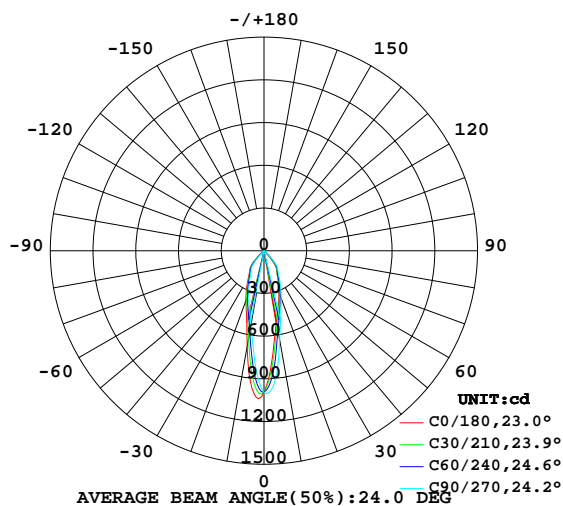


LUMINAIRE PHOTOMETRIC TEST REPORT

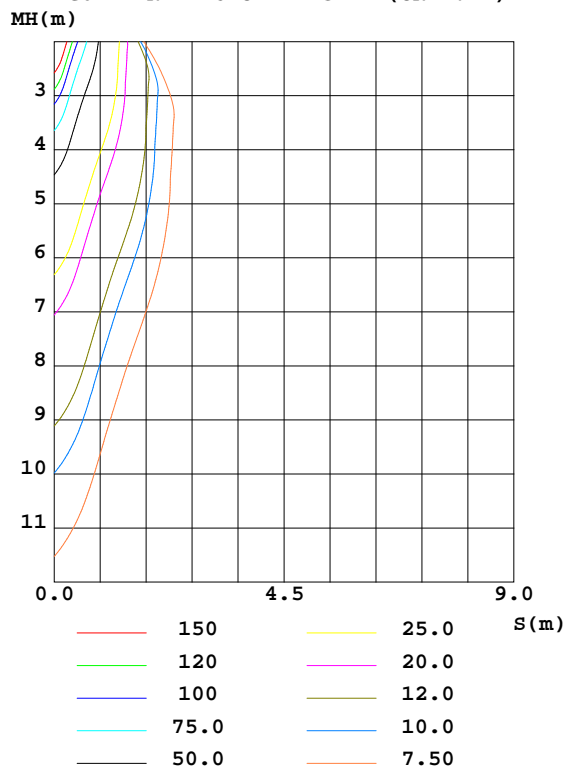
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 63.71 lm/W			
MODEL	M011-8W-827-S-28	Imax(cd)	1049	S/MH(C0/180)	0.34
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	0.45
RATED VOLTAGE(V)	226	TOTAL FLUX(lm)	489.90	η UP,DN(C0-180)	1.1,49.9
NOMINAL FLUX(lm)	489.899	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.2,47.7
LAMPS INSIDE	1	η up(%)	2.3	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	226.4	η down(%)	97.7	CIBSE SHR MAX	0.55

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	504.9	549.4	637.3	699.1	682.6	600.5	526.0	506.6	0- 10	71.77	71.77	14.6,14.6
20	307.3	325.6	354.6	371.6	372.2	348.3	314.2	307.4	10- 20	122.0	193.7	39.5,39.5
30	184.6	189.8	211.2	218.6	221.3	204.7	188.9	182.7	20- 30	119.9	313.6	64,64
40	94.34	114.3	135.5	144.2	146.4	129.3	104.3	93.50	30- 40	101.3	414.9	84.7,84.7
50	13.83	15.65	18.37	20.30	19.71	16.76	14.06	13.30	40- 50	41.81	456.7	93.2,93.2
60	7.282	8.054	9.184	9.789	9.642	8.642	7.667	7.215	50- 60	10.50	467.2	95.4,95.4
70	4.409	4.814	5.364	5.737	5.750	5.328	4.932	4.702	60- 70	6.481	473.7	96.7,96.7
80	1.014	1.161	1.525	2.405	2.369	1.261	1.079	1.009	70- 80	3.727	477.4	97.5,97.5
90	0.7368	0.7308	0.7224	0.7267	0.8248	0.8263	0.8298	0.8520	80- 90	1.041	478.5	97.7,97.7
100	0.8559	0.8304	0.8046	0.7783	0.9694	0.9815	1.009	1.041	90-100	0.9105	479.4	97.8,97.8
110	1.161	1.114	1.053	1.010	1.204	1.225	1.268	1.304	100-110	1.087	480.4	98.1,98.1
120	1.557	1.492	1.422	1.365	1.533	1.570	1.632	1.678	110-120	1.325	481.8	98.3,98.3
130	2.155	2.053	1.949	1.869	2.010	2.072	2.173	2.231	120-130	1.591	483.4	98.7,98.7
140	2.796	2.717	2.616	2.536	2.626	2.689	2.777	2.813	130-140	1.837	485.2	99,99
150	3.194	3.156	3.111	3.051	3.101	3.129	3.161	3.190	140-150	1.839	487.0	99.4,99.4
160	3.450	3.432	3.406	3.355	3.402	3.411	3.431	3.440	150-160	1.514	488.6	99.7,99.7
170	3.617	3.628	3.625	3.590	3.632	3.621	3.618	3.591	160-170	0.9950	489.6	99.9,99.9
180	3.741	3.734	3.738	3.699	3.743	3.739	3.734	3.698	170-180	0.3487	489.9	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

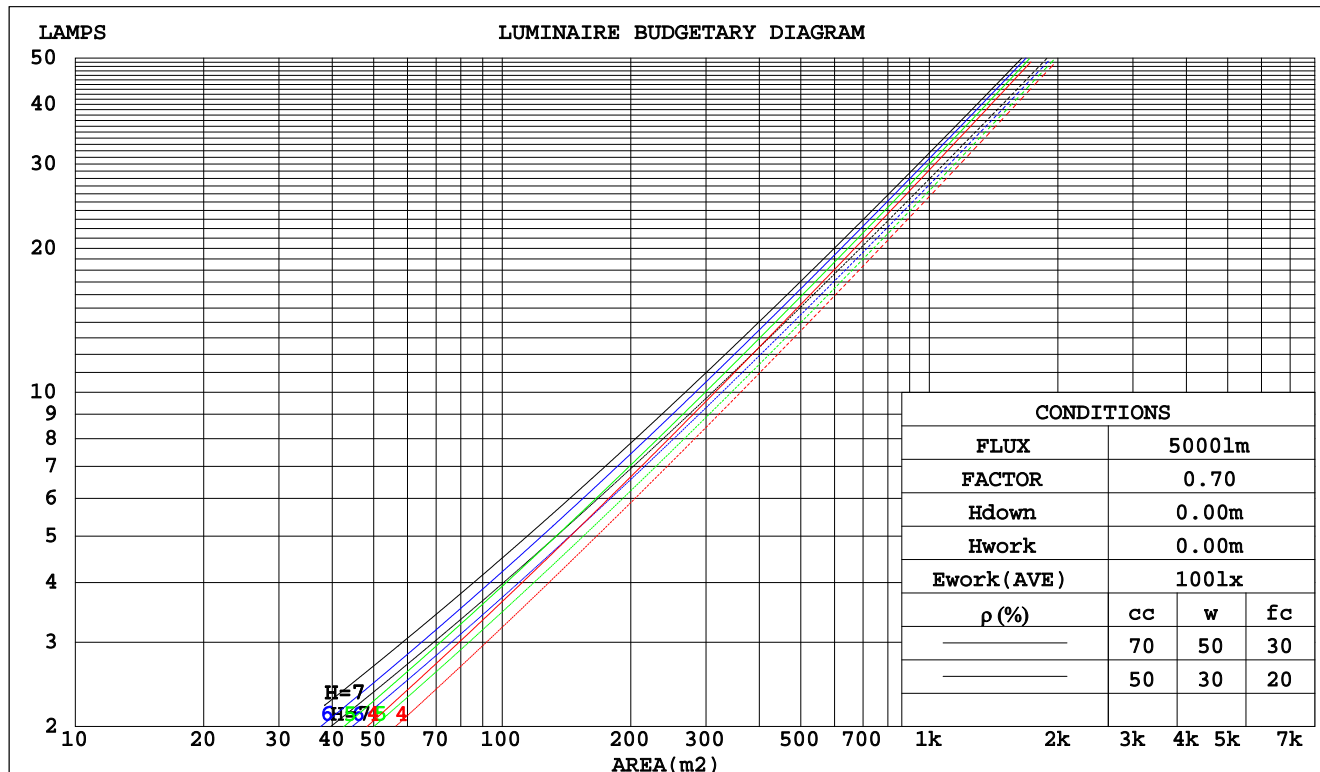
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-29

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	1.05	1.05	1.05	.00	.00	.00	.98														
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	.90	.88	.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	.77	.74	.72														
5.0	.82	.76	.72	.81	.76	.71	.79	.74	.70	.77	.73	.70	.75	.72	.69	.67														
6.0	.77	.71	.67	.76	.70	.66	.74	.69	.66	.73	.68	.65	.71	.67	.64	.63														
7.0	.73	.66	.62	.72	.66	.62	.70	.65	.61	.69	.64	.61	.68	.63	.60	.59														
8.0	.68	.62	.58	.68	.62	.58	.66	.61	.58	.65	.61	.57	.64	.60	.57	.55														
9.0	.65	.59	.55	.64	.58	.55	.63	.58	.54	.62	.57	.54	.61	.57	.54	.52														
10.0	.61	.56	.52	.61	.55	.52	.60	.55	.51	.59	.54	.51	.58	.54	.51	.49														



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	.188 .107 .034	.181 .103 .033	.167 .096 .031	.154 .089 .029	.142 .083 .027	
2.0	.180 .099 .030	.173 .096 .029	.161 .090 .028	.150 .084 .026	.140 .079 .025	
3.0	.170 .091 .027	.165 .088 .027	.155 .084 .025	.145 .079 .024	.136 .075 .023	
4.0	.161 .084 .025	.157 .082 .024	.148 .078 .023	.139 .075 .023	.131 .071 .022	
5.0	.153 .078 .023	.149 .076 .022	.141 .073 .022	.134 .070 .021	.127 .068 .020	
6.0	.145 .073 .021	.142 .072 .021	.135 .069 .020	.128 .067 .020	.122 .064 .019	
7.0	.138 .068 .019	.135 .067 .019	.129 .065 .019	.123 .063 .018	.117 .061 .018	
8.0	.132 .064 .018	.129 .063 .018	.123 .061 .018	.118 .060 .017	.113 .058 .017	
9.0	.126 .061 .017	.123 .060 .017	.118 .058 .017	.113 .057 .016	.109 .055 .016	
10.0	.120 .058 .016	.118 .057 .016	.113 .055 .016	.109 .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	.208 .208 .208	.178 .178 .178	.121 .121 .121	.070 .070 .070	.022 .022 .022	
1.0	.190 .175 .162	.162 .150 .139	.111 .103 .096	.064 .060 .056	.020 .019 .018	
2.0	.175 .151 .130	.150 .130 .112	.103 .090 .078	.059 .052 .046	.019 .017 .015	
3.0	.163 .132 .107	.140 .114 .092	.096 .079 .065	.056 .046 .038	.018 .015 .013	
4.0	.153 .117 .090	.132 .101 .078	.091 .071 .055	.052 .041 .032	.017 .013 .011	
5.0	.145 .106 .077	.124 .092 .067	.086 .064 .047	.050 .038 .028	.016 .012 .009	
6.0	.137 .097 .067	.118 .084 .059	.082 .059 .041	.047 .034 .025	.015 .011 .008	
7.0	.131 .089 .060	.113 .077 .052	.078 .054 .037	.045 .032 .022	.015 .010 .007	
8.0	.125 .083 .054	.108 .072 .047	.075 .051 .033	.043 .030 .020	.014 .010 .007	
9.0	.120 .078 .049	.103 .068 .043	.072 .047 .031	.042 .028 .018	.014 .009 .006	
10.0	.115 .073 .046	.099 .064 .040	.069 .045 .028	.040 .027 .017	.013 .009 .006	

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

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					20.7	21.6	20.9	21.8	22.0	21.8	22.8	22.1	23.0	23.2
3H					20.7	21.6	21.0	21.8	22.1	21.9	22.7	22.2	23.0	23.2
4H					20.7	21.5	21.0	21.8	22.1	21.9	22.7	22.2	23.0	23.3
6H					20.6	21.4	21.0	21.7	22.0	21.9	22.7	22.2	23.0	23.3
8H					20.6	21.4	21.0	21.7	22.0	21.9	22.6	22.2	22.9	23.2
12H					20.6	21.3	20.9	21.6	21.9	21.8	22.6	22.2	22.9	23.2
4H 2H					20.5	21.3	20.8	21.6	21.9	21.6	22.5	22.0	22.7	23.0
3H					20.6	21.4	21.0	21.7	22.0	21.7	22.5	22.1	22.8	23.1
4H					20.7	21.4	21.1	21.7	22.1	21.8	22.5	22.2	22.8	23.2
6H					20.6	21.2	21.1	21.6	22.0	21.9	22.5	22.3	22.8	23.2
8H					20.6	21.2	21.1	21.5	22.0	21.9	22.4	22.3	22.8	23.2
12H					20.6	21.1	21.0	21.5	21.9	21.8	22.3	22.3	22.8	23.2
8H 4H					20.6	21.2	21.1	21.6	22.0	21.8	22.3	22.2	22.7	23.1
6H					20.6	21.0	21.1	21.5	21.9	21.8	22.3	22.3	22.7	23.2
8H					20.6	21.0	21.1	21.4	21.9	21.8	22.2	22.3	22.7	23.1
12H					20.6	20.9	21.1	21.4	21.9	21.8	22.2	22.3	22.6	23.2
12H 4H					20.6	21.1	21.1	21.5	21.9	21.7	22.2	22.2	22.6	23.1
6H					20.6	21.0	21.1	21.4	21.9	21.8	22.2	22.3	22.6	23.1
8H					20.6	20.9	21.1	21.4	21.9	21.8	22.1	22.3	22.6	23.1
Variations with the observer position at spacings:														
S = 1.0H					+ 2.2 / - 5.0					+ 2.2 / - 4.8				
1.5H					+ 4.5 / - 4.6					+ 4.2 / - 4.7				
2.0H					+ 1.6 / - 1.1					+ 5.7 / - 1.9				

CIE Pub.117 Corrected 489.9 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: 2016-06-29

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:

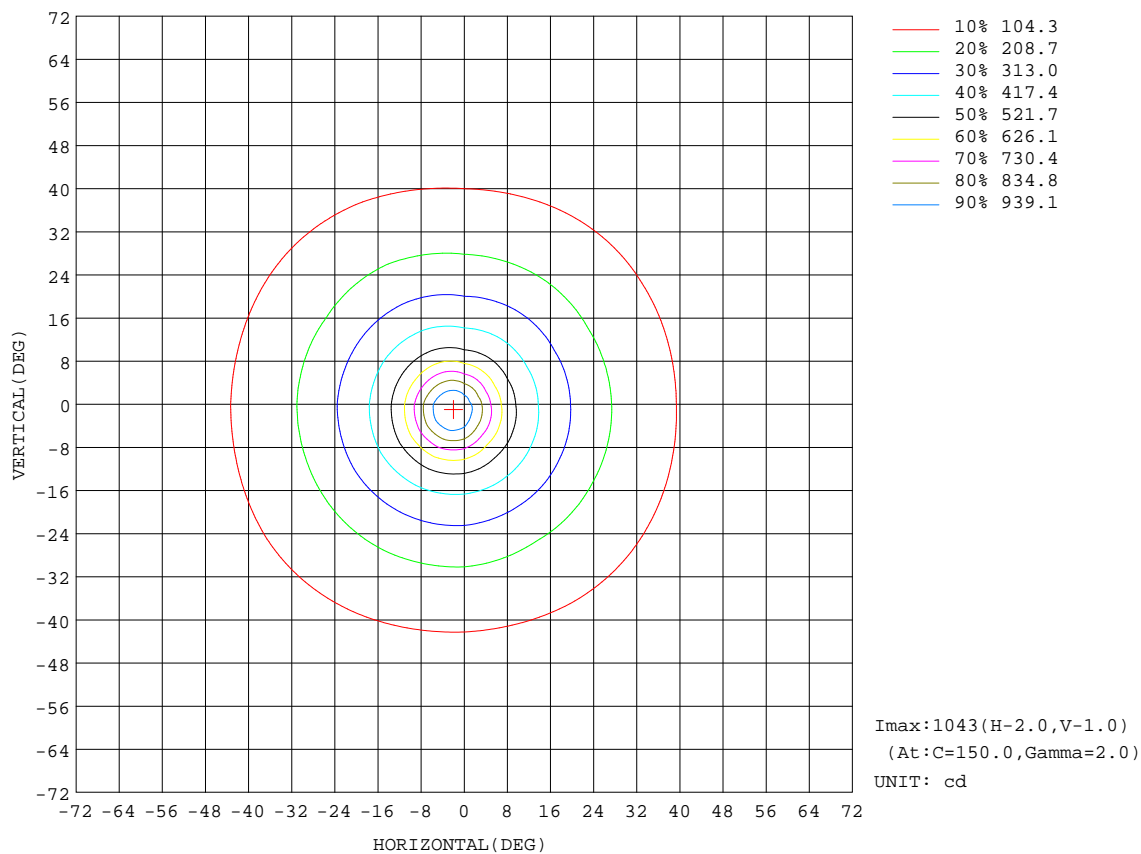
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	71	81	75	70	80	74	70	66
0.80	90	83	79	89	83	79	88	82	78	74
1.00	95	89	85	94	88	84	92	88	84	79
1.25	100	94	90	98	93	89	96	92	88	83
1.50	103	97	93	101	96	93	99	95	92	86
2.00	106	101	98	104	100	97	101	98	95	89
2.50	108	104	100	106	102	99	103	100	97	90
3.00	110	106	103	108	104	102	104	101	99	92
4.00	112	109	106	110	107	105	106	104	102	94
5.00	114	111	109	111	109	107	107	105	103	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: 2016-06-29

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:



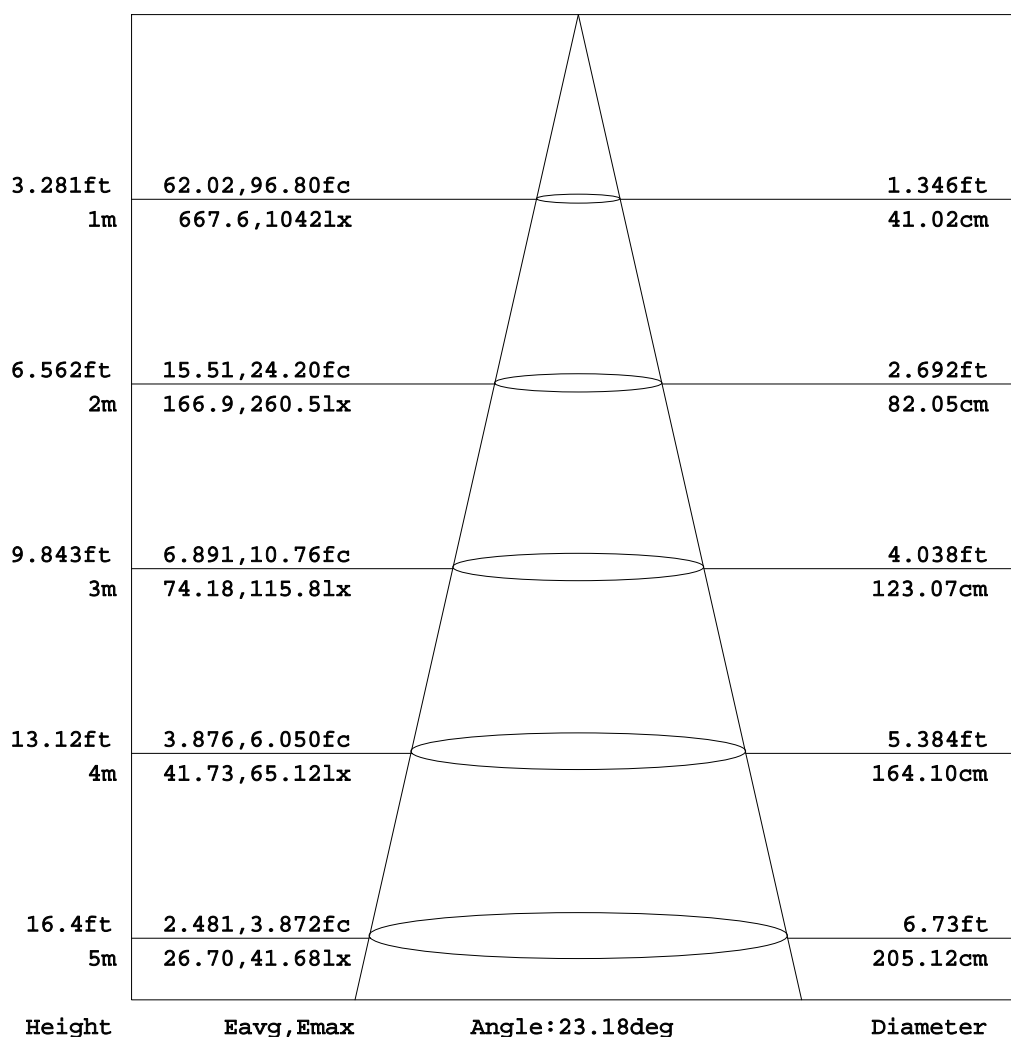
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:QiuMing
Test Date:2016-06-29

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



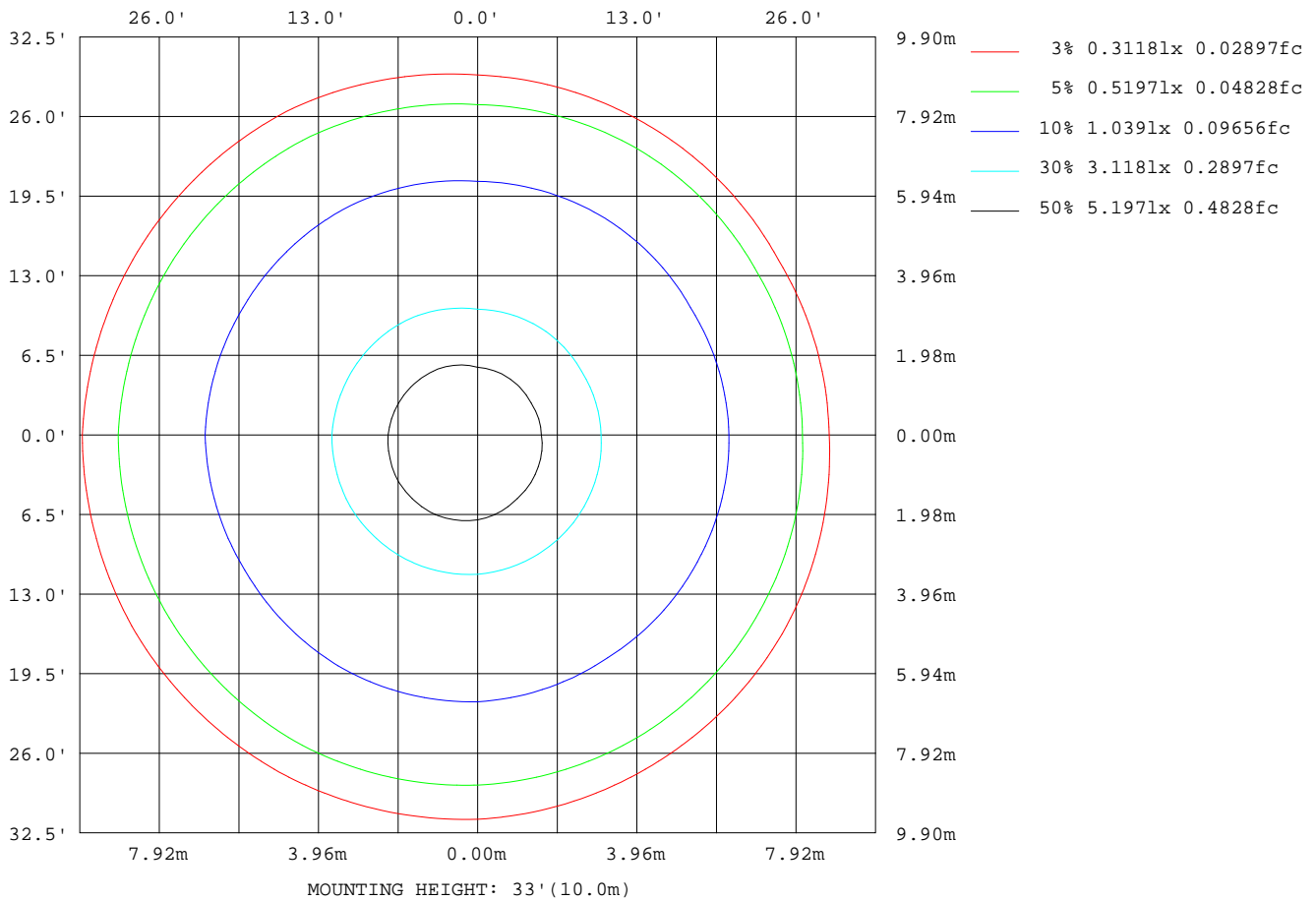
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

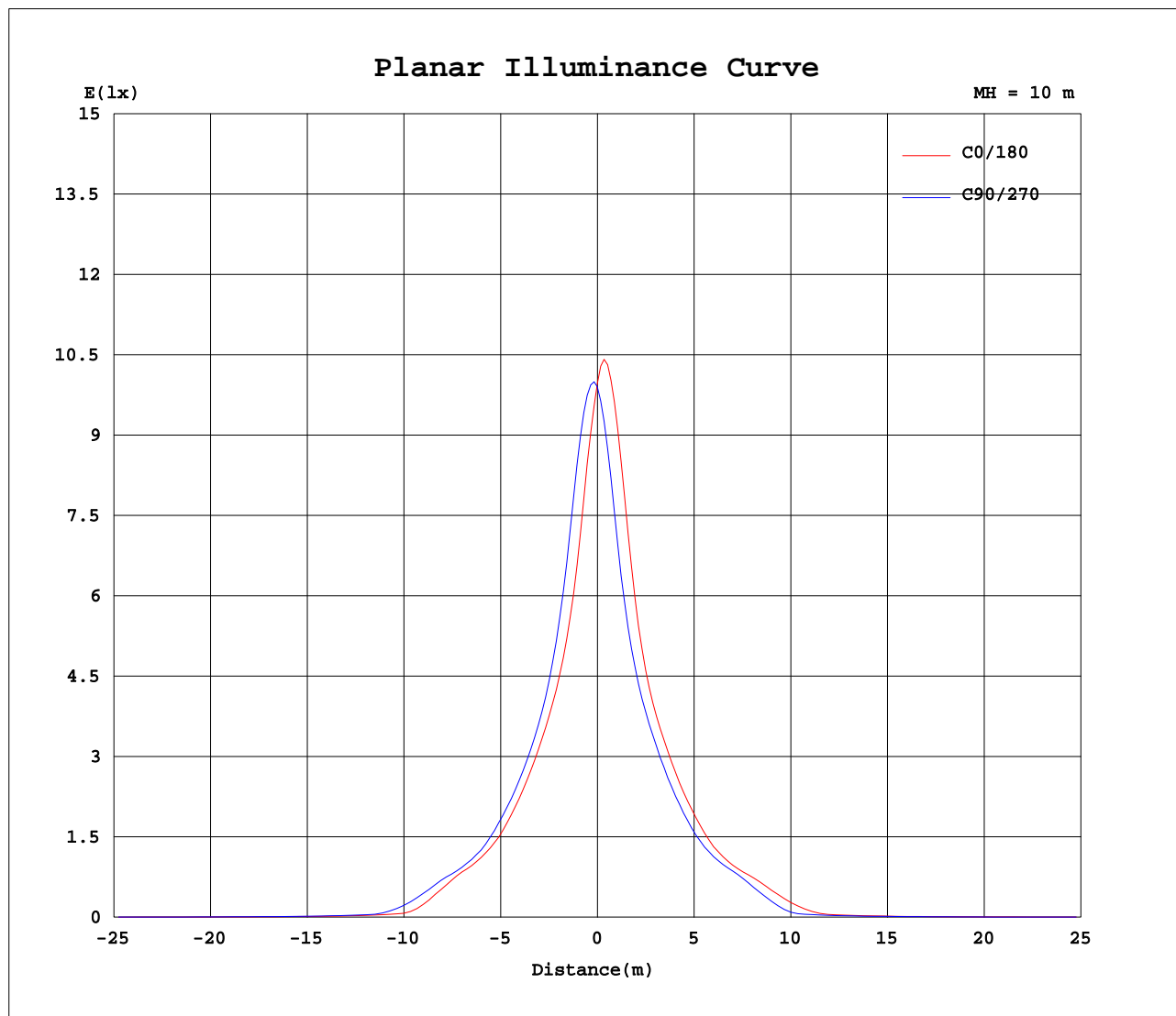
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: Rayconn	SUR.:	PROTECTION ANGLE:



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	993	993	993	993	993	993	993	993	993	993	993	993							
5	722	762	824	910	967	994	970	903	842	768	735	712							
10	505	530	569	637	689	709	683	623	578	526	513	501							
15	391	406	428	457	479	490	475	452	432	401	396	390							
20	307	317	334	355	366	377	372	356	341	314	310	305							
25	237	242	255	278	284	292	290	275	263	243	237	232							
30	185	187	193	211	217	220	221	207	203	189	184	181							
35	153	157	162	170	173	174	176	170	166	157	155	153							
40	94.3	107	122	136	143	146	146	135	123	104	97.3	89.7							
45	21.5	30.3	47.3	63.1	73.6	77.9	77.6	64.3	47.6	26.8	20.7	19.3							
50	13.8	14.9	16.4	18.4	19.5	21.2	19.7	17.7	15.9	14.1	13.4	13.2							
55	9.69	10.4	11.6	12.6	13.3	13.9	13.4	12.2	11.1	10.0	9.58	9.37							
60	7.28	7.69	8.42	9.18	9.63	9.94	9.64	8.92	8.36	7.67	7.31	7.12							
65	5.55	5.78	6.28	6.87	7.27	7.55	7.34	6.73	6.40	5.92	5.74	5.61							
70	4.41	4.60	5.03	5.36	5.61	5.86	5.75	5.43	5.23	4.93	4.80	4.60							
75	2.79	3.24	3.73	4.09	4.31	4.62	4.57	4.31	4.07	3.65	3.35	2.84							
80	1.01	1.09	1.23	1.52	2.13	2.68	2.37	1.36	1.17	1.08	1.00	1.01							
85	0.76	0.76	0.83	0.94	1.05	1.10	1.08	0.97	0.87	0.84	0.83	0.83							
90	0.74	0.73	0.73	0.72	0.73	0.72	0.82	0.82	0.83	0.83	0.86	0.85							
95	0.76	0.77	0.74	0.74	0.72	0.74	0.88	0.87	0.91	0.91	0.94	0.93							
100	0.86	0.85	0.81	0.80	0.77	0.79	0.97	0.96	1.00	1.01	1.04	1.04							
105	0.99	0.98	0.92	0.91	0.87	0.88	1.08	1.08	1.12	1.13	1.16	1.17							
110	1.16	1.13	1.09	1.05	1.01	1.01	1.20	1.20	1.25	1.27	1.31	1.30							
115	1.33	1.31	1.26	1.22	1.17	1.18	1.35	1.36	1.41	1.43	1.48	1.47							
120	1.56	1.52	1.46	1.42	1.37	1.36	1.53	1.54	1.60	1.63	1.68	1.68							
125	1.82	1.78	1.71	1.66	1.60	1.59	1.75	1.76	1.83	1.87	1.93	1.94							
130	2.16	2.09	2.01	1.95	1.87	1.86	2.01	2.03	2.11	2.17	2.22	2.24							
135	2.49	2.44	2.35	2.29	2.20	2.19	2.32	2.34	2.43	2.48	2.53	2.55							
140	2.80	2.75	2.68	2.62	2.54	2.54	2.63	2.65	2.73	2.78	2.81	2.82							
145	3.04	3.00	2.94	2.90	2.84	2.84	2.90	2.90	2.97	2.99	3.03	3.02							
150	3.19	3.18	3.13	3.11	3.05	3.06	3.10	3.10	3.16	3.16	3.19	3.19							
155	3.33	3.32	3.27	3.26	3.21	3.21	3.26	3.24	3.30	3.30	3.33	3.32							
160	3.45	3.45	3.41	3.41	3.35	3.36	3.40	3.38	3.44	3.43	3.45	3.43							
165	3.55	3.55	3.52	3.52	3.47	3.49	3.53	3.51	3.55	3.54	3.54	3.52							
170	3.62	3.64	3.62	3.62	3.59	3.59	3.63	3.60	3.64	3.62	3.61	3.57							
175	3.67	3.69	3.69	3.70	3.65	3.67	3.71	3.67	3.70	3.66	3.65	3.61							
180	3.74	3.74	3.72	3.74	3.69	3.70	3.74	3.73	3.75	3.73	3.71	3.68							

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: