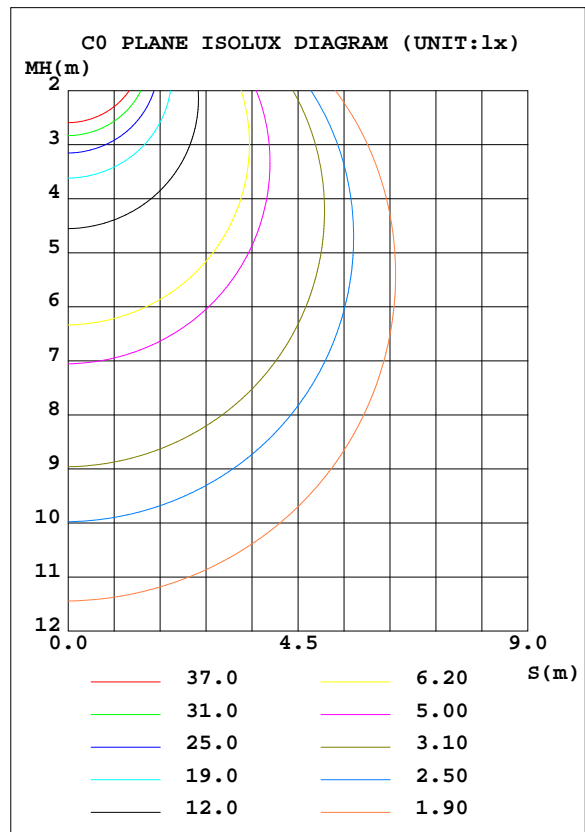
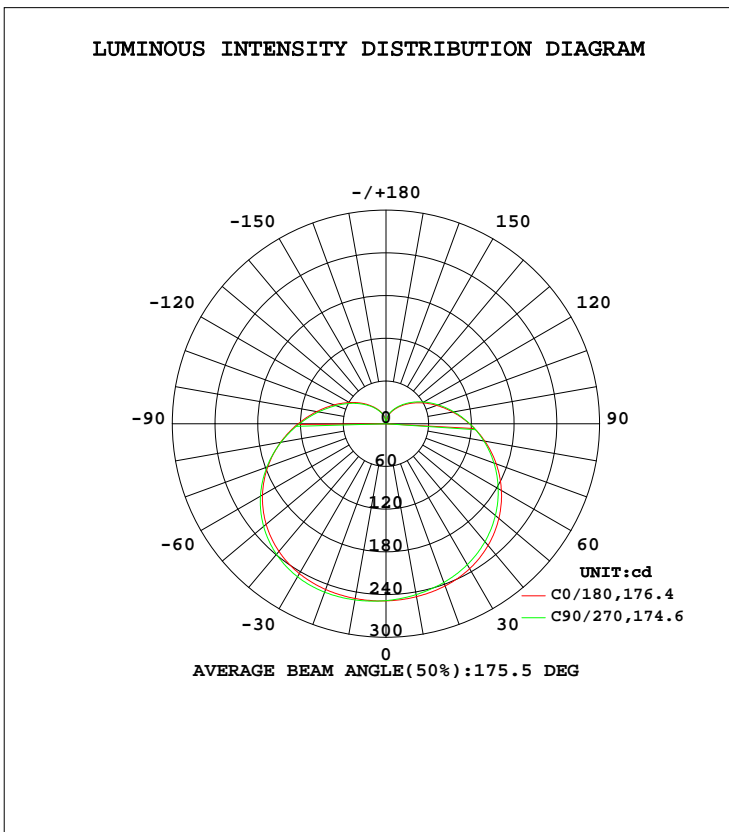


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:229.9V I:0.1018A P:12.91W PF:0.5512 Freq:50.00Hz Lamp Flux:1581.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:10aSA-A1521ST-Q1-16	DIM.:	SERIAL No.:A2002109B001
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 122.53 lm/W			
MODEL		Imax(cd)	252.5	S/MH(C0/180)	1.47
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.50
RATED VOLTAGE(V)		TOTAL FLUX(lm)	1581.3	η UP, DN(C0-180)	12.3, 36.7
NOMINAL FLUX(lm)	1581.3	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	12.0, 39.0
LAMPS INSIDE	1	η up(%)	24.3	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)		η down(%)	75.7	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:LWQ
 Test Date:2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
 Humidity:45.6%
 Test Distance:1.510m [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	246.6	244.4	243.7	245.6	249.2	251.4	251.2	249.3	0- 10	23.68	23.68	1.5,1.5
20	242.5	238.3	237.3	241.0	247.8	252.0	251.8	247.9	10- 20	69.81	93.49	5.91,5.91
30	235.1	229.6	228.5	233.8	243.2	248.8	248.3	242.8	20- 30	112.0	205.5	13,13
40	223.1	217.2	216.3	222.7	234.0	240.5	239.3	232.2	30- 40	146.8	352.2	22.3,22.3
50	207.0	201.3	200.6	207.6	219.7	226.3	224.4	216.4	40- 50	170.9	523.1	33.1,33.1
60	187.1	182.5	182.0	188.9	200.4	206.1	203.6	195.9	50- 60	182.3	705.5	44.6,44.6
70	164.8	161.6	161.4	167.2	176.6	180.7	178.1	171.6	60- 70	180.5	885.9	56,56
80	141.0	139.6	139.6	143.7	150.2	152.1	149.7	145.2	70- 80	166.8	1053	66.6,66.6
90	117.4	117.6	117.8	120.0	123.4	123.5	121.5	119.1	80- 90	144.5	1197	75.7,75.7
100	95.30	96.76	96.97	97.64	98.83	97.84	96.20	95.26	90-100	118.1	1315	83.2,83.2
110	75.72	77.73	77.99	77.70	77.62	76.20	74.95	74.85	100-110	91.54	1407	89,89
120	58.90	60.96	61.28	60.62	59.84	58.40	57.42	57.65	110-120	67.35	1474	93.2,93.2
130	44.64	46.46	46.84	46.15	45.18	43.87	43.12	43.43	120-130	46.74	1521	96.2,96.2
140	32.77	34.23	34.63	34.09	33.13	32.10	31.48	31.70	130-140	30.18	1551	98.1,98.1
150	23.04	24.14	24.54	24.24	23.41	22.70	22.17	22.06	140-150	17.67	1569	99.2,99.2
160	14.95	15.28	16.27	16.21	15.66	15.22	14.70	13.81	150-160	8.955	1578	99.8,99.8
170	1.841	5.523	7.251	7.887	7.759	7.207	6.576	5.864	160-170	3.256	1581	100,100
180	0.3725	0.3623	0.3632	0.3666	0.3702	0.3622	0.3610	0.3636	170-180	0.2500	1581	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 435.43 lm

%lum = 27.5%

%lamp = 27.5%

Conical surface Flux(120deg): 705.46 lm

%lum = 44.6%

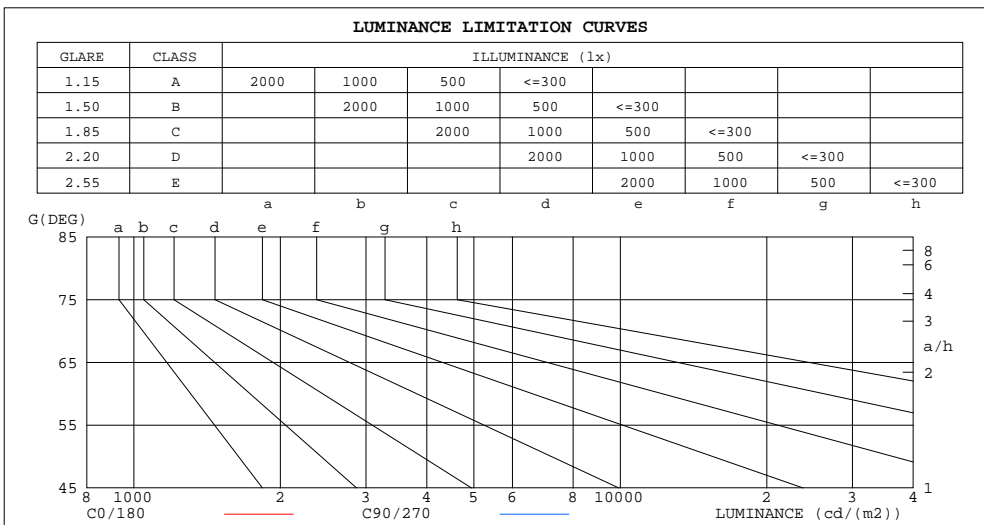
%lamp = 44.6%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:LWQ
 Test Date:2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
 Humidity:45.6%
 Test Distance:1.510m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:229.9V I:0.1018A P:12.91W PF:0.5512 Freq:50.00Hz Lamp Flux:1581.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:10aSA-A1521ST-Q1-16	DIM.:	SERIAL No.:A2002109B001
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	475169	473625
80	260495	258010
75	189666	186712
70	154609	151443
65	133819	130536
60	120111	116808
55	110486	107181
50	103340	100129
45	97826	94766

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.2DEG
 Operators: LWQ
 Test Date: 2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
 Humidity: 45.6%
 Test Distance: 1.510m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.9V I:0.1018A P:12.91W PF:0.5512 Freq:50.00Hz Lamp Flux:1581.3x1 lm										
NAME:					TYPE:			WEIGHT:		
SPEC.:10aSA-A1521ST-Q1-16					DIM.:			SERIAL No.:A2002109B001		
MFR.:					SUR.:			Shielding 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	26.0	27.4	26.6	28.0	28.7	25.9	27.3	26.5	27.9	28.6
3H	28.7	29.9	29.3	30.6	31.3	28.6	29.8	29.2	30.4	31.2
4H	30.2	31.3	30.8	32.0	32.7	30.1	31.2	30.7	31.9	32.6
6H	31.8	32.9	32.4	33.5	34.3	31.7	32.8	32.3	33.4	34.2
8H	32.7	33.7	33.3	34.4	35.2	32.6	33.6	33.2	34.3	35.1
12H	33.7	34.7	34.3	35.4	36.2	33.6	34.6	34.3	35.3	36.1
4H 2H	26.9	28.1	27.5	28.7	29.5	26.8	28.0	27.4	28.6	29.4
3H	29.7	30.8	30.4	31.4	32.2	29.6	30.7	30.3	31.3	32.1
4H	31.3	32.3	32.0	33.0	33.8	31.2	32.2	31.9	32.9	33.7
6H	33.1	34.0	33.8	34.7	35.6	33.0	33.9	33.8	34.6	35.5
8H	34.1	34.9	34.8	35.7	36.5	34.0	34.8	34.8	35.6	36.5
12H	35.2	36.0	36.0	36.7	37.6	35.2	35.9	35.9	36.7	37.6
8H 4H	31.9	32.7	32.7	33.5	34.4	31.9	32.7	32.6	33.4	34.3
6H	34.0	34.7	34.8	35.5	36.4	33.9	34.6	34.7	35.4	36.3
8H	35.2	35.8	36.0	36.6	37.5	35.1	35.7	35.9	36.5	37.5
12H	36.5	37.1	37.3	37.9	38.8	36.5	37.0	37.3	37.8	38.8
12H 4H	32.1	32.8	32.8	33.6	34.5	32.0	32.8	32.8	33.5	34.4
6H	34.3	34.9	35.0	35.7	36.6	34.2	34.8	35.0	35.6	36.5
8H	35.6	36.1	36.4	36.9	37.9	35.5	36.1	36.3	36.9	37.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				

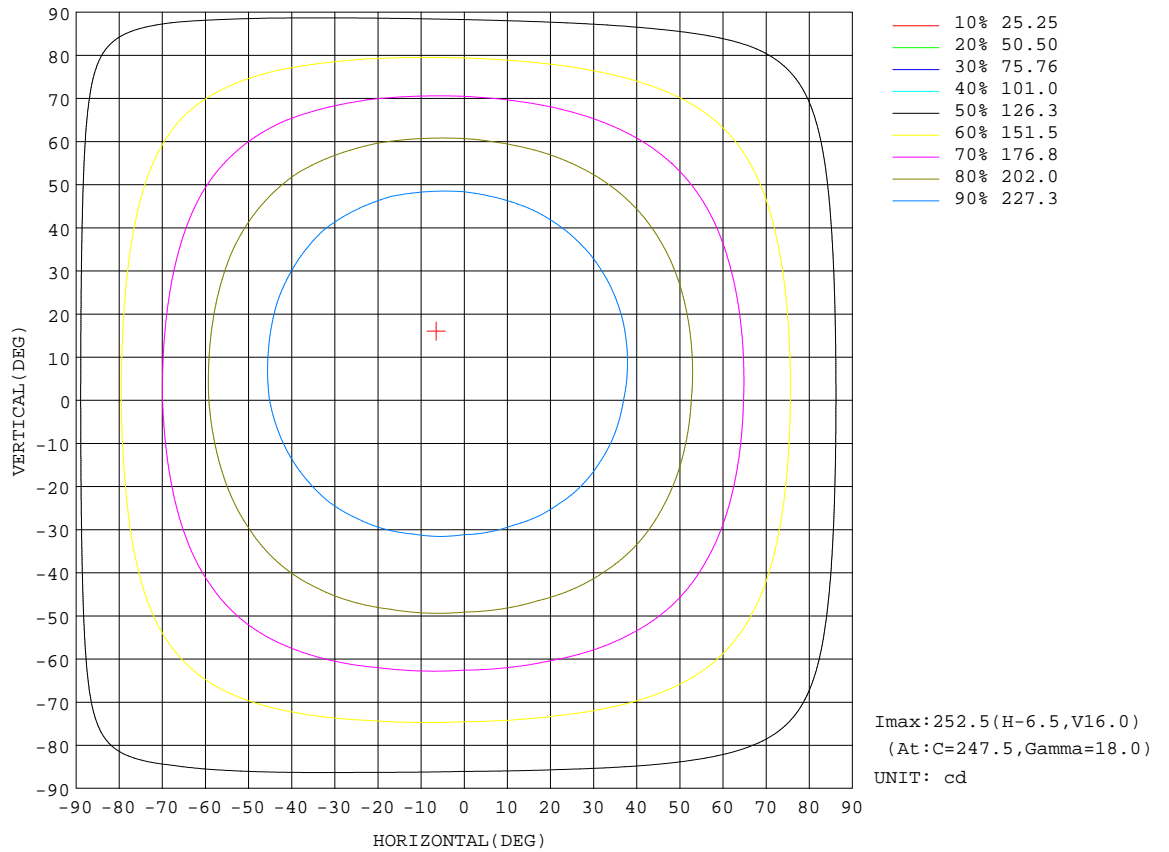
CIE Pub.117, 1581 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 1.6$)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.2DEG
Operators:LWQ
Test Date:2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
Humidity:45.6%
Test Distance:1.510m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:229.9V I:0.1018A P:12.91W PF:0.5512 Freq:50.00Hz Lamp Flux:1581.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:10aSA-A1521ST-Q1-16	DIM.:	SERIAL No.:A2002109B001
MFR.:	SUR.:	Shielding Angle:

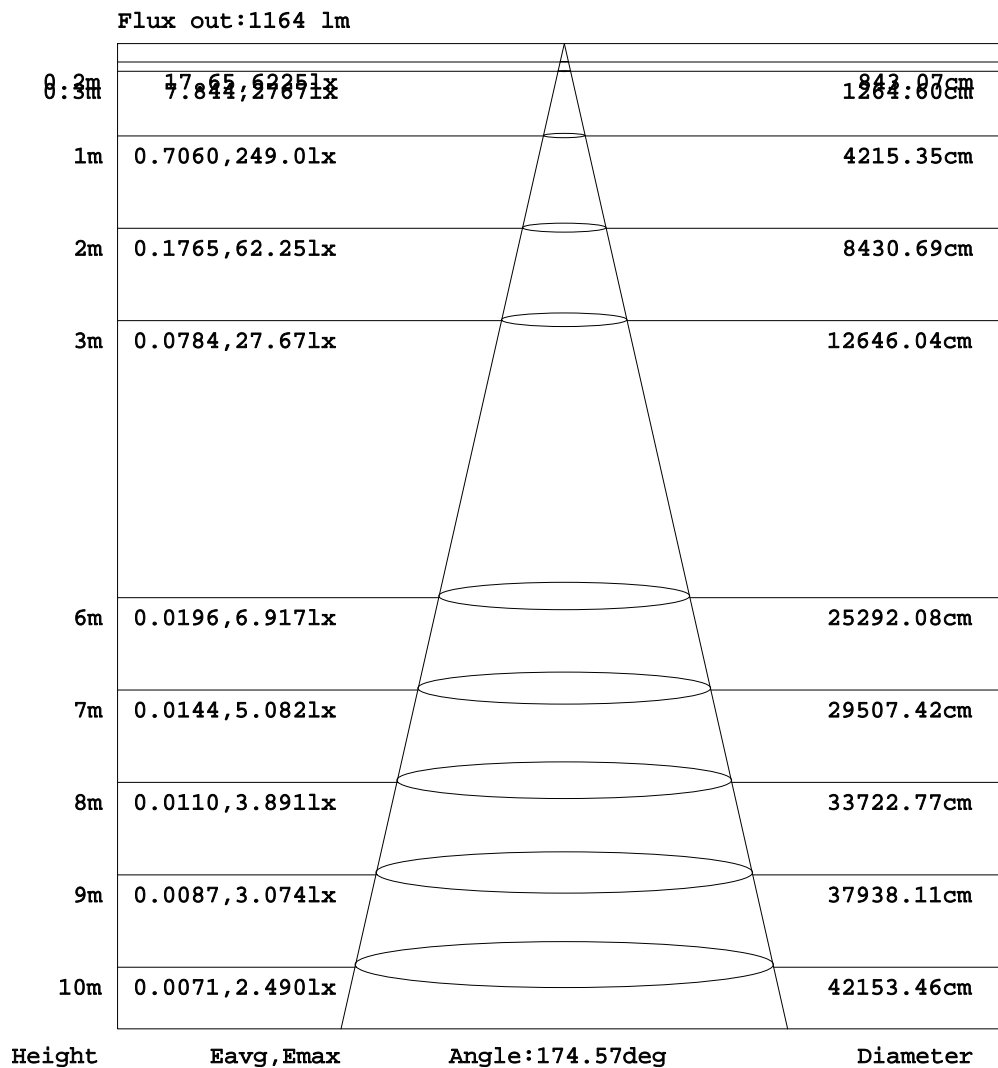


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.2DEG
 Operators: LWQ
 Test Date: 2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
 Humidity: 45.6%
 Test Distance: 1.510m [K=1.0000]
 Remarks:

AAI Figure

Test:U:229.9V I:0.1018A P:12.91W PF:0.5512 Freq:50.00Hz Lamp Flux:1581.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:10aSA-A1521ST-Q1-16	DIM.:	SERIAL No.:A2002109B001
MFR.:	SUR.:	Shielding Angle:



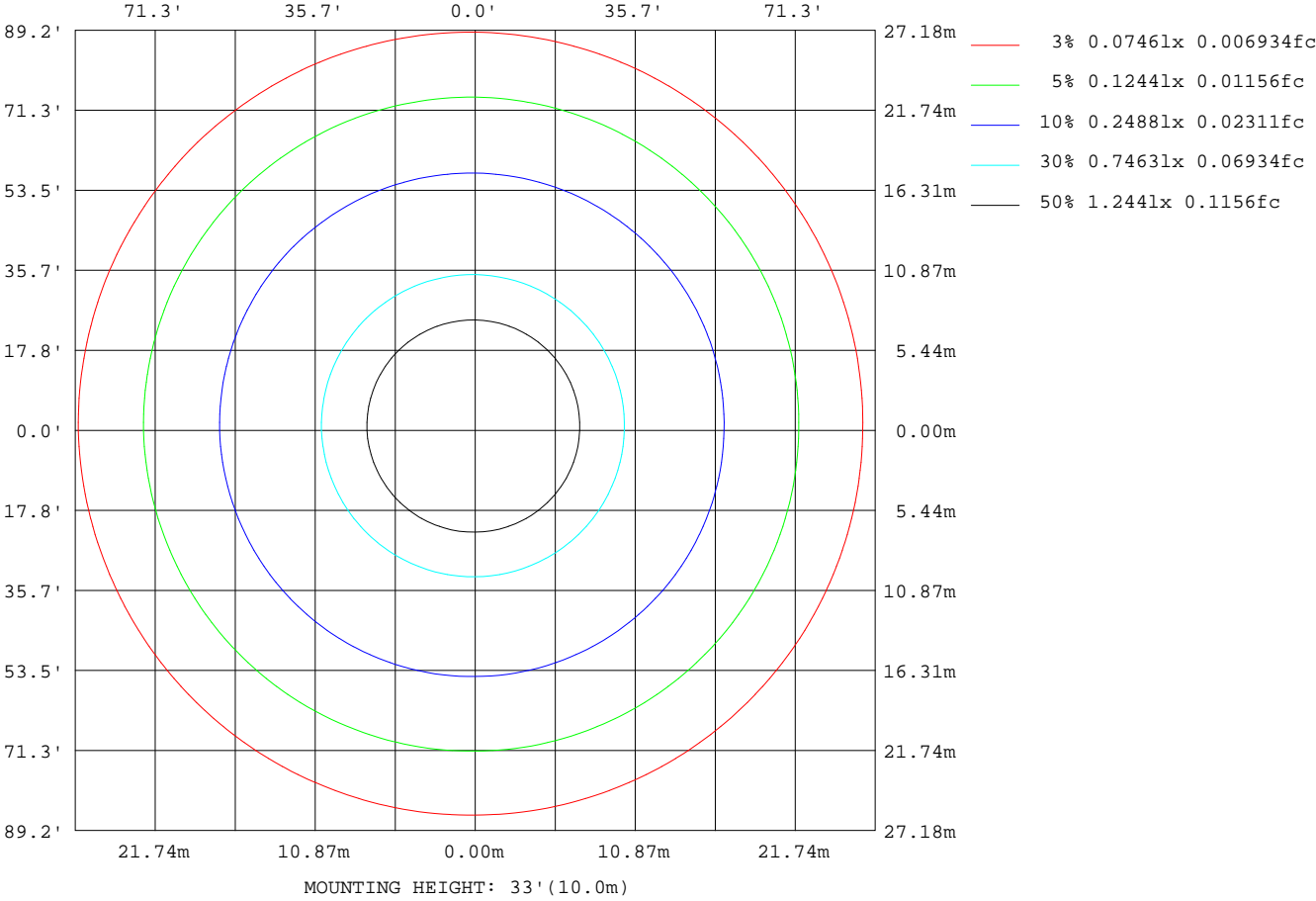
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:LWQ
 Test Date:2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
 Humidity:45.6%
 Test Distance:1.510m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:229.9V I:0.1018A P:12.91W PF:0.5512 Freq:50.00Hz Lamp Flux:1581.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:10aSA-A1521ST-Q1-16	DIM.:	SERIAL No.:A2002109B001
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:LWQ
 Test Date:2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
 Humidity:45.6%
 Test Distance:1.510m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:229.9V I:0.1018A P:12.91W PF:0.5512 Freq:50.00Hz Lamp Flux:1581.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:10aSA-A1521ST-Q1-16	DIM.:	SERIAL No.:A2002109B001
MFR.:	SUR.:	Shielding Angle:

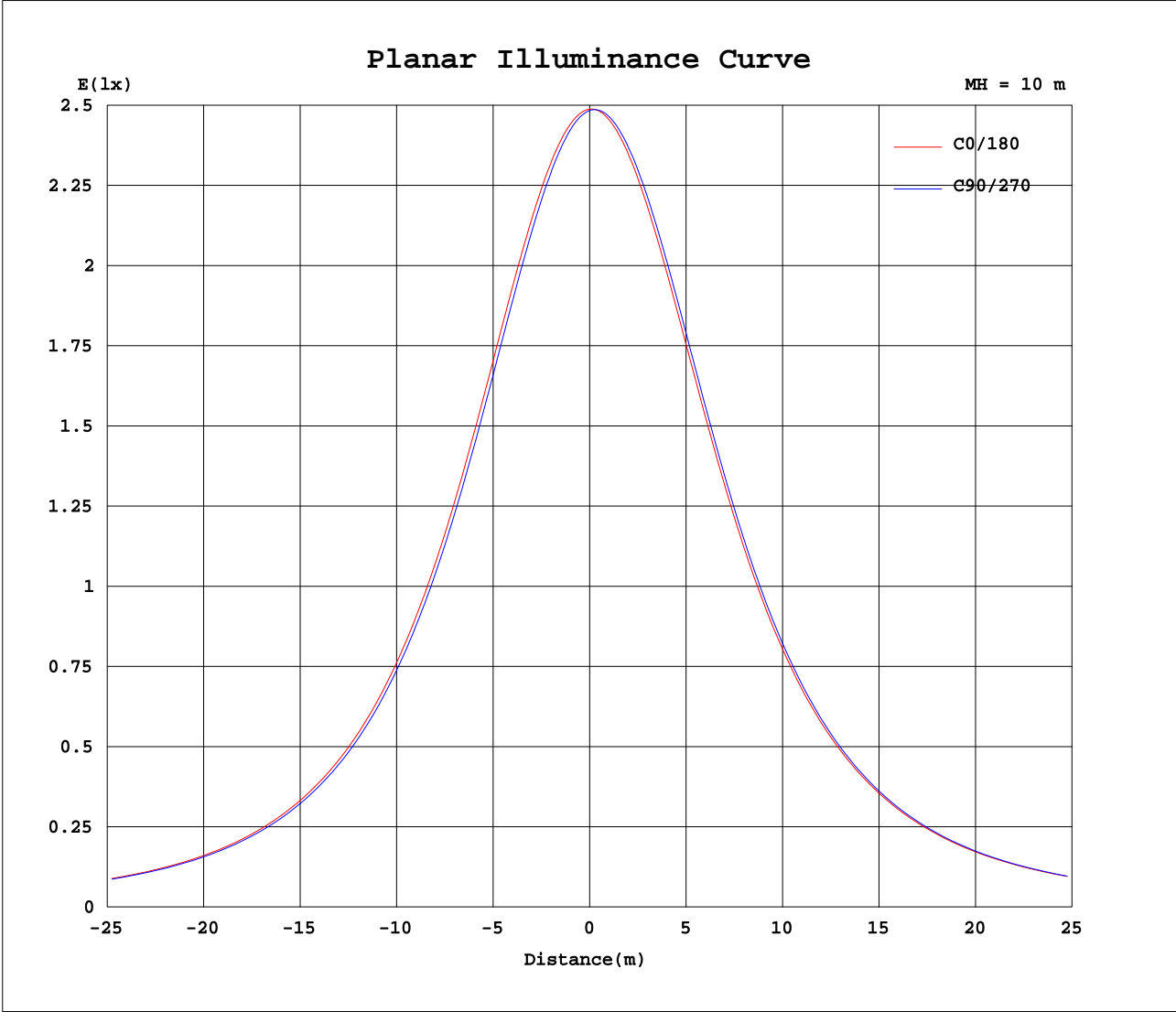
AvgL	cd/m2
L_0~180(65)av	138640
L_0~180(75)av	196269
L_0~180(85)av	489246
L_90~270(65)av	137901
L_90~270(75)av	195068
L_90~270(85)av	486073
L_45(65)av	138308
L_45(75)av	195711
L_45(85)av	487789

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.2DEG
Operators:LWQ
Test Date:2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
Humidity:45.6%
Test Distance:1.510m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 24.2DEG
Operators: LWQ
Test Date: 2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
Humidity: 45.6%
Test Distance: 1.510m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:229.9V I:0.1018A P:12.91W PF:0.5512 Freq:50.00Hz Lamp Flux:1581.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:10aSA-A1521ST-Q1-16	DIM.:	SERIAL No.:A2002109B001
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	249	249	249	249	248	248	248	248	249	249	249	249	248	248	248	248			
5	248	247	247	246	246	247	247	248	249	250	250	250	250	250	249	248			
10	247	245	244	244	244	244	246	247	249	251	251	252	251	250	249	248			
15	245	243	242	241	241	242	244	246	249	251	252	252	252	251	249	247			
20	243	240	238	237	237	239	241	244	248	250	252	252	252	250	248	245			
25	239	236	234	233	233	235	238	241	246	249	251	252	251	249	246	243			
30	235	232	230	228	229	230	234	238	243	247	249	249	248	246	243	239			
35	230	226	224	223	223	225	229	234	239	243	245	246	245	242	238	234			
40	223	220	217	216	216	219	223	228	234	238	241	241	239	236	232	228			
45	216	212	210	208	209	211	216	221	227	232	234	234	233	229	225	220			
50	207	204	201	200	201	203	208	213	220	224	226	226	224	221	216	212			
55	197	194	192	191	192	194	199	204	211	215	217	217	215	211	207	202			
60	187	184	182	181	182	185	189	194	200	204	206	206	204	200	196	192			
65	176	174	172	171	172	174	178	183	189	192	194	194	191	188	184	180			
70	165	163	162	161	161	164	167	171	177	179	181	180	178	175	172	168			
75	153	152	151	150	151	152	156	159	164	166	167	166	164	161	158	156			
80	141	140	140	139	140	141	144	146	150	152	152	151	150	148	145	143			
85	129	129	129	128	129	130	132	134	137	137	138	137	135	134	132	131			
90	117	118	118	118	118	119	120	121	123	124	124	123	121	120	119	118			
95	106	107	107	107	107	108	109	109	111	111	110	109	108	108	107	107			
100	95.3	96.2	96.8	96.9	97.0	97.2	97.6	97.8	98.8	98.4	97.8	97.0	96.2	95.6	95.3	95.4			
105	85.2	86.2	87.0	87.2	87.2	87.2	87.3	87.2	87.8	87.2	86.5	85.7	85.0	84.7	84.6	85.0			
110	75.7	76.9	77.7	78.0	78.0	77.9	77.7	77.3	77.6	76.9	76.2	75.5	74.9	74.8	74.8	75.4			
115	67.0	68.2	69.0	69.4	69.3	69.1	68.8	68.3	68.3	67.6	66.9	66.2	65.7	65.6	65.8	66.5			
120	58.9	60.1	61.0	61.3	61.3	61.0	60.6	60.0	59.8	59.1	58.4	57.8	57.4	57.3	57.6	58.4			
125	51.5	52.6	53.4	53.8	53.8	53.5	53.1	52.4	52.2	51.4	50.8	50.3	49.9	49.9	50.2	50.9			
130	44.6	45.7	46.5	46.8	46.8	46.6	46.1	45.5	45.2	44.5	43.9	43.4	43.1	43.1	43.4	44.1			
135	38.4	39.4	40.1	40.4	40.5	40.2	39.8	39.2	38.9	38.2	37.7	37.3	37.0	37.0	37.3	37.9			
140	32.8	33.6	34.2	34.6	34.6	34.4	34.1	33.5	33.1	32.6	32.1	31.7	31.5	31.4	31.7	32.2			
145	27.6	28.4	28.9	29.2	29.3	29.2	28.9	28.4	28.0	27.5	27.1	26.8	26.5	26.5	26.7	26.4			
150	23.0	23.6	24.1	24.4	24.5	24.5	24.2	23.8	23.4	23.1	22.7	22.4	22.2	22.1	22.1	20.4			
155	18.9	19.4	19.7	20.1	20.3	20.3	20.1	19.8	19.4	19.2	18.8	18.5	18.3	18.2	17.7	16.4			
160	14.9	15.3	15.3	16.0	16.3	16.3	16.2	16.0	15.7	15.5	15.2	14.9	14.7	14.4	13.8	13.0			
165	9.44	10.8	10.2	11.7	12.2	12.3	12.4	12.2	12.0	11.9	11.6	11.3	11.0	10.7	10.2	8.85			
170	1.84	2.35	5.52	6.96	7.25	7.76	7.89	7.87	7.76	7.71	7.21	7.00	6.58	5.99	5.86	3.86			
175	0.38	0.38	0.37	0.37	0.37	0.40	0.40	0.38	0.33	0.36	0.32	0.32	0.32	0.32	0.33	0.33			
180	0.37	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.36	0.36	0.36	0.36	0.36	0.37			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:LWQ
 Test Date:2020-03-04

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.363T
 Humidity:45.6%
 Test Distance:1.510m [K=1.0000]
 Remarks: