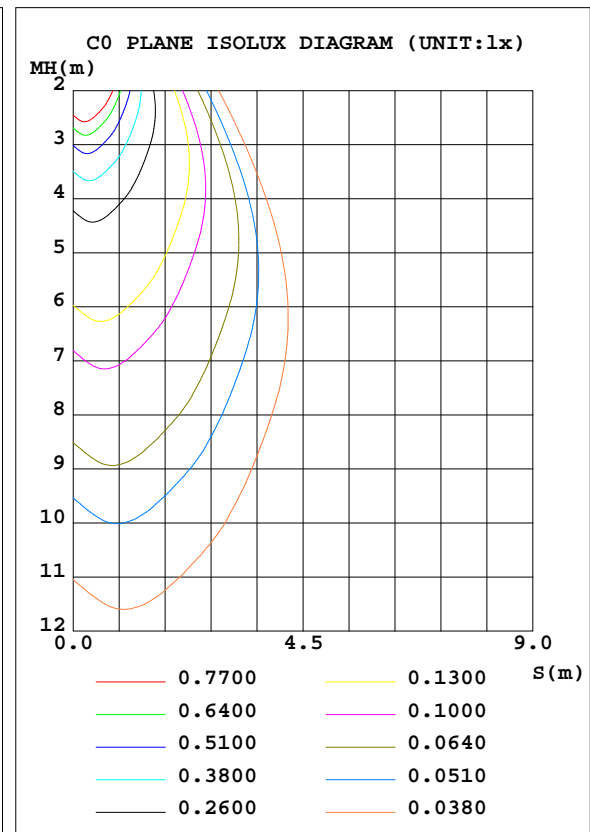
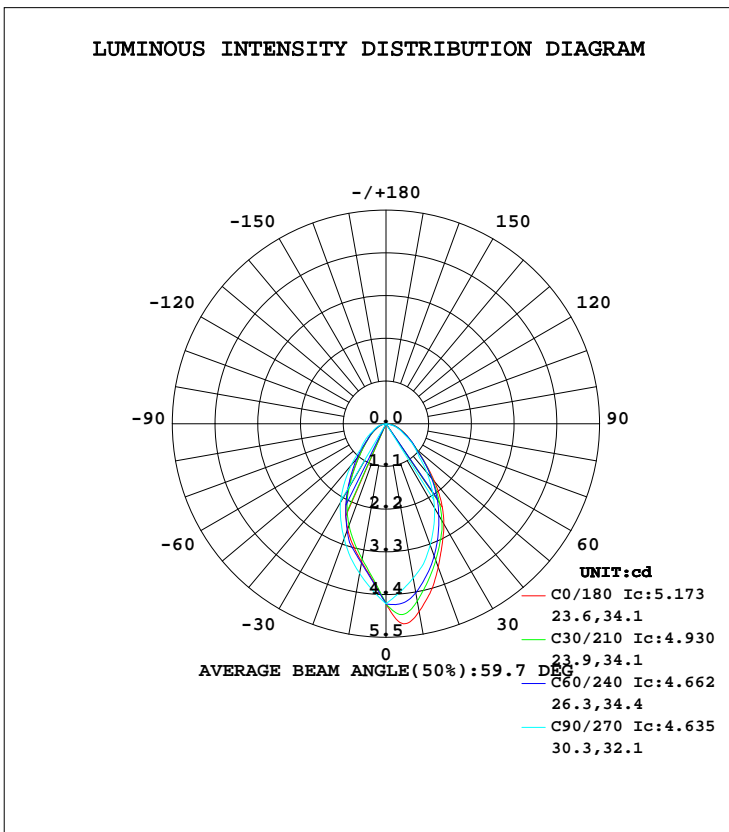


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 66.82 lm/W			
MODEL	489880-3000K	Imax(cd)	5.173	S/MH(C0/180)	0.76
NOMINAL POWER(W)	1	LOR(%)	5.9	S/MH(C90/270)	0.83
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	5.9464	η UP, DN(C0-180)	0.0,3.1
NOMINAL FLUX(lm)	100	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,2.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	5.9	CIBSE SHR MAX	0.95



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: LOW  
 Temperature:20DEG  
 Operators:G  
 Test Date:2023-01-10

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:8.750m [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
5	5.170	4.797	4.336	4.037	4.032	4.003	4.274	4.748	0- 5	0.1074	0.1074	1.81,0.11
10	4.911	4.540	4.037	3.626	3.616	3.572	3.913	4.438	5- 10	0.3025	0.4100	6.89,0.41
15	4.465	4.123	3.738	3.299	3.254	3.219	3.552	3.975	10- 15	0.4580	0.8680	14.6,0.87
20	3.936	3.724	3.326	3.005	2.887	2.885	3.152	3.549	15- 20	0.5726	1.441	24.2,1.44
25	3.426	3.260	2.914	2.585	2.455	2.405	2.751	3.123	20- 25	0.6410	2.082	35,2.08
30	2.981	2.788	2.502	2.132	1.949	1.909	2.351	2.670	25- 30	0.6629	2.745	46.2,2.74
35	2.493	2.324	2.070	1.676	1.448	1.447	1.874	2.185	30- 35	0.6375	3.382	56.9,3.38
40	1.946	1.863	1.638	1.266	1.055	1.064	1.396	1.687	35- 40	0.5693	3.951	66.4,3.95
45	1.426	1.438	1.207	0.9694	0.7863	0.8110	0.9190	1.259	40- 45	0.4761	4.427	74.5,4.43
50	1.044	1.079	0.9828	0.7371	0.5981	0.6136	0.7468	0.9112	45- 50	0.3837	4.811	80.9,4.81
55	0.7955	0.7910	0.7589	0.5535	0.4566	0.4577	0.5746	0.6419	50- 55	0.3145	5.126	86.2,5.13
60	0.6232	0.6191	0.5349	0.4223	0.3428	0.3574	0.4024	0.5057	55- 60	0.2544	5.380	90.5,5.38
65	0.4832	0.4647	0.4206	0.3082	0.2515	0.2679	0.3204	0.3853	60- 65	0.2005	5.580	93.8,5.58
70	0.3615	0.3420	0.3062	0.2176	0.1784	0.1932	0.2383	0.2829	65- 70	0.1569	5.737	96.5,5.74
75	0.2600	0.2475	0.1919	0.1447	0.1173	0.1310	0.1562	0.2093	70- 75	0.1161	5.853	98.4,5.85
80	0.1756	0.1367	0	0.0695	0.0587	0.0642	0	0.1178	75- 80	0.0696	5.923	99.6,5.92
85	0.1084	0	0	0	0	0	0	0	80- 85	0.0209	5.944	100,5.94
90	0	0	0	0	0	0	0	0	85- 90	0.0025	5.946	100,5.95
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

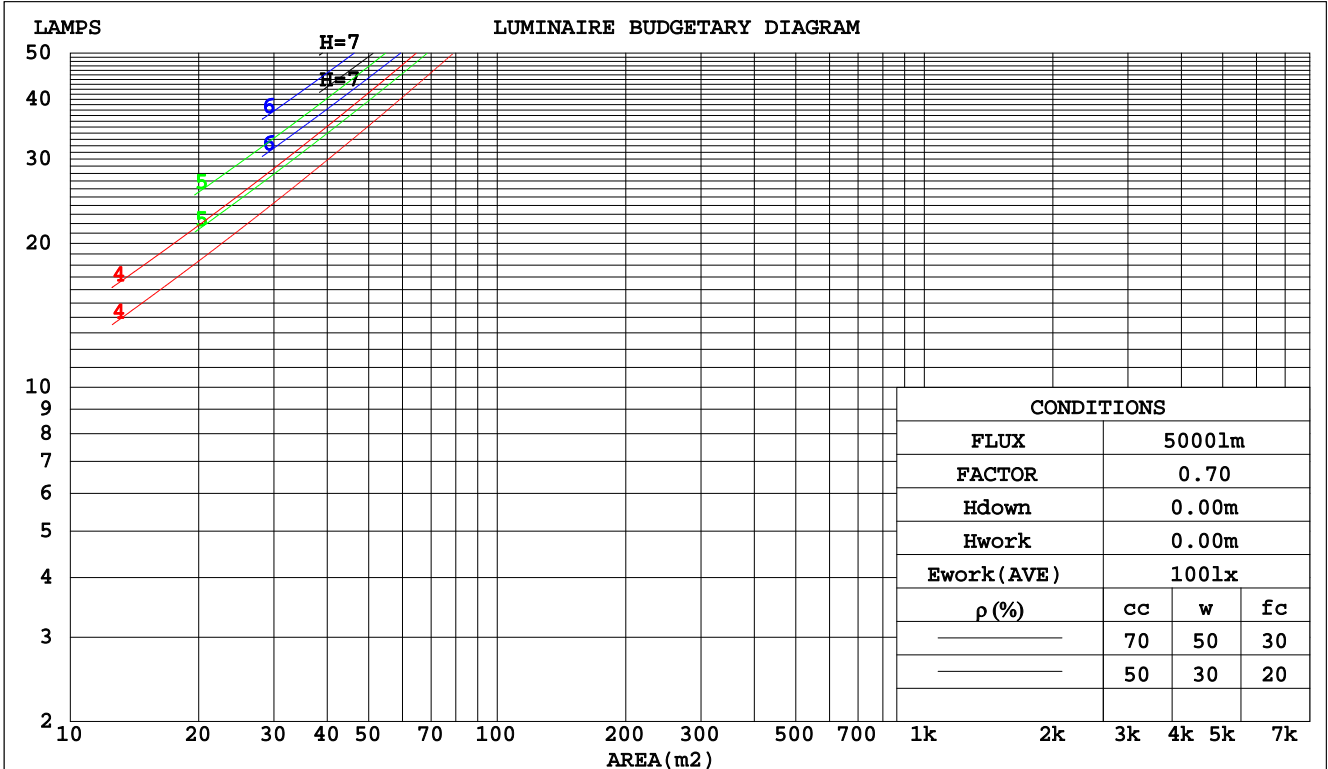
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: LOW  
Temperature:20DEG  
Operators:G  
Test Date:2023-01-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:8.750m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	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	.07	.07	.07	.07	.07	.07	.07	.07	.07	.06	.06	.06	.06	.06	.06	.06
1.0	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.05	.05	.05
2.0	.06	.05	.05	.06	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
3.0	.05	.05	.05	.05	.05	.04	.05	.05	.04	.05	.05	.04	.05	.04	.04	.04
4.0	.05	.04	.04	.05	.04	.04	.05	.04	.04	.04	.04	.04	.04	.04	.04	.04
5.0	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.03	.04	.04	.03	.03
6.0	.04	.04	.03	.04	.04	.03	.04	.03	.03	.04	.03	.03	.04	.03	.03	.03
7.0	.04	.03	.03	.04	.03	.03	.04	.03	.03	.03	.03	.03	.03	.03	.03	.03
8.0	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03
9.0	.03	.03	.02	.03	.03	.02	.03	.03	.02	.03	.03	.02	.03	.03	.02	.02
10.0	.03	.03	.02	.03	.03	.02	.03	.03	.02	.03	.03	.02	.03	.02	.02	.02



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: LOW  
 Temperature:20DEG  
 Operators:G  
 Test Date:2023-01-10

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:8.750m [K=1.0000]  
 Remarks:

**WEC AND CCEC**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.014	.008	.003	.014	.008	.002	.013	.007	.002	.012	.007	.002	.012	.007	.002	
2.0	.014	.007	.002	.013	.007	.002	.013	.007	.002	.012	.007	.002	.011	.006	.002	
3.0	.013	.007	.002	.013	.007	.002	.012	.007	.002	.011	.006	.002	.011	.006	.002	
4.0	.012	.006	.002	.012	.006	.002	.011	.006	.002	.011	.006	.002	.010	.006	.002	
5.0	.011	.006	.002	.011	.006	.002	.011	.006	.002	.010	.005	.002	.010	.005	.002	
6.0	.011	.005	.002	.010	.005	.002	.010	.005	.002	.010	.005	.001	.009	.005	.001	
7.0	.010	.005	.001	.010	.005	.001	.010	.005	.001	.009	.005	.001	.009	.005	.001	
8.0	.009	.005	.001	.009	.005	.001	.009	.005	.001	.009	.004	.001	.008	.004	.001	
9.0	.009	.004	.001	.009	.004	.001	.009	.004	.001	.008	.004	.001	.008	.004	.001	
10.0	.009	.004	.001	.008	.004	.001	.008	.004	.001	.008	.004	.001	.008	.004	.001	

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.011	.011	.011	.010	.010	.010	.007	.007	.007	.004	.004	.004	.001	.001	.001	
1.0	.010	.009	.008	.009	.008	.007	.006	.006	.005	.004	.003	.003	.001	.001	.001	
2.0	.010	.008	.006	.008	.007	.005	.006	.005	.004	.003	.003	.002	.001	.001	.001	
3.0	.009	.007	.005	.008	.006	.004	.005	.004	.003	.003	.002	.002	.001	.001	.001	
4.0	.009	.006	.004	.007	.005	.003	.005	.004	.002	.003	.002	.001	.001	.001	.000	
5.0	.008	.005	.003	.007	.005	.003	.005	.003	.002	.003	.002	.001	.001	.001	.000	
6.0	.008	.005	.003	.007	.004	.002	.005	.003	.002	.003	.002	.001	.001	.001	.000	
7.0	.007	.004	.002	.006	.004	.002	.004	.003	.001	.003	.002	.001	.001	.001	.000	
8.0	.007	.004	.002	.006	.003	.002	.004	.002	.001	.002	.001	.001	.001	.000	.000	
9.0	.007	.004	.002	.006	.003	.001	.004	.002	.001	.002	.001	.001	.001	.000	.000	
10.0	.006	.003	.001	.006	.003	.001	.004	.002	.001	.002	.001	.001	.001	.000	.000	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: LOW  
 Temperature:20DEG  
 Operators:G  
 Test Date:2023-01-10

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:8.750m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm										
NAME: 489880-3000K					TYPE:489880-3000K			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					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	-4.7	-3.5	-4.5	-3.3	-3.1	-5.0	-3.8	-4.8	-3.6	-3.4
3H	-3.7	-2.6	-3.5	-2.4	-2.2	-4.2	-3.0	-3.9	-2.8	-2.6
4H	-3.3	-2.2	-3.0	-2.0	-1.7	-3.9	-2.8	-3.6	-2.6	-2.3
6H	-2.9	-1.9	-2.6	-1.6	-1.4	-3.9	-2.9	-3.6	-2.6	-2.3
8H	-2.7	-1.7	-2.4	-1.5	-1.2	-3.9	-3.0	-3.6	-2.7	-2.4
12H	-2.5	-1.6	-2.2	-1.3	-1.0	-4.0	-3.0	-3.6	-2.8	-2.5
4H 2H	-4.4	-3.3	-4.1	-3.1	-2.8	-4.6	-3.5	-4.3	-3.3	-3.1
3H	-3.2	-2.3	-2.9	-2.0	-1.7	-3.6	-2.6	-3.2	-2.4	-2.1
4H	-2.6	-1.8	-2.3	-1.5	-1.1	-3.2	-2.3	-2.8	-2.0	-1.7
6H	-2.1	-1.3	-1.7	-1.0	-0.6	-3.1	-2.4	-2.7	-2.0	-1.7
8H	-1.8	-1.1	-1.4	-0.8	-0.4	-3.2	-2.5	-2.8	-2.1	-1.7
12H	-1.6	-0.9	-1.2	-0.5	-0.1	-3.2	-2.6	-2.8	-2.2	-1.8
8H 4H	-2.4	-1.7	-2.0	-1.4	-1.0	-2.9	-2.2	-2.5	-1.9	-1.5
6H	-1.7	-1.2	-1.3	-0.8	-0.3	-2.9	-2.3	-2.4	-1.9	-1.5
8H	-1.4	-0.9	-0.9	-0.4	-0.0	-2.9	-2.4	-2.4	-2.0	-1.5
12H	-1.0	-0.6	-0.5	-0.1	0.4	-2.9	-2.5	-2.5	-2.1	-1.6
12H 4H	-2.5	-1.8	-2.1	-1.5	-1.1	-2.9	-2.3	-2.5	-1.9	-1.5
6H	-1.8	-1.2	-1.3	-0.8	-0.4	-2.8	-2.3	-2.4	-1.9	-1.4
8H	-1.4	-0.9	-0.9	-0.5	-0.0	-2.9	-2.4	-2.4	-2.0	-1.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.5					+ 0.5 / - 0.6				
1.5H	+ 0.3 / - 0.3					+ 0.4 / - 0.5				
2.0H	+ 0.7 / - 0.5					+ 0.7 / - 0.9				

CIE Pub.117 Corrected 100.0 lm Total Lamp Luminous Flux. (8log(F/F0) = -8.0)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: LOW  
Temperature:20DEG  
Operators:G  
Test Date:2023-01-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:8.750m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

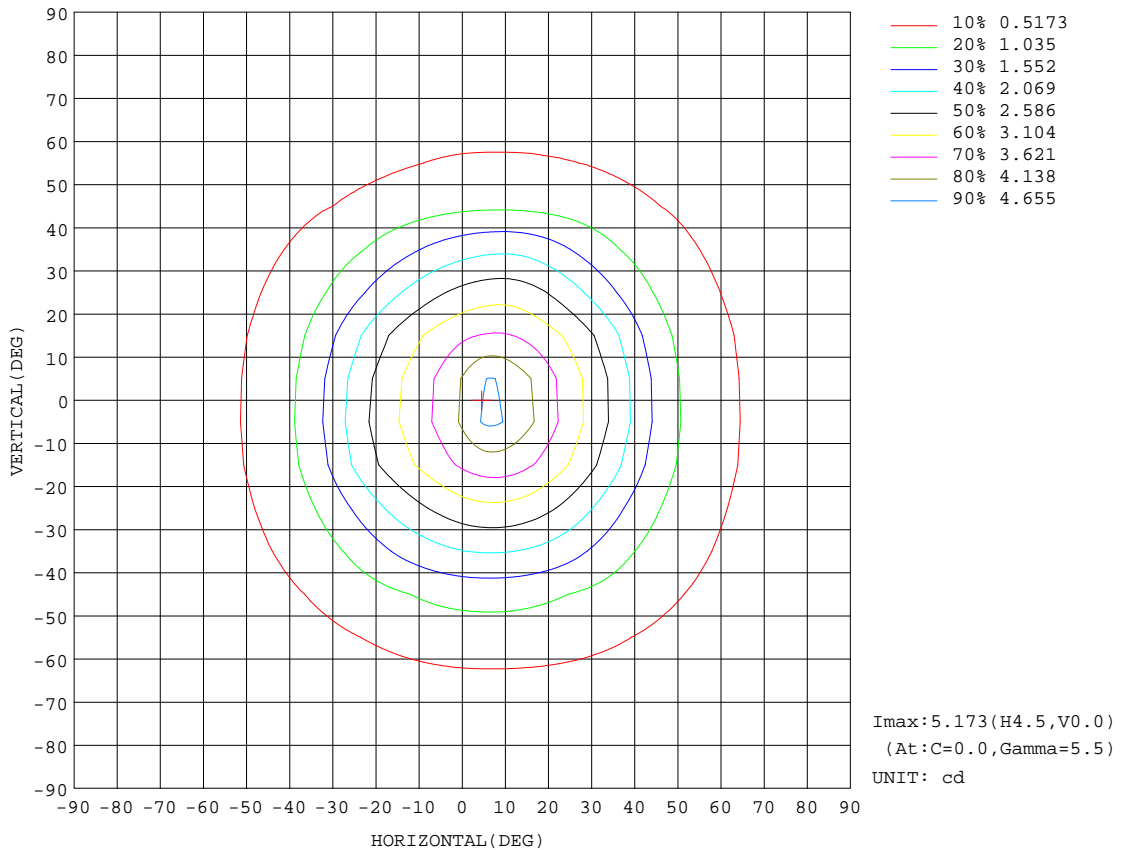
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	4	4	3	4	4	3	4	4	3	3
0.80	5	4	4	5	4	4	5	4	4	4
1.00	5	5	4	5	5	4	5	5	4	4
1.25	6	5	5	5	5	5	5	5	5	4
1.50	6	5	5	6	5	5	6	5	5	5
2.00	6	6	5	6	6	5	6	5	5	5
2.50	6	6	6	6	6	6	6	6	5	5
3.00	6	6	6	6	6	6	6	6	6	5
4.00	7	6	6	6	6	6	6	6	6	5
5.00	7	6	6	7	6	6	6	6	6	5
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: LOW  
Temperature:20DEG  
Operators:G  
Test Date:2023-01-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:8.750m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

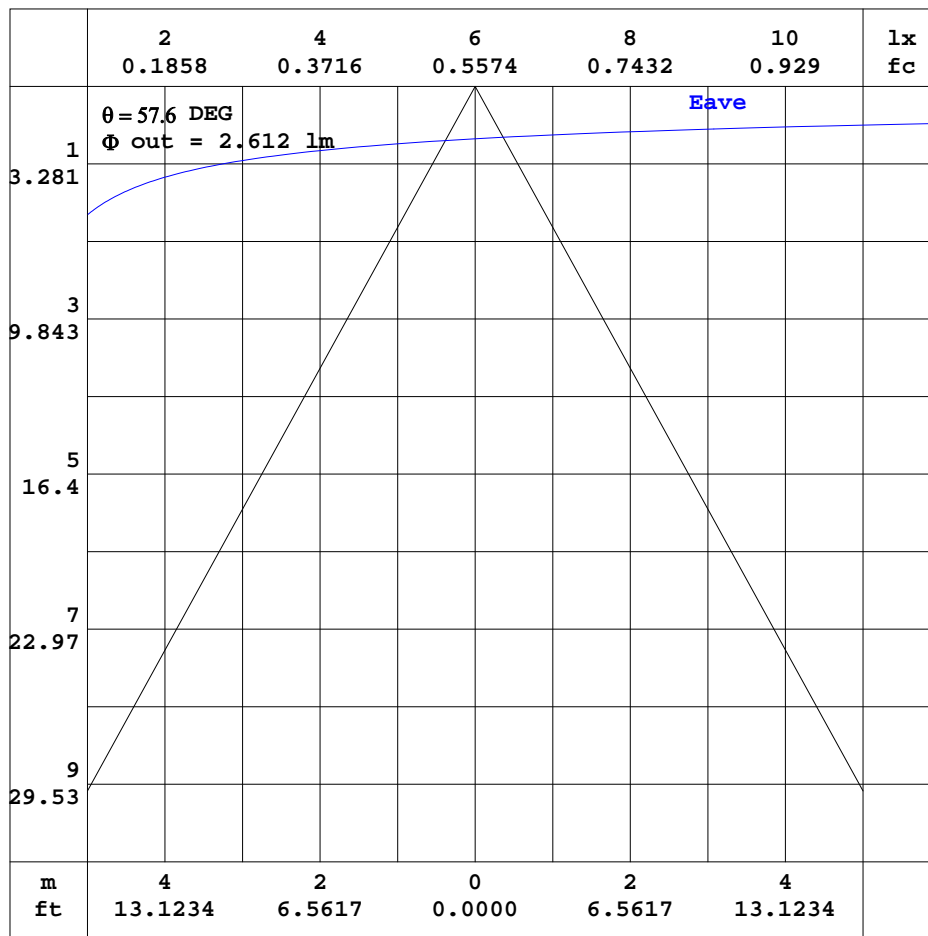


C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: LOW  
 Temperature: 20DEG  
 Operators: G  
 Test Date: 2023-01-10

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 8.750m [K=1.0000]  
 Remarks:

**AAI CURVES**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



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

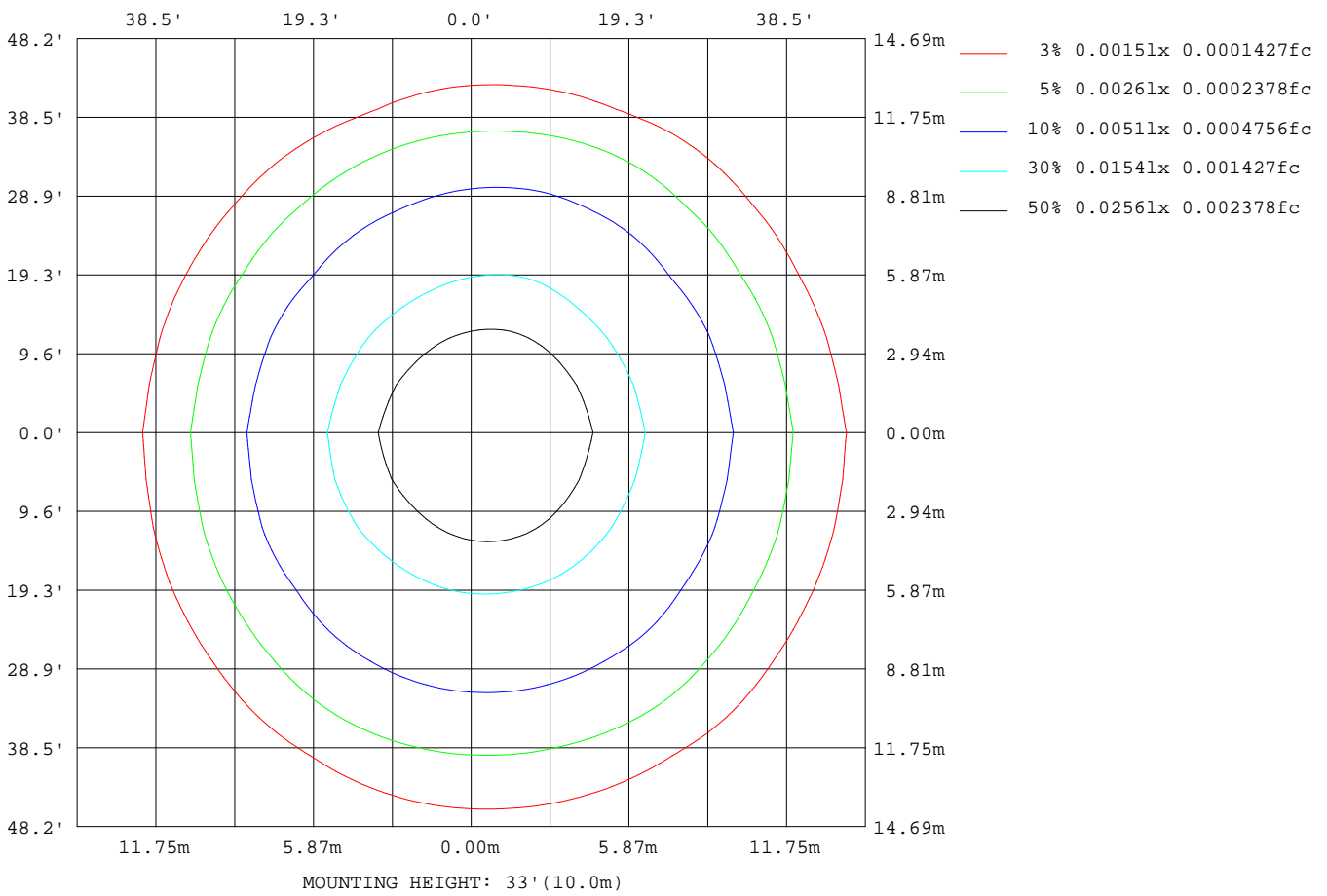
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: LOW  
 Temperature:20DEG  
 Operators:G  
 Test Date:2023-01-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:8.750m [K=1.0000]  
 Remarks:



**ISOLUX DIAGRAM**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: LOW  
Temperature:20DEG  
Operators:G  
Test Date:2023-01-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:8.750m [K=1.0000]  
Remarks:

**LED Avg.L Report**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

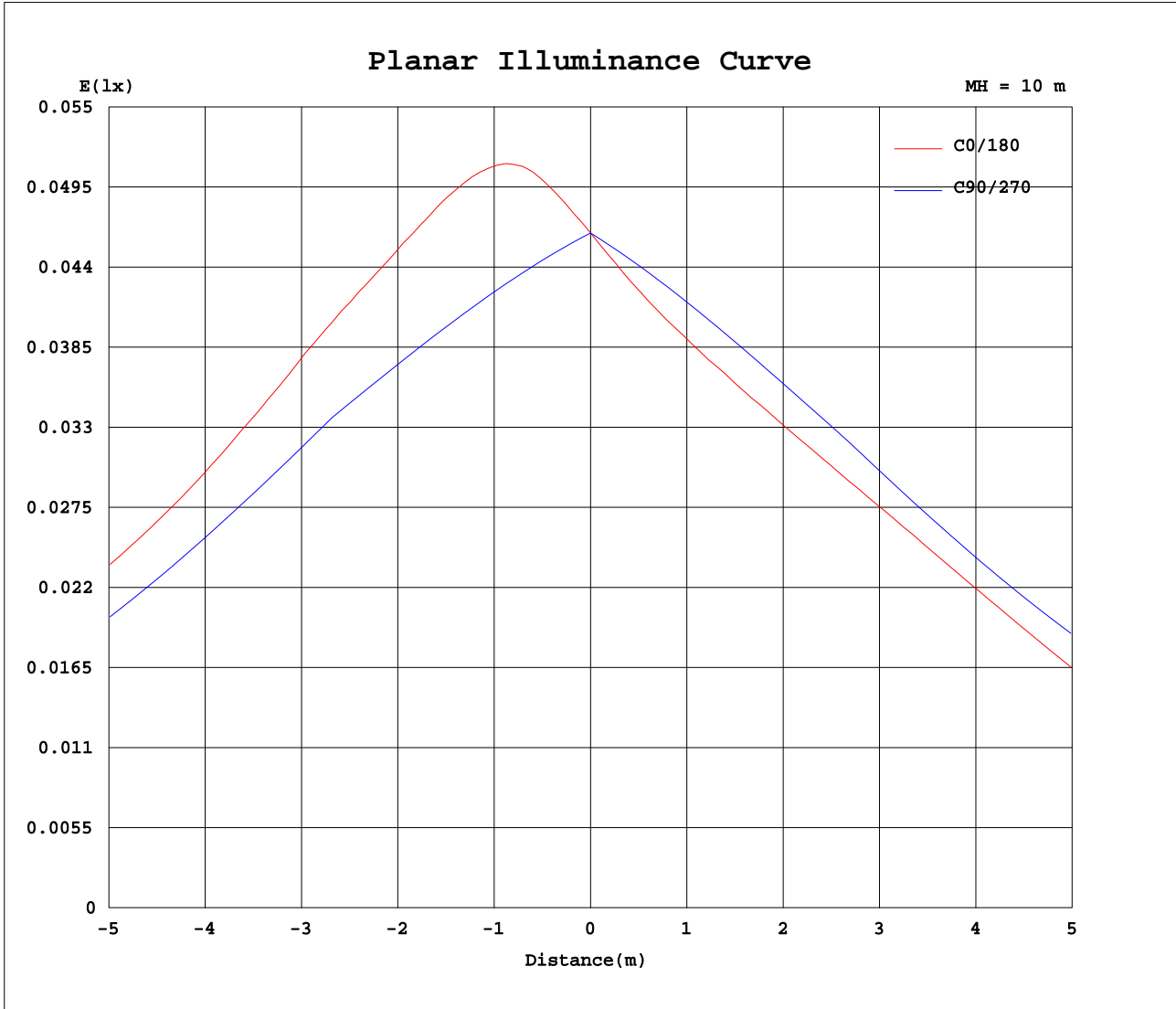
AvgL	cd/m2
L_0~180(65)av	4
L_0~180(75)av	4
L_0~180(85)av	3
L_90~270(65)av	4
L_90~270(75)av	3
L_90~270(85)av	0
L_45(65)av	4
L_45(75)av	4
L_45(85)av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: LOW  
Temperature:20DEG  
Operators:G  
Test Date:2023-01-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:8.750m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: LOW  
 Temperature: 20DEG  
 Operators: G  
 Test Date: 2023-01-10

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 8.750m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

$\gamma$ (DEG) \ C (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63
5	5.17	5.13	5.09	5.05	5.01	4.97	4.93	4.89	4.84	4.80	4.75	4.70	4.64	4.59	4.54	4.48	4.43	4.38	4.34
10	4.91	4.85	4.80	4.75	4.71	4.67	4.64	4.60	4.57	4.54	4.50	4.46	4.42	4.37	4.30	4.24	4.17	4.10	4.04
15	4.46	4.40	4.34	4.29	4.25	4.22	4.19	4.16	4.14	4.12	4.10	4.07	4.04	4.00	3.95	3.90	3.84	3.79	3.74
20	3.94	3.87	3.82	3.79	3.77	3.75	3.74	3.74	3.74	3.72	3.70	3.67	3.62	3.58	3.54	3.49	3.43	3.38	3.33
25	3.43	3.37	3.33	3.31	3.30	3.30	3.32	3.33	3.29	3.26	3.23	3.20	3.17	3.14	3.10	3.06	3.01	2.96	2.91
30	2.98	2.92	2.88	2.86	2.87	2.89	2.88	2.84	2.81	2.79	2.77	2.75	2.72	2.69	2.65	2.62	2.58	2.54	2.50
35	2.49	2.43	2.39	2.39	2.41	2.40	2.37	2.34	2.33	2.32	2.32	2.30	2.28	2.24	2.21	2.18	2.14	2.11	2.07
40	1.95	1.89	1.87	1.88	1.90	1.88	1.86	1.85	1.85	1.86	1.87	1.85	1.83	1.80	1.77	1.73	1.70	1.67	1.64
45	1.43	1.39	1.39	1.42	1.41	1.40	1.40	1.40	1.42	1.44	1.44	1.43	1.40	1.36	1.33	1.29	1.26	1.23	1.21
50	1.04	1.03	1.04	1.05	1.04	1.04	1.04	1.06	1.07	1.08	1.07	1.03	1.02	1.02	1.03	1.02	1.01	1.00	0.98
55	0.80	0.79	0.80	0.80	0.80	0.80	0.80	0.81	0.80	0.79	0.80	0.81	0.81	0.81	0.80	0.80	0.78	0.77	0.76
60	0.62	0.62	0.63	0.62	0.62	0.62	0.62	0.61	0.61	0.62	0.62	0.62	0.61	0.60	0.59	0.57	0.56	0.54	0.53
65	0.48	0.48	0.48	0.48	0.47	0.47	0.47	0.47	0.47	0.46	0.46	0.45	0.45	0.45	0.44	0.44	0.43	0.43	0.42
70	0.36	0.36	0.36	0.36	0.36	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.34	0.34	0.33	0.32	0.32	0.31	0.31
75	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.23	0.23	0.22	0.21	0.20	0.20	0.19
80	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.16	0.14	0.11	0.08	0.06	0.04	0.02	0.01	0.01	0.00	0.00
85	0.11	0.11	0.10	0.11	0.09	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: LOW  
Temperature:20DEG  
Operators:G  
Test Date:2023-01-10

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:8.750m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C( DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63
5	4.29	4.25	4.21	4.17	4.14	4.10	4.08	4.06	4.04	4.02	4.01	4.00	4.00	4.00	4.00	4.01	4.02	4.03	4.01
10	3.98	3.92	3.86	3.81	3.76	3.72	3.69	3.65	3.63	3.61	3.59	3.57	3.57	3.56	3.57	3.58	3.59	3.62	3.59
15	3.69	3.63	3.58	3.52	3.47	3.42	3.37	3.33	3.30	3.27	3.24	3.22	3.21	3.20	3.20	3.21	3.23	3.25	3.22
20	3.27	3.22	3.16	3.12	3.09	3.06	3.04	3.03	3.01	2.96	2.92	2.89	2.87	2.85	2.84	2.84	2.86	2.89	2.84
25	2.86	2.81	2.76	2.71	2.67	2.64	2.61	2.59	2.58	2.59	2.60	2.54	2.49	2.45	2.43	2.42	2.43	2.46	2.40
30	2.46	2.41	2.36	2.31	2.27	2.23	2.19	2.16	2.13	2.12	2.11	2.10	2.06	1.99	1.95	1.92	1.92	1.95	1.89
35	2.03	1.99	1.95	1.91	1.87	1.82	1.77	1.71	1.68	1.64	1.62	1.59	1.57	1.52	1.47	1.44	1.43	1.45	1.40
40	1.61	1.58	1.55	1.52	1.48	1.44	1.38	1.32	1.27	1.23	1.20	1.17	1.15	1.13	1.09	1.05	1.04	1.06	1.02
45	1.19	1.17	1.16	1.14	1.12	1.09	1.05	1.01	0.97	0.93	0.90	0.88	0.85	0.83	0.82	0.79	0.78	0.79	0.76
50	0.96	0.94	0.91	0.88	0.84	0.81	0.78	0.76	0.74	0.71	0.69	0.67	0.65	0.63	0.62	0.60	0.59	0.60	0.58
55	0.74	0.73	0.71	0.68	0.66	0.63	0.60	0.58	0.55	0.54	0.52	0.51	0.50	0.48	0.47	0.46	0.45	0.46	0.45
60	0.53	0.52	0.51	0.49	0.48	0.47	0.46	0.44	0.42	0.40	0.39	0.38	0.37	0.36	0.35	0.35	0.34	0.34	0.34
65	0.41	0.40	0.38	0.37	0.35	0.34	0.32	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.26	0.25	0.25	0.25	0.25
70	0.30	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.22	0.21	0.20	0.20	0.19	0.19	0.18	0.18	0.18	0.18	0.17
75	0.19	0.18	0.17	0.17	0.17	0.16	0.16	0.15	0.14	0.14	0.14	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11
80	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: LOW  
Temperature:20DEG  
Operators:G  
Test Date:2023-01-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:8.750m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: cd

C( DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63
5	4.00	3.99	3.98	3.98	3.98	3.98	3.99	4.00	4.02	4.04	4.06	4.09	4.12	4.15	4.19	4.23	4.27	4.32	4.37
10	3.57	3.55	3.54	3.54	3.54	3.55	3.56	3.57	3.59	3.62	3.65	3.68	3.72	3.76	3.81	3.86	3.91	3.97	4.04
15	3.19	3.17	3.16	3.16	3.16	3.18	3.19	3.22	3.25	3.29	3.32	3.36	3.40	3.44	3.48	3.52	3.55	3.60	3.64
20	2.80	2.78	2.77	2.77	2.79	2.81	2.84	2.89	2.91	2.91	2.93	2.95	2.98	3.02	3.06	3.11	3.15	3.20	3.26
25	2.36	2.34	2.33	2.34	2.38	2.42	2.41	2.40	2.41	2.43	2.46	2.49	2.53	2.58	2.64	2.69	2.75	2.81	2.87
30	1.86	1.85	1.86	1.88	1.90	1.90	1.90	1.91	1.93	1.95	1.99	2.03	2.09	2.15	2.21	2.28	2.35	2.42	2.49
35	1.38	1.38	1.40	1.42	1.42	1.43	1.44	1.45	1.46	1.49	1.54	1.60	1.65	1.70	1.76	1.81	1.87	1.94	2.00
40	1.01	1.02	1.03	1.03	1.04	1.05	1.05	1.06	1.10	1.14	1.17	1.21	1.24	1.28	1.31	1.35	1.40	1.45	1.50
45	0.76	0.77	0.77	0.77	0.78	0.78	0.79	0.81	0.83	0.85	0.86	0.86	0.87	0.87	0.88	0.90	0.92	0.95	0.99
50	0.58	0.58	0.58	0.59	0.59	0.60	0.61	0.61	0.61	0.61	0.61	0.63	0.65	0.67	0.70	0.72	0.75	0.76	0.78
55	0.45	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.47	0.48	0.48	0.49	0.51	0.52	0.54	0.56	0.57	0.59	0.60
60	0.34	0.34	0.34	0.34	0.34	0.34	0.35	0.36	0.36	0.37	0.37	0.37	0.38	0.38	0.39	0.40	0.40	0.41	0.42
65	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.29	0.30	0.31	0.31	0.32	0.32	0.33
70	0.18	0.18	0.18	0.18	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.21	0.21	0.22	0.23	0.23	0.24	0.24	0.25
75	0.12	0.11	0.12	0.12	0.12	0.13	0.13	0.13	0.14	0.14	0.14	0.14	0.14	0.15	0.15	0.15	0.16	0.16	0.17
80	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.06	0.06	0.04	0.03	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00
85	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: LOW  
Temperature:20DEG  
Operators:G  
Test Date:2023-01-10

γ Range: 0 - 90DEG  
γ Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:8.750m [K=1.0000]  
Remarks:

**LUMINOUS DISTRIBUTION INTENSITY DATA**

Test:U:11.96V I:0.1346A P:0.8899W PF:0.5528 Lamp Flux:1000x1 lm		
NAME: 489880-3000K	TYPE:489880-3000K	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: cd

C (DEG) \ γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63				
5	4.42	4.47	4.53	4.58	4.64	4.69	4.75	4.80	4.85	4.89	4.94	4.99	5.03	5.08	5.13				
10	4.11	4.17	4.24	4.29	4.34	4.39	4.44	4.48	4.52	4.57	4.61	4.66	4.71	4.77	4.84				
15	3.69	3.75	3.80	3.85	3.90	3.94	3.97	4.01	4.05	4.09	4.14	4.18	4.25	4.31	4.38				
20	3.31	3.36	3.41	3.45	3.48	3.52	3.55	3.58	3.61	3.64	3.67	3.70	3.74	3.79	3.86				
25	2.93	2.98	3.02	3.05	3.07	3.10	3.12	3.16	3.21	3.22	3.23	3.24	3.27	3.30	3.36				
30	2.55	2.60	2.63	2.65	2.65	2.66	2.67	2.70	2.74	2.80	2.83	2.82	2.83	2.86	2.91				
35	2.07	2.13	2.17	2.20	2.21	2.19	2.19	2.20	2.23	2.28	2.34	2.36	2.36	2.37	2.42				
40	1.56	1.61	1.65	1.68	1.70	1.70	1.69	1.69	1.71	1.75	1.79	1.84	1.84	1.84	1.88				
45	1.04	1.10	1.15	1.20	1.24	1.25	1.26	1.25	1.24	1.28	1.31	1.33	1.36	1.35	1.37				
50	0.79	0.80	0.81	0.81	0.83	0.88	0.91	0.92	0.93	0.93	0.95	0.97	0.99	0.99	1.01				
55	0.61	0.62	0.63	0.64	0.64	0.64	0.64	0.67	0.69	0.70	0.71	0.72	0.74	0.76	0.77				
60	0.43	0.45	0.47	0.48	0.49	0.50	0.51	0.51	0.52	0.54	0.55	0.56	0.57	0.59	0.60				
65	0.33	0.34	0.35	0.36	0.36	0.37	0.39	0.39	0.40	0.41	0.42	0.43	0.44	0.46	0.47				
70	0.25	0.26	0.27	0.28	0.28	0.28	0.28	0.29	0.30	0.31	0.31	0.32	0.33	0.34	0.36				
75	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22	0.22	0.22	0.23	0.24	0.25	0.26				
80	0.01	0.02	0.03	0.05	0.07	0.09	0.12	0.14	0.15	0.15	0.15	0.16	0.16	0.17	0.17				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.09	0.10	0.10	0.11				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: LOW  
 Temperature:20DEG  
 Operators:G  
 Test Date:2023-01-10

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:8.750m [K=1.0000]  
 Remarks: