.99	1.04	1.07	1.15	1.18						
110	1.18	1.17	1.12	1.06	0.97	0.93	1.13	1.11	1.16	1.19	1.28	1.31						
115	1.36	1.34	1.29	1.22	1.14	1.10	1.25	1.23	1.29	1.33	1.43	1.47						
120	1.58	1.55	1.49	1.41	1.31	1.27	1.39	1.38	1.45	1.51	1.62	1.68						
125	1.89	1.85	1.77	1.64	1.53	1.46	1.58	1.56	1.65	1.73	1.87	1.97						
130	2.28	2.23	2.12	1.96	1.81	1.72	1.81	1.82	1.92	2.04	2.21	2.33						
135	2.66	2.61	2.51	2.35	2.19	2.08	2.14	2.15	2.27	2.41	2.58	2.68						
140	2.94	2.91	2.84	2.72	2.58	2.48	2.50	2.51	2.63	2.75	2.88	2.95						
145	3.12	3.11	3.07	2.99	2.89	2.82	2.82	2.82	2.92	2.99	3.10	3.13						
150	3.25	3.24	3.21	3.17	3.10	3.06	3.04	3.03	3.12	3.16	3.24	3.27						
155	3.39	3.37	3.35	3.30	3.24	3.22	3.20	3.18	3.27	3.29	3.37	3.40						
160	3.51	3.50	3.48	3.43	3.39	3.36	3.34	3.32	3.40	3.43	3.51	3.53						
165	3.58	3.58	3.59	3.57	3.53	3.51	3.49	3.46	3.54	3.55	3.62	3.61						
170	3.57	3.59	3.65	3.66	3.64	3.64	3.62	3.58	3.65	3.64	3.68	3.64						
175	3.55	3.60	3.67	3.69	3.71	3.71	3.68	3.66	3.71	3.69	3.68	3.63						
180	3.67	3.69	3.73	3.72	3.73	3.72	3.69	3.69	3.73	3.72	3.74	3.72						

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: