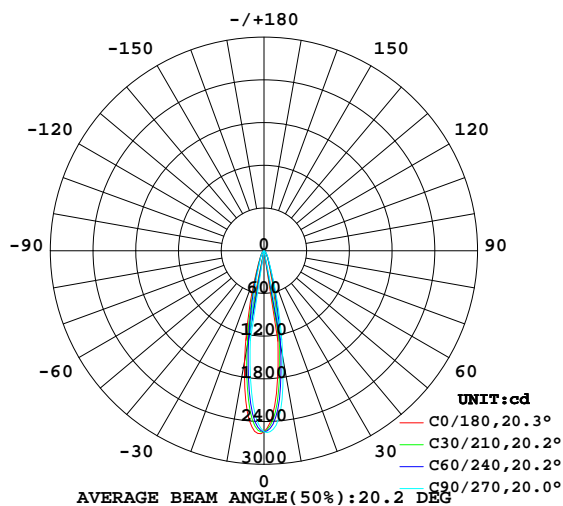


LUMINAIRE PHOTOMETRIC TEST REPORT

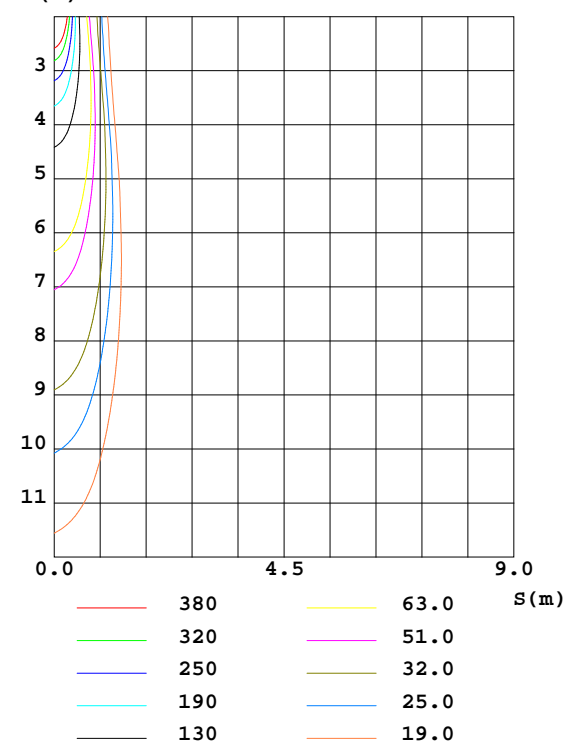
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 67.04 lm/W			
MODEL	M012-8W-827-S-24	Imax(cd)	2577	S/MH(C0/180)	0.31
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.38
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	512.89	η UP,DN(C0-180)	1.2,52.0
NOMINAL FLUX(lm)	512.886	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.4,45.5
LAMPS INSIDE	1	η up(%)	2.6	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	226.4	η down(%)	97.4	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-29

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	1078	1283	1524	1616	1567	1300	1044	1004	0- 10	179.4	179.4	35,35
20	215.0	253.0	292.2	308.4	305.1	249.7	197.5	197.1	10- 20	167.5	346.9	67.6,67.6
30	90.31	94.77	108.1	121.2	106.7	91.25	88.84	96.20	20- 30	70.80	417.7	81.4,81.4
40	42.06	45.44	52.29	58.87	51.86	44.57	39.40	39.77	30- 40	44.14	461.8	90,90
50	12.50	15.04	18.64	21.79	18.63	15.47	13.27	12.31	40- 50	22.40	484.2	94.4,94.4
60	4.456	5.006	6.771	7.270	6.985	4.858	3.936	3.998	50- 60	8.676	492.9	96.1,96.1
70	2.210	2.251	2.577	2.772	2.896	2.256	2.142	2.073	60- 70	3.423	496.3	96.8,96.8
80	1.380	1.489	1.703	1.798	1.604	1.463	1.383	1.335	70- 80	2.038	498.4	97.2,97.2
90	0.8385	0.9717	0.9244	1.109	1.045	1.206	1.055	1.239	80- 90	1.315	499.7	97.4,97.4
100	0.7706	0.8751	0.7313	0.9840	1.144	1.393	1.173	1.417	90-100	1.175	500.9	97.7,97.7
110	1.038	1.078	0.9312	1.130	1.266	1.486	1.303	1.441	100-110	1.224	502.1	97.9,97.9
120	1.404	1.399	1.268	1.371	1.477	1.616	1.569	1.672	110-120	1.327	503.4	98.2,98.2
130	2.298	2.174	1.981	1.984	2.130	2.299	2.382	2.488	120-130	1.603	505.0	98.5,98.5
140	3.362	3.302	3.128	3.156	3.194	3.359	3.408	3.531	130-140	2.143	507.2	98.9,98.9
150	3.858	3.904	3.781	3.852	3.842	3.924	3.896	3.990	140-150	2.290	509.5	99.3,99.3
160	4.092	4.344	4.075	4.289	4.092	4.421	4.091	4.252	150-160	1.873	511.3	99.7,99.7
170	4.000	4.047	4.093	4.098	4.113	4.064	4.031	3.959	160-170	1.182	512.5	99.9,99.9
180	3.900	3.905	3.890	3.836	3.917	3.910	3.890	3.830	170-180	0.3764	512.9	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

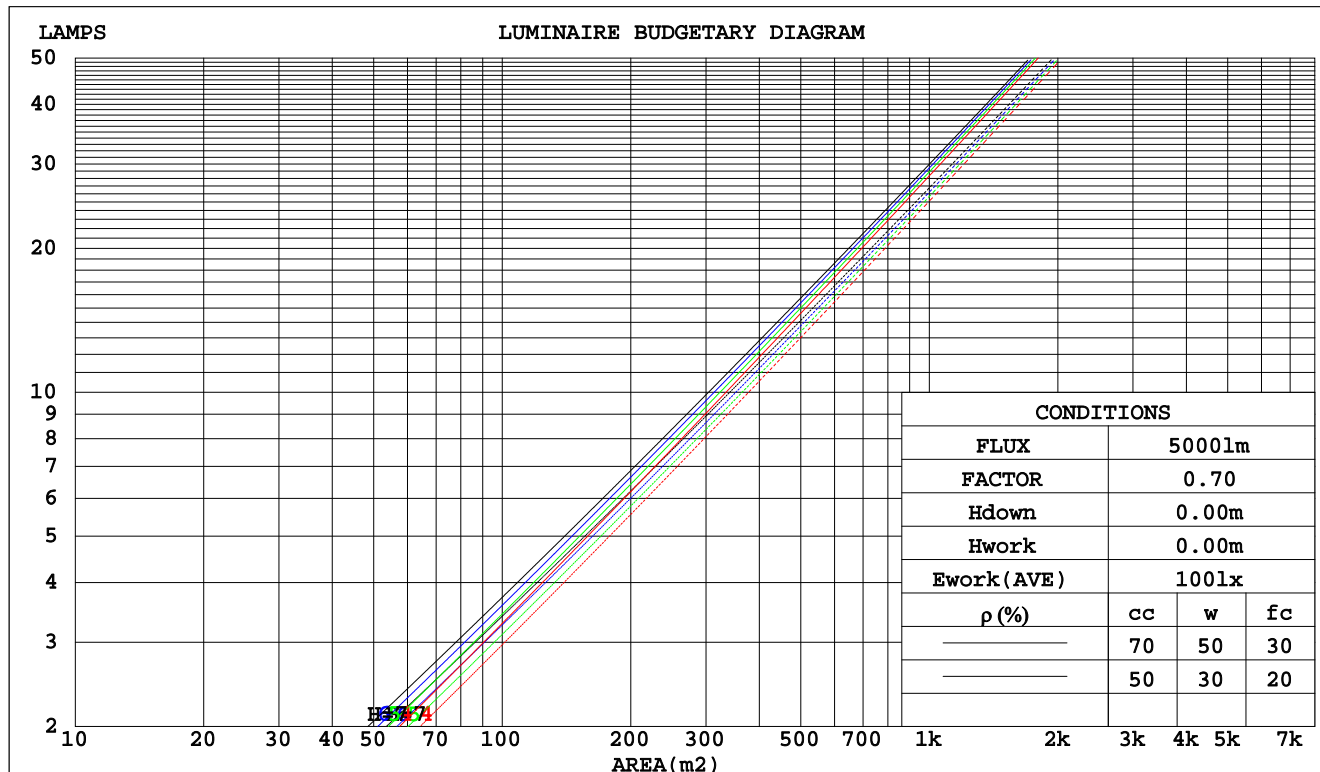
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-29

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	1.04	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	1.02	1.00	.99	.98	.97	.96	.95	.93
2.0	1.05	1.02	.99	1.03	1.00	.97	.00	.97	.95	.96	.94	.93	.93	.92	.90	.89
3.0	.00	.96	.92	.98	.94	.91	.95	.92	.90	.93	.90	.88	.90	.88	.86	.85
4.0	.95	.90	.87	.94	.90	.86	.91	.88	.85	.89	.86	.84	.87	.85	.83	.81
5.0	.91	.86	.83	.90	.85	.82	.88	.84	.81	.86	.83	.80	.84	.82	.79	.78
6.0	.87	.82	.79	.86	.82	.79	.85	.81	.78	.83	.80	.77	.82	.79	.77	.75
7.0	.84	.79	.76	.83	.79	.76	.82	.78	.75	.80	.77	.74	.79	.76	.74	.73
8.0	.81	.76	.73	.80	.76	.73	.79	.75	.72	.78	.75	.72	.77	.74	.72	.70
9.0	.78	.74	.71	.78	.73	.70	.77	.73	.70	.76	.72	.70	.75	.72	.69	.68
10.0	.76	.71	.68	.75	.71	.68	.74	.71	.68	.74	.70	.68	.73	.70	.67	.66



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-29

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	.156 .089 .028	.148 .085 .027	.135 .077 .025	.122 .070 .023	.110 .064 .021	
2.0	.145 .080 .024	.139 .077 .024	.127 .071 .022	.116 .065 .020	.106 .060 .019	
3.0	.136 .072 .022	.130 .070 .021	.120 .065 .020	.111 .061 .019	.103 .057 .018	
4.0	.127 .066 .019	.122 .064 .019	.114 .060 .018	.106 .057 .017	.099 .054 .016	
5.0	.119 .061 .018	.116 .059 .017	.108 .056 .017	.101 .053 .016	.095 .051 .015	
6.0	.113 .057 .016	.109 .055 .016	.103 .053 .015	.097 .050 .015	.091 .048 .014	
7.0	.107 .053 .015	.104 .052 .015	.098 .049 .014	.092 .047 .014	.087 .045 .013	
8.0	.101 .050 .014	.099 .049 .014	.093 .047 .013	.089 .045 .013	.084 .043 .013	
9.0	.096 .047 .013	.094 .046 .013	.089 .044 .013	.085 .043 .012	.081 .041 .012	
10.0	.092 .044 .012	.090 .043 .012	.086 .042 .012	.082 .041 .012	.078 .039 .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	.189 .177 .166	.162 .152 .143	.111 .105 .099	.064 .061 .058	.020 .019 .019	
2.0	.173 .153 .136	.148 .131 .117	.101 .091 .082	.058 .053 .048	.019 .017 .016	
3.0	.159 .133 .113	.136 .115 .098	.093 .080 .069	.054 .047 .041	.017 .015 .013	
4.0	.147 .118 .097	.126 .102 .084	.087 .071 .059	.050 .042 .035	.016 .014 .011	
5.0	.137 .106 .084	.118 .092 .073	.081 .064 .051	.047 .038 .031	.015 .012 .010	
6.0	.128 .097 .074	.110 .084 .064	.076 .059 .046	.044 .034 .027	.014 .011 .009	
7.0	.121 .089 .066	.104 .077 .058	.072 .054 .041	.042 .032 .024	.013 .010 .008	
8.0	.114 .082 .060	.099 .071 .052	.068 .050 .037	.040 .029 .022	.013 .010 .007	
9.0	.109 .077 .055	.094 .066 .048	.065 .047 .034	.038 .028 .020	.012 .009 .007	
10.0	.104 .072 .051	.090 .062 .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:2016-06-29

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					16.1	16.8	16.4	17.0	17.2	17.2	17.9	17.4	18.1	18.3
3H					16.1	16.8	16.4	17.0	17.3	17.2	17.9	17.5	18.1	18.3
4H					16.2	16.8	16.5	17.1	17.3	17.2	17.9	17.5	18.1	18.4
6H					16.3	16.9	16.6	17.1	17.4	17.3	17.9	17.7	18.2	18.5
8H					16.3	16.9	16.7	17.2	17.5	17.4	18.0	17.7	18.3	18.6
12H					16.4	16.9	16.7	17.3	17.6	17.5	18.0	17.8	18.3	18.7
4H 2H					16.0	16.7	16.3	16.9	17.2	17.0	17.7	17.3	17.9	18.2
3H					16.1	16.7	16.5	17.0	17.3	17.1	17.7	17.5	18.0	18.3
4H					16.2	16.7	16.6	17.1	17.4	17.2	17.7	17.6	18.1	18.4
6H					16.4	16.9	16.8	17.2	17.6	17.4	17.9	17.8	18.2	18.6
8H					16.5	16.9	16.9	17.3	17.7	17.5	18.0	18.0	18.3	18.8
12H					16.7	17.0	17.1	17.5	17.9	17.7	18.1	18.1	18.5	18.9
8H 4H					16.2	16.6	16.6	17.0	17.4	17.2	17.6	17.6	18.0	18.4
6H					16.5	16.8	17.0	17.3	17.7	17.4	17.8	17.9	18.2	18.7
8H					16.7	17.0	17.2	17.5	17.9	17.6	18.0	18.1	18.4	18.9
12H					16.9	17.2	17.4	17.7	18.2	17.9	18.2	18.4	18.7	19.2
12H 4H					16.2	16.6	16.6	17.0	17.4	17.1	17.5	17.6	17.9	18.4
6H					16.5	16.8	17.0	17.3	17.8	17.4	17.8	17.9	18.2	18.7
8H					16.7	17.0	17.2	17.5	18.0	17.7	17.9	18.2	18.4	19.0
Variations with the observer position at spacings:														
S = 1.0H					+ 1.4 / - 2.6					+ 1.7 / - 2.5				
1.5H					+ 2.5 / - 2.1					+ 2.7 / - 2.4				
2.0H					+ 2.8 / - 1.8					+ 3.7 / - 2.1				

CIE Pub.117 Corrected 512.9 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: 2016-06-29

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:

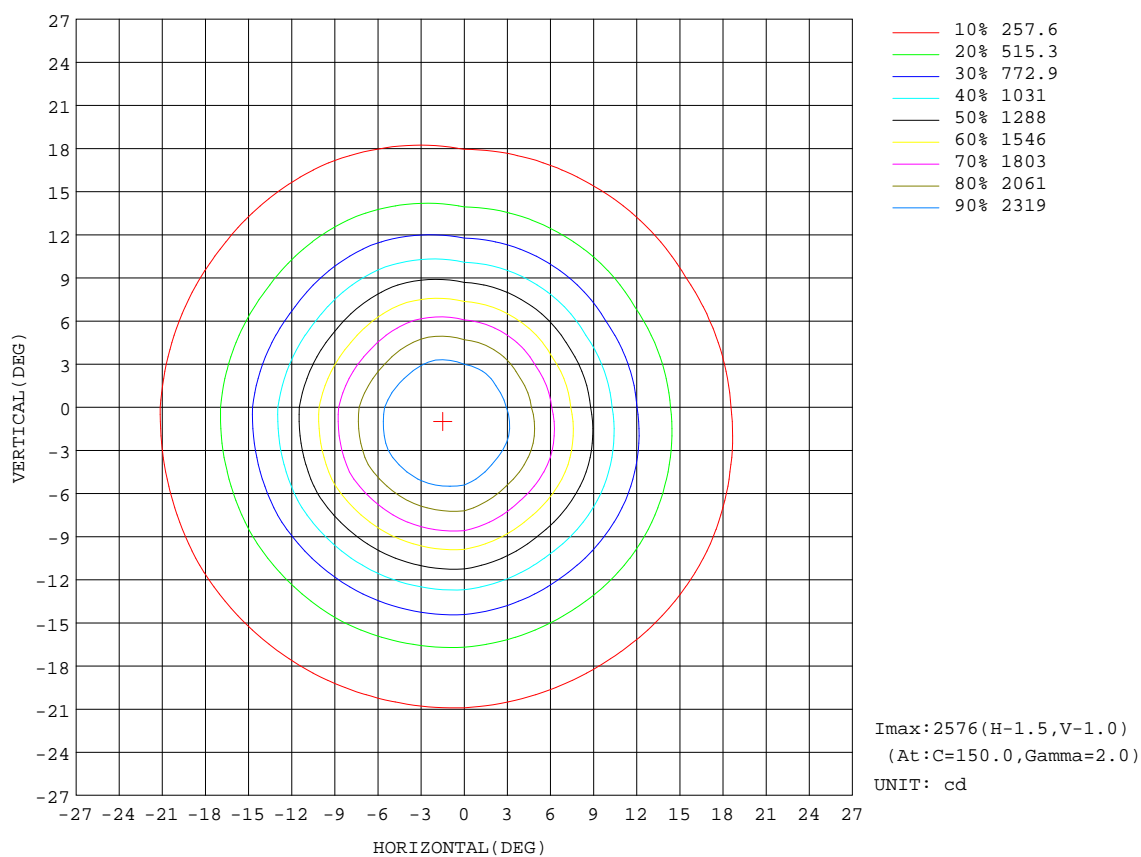
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	85	79	75	85	79	75	84	78	75	71
0.80	93	87	83	92	86	83	91	86	82	78
1.00	97	92	88	96	91	87	95	91	87	82
1.25	102	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	106	102	98	102	99	97	91
2.50	109	105	102	107	104	101	104	101	99	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	110	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: 2016-06-29

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:



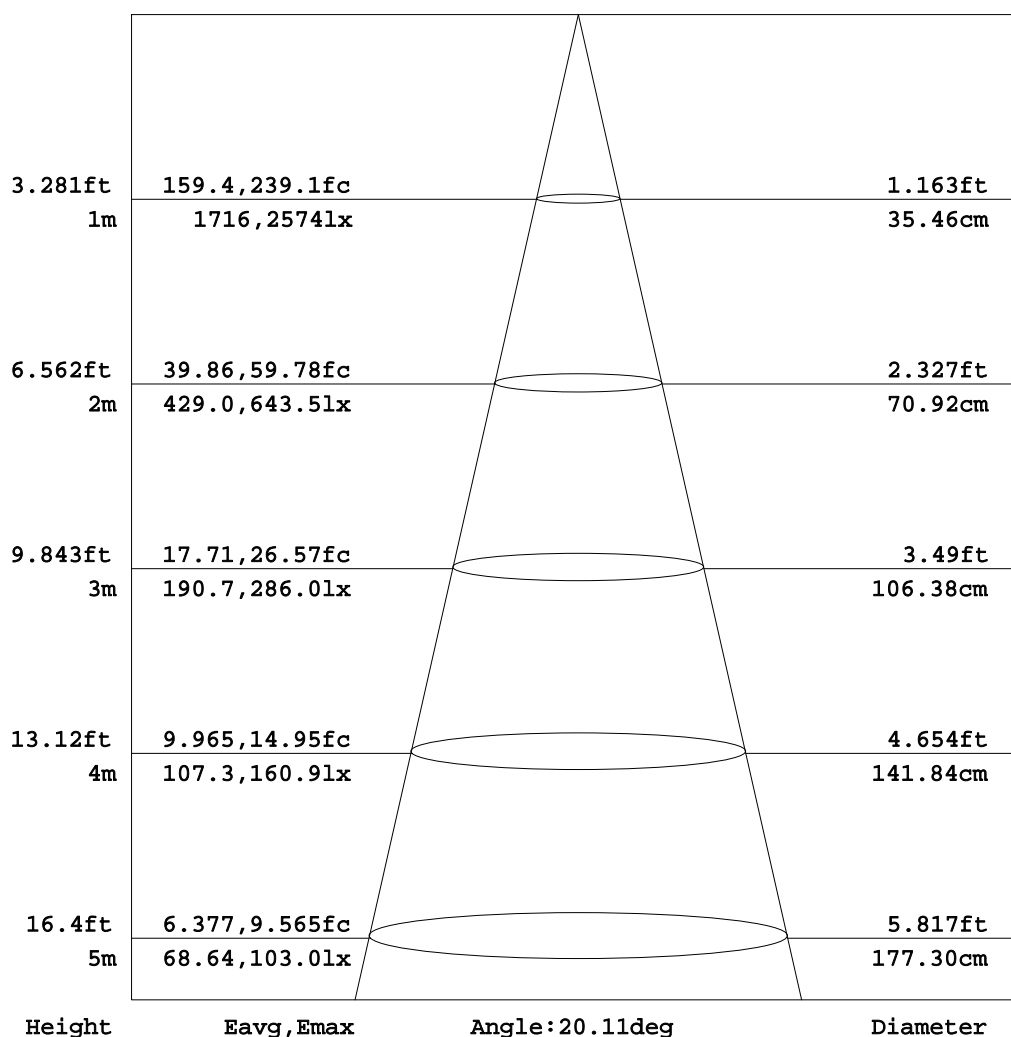
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: QiuMing
 Test Date: 2016-06-29

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:203.7 lm



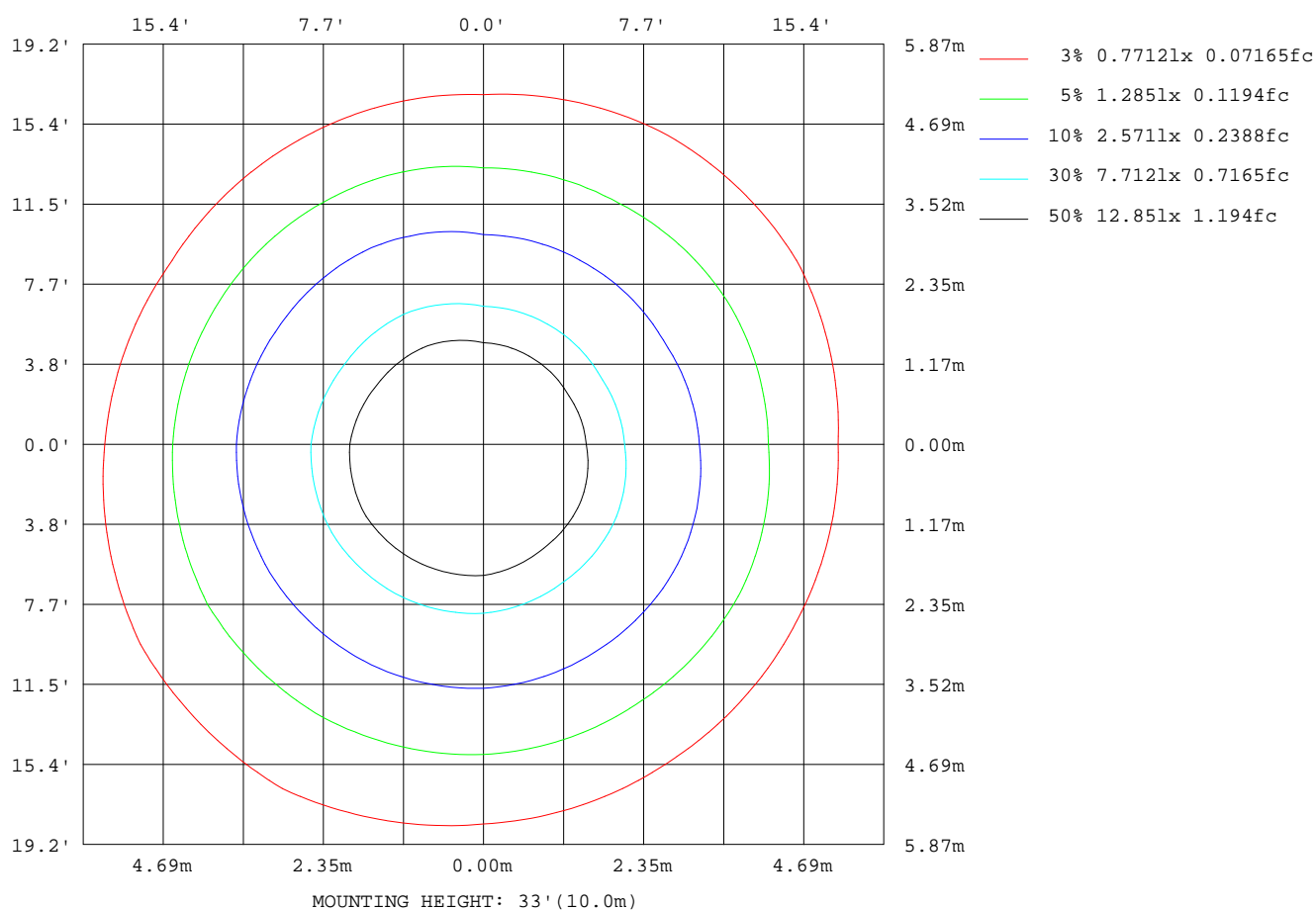
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-29

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

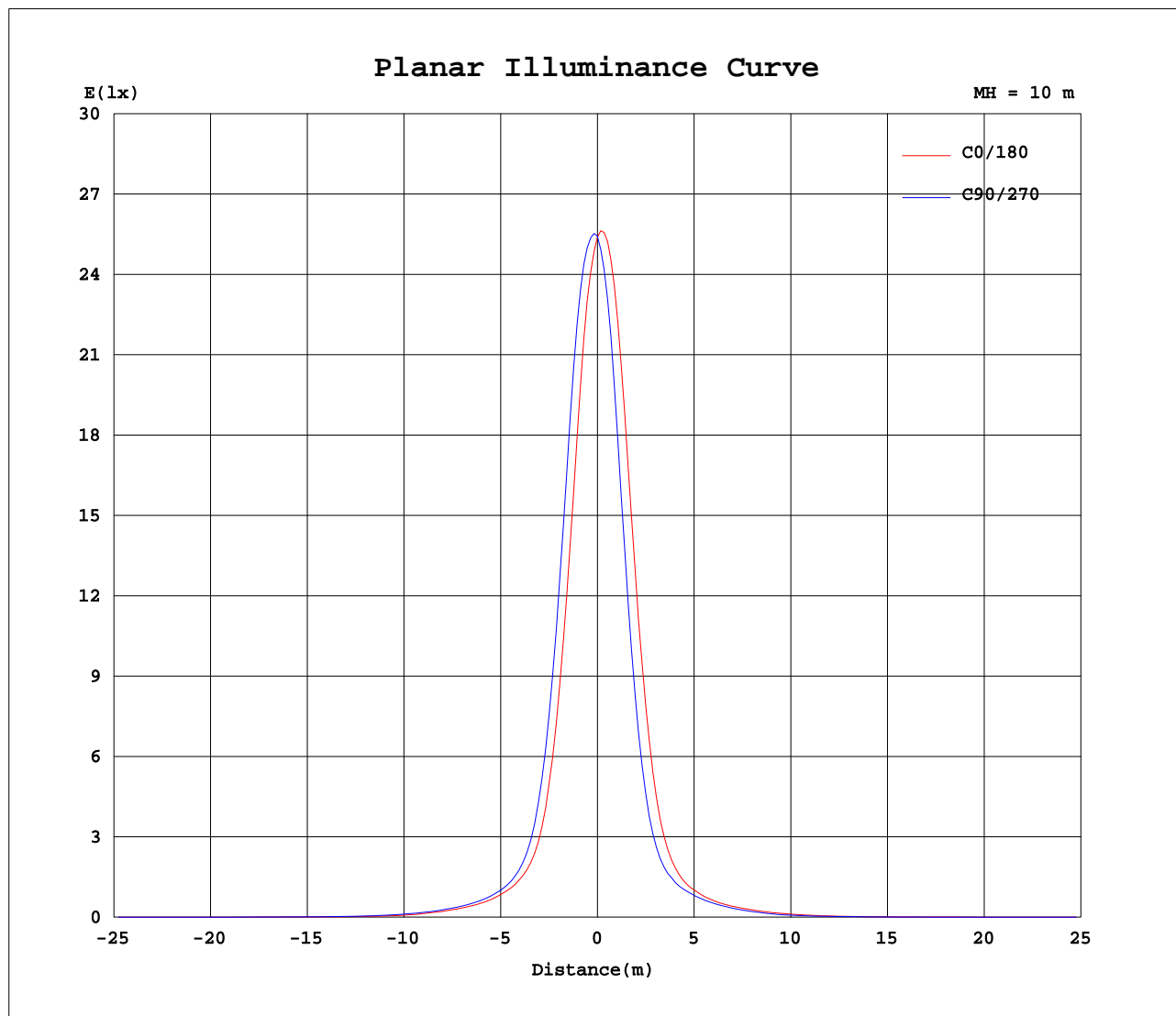
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-29

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: 2016-06-29

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	2544	2544	2544	2544	2544	2544	2544	2544	2544	2544	2544	2544							
5	2011	2142	2239	2368	2419	2444	2390	2256	2158	2007	1962	1943							
10	1078	1223	1342	1524	1592	1640	1567	1366	1235	1044	1009	998							
15	453	535	615	697	738	767	739	619	536	420	408	404							
20	215	242	264	292	305	312	305	264	235	197	195	200							
25	134	143	151	161	170	173	162	147	135	128	134	137							
30	90.3	91.5	98.0	108	122	121	107	92.4	90.1	88.8	95.4	97.0							
35	63.4	64.0	66.8	76.0	88.8	88.8	74.9	67.0	61.6	61.5	65.9	66.7							
40	42.1	44.1	46.8	52.3	58.0	59.7	51.9	47.1	42.0	39.4	39.1	40.5							
45	22.4	27.1	29.8	33.6	35.6	37.7	33.8	30.7	25.6	22.2	21.6	21.8							
50	12.5	14.0	16.1	18.6	21.6	22.0	18.6	15.9	15.1	13.3	12.0	12.6							
55	7.94	8.63	9.64	10.7	11.4	11.9	11.0	9.96	8.56	8.27	7.32	7.46							
60	4.46	4.71	5.30	6.77	6.91	7.63	6.98	5.17	4.54	3.94	4.03	3.96							
65	2.75	2.84	3.49	3.91	4.21	4.29	4.27	3.15	2.75	2.63	2.57	2.62							
70	2.21	2.18	2.32	2.58	2.73	2.82	2.90	2.34	2.17	2.14	2.08	2.06							
75	1.75	1.80	1.94	2.13	2.22	2.25	2.24	1.90	1.80	1.75	1.69	1.66							
80	1.38	1.43	1.54	1.70	1.81	1.79	1.60	1.50	1.43	1.38	1.34	1.33							
85	1.00	1.10	1.13	1.19	1.36	1.24	1.16	1.20	1.12	1.06	1.16	1.06							
90	0.84	0.93	1.01	0.92	1.25	0.97	1.04	1.17	1.24	1.05	1.38	1.10							
95	0.75	0.84	0.93	0.79	1.20	0.84	1.08	1.27	1.37	1.11	1.55	1.17							
100	0.77	0.85	0.90	0.73	1.17	0.80	1.14	1.31	1.48	1.17	1.62	1.21							
105	0.86	0.94	0.97	0.79	1.21	0.85	1.20	1.38	1.53	1.24	1.63	1.27							
110	1.04	1.06	1.10	0.93	1.25	1.01	1.27	1.40	1.57	1.30	1.56	1.32							
115	1.20	1.20	1.19	1.10	1.33	1.13	1.35	1.40	1.61	1.39	1.60	1.43							
120	1.40	1.41	1.39	1.27	1.44	1.30	1.48	1.53	1.70	1.57	1.75	1.60							
125	1.77	1.69	1.65	1.54	1.63	1.53	1.72	1.78	1.95	1.89	2.01	1.94							
130	2.30	2.24	2.11	1.98	2.02	1.95	2.13	2.22	2.38	2.38	2.53	2.45							
135	2.88	2.79	2.72	2.56	2.64	2.53	2.67	2.75	2.91	2.93	3.09	3.00							
140	3.36	3.33	3.28	3.13	3.20	3.11	3.19	3.28	3.44	3.41	3.60	3.46							
145	3.67	3.73	3.69	3.54	3.64	3.56	3.59	3.68	3.82	3.72	3.88	3.74							
150	3.86	3.92	3.89	3.78	3.89	3.81	3.84	3.87	3.98	3.90	4.06	3.92							
155	3.99	4.10	4.03	3.94	4.09	4.00	3.98	4.03	4.15	4.01	4.15	4.03							
160	4.09	4.37	4.32	4.07	4.41	4.16	4.09	4.35	4.49	4.09	4.33	4.17							
165	4.13	4.11	4.13	4.13	4.14	4.15	4.14	4.21	4.41	4.12	4.11	4.09							
170	4.00	4.01	4.08	4.09	4.11	4.09	4.11	4.08	4.04	4.03	3.97	3.95							
175	3.83	3.86	3.92	3.93	3.93	3.88	3.96	3.94	3.89	3.85	3.79	3.77							
180	3.90	3.92	3.89	3.89	3.85	3.82	3.92	3.91	3.91	3.89	3.85	3.81							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: QiuMing
Test Date: 2016-06-29

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: