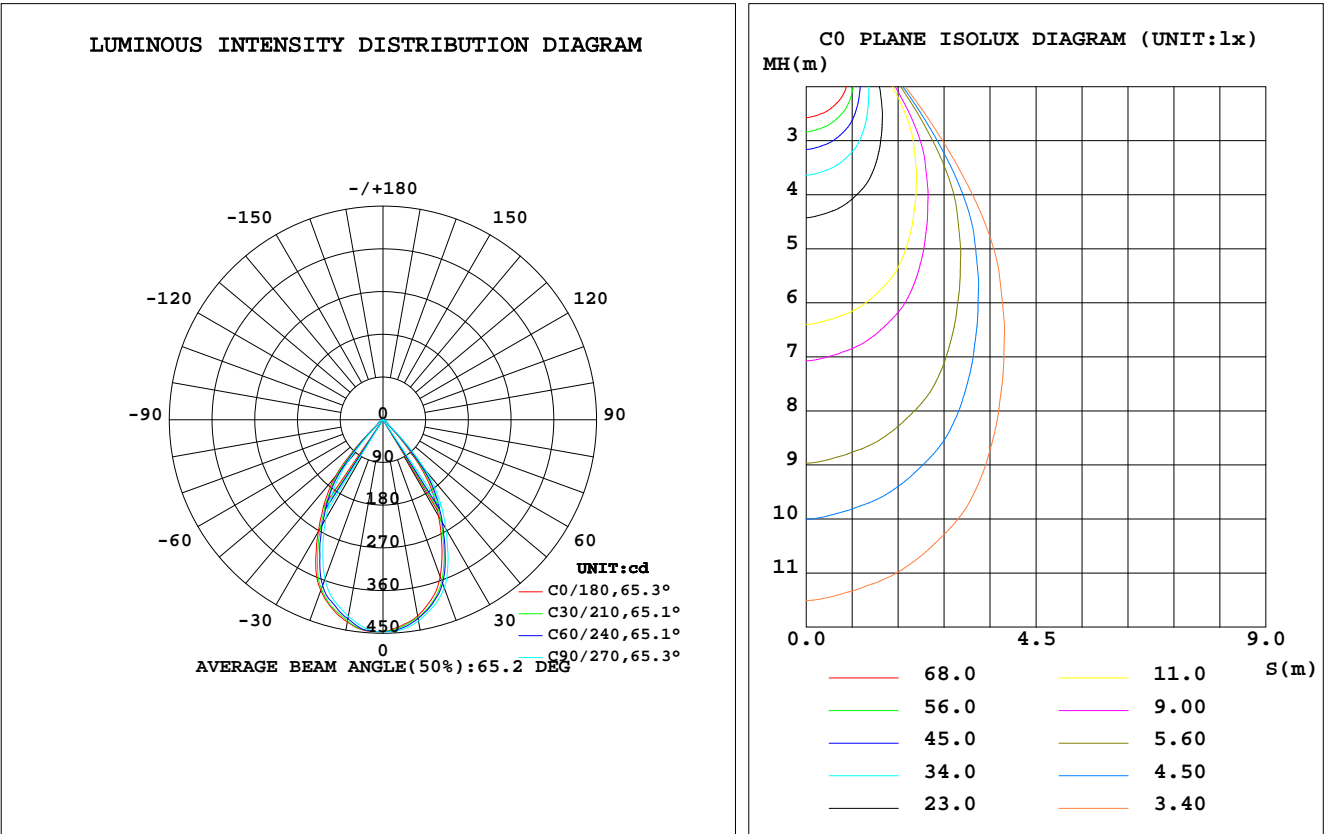


LUMINAIRE PHOTOMETRIC TEST REPORT

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

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 63.95 lm/W
MODEL	M011-8W-827-S-60	Imax(cd)	447.4	S/MH(C0/180)	0.92	
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.99	
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	491.13	η UP,DN(C0-180)	1.1,49.4	
NOMINAL FLUX(lm)	491.128	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.2,48.3	
LAMPS INSIDE	1	η up(%)	2.3	CIBSE SHR NOM	1.00	
TEST VOLTAGE(V)	226.5	η down(%)	97.7	CIBSE SHR MAX	1.05	



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	419.9	424.2	430.5	432.4	432.8	428.1	420.4	418.9	0- 10	41.63	41.63	8.48,8.48
20	352.1	364.3	377.1	383.3	383.1	375.6	357.0	350.9	10- 20	112.7	154.3	31.4,31.4
30	233.9	246.9	264.6	273.5	272.6	260.3	241.0	235.4	20- 30	143.2	297.6	60.6,60.6
40	100.8	119.5	142.1	153.4	157.3	140.5	115.1	102.6	30- 40	120.8	418.4	85.2,85.2
50	12.59	13.60	14.81	15.60	15.12	14.32	13.27	12.81	40- 50	41.25	459.7	93.6,93.6
60	7.656	8.161	8.556	8.690	8.646	8.316	7.855	7.647	50- 60	9.601	469.3	95.6,95.6
70	4.306	4.544	4.918	5.036	5.111	4.798	4.524	4.460	60- 70	6.291	475.6	96.8,96.8
80	1.038	1.109	1.248	1.560	1.567	1.137	1.092	1.056	70- 80	3.106	478.7	97.5,97.5
90	0.7038	0.7085	0.7016	0.7044	0.7873	0.7883	0.8004	0.8132	80- 90	0.9483	479.6	97.7,97.7
100	0.8955	0.8793	0.8577	0.8353	0.9541	0.9705	0.9900	1.024	90-100	0.9026	480.5	97.8,97.8
110	1.197	1.171	1.132	1.099	1.237	1.259	1.300	1.334	100-110	1.123	481.6	98.1,98.1
120	1.618	1.577	1.521	1.477	1.621	1.653	1.706	1.747	110-120	1.394	483.0	98.4,98.4
130	2.138	2.087	2.019	1.969	2.083	2.123	2.182	2.232	120-130	1.658	484.7	98.7,98.7
140	2.688	2.641	2.579	2.523	2.583	2.627	2.684	2.729	130-140	1.828	486.5	99.1,99.1
150	3.084	3.073	3.043	2.999	3.012	3.049	3.070	3.097	140-150	1.791	488.3	99.4,99.4
160	3.355	3.353	3.337	3.301	3.316	3.332	3.358	3.357	150-160	1.476	489.8	99.7,99.7
170	3.596	3.616	3.615	3.580	3.593	3.598	3.605	3.614	160-170	0.9799	490.8	99.9,99.9
180	3.769	3.790	3.803	3.777	3.784	3.784	3.801	3.787	170-180	0.3511	491.1	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

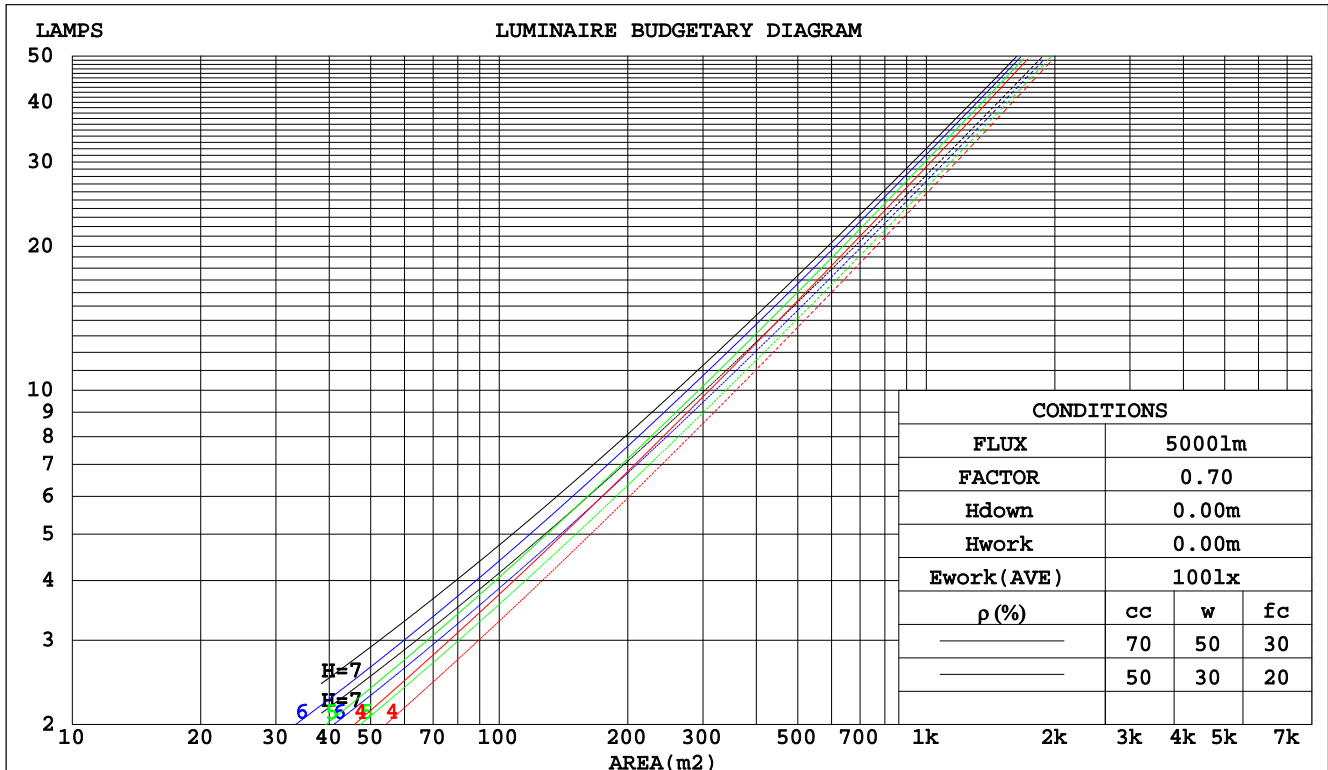
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-28

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	1.09	1.07	1.04	1.07	1.04	1.02	1.02	1.00	.99	.98	.97	.95	.94	.93	.92	.90
2.0	1.01	.96	.93	.99	.95	.91	.95	.92	.89	.92	.89	.87	.89	.87	.85	.83
3.0	.93	.88	.83	.92	.87	.83	.89	.84	.81	.86	.82	.79	.83	.80	.78	.76
4.0	.86	.80	.76	.85	.79	.75	.83	.78	.74	.80	.76	.73	.78	.75	.72	.70
5.0	.80	.74	.69	.79	.73	.69	.77	.72	.68	.75	.71	.67	.73	.69	.66	.65
6.0	.75	.68	.64	.74	.68	.63	.72	.67	.63	.70	.66	.62	.69	.65	.62	.60
7.0	.70	.63	.59	.69	.63	.59	.67	.62	.58	.66	.61	.58	.65	.60	.57	.56
8.0	.65	.59	.55	.65	.59	.54	.63	.58	.54	.62	.57	.54	.61	.57	.53	.52
9.0	.61	.55	.51	.61	.55	.51	.60	.54	.50	.58	.54	.50	.57	.53	.50	.48
10.0	.58	.51	.47	.57	.51	.47	.56	.51	.47	.55	.50	.47	.54	.50	.47	.45



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	.195 .111 .035	.187 .107 .034	.173 .099 .032	.160 .093 .030	.149 .086 .028	
2.0	.187 .102 .031	.180 .099 .031	.168 .094 .029	.157 .088 .028	.147 .083 .026	
3.0	.178 .095 .028	.172 .092 .028	.162 .088 .027	.152 .083 .026	.143 .079 .025	
4.0	.169 .088 .026	.164 .086 .025	.155 .082 .025	.147 .079 .024	.139 .075 .023	
5.0	.161 .082 .024	.156 .080 .023	.148 .077 .023	.141 .074 .022	.134 .072 .021	
6.0	.153 .077 .022	.149 .075 .022	.142 .073 .021	.135 .070 .021	.129 .068 .020	
7.0	.146 .072 .020	.142 .071 .020	.136 .069 .020	.130 .067 .019	.124 .065 .019	
8.0	.139 .068 .019	.136 .067 .019	.130 .065 .019	.125 .063 .018	.120 .062 .018	
9.0	.133 .064 .018	.130 .063 .018	.125 .062 .018	.120 .060 .017	.115 .059 .017	
10.0	.127 .061 .017	.125 .060 .017	.120 .059 .017	.116 .057 .016	.111 .056 .016	

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	.190 .175 .161	.163 .150 .139	.111 .103 .096	.064 .060 .056	.021 .019 .018	
2.0	.176 .151 .129	.151 .130 .111	.104 .090 .078	.060 .052 .046	.019 .017 .015	
3.0	.165 .132 .106	.141 .114 .092	.097 .079 .064	.056 .046 .038	.018 .015 .012	
4.0	.155 .117 .089	.133 .102 .077	.092 .071 .054	.053 .041 .032	.017 .013 .011	
5.0	.147 .106 .076	.126 .092 .066	.087 .064 .047	.050 .038 .028	.016 .012 .009	
6.0	.140 .097 .066	.120 .084 .058	.083 .059 .041	.048 .035 .024	.016 .011 .008	
7.0	.134 .090 .059	.115 .078 .051	.080 .055 .036	.046 .032 .022	.015 .011 .007	
8.0	.128 .084 .053	.110 .073 .046	.076 .051 .033	.044 .030 .020	.014 .010 .006	
9.0	.123 .079 .049	.106 .068 .042	.074 .048 .030	.043 .028 .018	.014 .009 .006	
10.0	.119 .074 .045	.102 .065 .039	.071 .045 .028	.041 .027 .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						21.5	22.6	21.8	22.8	23.0	22.4	23.4	22.6	23.6	23.8
3H						21.5	22.5	21.8	22.7	22.9	22.3	23.3	22.6	23.5	23.8
4H						21.5	22.4	21.8	22.6	22.9	22.3	23.2	22.6	23.5	23.7
6H						21.4	22.2	21.8	22.5	22.8	22.3	23.1	22.6	23.4	23.7
8H						21.4	22.2	21.7	22.5	22.8	22.2	23.0	22.6	23.3	23.6
12H						21.4	22.1	21.7	22.4	22.7	22.2	23.0	22.6	23.3	23.6
4H 2H						21.4	22.2	21.7	22.5	22.8	22.2	23.0	22.5	23.3	23.6
3H						21.4	22.2	21.8	22.5	22.8	22.2	22.9	22.5	23.3	23.6
4H						21.4	22.1	21.8	22.4	22.8	22.2	22.9	22.6	23.2	23.6
6H						21.4	22.0	21.8	22.3	22.7	22.2	22.8	22.6	23.1	23.5
8H						21.3	21.9	21.8	22.3	22.7	22.1	22.7	22.6	23.1	23.5
12H						21.3	21.8	21.7	22.2	22.7	22.1	22.6	22.6	23.0	23.5
8H 4H						21.3	21.9	21.8	22.3	22.7	22.1	22.7	22.5	23.1	23.5
6H						21.3	21.7	21.7	22.2	22.6	22.1	22.5	22.5	23.0	23.4
8H						21.3	21.7	21.7	22.1	22.6	22.1	22.5	22.5	22.9	23.4
12H						21.2	21.6	21.7	22.1	22.6	22.1	22.4	22.6	22.9	23.4
12H 4H						21.3	21.8	21.7	22.2	22.6	22.1	22.6	22.5	23.0	23.4
6H						21.2	21.6	21.7	22.1	22.6	22.0	22.4	22.5	22.9	23.4
8H						21.2	21.6	21.7	22.0	22.6	22.0	22.4	22.5	22.8	23.4
Variations with the observer position at spacings:															
S = 1.0H						+ 2.4 / - 5.6					+ 2.8 / - 5.9				
1.5H						+ 4.9 / - 5.3					+ 5.0 / - 5.6				
2.0H						+ 2.3 / - 0.9					+ 5.7 / - 1.5				

CIE Pub.117 Corrected 491.1 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:

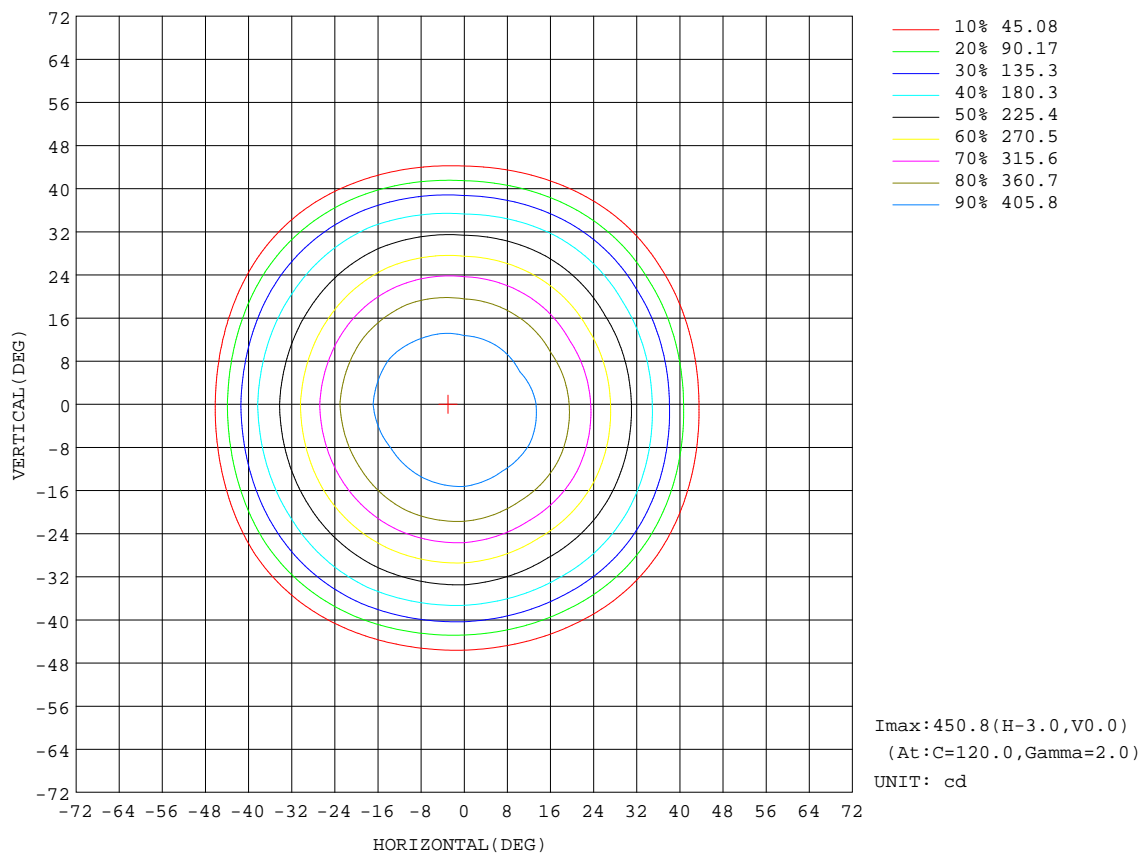
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	71	82	75	71	81	75	71	67
0.80	90	84	79	89	83	79	88	82	79	74
1.00	95	89	85	94	89	85	93	88	84	79
1.25	100	94	90	99	93	90	96	92	89	84
1.50	103	98	94	102	97	93	99	95	92	87
2.00	106	102	98	105	100	97	101	98	95	89
2.50	108	104	100	106	102	99	103	100	97	91
3.00	110	106	103	108	104	102	104	101	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:



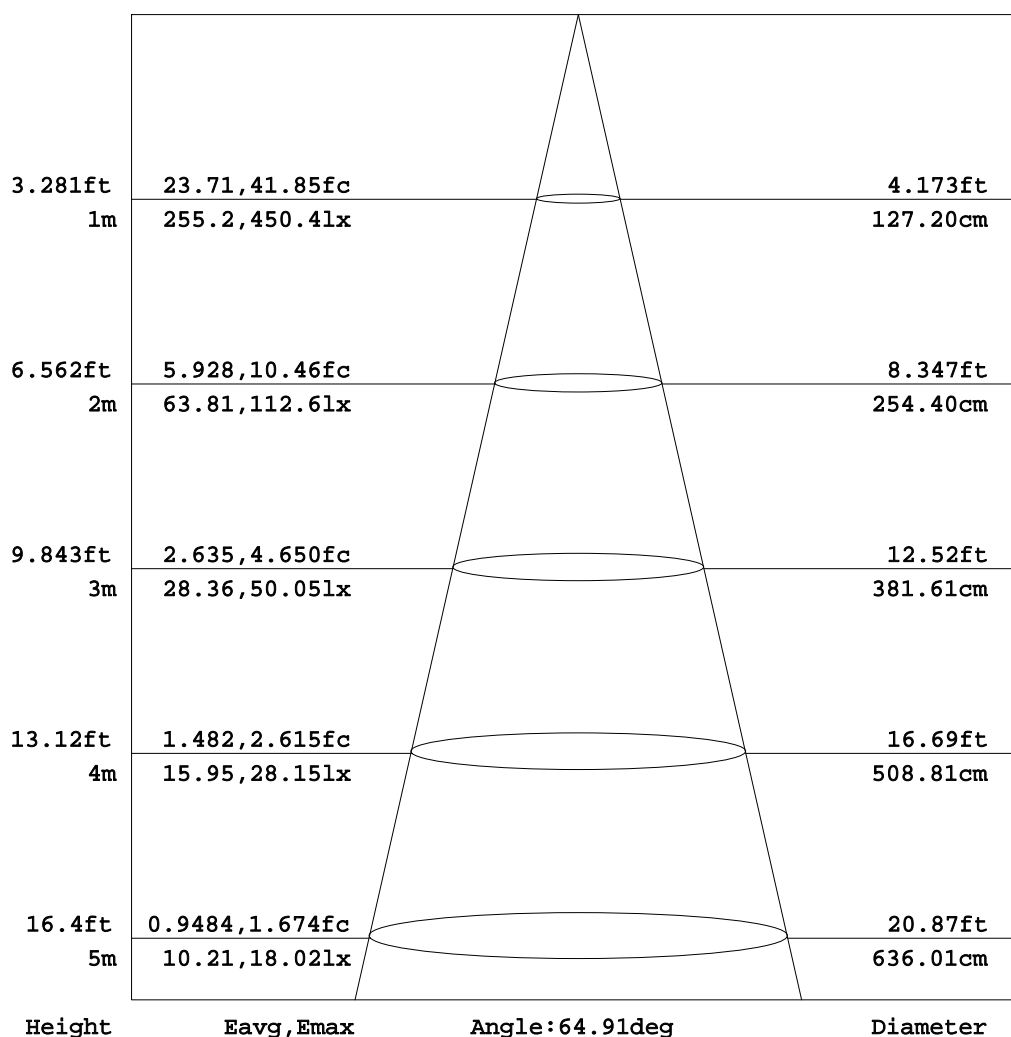
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-28

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:338.1 lm



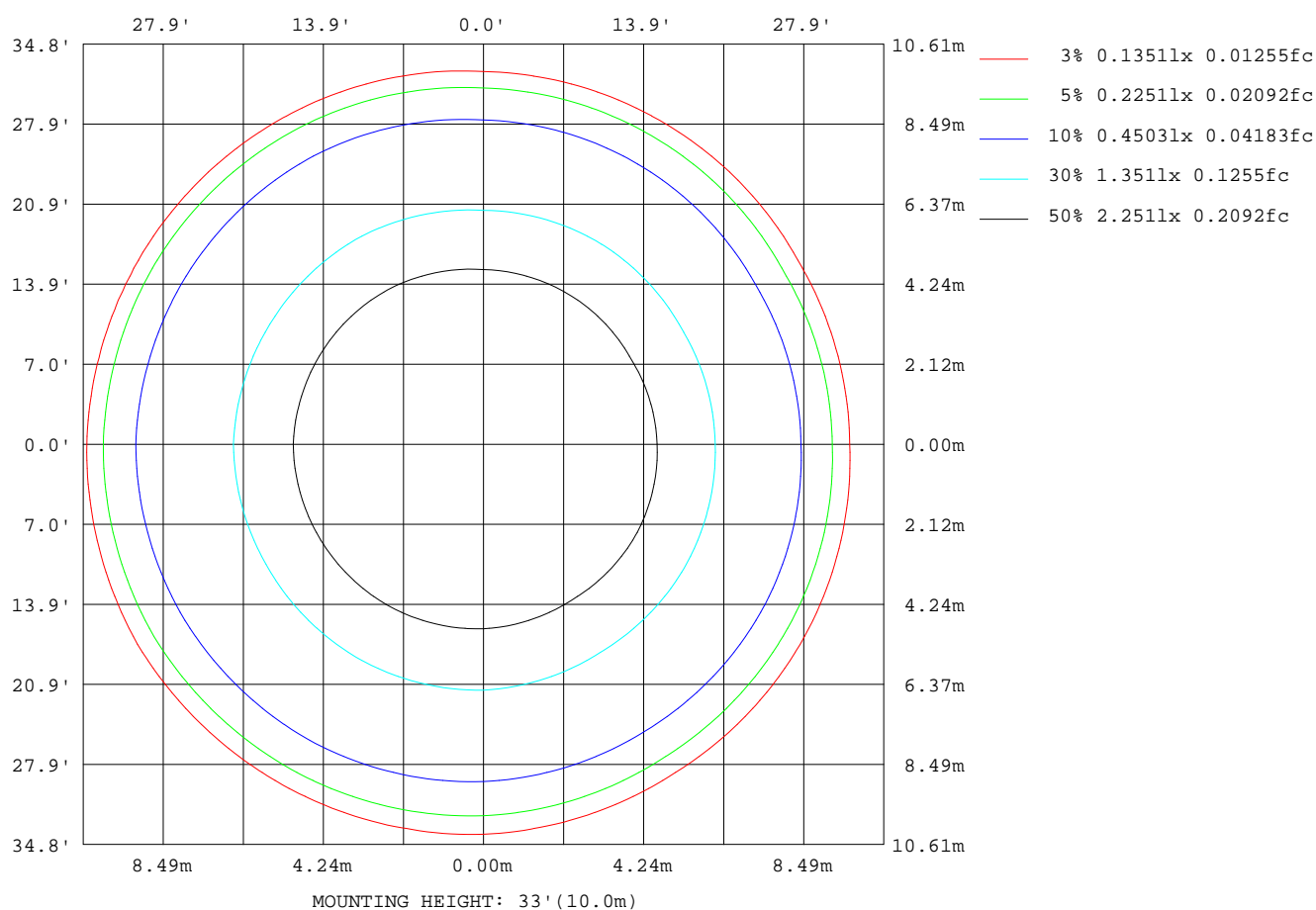
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

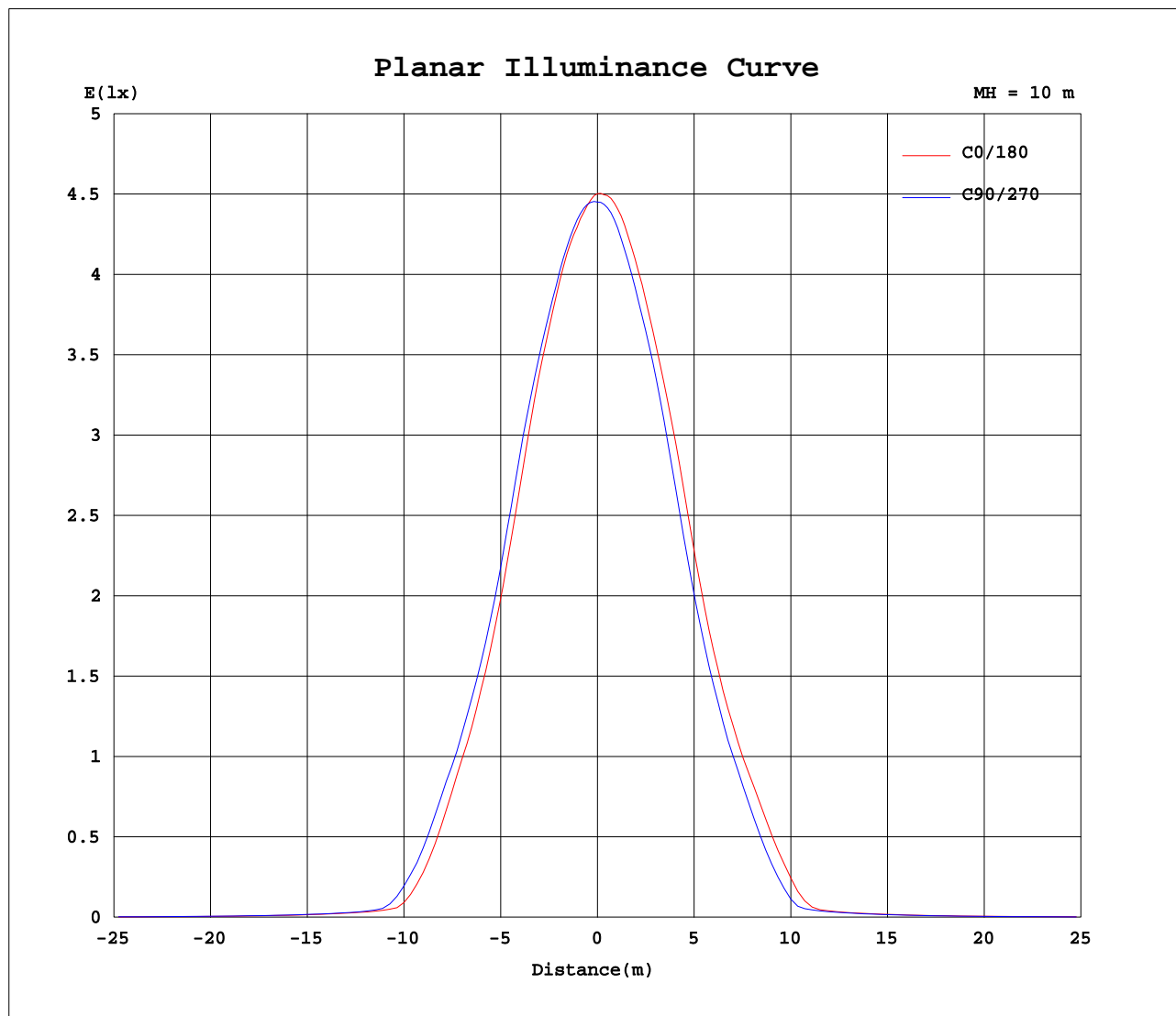
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:



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	446	446	446	446	446	446	446	446	446	446	446	446							
5	436	438	441	444	444	444	446	445	444	440	437	435							
10	420	423	425	430	432	433	433	430	426	420	420	418							
15	392	399	402	408	410	412	412	410	402	396	392	392							
20	352	362	367	377	382	384	383	379	372	357	353	349							
25	294	304	310	325	333	337	335	327	315	300	295	291							
30	234	243	251	265	272	275	273	264	257	241	238	233							
35	177	187	194	209	214	216	216	206	198	184	183	177							
40	101	115	124	142	152	155	157	147	134	115	107	98.5							
45	25.6	34.3	42.1	55.2	64.9	71.1	68.4	58.8	45.5	32.1	27.1	23.8							
50	12.6	13.2	14.0	14.8	15.3	15.9	15.1	14.6	14.1	13.3	12.8	12.8							
55	9.94	10.4	10.7	11.0	11.2	11.4	11.2	10.9	10.6	10.3	10.0	9.84							
60	7.66	8.03	8.30	8.56	8.61	8.77	8.65	8.37	8.26	7.86	7.71	7.58							
65	5.91	6.16	6.32	6.57	6.59	6.73	6.68	6.45	6.33	6.05	6.05	5.93							
70	4.31	4.47	4.62	4.92	4.98	5.09	5.11	4.88	4.71	4.52	4.52	4.40							
75	2.53	2.82	2.98	3.21	3.23	3.41	3.43	3.30	3.17	2.94	2.76	2.52							
80	1.04	1.08	1.14	1.25	1.46	1.66	1.57	1.16	1.11	1.09	1.05	1.06							
85	0.71	0.71	0.78	0.84	0.89	0.89	0.93	0.90	0.83	0.80	0.78	0.79							
90	0.70	0.72	0.70	0.70	0.70	0.71	0.79	0.78	0.79	0.80	0.82	0.81							
95	0.78	0.79	0.77	0.76	0.74	0.75	0.86	0.84	0.88	0.88	0.91	0.90							
100	0.90	0.90	0.86	0.86	0.83	0.84	0.95	0.96	0.99	0.99	1.02	1.03							
105	1.03	1.03	0.99	0.98	0.95	0.96	1.09	1.09	1.12	1.13	1.17	1.17							
110	1.20	1.19	1.15	1.13	1.10	1.10	1.24	1.24	1.28	1.30	1.33	1.33							
115	1.39	1.38	1.34	1.31	1.27	1.28	1.42	1.43	1.47	1.50	1.53	1.54							
120	1.62	1.60	1.55	1.52	1.48	1.48	1.62	1.63	1.68	1.71	1.75	1.75							
125	1.86	1.85	1.80	1.76	1.71	1.71	1.84	1.86	1.91	1.94	1.98	1.98							
130	2.14	2.11	2.06	2.02	1.97	1.96	2.08	2.09	2.15	2.18	2.23	2.23							
135	2.42	2.39	2.33	2.30	2.25	2.24	2.34	2.35	2.41	2.44	2.48	2.48							
140	2.69	2.67	2.61	2.58	2.53	2.52	2.58	2.60	2.66	2.68	2.73	2.73							
145	2.92	2.92	2.86	2.84	2.79	2.79	2.82	2.83	2.88	2.90	2.94	2.93							
150	3.08	3.09	3.05	3.04	3.00	3.00	3.01	3.03	3.07	3.07	3.10	3.09							
155	3.22	3.23	3.20	3.19	3.15	3.16	3.17	3.17	3.21	3.22	3.24	3.23							
160	3.35	3.37	3.34	3.34	3.30	3.30	3.32	3.31	3.36	3.36	3.37	3.34							
165	3.48	3.50	3.47	3.48	3.44	3.44	3.46	3.44	3.49	3.49	3.50	3.48							
170	3.60	3.63	3.60	3.62	3.58	3.58	3.59	3.58	3.62	3.60	3.63	3.60							
175	3.71	3.74	3.72	3.74	3.70	3.71	3.72	3.70	3.73	3.70	3.73	3.71							
180	3.77	3.79	3.79	3.80	3.77	3.78	3.78	3.78	3.79	3.80	3.79	3.78							

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: