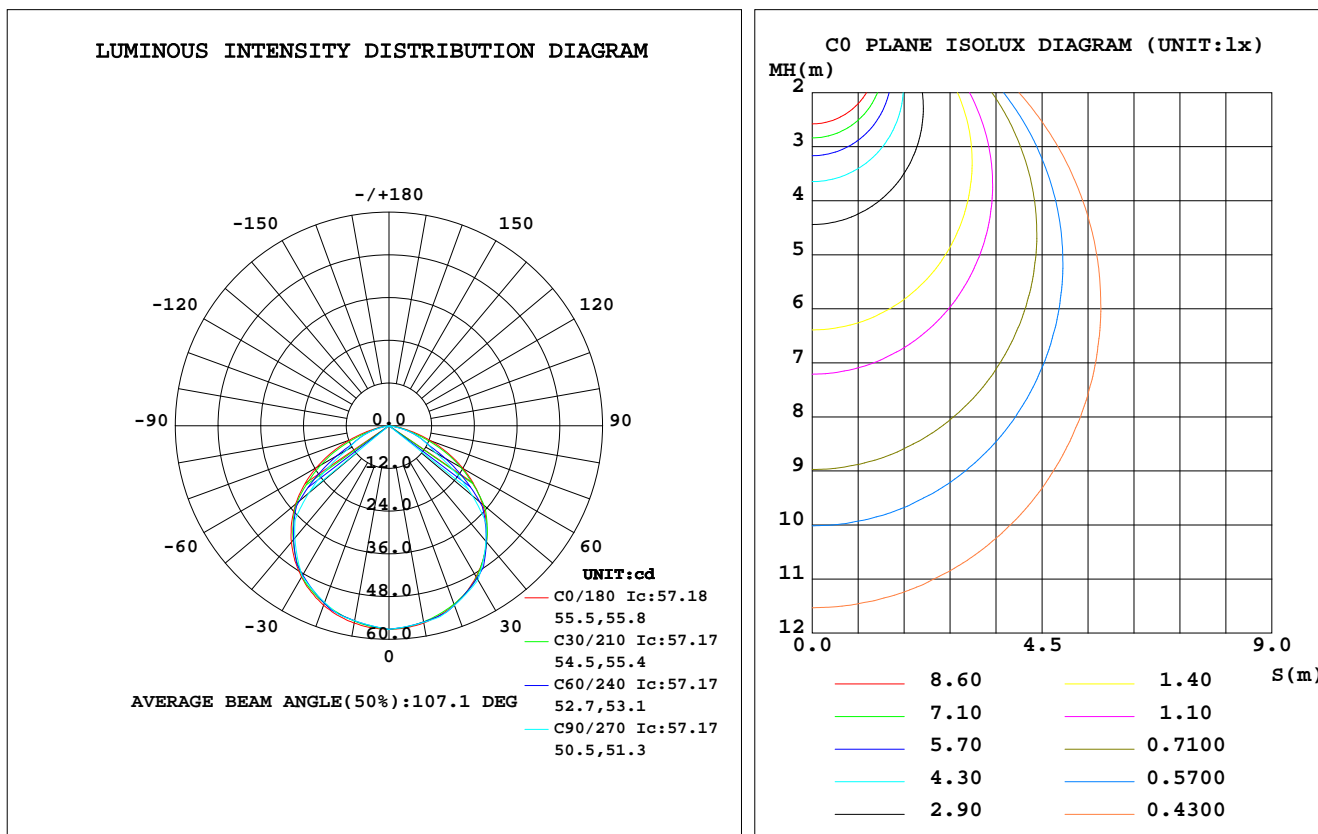


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:11.96V I:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 117.38 lm/W			
MODEL: 490128-2W-3000K		I _{max} (cd)	57.18	S/MH(C0/180)	1.27
NOMINAL POWER(W)	1.5	LOR(%)	73.3	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	146.57	η UP, DN(C0-180)	0.0,37.2
NOMINAL FLUX(lm)	200	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,36.1
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	12	η down(%)	73.3	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2023-12-18

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	56.88	56.66	56.63	56.64	56.99	56.49	56.40	56.51	0- 5	1.359	1.359	0.93,0.68
10	56.25	55.91	56.09	55.99	56.30	55.68	55.63	55.58	5- 10	4.023	5.382	3.67,2.69
15	55.09	54.97	55.54	55.05	55.22	54.60	54.86	54.48	10- 15	6.569	11.95	8.15,5.98
20	53.52	53.78	53.70	53.91	53.66	53.34	52.83	53.20	15- 20	8.921	20.87	14.2,10.4
25	51.49	51.60	51.85	51.75	51.58	51.01	50.80	50.85	20- 25	10.97	31.84	21.7,15.9
30	48.96	49.10	50.00	49.29	49.13	48.35	48.77	48.15	25- 30	12.68	44.52	30.4,22.3
35	46.05	46.39	46.17	46.65	46.17	45.48	44.94	45.34	30- 35	13.96	58.48	39.9,29.2
40	42.56	43.34	42.34	43.54	42.64	42.21	41.12	42.12	35- 40	14.70	73.18	49.9,36.6
45	38.73	38.60	38.52	38.81	38.76	37.71	37.29	37.76	40- 45	14.90	88.07	60.1,44
50	34.34	33.63	30.61	33.95	34.22	32.86	29.38	33.23	45- 50	14.41	102.5	69.9,51.2
55	29.33	28.36	22.71	28.73	29.09	27.65	21.46	28.46	50- 55	12.96	115.5	78.8,57.7
60	23.98	21.02	14.80	21.37	23.55	19.95	13.55	20.94	55- 60	10.76	126.2	86.1,63.1
65	18.32	14.09	11.62	14.37	17.65	12.72	10.39	13.82	60- 65	8.236	134.4	91.7,67.2
70	12.55	8.805	8.437	8.987	11.74	7.490	7.223	8.445	65- 70	5.987	140.4	95.8,70.2
75	7.269	5.355	5.253	5.385	6.425	4.434	4.061	4.965	70- 75	3.890	144.3	98.5,72.2
80	3.055	1.948	0	1.876	2.334	1.505	0	1.618	75- 80	1.871	146.2	99.7,73.1
85	0.5383	0	0	0	0.0901	0	0	0	80- 85	0.3614	146.6	100,73.3
90	0	0	0	0	0	0	0	0	85- 90	0.0134	146.6	100,73.3
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			

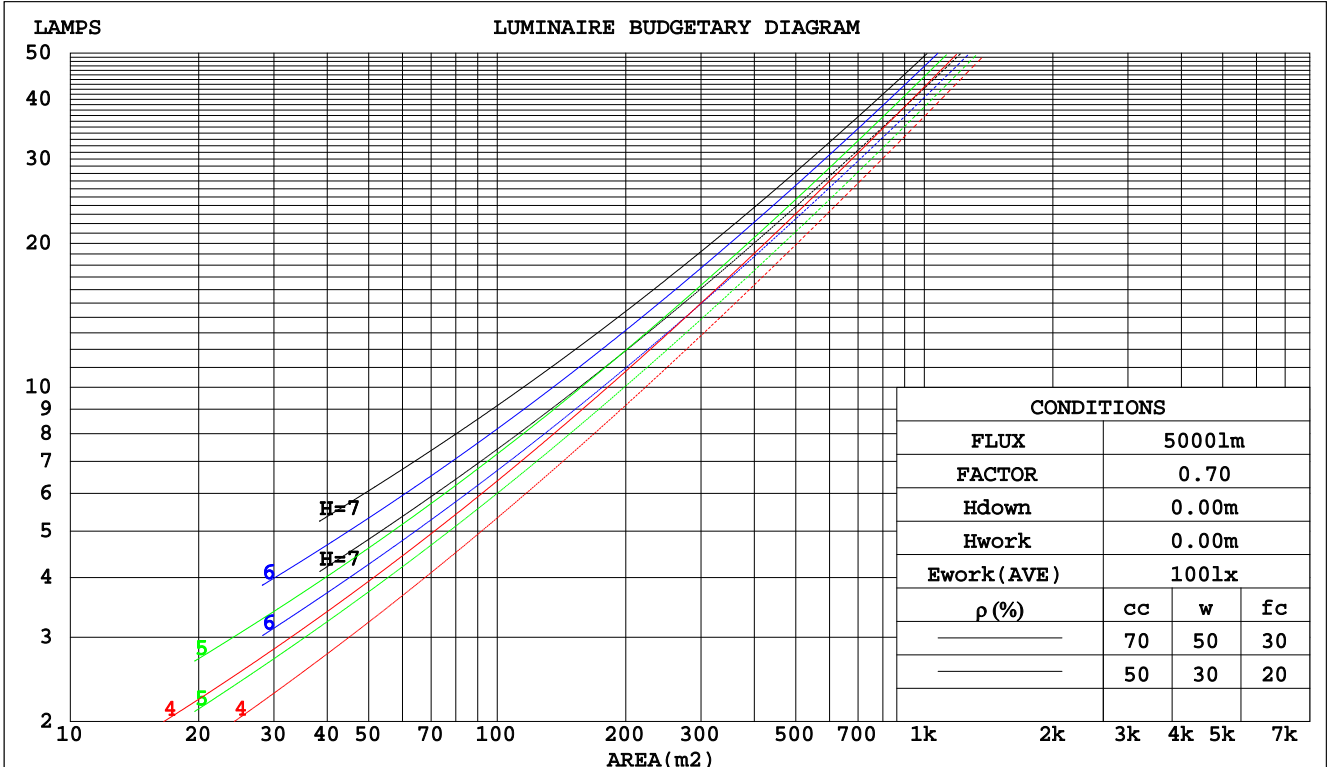
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE: 490128-2W-3000K	
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw	0															
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	.87	.87	.87	.85	.85	.85	.81	.81	.81	.78	.78	.78	.75	.75	.75	.73
1.0	.78	.75	.72	.76	.73	.71	.73	.71	.69	.70	.68	.67	.67	.66	.65	.63
2.0	.68	.64	.60	.67	.63	.59	.65	.61	.58	.62	.59	.57	.60	.58	.55	.54
3.0	.61	.55	.51	.59	.54	.50	.57	.53	.49	.55	.52	.48	.53	.50	.48	.46
4.0	.54	.48	.43	.53	.47	.43	.51	.46	.42	.50	.45	.42	.48	.44	.41	.40
5.0	.48	.42	.37	.48	.42	.37	.46	.41	.37	.45	.40	.36	.43	.39	.36	.35
6.0	.44	.37	.33	.43	.37	.33	.42	.36	.32	.40	.36	.32	.39	.35	.32	.30
7.0	.40	.33	.29	.39	.33	.29	.38	.33	.29	.37	.32	.29	.36	.32	.28	.27
8.0	.36	.30	.26	.36	.30	.26	.35	.29	.26	.34	.29	.26	.33	.29	.25	.24
9.0	.33	.27	.23	.33	.27	.23	.32	.27	.23	.31	.26	.23	.30	.26	.23	.22
10.0	.31	.25	.21	.30	.25	.21	.30	.25	.21	.29	.24	.21	.28	.24	.21	.20



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators: Y
 Test Date: 2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.198	.113	.036	.193	.110	.035	.183	.105	.034	.175	.101	.032	.166	.097	.031	
2.0	.193	.106	.032	.188	.104	.032	.180	.100	.031	.172	.097	.030	.165	.093	.029	
3.0	.182	.097	.029	.178	.096	.029	.171	.093	.028	.164	.090	.028	.158	.087	.027	
4.0	.171	.089	.026	.167	.088	.026	.161	.085	.025	.155	.083	.025	.149	.081	.025	
5.0	.160	.081	.024	.157	.080	.023	.151	.078	.023	.145	.077	.023	.140	.075	.023	
6.0	.149	.075	.021	.147	.074	.021	.141	.072	.021	.137	.071	.021	.132	.069	.021	
7.0	.140	.069	.020	.137	.068	.020	.133	.067	.019	.128	.066	.019	.124	.065	.019	
8.0	.131	.064	.018	.129	.064	.018	.125	.062	.018	.121	.061	.018	.117	.060	.018	
9.0	.124	.060	.017	.122	.059	.017	.118	.058	.017	.114	.057	.016	.111	.056	.016	
10.0	.117	.056	.016	.115	.055	.015	.112	.055	.015	.108	.054	.015	.105	.053	.015	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.140	.140	.140	.119	.119	.119	.081	.081	.081	.047	.047	.047	.015	.015	.015	
1.0	.130	.115	.101	.111	.098	.087	.076	.068	.060	.044	.039	.035	.014	.013	.011	
2.0	.123	.097	.074	.106	.083	.064	.072	.058	.045	.042	.034	.026	.013	.011	.009	
3.0	.118	.084	.057	.101	.072	.049	.069	.050	.034	.040	.029	.020	.013	.010	.007	
4.0	.112	.074	.044	.096	.064	.039	.066	.044	.027	.038	.026	.016	.012	.008	.005	
5.0	.107	.066	.036	.092	.057	.031	.063	.040	.022	.037	.023	.013	.012	.008	.004	
6.0	.102	.060	.030	.087	.052	.026	.060	.036	.018	.035	.021	.011	.011	.007	.004	
7.0	.097	.055	.025	.083	.047	.022	.058	.033	.016	.034	.020	.009	.011	.006	.003	
8.0	.093	.051	.022	.080	.044	.019	.055	.031	.013	.032	.018	.008	.010	.006	.003	
9.0	.088	.047	.019	.076	.041	.017	.053	.029	.012	.031	.017	.007	.010	.006	.002	
10.0	.084	.044	.017	.073	.038	.015	.050	.027	.010	.029	.016	.006	.010	.005	.002	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm										
NAME: 490128-2W-3000K					TYPE: 490128-2W-3000K					
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	8.4	9.8	8.6	10.0	10.2	7.0	8.4	7.3	8.6	8.8
3H	9.5	10.9	9.8	11.1	11.3	7.7	9.1	8.0	9.3	9.5
4H	9.9	11.1	10.2	11.4	11.6	8.0	9.2	8.3	9.5	9.7
6H	10.0	11.1	10.3	11.4	11.7	8.0	9.1	8.3	9.4	9.7
8H	10.0	11.1	10.3	11.4	11.7	7.9	9.0	8.2	9.3	9.6
12H	9.9	11.0	10.3	11.3	11.6	7.9	8.9	8.2	9.2	9.5
4H 2H	8.7	9.9	9.0	10.2	10.4	7.5	8.8	7.8	9.0	9.3
3H	9.9	11.0	10.3	11.3	11.6	8.4	9.5	8.7	9.7	10.0
4H	10.4	11.3	10.7	11.7	12.0	8.7	9.7	9.1	10.0	10.3
6H	10.5	11.4	10.9	11.8	12.1	8.7	9.6	9.1	9.9	10.3
8H	10.6	11.4	11.0	11.7	12.1	8.7	9.5	9.1	9.8	10.2
12H	10.5	11.3	11.0	11.7	12.1	8.6	9.4	9.0	9.7	10.1
8H 4H	10.4	11.2	10.8	11.5	11.9	8.8	9.6	9.2	10.0	10.4
6H	10.6	11.3	11.0	11.7	12.1	8.8	9.5	9.3	9.9	10.3
8H	10.6	11.2	11.1	11.7	12.1	8.8	9.4	9.3	9.8	10.3
12H	10.6	11.1	11.1	11.6	12.1	8.8	9.3	9.2	9.7	10.2
12H 4H	10.3	11.1	10.7	11.4	11.8	8.8	9.5	9.2	9.9	10.3
6H	10.6	11.2	11.0	11.6	12.0	8.8	9.4	9.3	9.8	10.3
8H	10.6	11.1	11.1	11.6	12.0	8.8	9.3	9.3	9.7	10.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.4				
1.5H	+ 0.3 / - 0.6					+ 0.3 / - 0.6				
2.0H	+ 0.4 / - 0.4					+ 0.9 / - 1.5				

CIE Pub.117 Corrected 200.0 lm Total Lamp Luminous Flux. (8log(F/F0) = -5.6)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

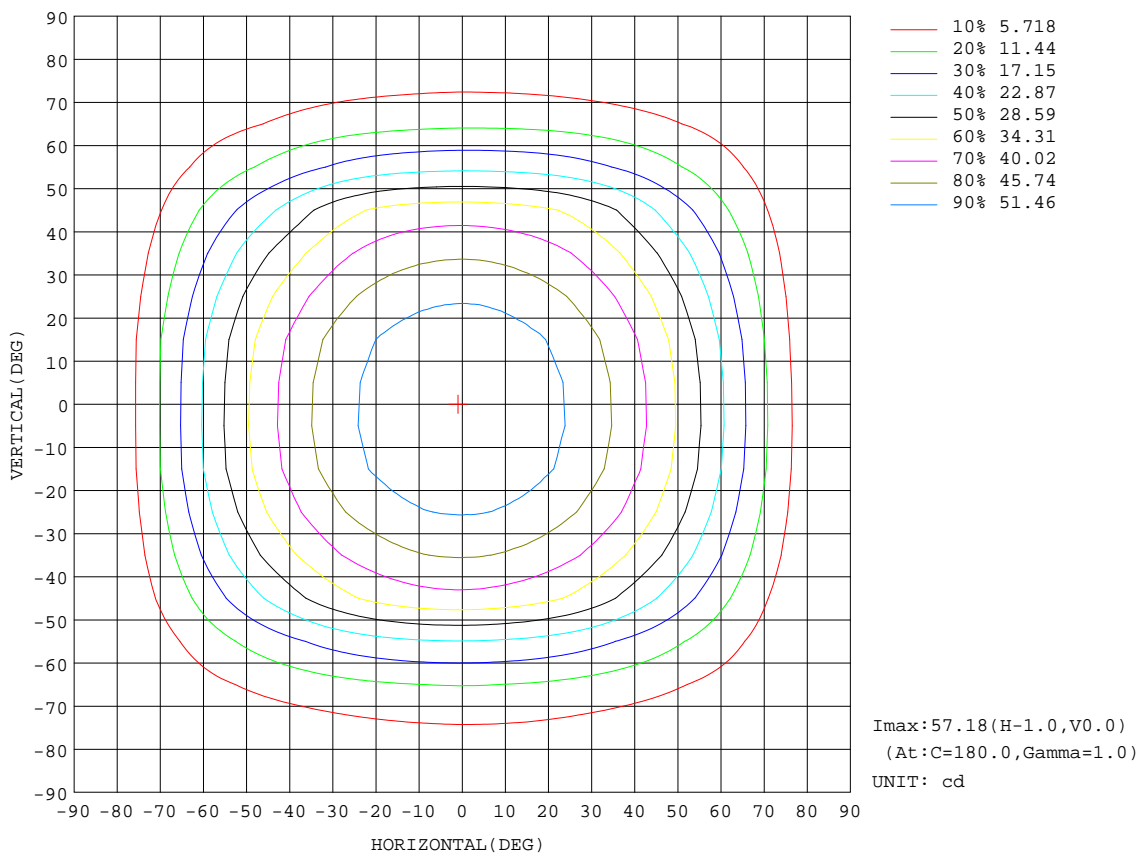
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	44	36	31	44	36	31	43	35	31	26
0.80	52	44	39	51	43	38	50	43	38	33
1.00	58	51	46	57	50	45	56	51	45	40
1.25	63	56	52	62	56	51	60	55	51	46
1.50	67	60	56	66	60	55	64	58	55	49
2.00	72	66	62	70	65	61	68	64	60	55
2.50	74	69	65	73	68	65	70	66	63	58
3.00	77	72	69	75	71	68	72	69	66	60
4.00	79	75	72	77	74	71	74	72	70	63
5.00	81	78	75	79	76	74	76	74	72	65
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: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

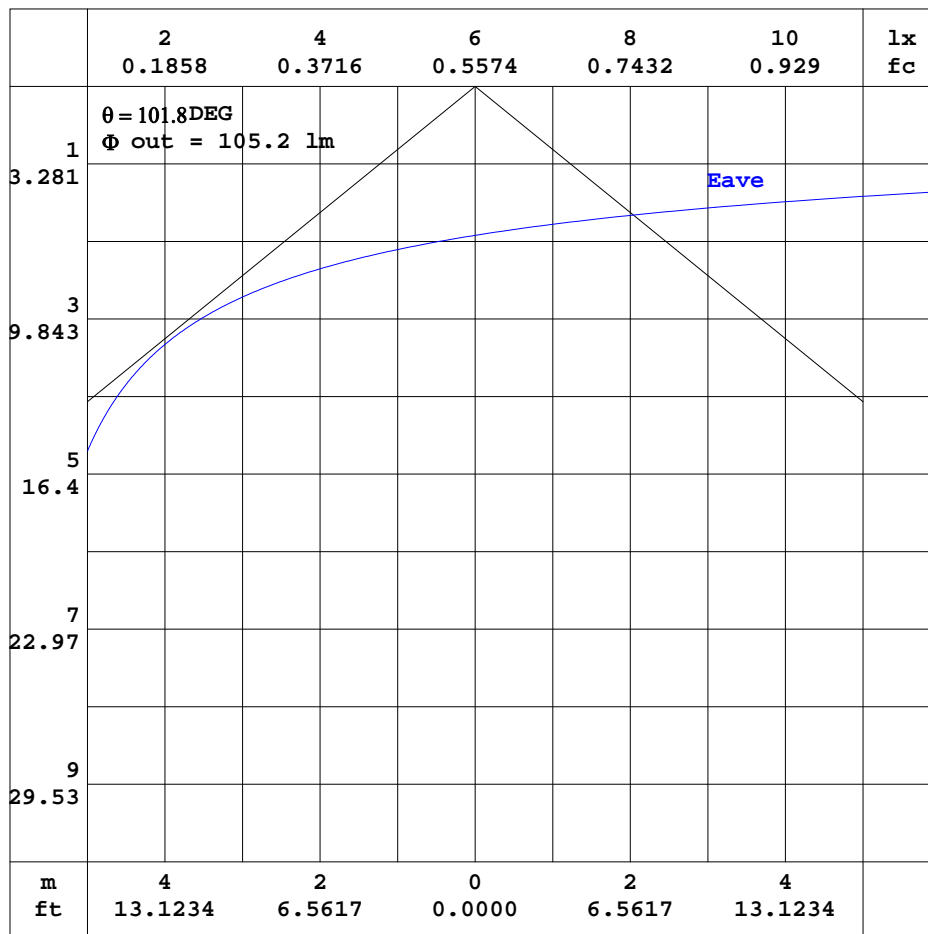


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 20DEG
 Operators: Y
 Test Date: 2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



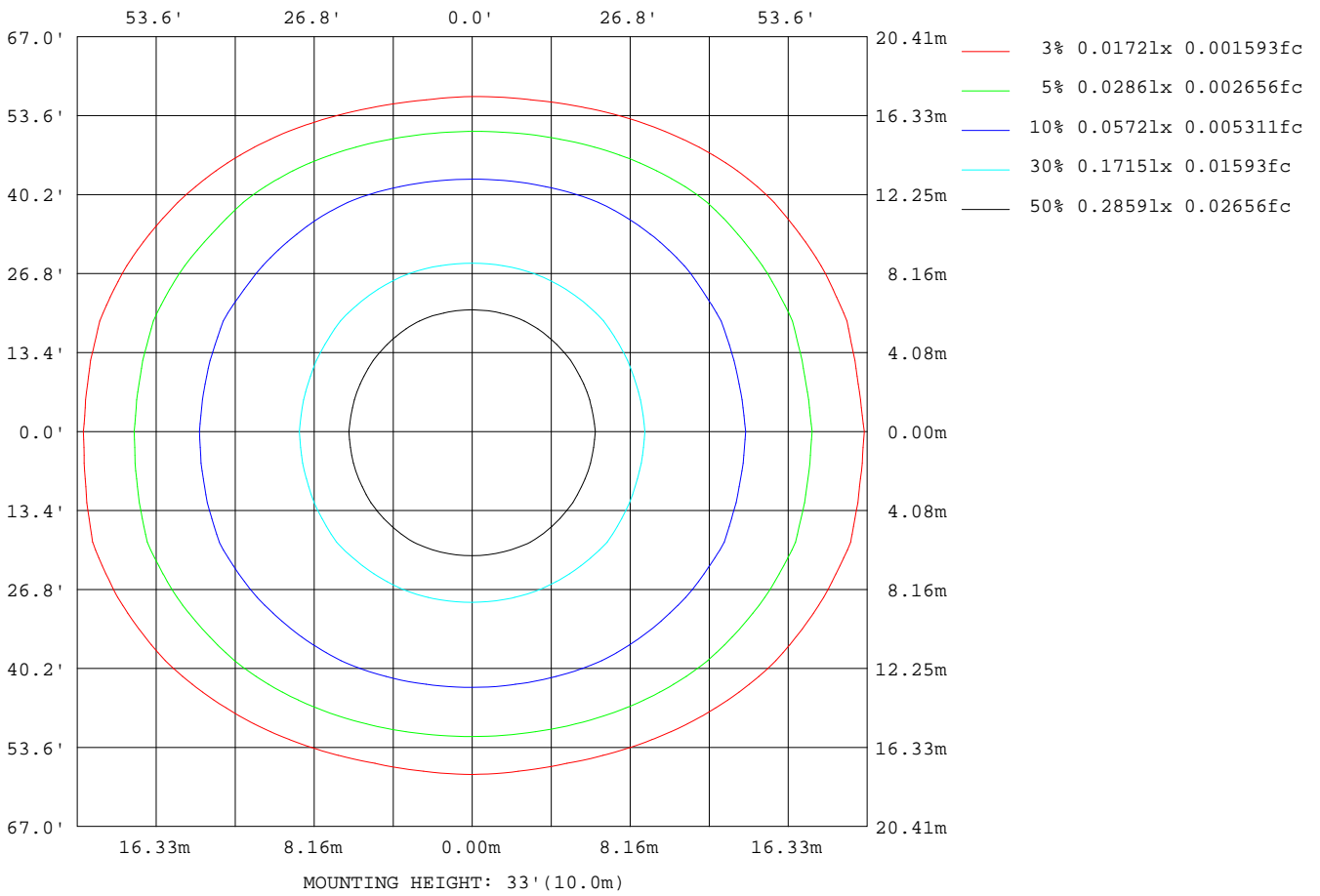
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2023-12-18

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:

ISOLUX DIAGRAM

Test:U:11.96V I:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

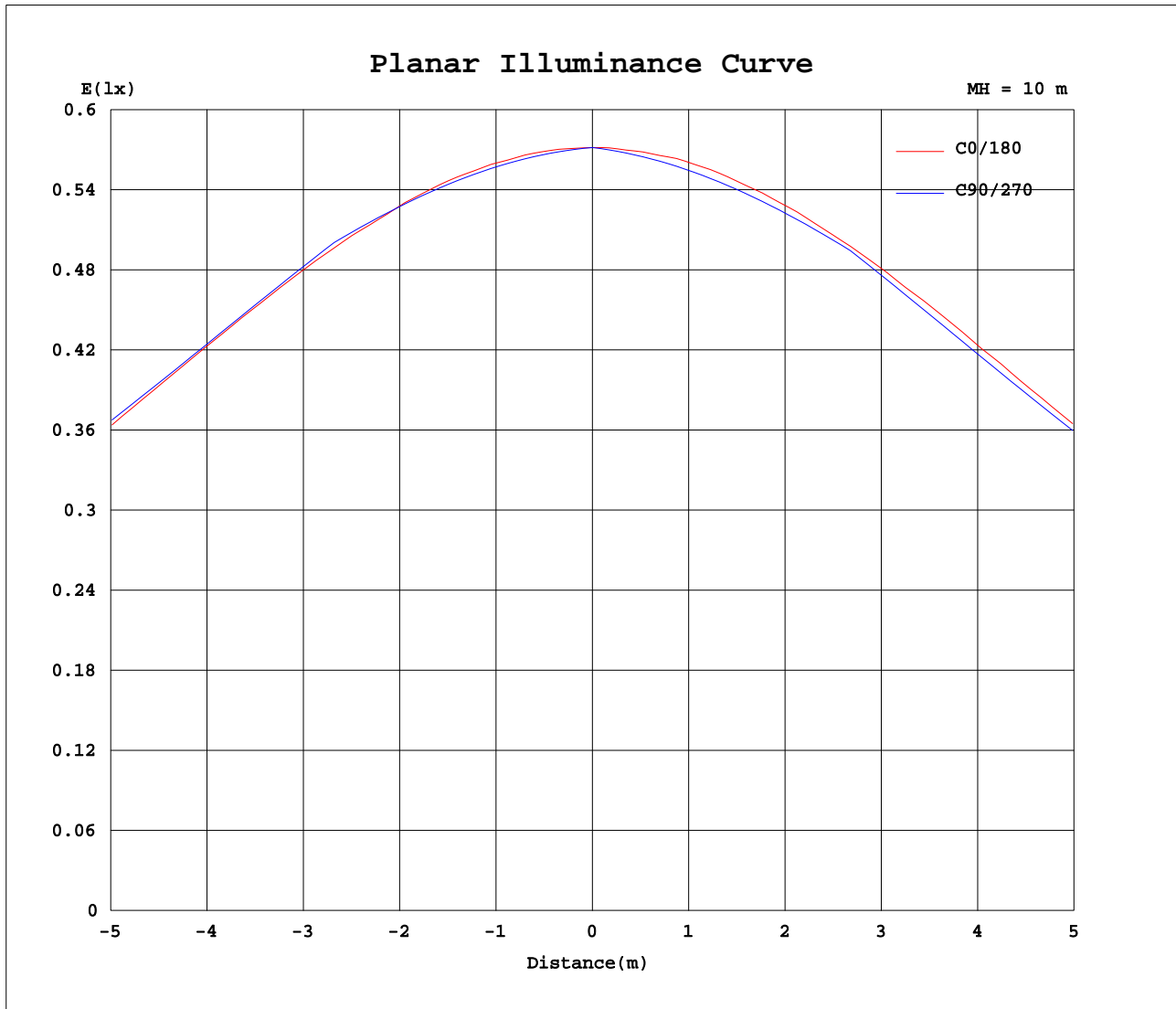
AvgL	cd/m2
L_0~180(65)av	213
L_0~180(75)av	132
L_0~180(85)av	18
L_90~270(65)av	130
L_90~270(75)av	90
L_90~270(85)av	0
L_45(65)av	163
L_45(75)av	97
L_45(85)av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2023-12-18

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: HIGH
 Temperature: 20DEG
 Operators: Y
 Test Date: 2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
5	56.9	56.8	56.8	56.8	56.7	56.7	56.7	56.7	56.7	56.7	56.6	56.6	56.6	56.7	56.6	56.6	56.6	56.6	56.6
10	56.2	56.2	56.1	56.0	56.0	55.9	55.9	55.9	55.9	55.9	55.9	56.0	56.0	56.0	56.0	56.1	56.1	56.1	56.1
15	55.1	55.0	54.9	54.8	54.8	54.8	54.8	54.8	54.9	55.0	55.0	55.1	55.2	55.3	55.4	55.4	55.5	55.5	55.5
20	53.5	53.4	53.2	53.2	53.2	53.2	53.3	53.5	53.6	53.8	53.8	53.8	53.7	53.6	53.7	53.7	53.7	53.7	53.7
25	51.5	51.3	51.2	51.2	51.2	51.3	51.6	51.8	51.6	51.6	51.6	51.6	51.6	51.6	51.7	51.7	51.8	51.8	51.8
30	49.0	48.7	48.6	48.7	48.8	49.0	49.2	49.1	49.1	49.1	49.2	49.3	49.4	49.5	49.7	49.8	49.9	50.0	50.0
35	46.0	45.8	45.7	45.8	46.1	46.2	46.1	46.1	46.2	46.4	46.7	46.9	46.7	46.5	46.3	46.2	46.1	46.2	46.2
40	42.6	42.3	42.3	42.5	42.7	42.6	42.7	42.9	43.2	43.3	42.9	42.7	42.5	42.4	42.3	42.3	42.3	42.3	42.3
45	38.7	38.4	38.4	38.8	38.6	38.7	39.0	39.5	39.0	38.6	38.4	38.3	38.2	38.2	38.3	38.3	38.4	38.5	38.5
50	34.3	34.0	34.1	34.3	34.2	34.5	34.8	34.1	33.8	33.6	33.6	33.8	33.3	32.5	31.8	31.2	30.9	30.7	30.6
55	29.3	29.1	29.4	29.3	29.5	29.8	29.0	28.6	28.4	28.4	27.5	26.5	25.6	24.8	24.0	23.4	23.0	22.8	22.7
60	24.0	23.8	24.1	24.0	24.3	23.6	23.2	22.9	22.0	21.0	20.1	19.0	18.1	17.1	16.3	15.7	15.2	14.9	14.8
65	18.3	18.2	18.3	18.6	18.1	17.7	17.2	16.2	15.2	14.1	12.9	12.0	11.8	11.8	11.7	11.7	11.6	11.6	11.6
70	12.5	12.6	12.7	12.6	12.3	11.7	11.0	9.95	8.97	8.81	8.65	8.54	8.46	8.45	8.45	8.45	8.43	8.44	8.44
75	7.27	7.38	7.53	7.21	6.94	6.32	5.82	5.70	5.52	5.36	5.22	5.13	5.10	5.13	5.18	5.24	5.25	5.26	5.25
80	3.06	3.23	3.16	3.08	2.91	2.88	2.69	2.44	2.19	1.95	1.71	1.43	1.14	0.85	0.58	0.34	0.15	0.04	0.00
85	0.54	0.63	0.67	0.71	0.56	0.33	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: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
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	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
5	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.7	56.7	56.8	56.8	56.9	56.9	56.9	57.0	56.9
10	56.1	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.1	56.1	56.2	56.3	56.2
15	55.5	55.5	55.4	55.4	55.3	55.3	55.2	55.1	55.0	55.0	54.9	54.9	54.8	54.9	54.9	55.0	55.1	55.2	55.0
20	53.7	53.7	53.7	53.7	53.8	53.8	53.9	53.9	53.9	53.7	53.6	53.5	53.3	53.3	53.3	53.4	53.5	53.7	53.4
25	51.8	51.8	51.8	51.8	51.7	51.7	51.7	51.7	51.7	51.8	52.0	51.8	51.5	51.4	51.3	51.3	51.4	51.6	51.3
30	50.0	50.0	49.9	49.8	49.7	49.5	49.4	49.3	49.3	49.3	49.3	49.3	49.4	49.4	49.0	48.9	48.8	48.9	48.8
35	46.2	46.3	46.4	46.4	46.6	46.8	47.1	46.8	46.7	46.5	46.3	46.3	46.4	46.3	46.0	45.9	45.9	46.2	45.8
40	42.4	42.4	42.5	42.5	42.6	42.7	42.9	43.2	43.5	43.4	43.1	42.9	42.9	43.0	42.7	42.5	42.4	42.6	42.2
45	38.5	38.6	38.5	38.5	38.5	38.5	38.5	38.6	38.8	39.2	39.7	39.3	39.0	39.0	39.1	38.7	38.5	38.8	38.3
50	30.7	31.0	31.5	32.0	32.8	33.6	34.0	33.9	34.0	34.1	34.5	35.1	34.9	34.6	34.6	34.3	34.0	34.2	33.8
55	22.8	23.1	23.6	24.2	25.0	25.9	26.8	27.8	28.7	28.8	29.0	29.4	30.0	29.8	29.6	29.6	29.1	29.1	28.7
60	14.9	15.2	15.8	16.4	17.3	18.3	19.3	20.4	21.4	22.4	23.5	23.7	24.1	24.7	24.3	24.1	23.6	23.5	23.3
65	11.6	11.6	11.7	11.8	11.9	12.0	12.2	13.2	14.4	15.6	16.7	17.7	18.2	18.5	18.8	18.2	17.9	17.6	17.6
70	8.42	8.40	8.41	8.43	8.46	8.54	8.64	8.78	8.99	9.19	10.3	11.3	12.1	12.6	12.7	12.5	12.1	11.7	12.0
75	5.21	5.16	5.12	5.08	5.04	5.05	5.10	5.20	5.38	5.58	5.80	5.94	6.36	6.98	7.31	7.30	6.82	6.42	6.66
80	0.04	0.15	0.33	0.56	0.83	1.11	1.38	1.64	1.88	2.06	2.34	2.60	2.75	2.72	2.88	2.93	2.60	2.33	2.50
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	0.27	0.41	0.51	0.40	0.29	0.09	0.20
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: HIGH
Temperature:20DEG
Operators:Y
Test Date:2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
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	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
5	56.9	56.8	56.7	56.7	56.6	56.6	56.5	56.5	56.5	56.4	56.4	56.4	56.4	56.4	56.4	56.4	56.4	56.4	56.4
10	56.1	55.9	55.9	55.8	55.7	55.7	55.7	55.7	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6
15	54.9	54.7	54.7	54.6	54.5	54.6	54.6	54.6	54.6	54.7	54.7	54.7	54.8	54.8	54.8	54.8	54.9	54.9	54.8
20	53.3	53.1	53.1	53.0	53.1	53.1	53.2	53.3	53.3	53.2	53.1	53.0	52.9	52.8	52.8	52.8	52.8	52.8	52.9
25	51.1	51.0	51.0	51.1	51.2	51.4	51.2	51.0	50.9	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
30	48.6	48.5	48.6	48.8	48.8	48.5	48.4	48.3	48.4	48.4	48.4	48.5	48.6	48.6	48.7	48.7	48.8	48.7	48.7
35	45.6	45.6	45.8	45.7	45.5	45.4	45.4	45.5	45.6	45.8	45.6	45.4	45.2	45.1	45.0	45.0	44.9	44.9	45.0
40	42.1	42.2	42.3	42.0	41.9	42.0	42.2	42.2	41.9	41.8	41.7	41.6	41.4	41.3	41.2	41.2	41.1	41.1	41.1
45	38.2	38.4	38.1	38.0	38.0	38.3	37.9	37.7	37.6	37.6	37.7	37.7	37.6	37.5	37.4	37.3	37.3	37.3	37.3
50	33.8	33.8	33.6	33.7	33.8	33.1	32.8	32.9	33.1	33.4	32.9	32.0	31.1	30.3	29.8	29.5	29.4	29.5	29.8
55	29.0	28.7	28.7	28.8	28.0	27.5	27.5	27.7	26.8	25.9	24.8	23.9	23.0	22.3	21.8	21.5	21.5	21.6	21.9
60	23.5	23.2	23.3	22.7	22.1	21.8	20.8	19.9	19.0	17.9	16.9	15.9	15.0	14.3	13.8	13.6	13.5	13.7	14.1
65	17.6	17.6	17.1	16.7	16.1	15.0	13.8	12.7	11.5	10.5	10.5	10.4	10.3	10.3	10.3	10.3	10.4	10.4	10.5
70	11.9	11.7	11.4	10.8	9.81	8.61	7.54	7.49	7.44	7.39	7.33	7.26	7.20	7.16	7.15	7.18	7.22	7.24	7.30
75	6.67	6.46	6.06	5.29	4.71	4.62	4.53	4.43	4.36	4.28	4.21	4.13	4.07	4.03	4.02	4.04	4.06	4.05	4.08
80	2.46	2.28	2.07	2.14	2.03	1.85	1.65	1.50	1.35	1.14	0.90	0.66	0.44	0.26	0.12	0.03	0.00	0.03	0.12
85	0.26	0.28	0.24	0.18	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: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2023-12-18

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:0.1267A P:1.467W PF:0.9684 Lamp Flux:235x1 lm		
NAME: 490128-2W-3000K	TYPE:490128-2W-3000K	
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	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2				
5	56.4	56.4	56.4	56.4	56.5	56.5	56.5	56.5	56.6	56.6	56.6	56.7	56.7	56.8	56.8				
10	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.7	55.7	55.8	55.8	55.9	56.0	56.1				
15	54.8	54.7	54.7	54.6	54.6	54.5	54.5	54.4	54.4	54.4	54.5	54.6	54.6	54.8	54.9				
20	52.8	52.8	52.9	52.9	53.0	53.1	53.2	53.0	52.9	52.9	52.9	52.9	52.9	53.1	53.3				
25	50.7	50.7	50.7	50.7	50.7	50.7	50.8	51.0	51.1	51.0	50.9	50.8	50.9	51.0	51.2				
30	48.6	48.5	48.4	48.3	48.2	48.2	48.1	48.2	48.3	48.5	48.5	48.4	48.4	48.4	48.6				
35	45.0	45.2	45.2	45.5	45.7	45.5	45.3	45.2	45.2	45.3	45.5	45.5	45.4	45.4	45.6				
40	41.2	41.3	41.4	41.5	41.7	41.9	42.1	42.0	41.8	41.7	41.8	42.1	42.0	42.0	42.1				
45	37.3	37.4	37.5	37.6	37.6	37.6	37.8	37.9	38.2	37.9	37.8	37.9	38.3	38.1	38.2				
50	30.3	31.0	31.9	32.9	33.5	33.3	33.2	33.2	33.3	33.8	33.6	33.5	33.7	33.7	33.8				
55	22.5	23.2	24.2	25.2	26.3	27.3	28.5	28.3	28.1	28.3	28.8	28.7	28.7	28.9	28.8				
60	14.7	15.5	16.5	17.5	18.6	19.9	20.9	21.9	22.7	22.7	23.0	23.6	23.4	23.5	23.5				
65	10.7	10.8	11.0	11.2	11.4	12.5	13.8	15.0	16.0	16.9	17.3	17.6	18.0	17.8	17.9				
70	7.39	7.51	7.64	7.80	7.98	8.20	8.44	8.71	9.74	10.8	11.5	11.9	12.2	12.2	12.2				
75	4.12	4.18	4.26	4.38	4.54	4.73	4.96	5.23	5.48	5.65	6.16	6.78	7.06	7.23	7.06				
80	0.26	0.45	0.67	0.92	1.17	1.40	1.62	1.85	2.18	2.50	2.73	2.80	3.00	3.05	2.97				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.45	0.63	0.62	0.54				
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	γ Range: 0 - 90DEG
C Interval: 5.0DEG	γ Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Temperature:20DEG	Humidity:65.0%
Operators:Y	Test Distance:8.750m [K=1.0000]
Test Date:2023-12-18	Remarks: