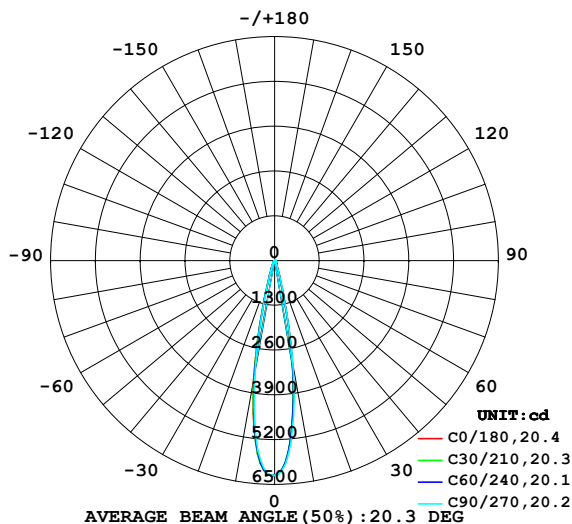


LUMINAIRE PHOTOMETRIC TEST REPORT

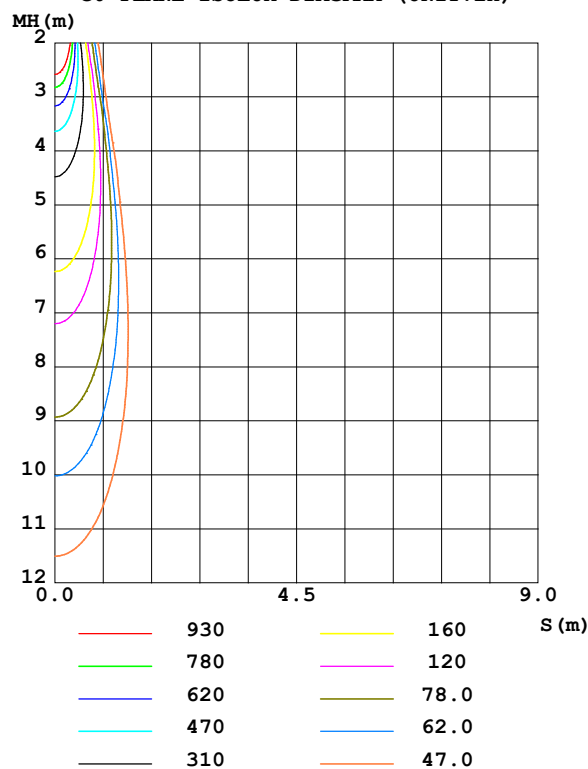
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 89.09 lm/W
MODEL	TL45-11G30-24-S	Imax (cd)	6241	S/MH(C0/180)	0.34	
NOMINAL POWER(W)	11	LOR(%)	100.0	S/MH(C90/270)	0.34	
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	953.21	η UP,DN(C0-180)	0.0,48.9	
NOMINAL FLUX(lm)	953.213	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.1	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00	
TEST VOLTAGE(V)	230	η down (%)	100.0	CIBSE SHR MAX	0.30	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

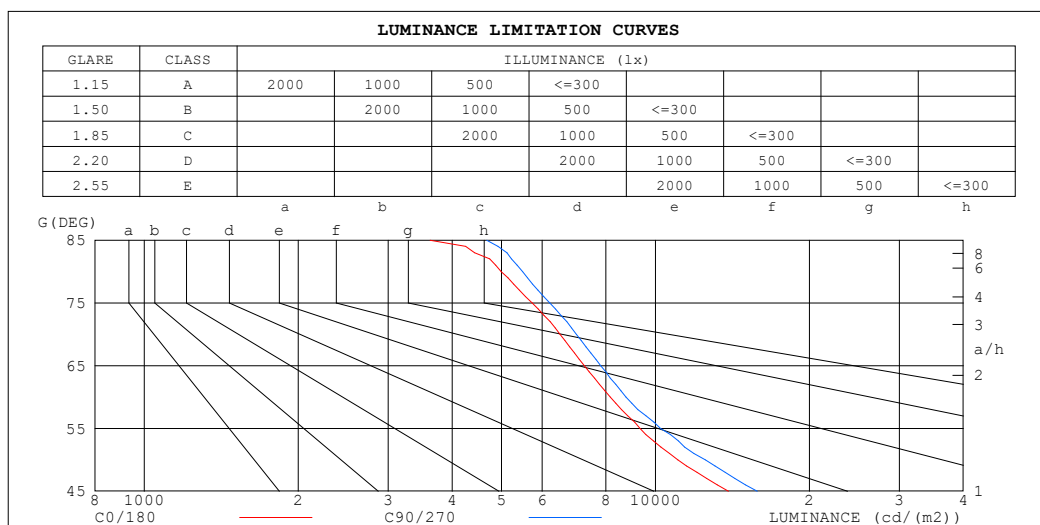
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	2941	2987	3051	3391	3532	3327	3308	3080	0- 10	446.3	446.3	46.8,46.8
20	321.2	325.6	329.5	366.8	389.9	376.9	371.8	339.1	10- 20	329.6	775.9	81.4,81.4
30	95.05	97.60	101.3	106.6	110.0	108.7	106.4	98.62	20- 30	84.90	860.8	90.3,90.3
40	37.86	39.50	42.66	44.83	44.86	44.22	41.46	39.46	30- 40	41.30	902.1	94.6,94.6
50	18.83	20.04	21.25	22.06	21.41	21.82	20.40	19.67	40- 50	22.76	924.8	97,97
60	10.79	11.54	11.56	11.51	11.65	11.94	11.52	11.14	50- 60	13.85	938.7	98.5,98.5
70	5.895	6.419	6.323	6.428	6.678	6.853	6.501	6.173	60- 70	8.678	947.4	99.4,99.4
80	2.295	2.488	2.519	2.588	2.680	2.768	2.555	2.378	70- 80	4.622	952.0	99.9,99.9
90	0.5612	0.5679	0.5516	0.5509	0.1570	0.1645	0.1448	0.1602	80- 90	1.224	953.2	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	3624	4675
80	4992	5496
75	5739	6215
70	6510	7004
65	7258	7816
60	8154	8759
55	9329	10237
50	11063	12525
45	13886	15820

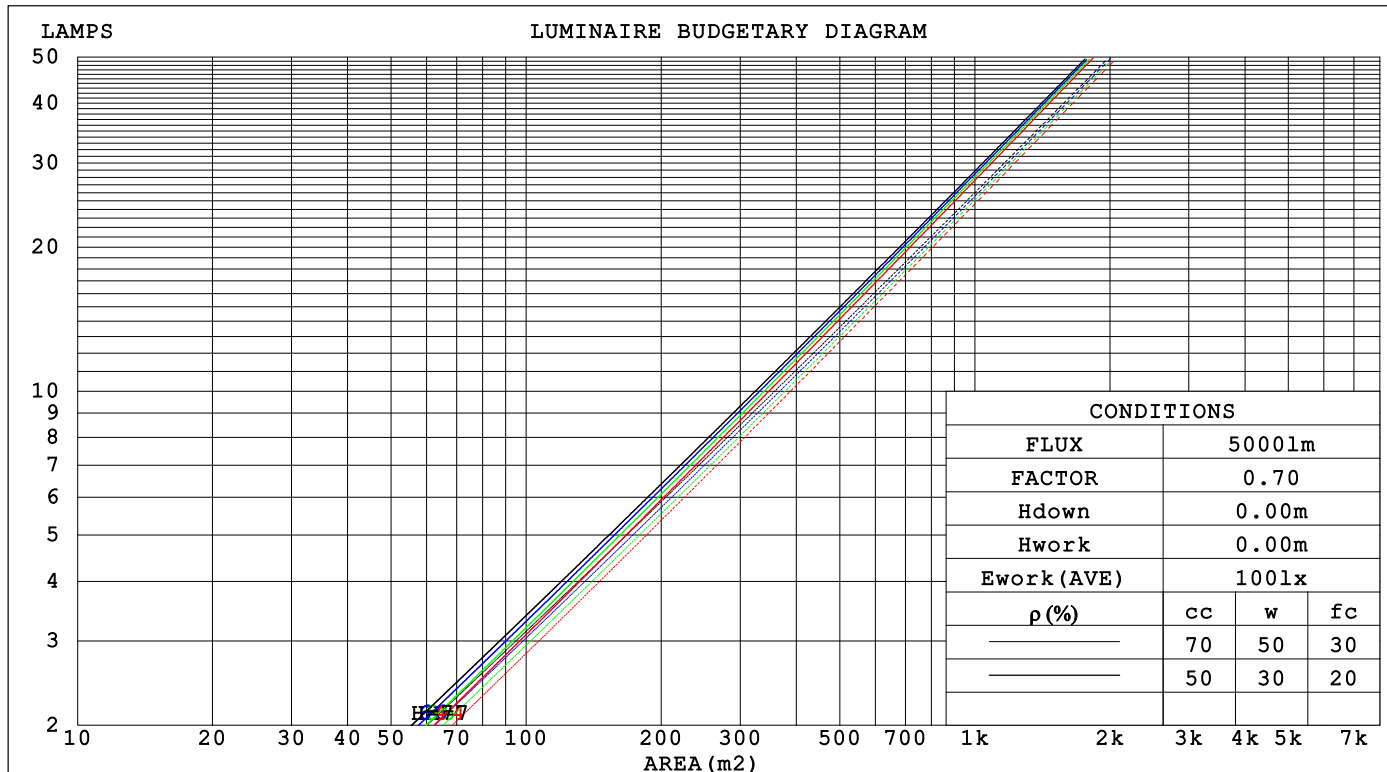
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.240m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding 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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.13	1.11	1.09	1.11	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.00	.99	.98	.96
2.0	1.07	1.04	1.02	1.06	1.03	1.01	1.03	1.01	.99	.00	.98	.97	.97	.96	.95	.93
3.0	1.03	.99	.96	1.02	.98	.96	.99	.96	.94	.97	.95	.93	.95	.93	.91	.90
4.0	.99	.95	.92	.98	.94	.92	.96	.93	.91	.94	.92	.90	.93	.90	.89	.87
5.0	.96	.92	.89	.95	.91	.88	.93	.90	.88	.92	.89	.87	.90	.88	.86	.85
6.0	.93	.89	.86	.92	.88	.85	.91	.87	.85	.90	.87	.84	.88	.86	.84	.83
7.0	.90	.86	.83	.90	.86	.83	.88	.85	.83	.87	.84	.82	.86	.84	.82	.81
8.0	.88	.84	.81	.87	.83	.81	.86	.83	.81	.85	.82	.80	.85	.82	.80	.79
9.0	.86	.82	.79	.85	.81	.79	.84	.81	.79	.84	.81	.78	.83	.80	.78	.77
10.0	.84	.80	.77	.83	.80	.77	.83	.79	.77	.82	.79	.77	.81	.79	.77	.76



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

WEC AND CCEC

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding 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	.139 .079 .025	.132 .075 .024	.120 .069 .022	.108 .063 .020	.098 .057 .018	
2.0	.128 .070 .022	.123 .068 .021	.113 .063 .019	.103 .058 .018	.094 .053 .017	
3.0	.119 .063 .019	.114 .061 .018	.106 .057 .017	.098 .054 .016	.090 .050 .015	
4.0	.110 .057 .017	.107 .056 .016	.099 .053 .016	.093 .050 .015	.086 .047 .014	
5.0	.103 .053 .015	.100 .051 .015	.094 .049 .014	.088 .046 .014	.083 .044 .013	
6.0	.097 .049 .014	.094 .047 .014	.089 .045 .013	.084 .044 .013	.079 .042 .012	
7.0	.091 .045 .013	.089 .044 .013	.084 .043 .012	.080 .041 .012	.076 .040 .012	
8.0	.086 .042 .012	.084 .041 .012	.080 .040 .011	.077 .039 .011	.073 .038 .011	
9.0	.082 .040 .011	.080 .039 .011	.077 .038 .011	.073 .037 .011	.070 .036 .010	
10.0	.078 .037 .010	.076 .037 .010	.073 .036 .010	.070 .035 .010	.068 .034 .010	

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	.190 .190 .190	.163 .163 .163	.111 .111 .111	.064 .064 .064	.020 .020 .020	
1.0	.168 .158 .148	.144 .135 .127	.099 .093 .088	.057 .054 .051	.018 .017 .017	
2.0	.150 .133 .118	.129 .114 .102	.088 .079 .071	.051 .046 .042	.016 .015 .014	
3.0	.135 .113 .096	.116 .098 .083	.080 .068 .058	.046 .040 .034	.015 .013 .011	
4.0	.123 .098 .079	.105 .085 .069	.072 .059 .048	.042 .035 .029	.013 .011 .009	
5.0	.112 .086 .066	.096 .074 .058	.066 .052 .041	.038 .030 .024	.012 .010 .008	
6.0	.103 .075 .056	.088 .065 .049	.061 .046 .034	.035 .027 .020	.011 .009 .007	
7.0	.095 .067 .048	.082 .058 .042	.056 .041 .030	.033 .024 .018	.011 .008 .006	
8.0	.088 .060 .041	.076 .052 .036	.052 .037 .026	.030 .022 .015	.010 .007 .005	
9.0	.082 .055 .036	.071 .047 .031	.049 .033 .022	.029 .020 .013	.009 .006 .004	
10.0	.077 .050 .032	.066 .043 .028	.046 .030 .020	.027 .018 .012	.009 .006 .004	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME:	TYPE:					WEIGHT:				
SPEC.:	DIM.:					SERIAL No.:				
MFR.:	SUR.: 58					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	13.7	14.3	13.9	14.4	14.6	13.9	14.6	14.1	14.7	14.9
3H	14.4	15.0	14.6	15.2	15.4	14.7	15.3	15.0	15.5	15.7
4H	14.7	15.3	14.9	15.5	15.7	15.0	15.6	15.3	15.8	16.0
6H	14.9	15.4	15.2	15.7	15.9	15.3	15.8	15.5	16.0	16.3
8H	14.9	15.5	15.2	15.7	16.0	15.3	15.9	15.6	16.1	16.3
12H	15.0	15.5	15.3	15.7	16.0	15.4	15.9	15.7	16.1	16.4
4H 2H	14.0	14.6	14.3	14.8	15.0	14.2	14.8	14.5	15.0	15.2
3H	14.9	15.4	15.2	15.7	15.9	15.2	15.7	15.5	16.0	16.2
4H	15.3	15.8	15.6	16.1	16.4	15.6	16.1	15.9	16.4	16.7
6H	15.6	16.0	16.0	16.3	16.7	15.9	16.3	16.3	16.7	17.0
8H	15.7	16.1	16.1	16.4	16.8	16.0	16.4	16.4	16.8	17.1
12H	15.7	16.1	16.1	16.4	16.8	16.1	16.4	16.5	16.8	17.2
8H 4H	15.4	15.8	15.8	16.2	16.5	15.7	16.1	16.1	16.4	16.8
6H	15.8	16.1	16.2	16.5	16.9	16.1	16.5	16.5	16.8	17.3
8H	16.0	16.2	16.4	16.7	17.1	16.3	16.6	16.7	17.0	17.4
12H	16.0	16.3	16.5	16.7	17.2	16.4	16.6	16.9	17.1	17.5
12H 4H	15.4	15.8	15.8	16.1	16.5	15.7	16.0	16.1	16.4	16.8
6H	15.8	16.1	16.3	16.5	17.0	16.1	16.4	16.6	16.8	17.3
8H	16.0	16.2	16.5	16.7	17.1	16.3	16.6	16.8	17.0	17.5
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.6 / - 0.7					+ 0.5 / - 0.7				
1.5H	+ 0.8 / - 0.6					+ 0.9 / - 0.4				
2.0H	+ 0.9 / - 0.7					+ 1.0 / - 0.6				

CIE Pub.117, 953.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.2)
Area: 0.00264 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:

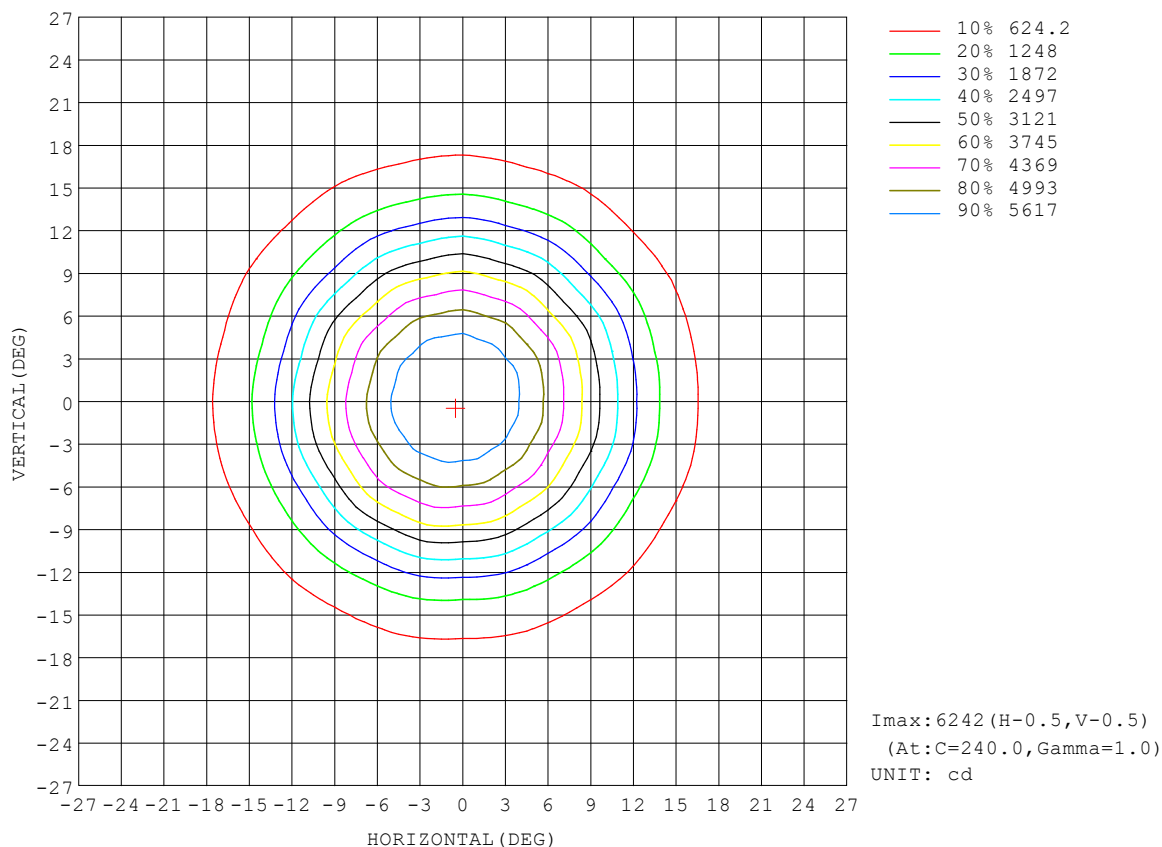
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	88	82	78	87	82	78	75
0.80	95	90	86	95	89	86	94	89	86	82
1.00	100	94	91	99	94	90	97	94	90	86
1.25	103	98	95	102	98	95	101	97	94	90
1.50	106	101	98	105	101	98	103	99	97	92
2.00	109	105	101	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	106	99
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.240m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME :	TYPE :	WEIGHT :
SPEC. :	DIM. :	SERIAL No. :
MFR. :	SUR. : 58	Shielding Angle :

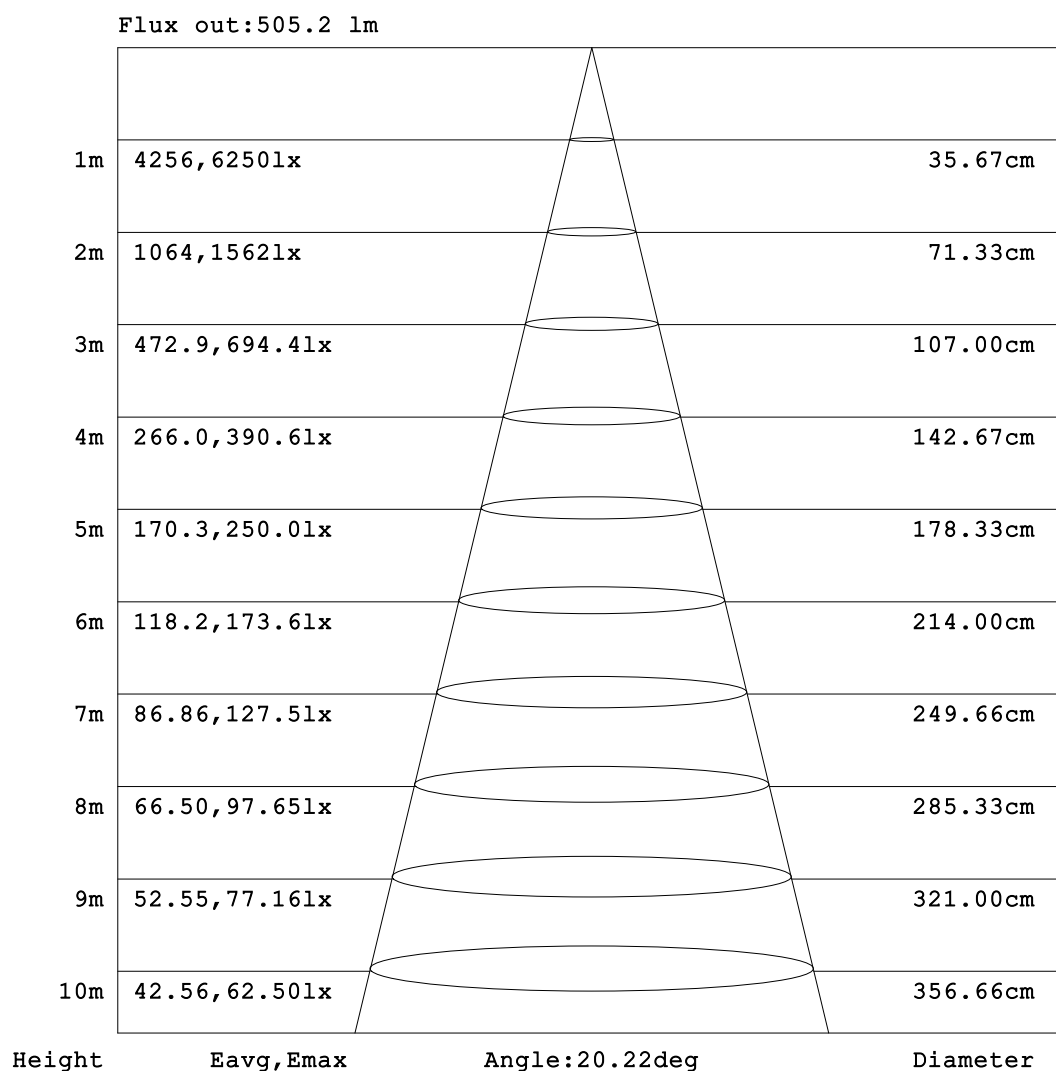


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.240m [K=1.0000]
Remarks:

AAI Figure

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:



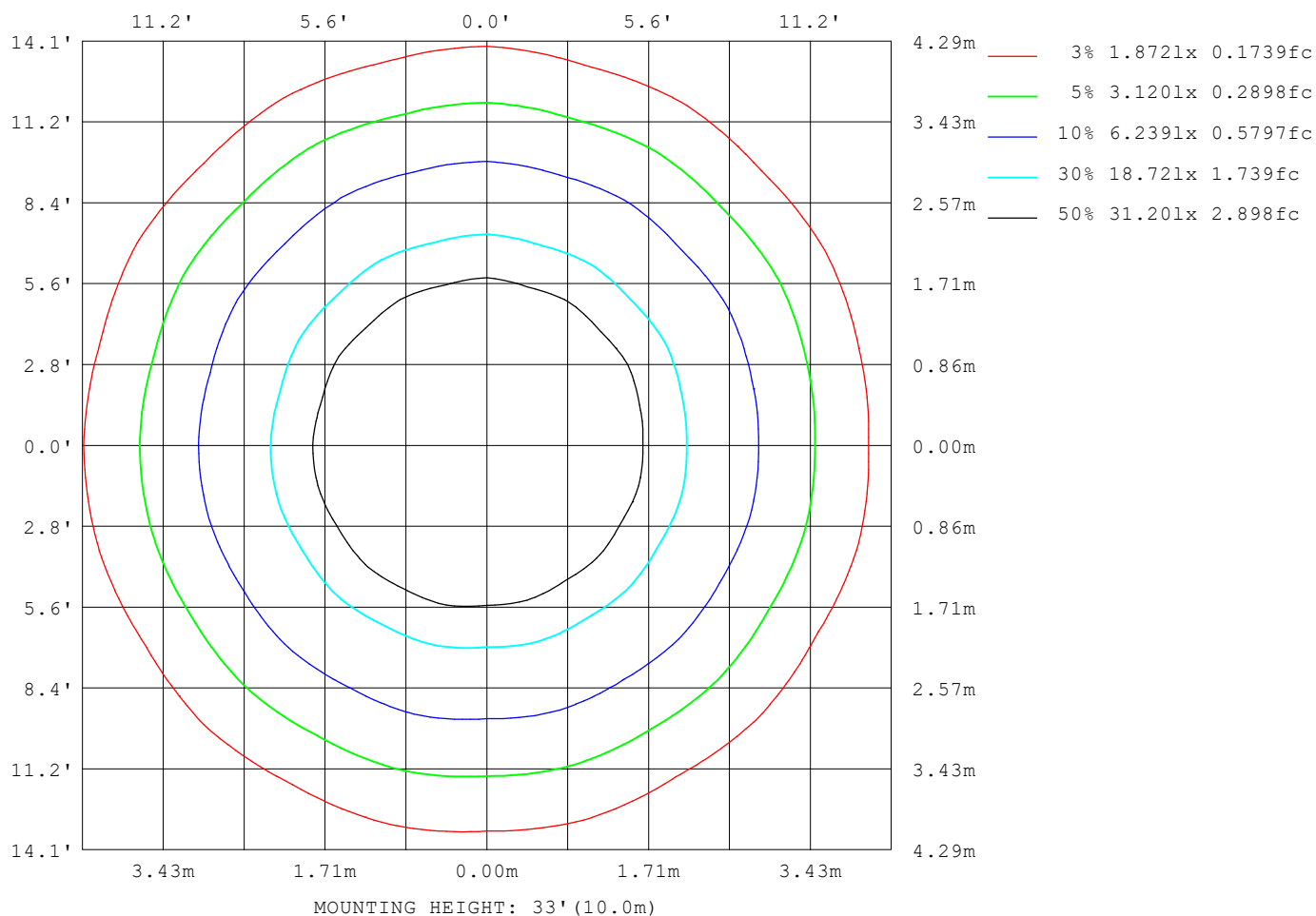
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:AE
 Test Date:2020-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:7.240m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: AE
 Test Date: 2020-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 65.0%
 Test Distance: 7.240m [K=1.0000]
 Remarks:

LED Avg.L Report

NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.: 58	Shielding Angle:

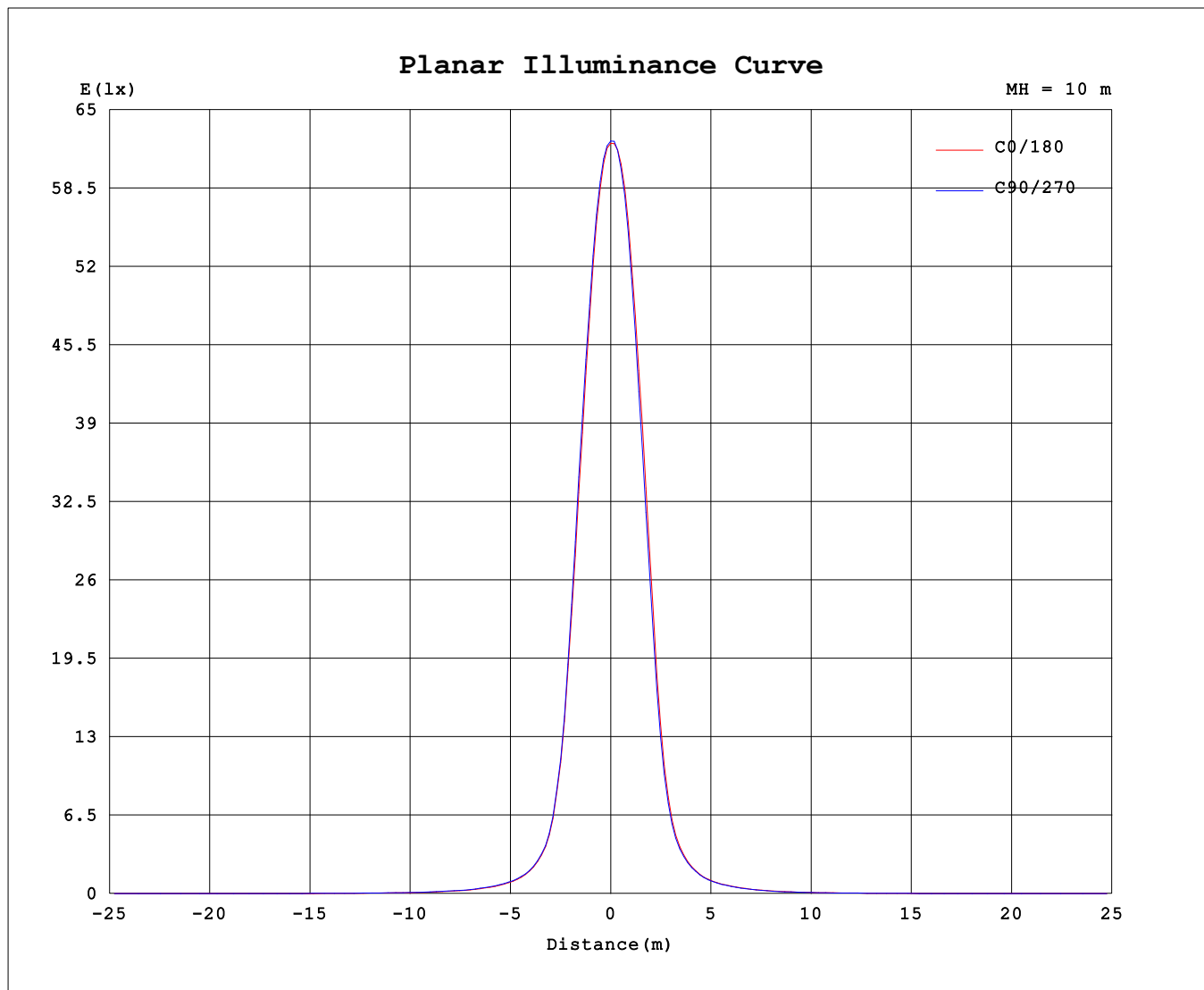
AvgL	cd/m2
L_0~180 (65) av	7657
L_0~180 (75) av	6237
L_0~180 (85) av	4085
L_90~270 (65) av	7852
L_90~270 (75) av	6351
L_90~270 (85) av	4325
L_45 (65) av	7879
L_45 (75) av	6424
L_45 (85) av	4273

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:AE
Test Date:2020-10-29

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: AE
Test Date: 2020-10-29

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 7.240m [K=1.0000]
Remarks:

NAME :	TYPE :	WEIGHT :
SPEC. :	DIM. :	SERIAL No. :
MFR. :	SUR. : 58	Shielding Angle :

UNIT: cd

[illegible]

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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:7.240m [K=1.0000]
Remarks:

```