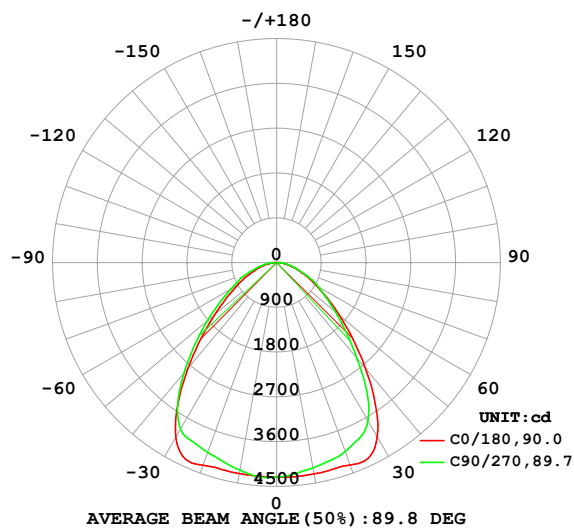


LUMINAIRE PHOTOMETRIC TEST REPORT

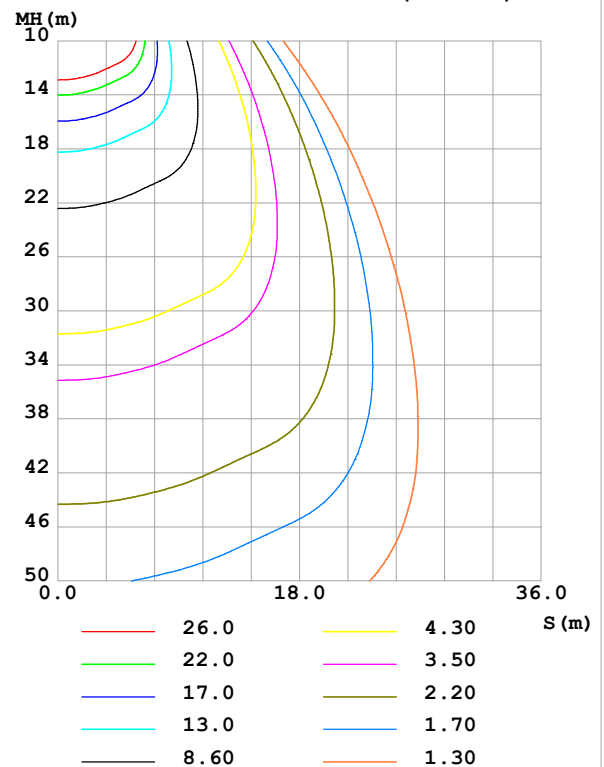
Test:U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm		
NAME: 2853-90D*90D*90D-4080		
SPEC.: VS ECXe 350.619(187326)		
MFR.: SOTEN		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 170.01 lm/W			
MODEL	ET 2835	I _{max} (cd)	4382	S/MH (C0/180)	1.26
NOMINAL POWER (W)	60	LOR (%)	88.7	S/MH (C90/270)	1.28
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	9834.0	η UP, DN (C0-180)	0.0, 43.2
NOMINAL FLUX (lm)	11086	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 45.5
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	88.7	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25°C
Operators: LI
Test Date: 2025-10-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.485
Humidity: 65.0%
Test Distance: 8.300m [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	4311	4233	4191	4227	4305	4296	4233	4280	0- 10	409.2	409.2	4.16, 3.69
20	4328	4236	4042	4246	4334	4253	4059	4250	10- 20	1199	1608	16.3, 14.5
30	4049	3989	3673	3964	4054	4065	3864	4082	20- 30	1923	3531	35.9, 31.8
40	2790	2853	2518	2806	2773	3024	2892	3053	30- 40	2144	5675	57.7, 51.2
50	1650	1735	1547	1695	1627	1887	1821	1932	40- 50	1734	7409	75.3, 66.8
60	924.4	1025	963.3	999.9	911.6	1080	1056	1113	50- 60	1190	8599	87.4, 77.6
70	478.1	511.6	512.0	496.5	471.5	552.3	595.7	573.4	60- 70	743.4	9342	95.8, 84.3
80	194.8	202.9	221.5	193.4	191.3	227.6	257.5	239.6	70- 80	374.0	9716	98.8, 87.6
90	10.62	23.99	29.90	23.94	10.17	28.30	39.96	33.04	80- 90	118.2	9834	100, 88.7
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		

Conical surface Flux(90deg): 6611.2 lm

%lum = 67.2%

%lamp = 59.6%

Conical surface Flux(130deg): 9024 lm

%lum = 91.8%

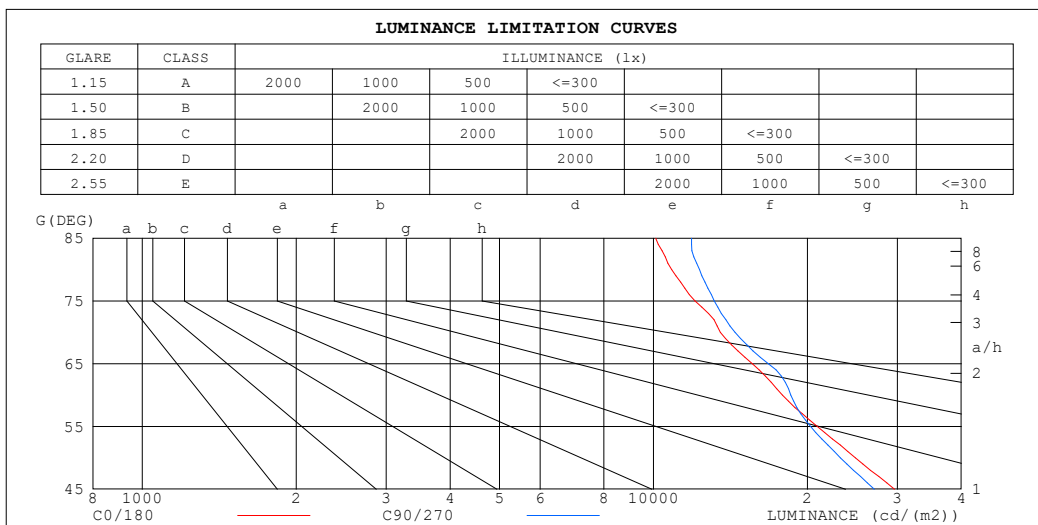
%lamp = 81.4%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25℃
 Operators:LI
 Test Date:2025-10-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.485
 Humidity:65.0%
 Test Distance:8.300m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm		
NAME: 2853-90D*90D*90D-4080		
SPEC.: VS ECXe 350.619(187326)		
MFR.: SOTEN		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	10095	11871
80	10848	12299
75	12066	13144
70	13514	14432
65	15601	16785
60	17875	18574
55	20920	20291
50	24820	23196
45	29611	27036

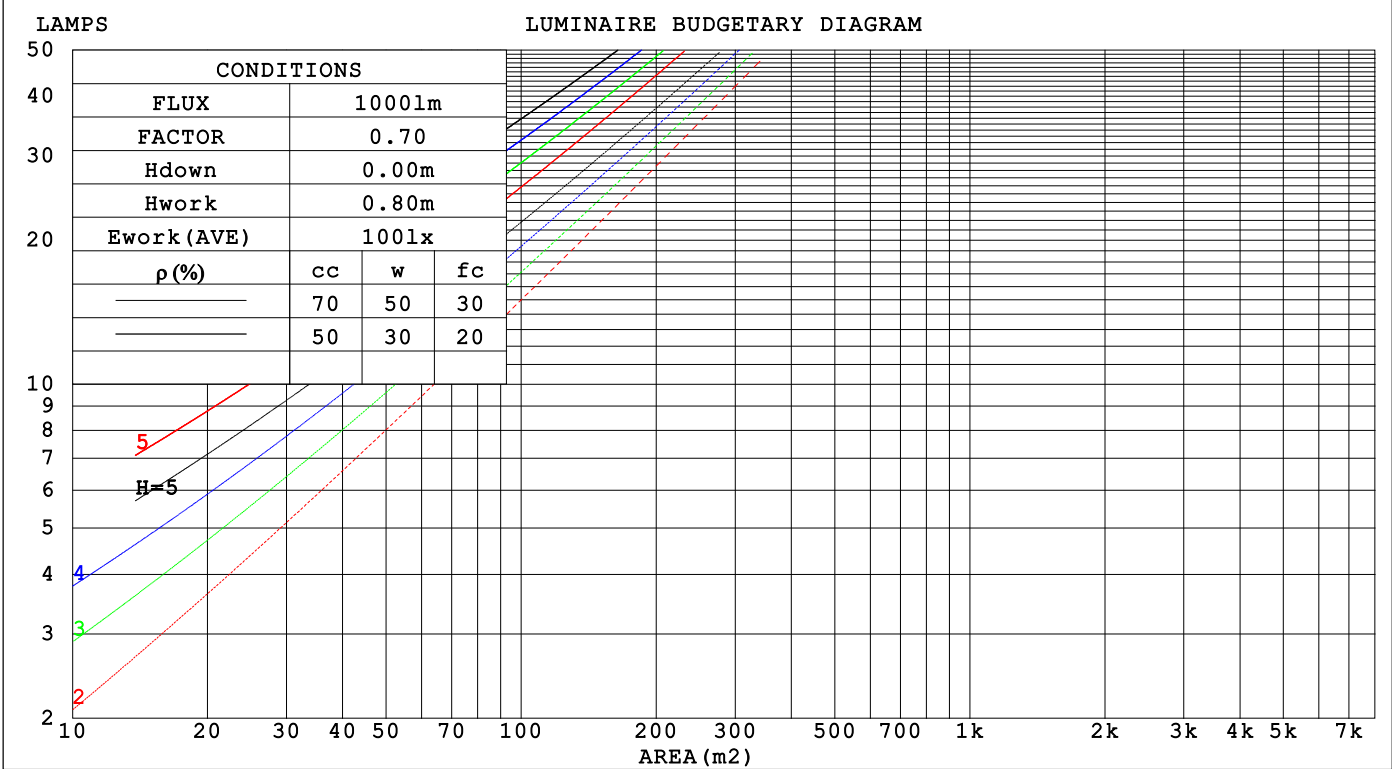
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25℃
Operators:LI
Test Date:2025-10-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.485
Humidity:65.0%
Test Distance:8.300m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm		
NAME: 2853-90D*90D*90D-4080		
SPEC.: VS ECXe 350.619(187326)		
MFR.: SOTEN		

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	1.06	1.06	1.06	1.03	1.03	1.03	.99	.99	.99	.94	.94	.94	.91	.91	.91	.89
1.0	.94	.91	.88	.92	.89	.86	.88	.86	.84	.85	.83	.81	.82	.80	.79	.77
2.0	.84	.78	.74	.82	.77	.73	.79	.75	.71	.76	.73	.70	.74	.71	.68	.67
3.0	.75	.68	.63	.73	.68	.63	.71	.66	.62	.69	.64	.61	.66	.63	.60	.58
4.0	.67	.60	.55	.66	.60	.55	.64	.58	.54	.62	.57	.53	.60	.56	.52	.51
5.0	.61	.54	.48	.60	.53	.48	.58	.52	.47	.56	.51	.47	.55	.50	.46	.45
6.0	.55	.48	.43	.54	.48	.43	.53	.47	.42	.51	.46	.42	.50	.45	.41	.40
7.0	.50	.43	.38	.50	.43	.38	.48	.42	.38	.47	.42	.38	.46	.41	.37	.36
8.0	.46	.39	.34	.46	.39	.34	.45	.39	.34	.44	.38	.34	.43	.38	.34	.32
9.0	.43	.36	.31	.42	.36	.31	.41	.35	.31	.40	.35	.31	.39	.34	.31	.29
10.0	.40	.33	.29	.39	.33	.28	.38	.32	.28	.37	.32	.28	.37	.32	.28	.27



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25℃
Operators:LI
Test Date:2025-10-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.485
Humidity:65.0%
Test Distance:8.300m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm		
NAME: 2853-90D*90D*90D-4080		
SPEC.: VS ECXe 350.619(187326)		
MFR.: SOTEN		

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	.236	.134	.043	.230	.131	.042	.218	.125	.040	.208	.120	.038	.198	.115	.037															
2.0	.225	.123	.038	.220	.121	.037	.210	.117	.036	.200	.112	.035	.192	.108	.034															
3.0	.211	.112	.034	.206	.111	.033	.198	.107	.033	.189	.104	.032	.182	.101	.031															
4.0	.197	.103	.030	.193	.101	.030	.185	.098	.029	.178	.096	.029	.171	.093	.028															
5.0	.185	.094	.027	.181	.093	.027	.174	.091	.027	.168	.088	.026	.162	.086	.026															
6.0	.173	.087	.025	.170	.086	.025	.164	.084	.024	.158	.082	.024	.152	.080	.024															
7.0	.162	.080	.023	.159	.079	.023	.154	.078	.022	.149	.076	.022	.144	.075	.022															
8.0	.153	.075	.021	.150	.074	.021	.145	.073	.021	.141	.071	.021	.136	.070	.020															
9.0	.144	.070	.019	.142	.069	.019	.137	.068	.019	.133	.067	.019	.129	.066	.019															
10.0	.136	.065	.018	.134	.065	.018	.130	.064	.018	.127	.063	.018	.123	.062	.018															

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	.169	.169	.169	.144	.144	.144	.099	.099	.099	.057	.057	.057	.018	.018	.018	
1.0	.157	.139	.122	.135	.119	.105	.092	.082	.073	.053	.047	.042	.017	.015	.014	
2.0	.148	.117	.091	.127	.101	.079	.087	.070	.055	.050	.041	.032	.016	.013	.010	
3.0	.140	.101	.070	.120	.087	.061	.083	.061	.043	.048	.035	.025	.015	.011	.008	
4.0	.133	.089	.055	.114	.077	.048	.079	.054	.034	.046	.031	.020	.015	.010	.007	
5.0	.127	.080	.045	.109	.069	.039	.075	.048	.028	.043	.028	.016	.014	.009	.005	
6.0	.121	.072	.037	.104	.062	.032	.071	.044	.023	.041	.026	.014	.013	.008	.004	
7.0	.115	.066	.031	.099	.057	.027	.068	.040	.019	.040	.024	.012	.013	.008	.004	
8.0	.109	.061	.027	.094	.053	.024	.065	.037	.017	.038	.022	.010	.012	.007	.003	
9.0	.104	.056	.024	.090	.049	.021	.062	.034	.015	.036	.020	.009	.012	.007	.003	
10.0	.100	.052	.021	.086	.046	.018	.060	.032	.013	.035	.019	.008	.011	.006	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25℃
 Operators:LI
 Test Date:2025-10-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.485
 Humidity:65.0%
 Test Distance:8.300m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz										
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm										
NAME: 2853-90D*90D*90D-4080										
SPEC.: VS ECXe 350.619(187326)										
MFR.: SOTEN										
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	22.9	24.3	23.2	24.5	24.7	22.7	24.1	23.0	24.3	24.5
3H	23.6	24.9	23.9	25.1	25.4	23.6	24.8	23.9	25.0	25.3
4H	23.9	25.1	24.2	25.4	25.6	23.9	25.1	24.2	25.3	25.6
6H	24.1	25.3	24.5	25.5	25.8	24.2	25.3	24.5	25.6	25.8
8H	24.2	25.3	24.5	25.6	25.9	24.3	25.3	24.6	25.6	25.9
12H	24.3	25.3	24.6	25.6	25.9	24.3	25.4	24.7	25.7	26.0
4H 2H	23.2	24.4	23.6	24.7	24.9	23.1	24.3	23.4	24.5	24.8
3H	24.2	25.2	24.5	25.5	25.8	24.1	25.1	24.4	25.4	25.7
4H	24.6	25.5	24.9	25.8	26.2	24.5	25.5	24.9	25.8	26.1
6H	24.9	25.7	25.3	26.1	26.4	24.9	25.8	25.3	26.1	26.5
8H	25.0	25.8	25.4	26.1	26.5	25.1	25.8	25.5	26.2	26.6
12H	25.1	25.8	25.5	26.2	26.6	25.2	25.9	25.6	26.3	26.7
8H 4H	24.7	25.5	25.1	25.9	26.2	24.7	25.5	25.1	25.8	26.2
6H	25.2	25.8	25.6	26.2	26.6	25.2	25.8	25.6	26.2	26.6
8H	25.3	25.9	25.8	26.3	26.8	25.4	26.0	25.9	26.4	26.8
12H	25.5	26.0	26.0	26.4	26.9	25.6	26.1	26.1	26.5	27.0
12H 4H	24.7	25.4	25.1	25.8	26.2	24.7	25.4	25.1	25.8	26.2
6H	25.2	25.7	25.6	26.2	26.6	25.2	25.8	25.7	26.2	26.6
8H	25.4	25.9	25.9	26.3	26.8	25.5	26.0	25.9	26.4	26.9
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.4 / - 0.6					+ 0.4 / - 0.5				
1.5H	+ 0.3 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.8 / - 0.8					+ 0.6 / - 0.5				

CIE Pub.117, 11086 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 8.4)
 Area: 0.1037 m2

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25℃
 Operators:LI
 Test Date:2025-10-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.485
 Humidity:65.0%
 Test Distance:8.300m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test: U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm		
NAME: 2853-90D*90D*90D-4080		
SPEC.: VS ECXe 350.619(187326)		
MFR.: SOTEN		

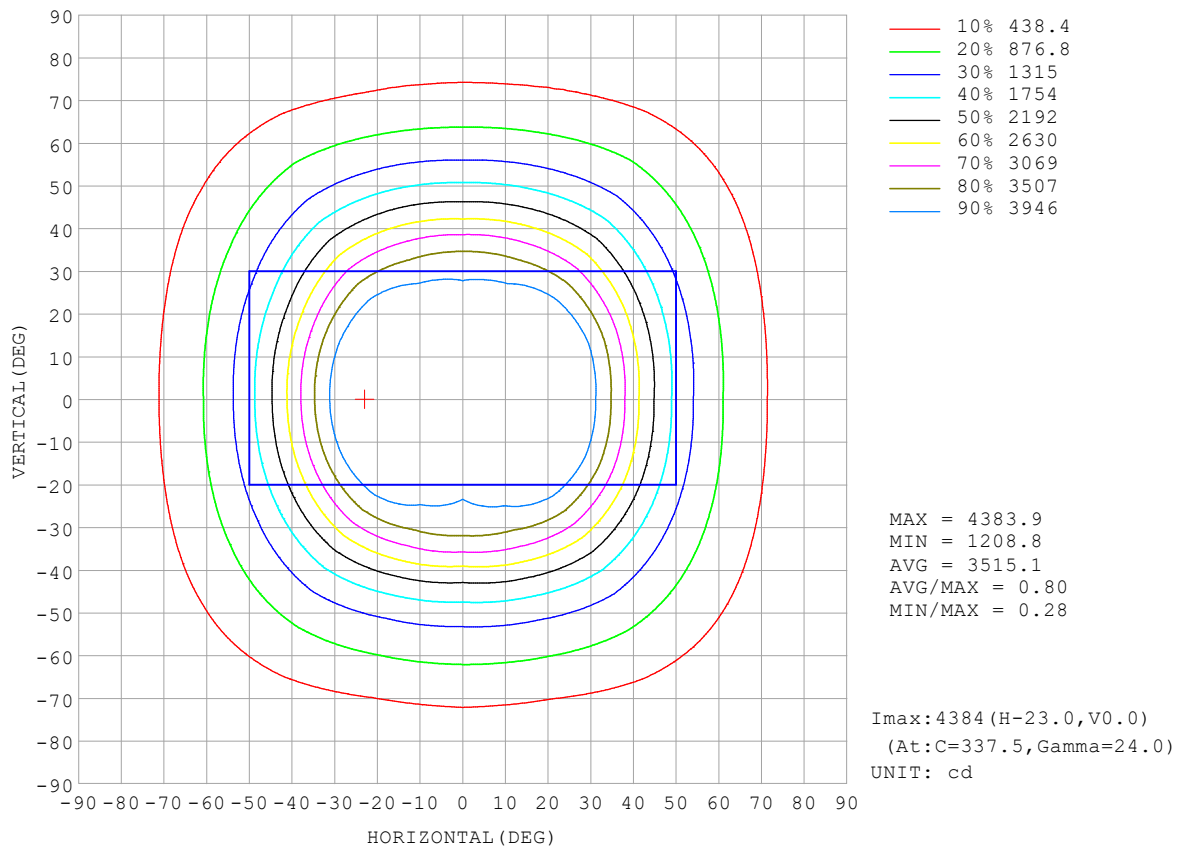
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	49	43	57	49	43	56	48	43	38
0.80	67	58	52	66	57	52	64	57	51	46
1.00	73	65	59	72	65	59	71	65	59	53
1.25	79	71	66	78	71	66	76	69	65	59
1.50	83	76	71	82	75	70	79	73	69	63
2.00	88	82	77	87	81	76	84	79	75	69
2.50	91	85	81	89	84	80	86	82	78	72
3.00	93	88	84	92	87	83	88	84	81	74
4.00	96	92	89	94	91	87	91	88	85	78
5.00	98	95	92	96	93	90	92	90	87	80
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25°C
 Operators: LI
 Test Date: 2025-10-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.485
 Humidity: 65.0%
 Test Distance: 8.300m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm		
NAME: 2853-90D*90D*90D-4080		
SPEC.: VS ECXe 350.619(187326)		
MFR.: SOTEN		

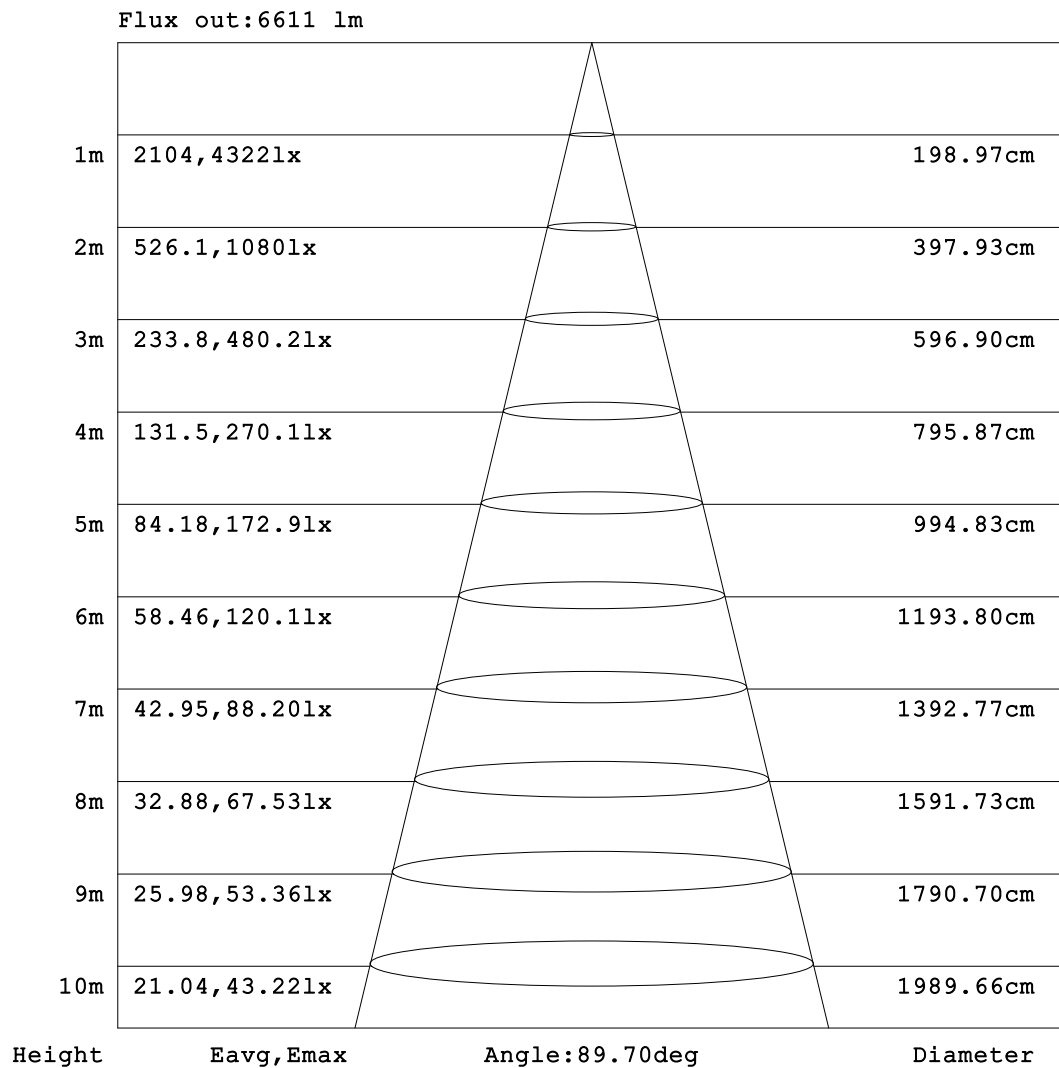


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25℃
 Operators:LI
 Test Date:2025-10-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.485
 Humidity:65.0%
 Test Distance:8.300m [K=1.0000]
 Remarks:

AAI Figure

Test:U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm		
NAME: 2853-90D*90D*90D-4080		
SPEC.: VS ECXe 350.619(187326)		
MFR.: SOTEN		



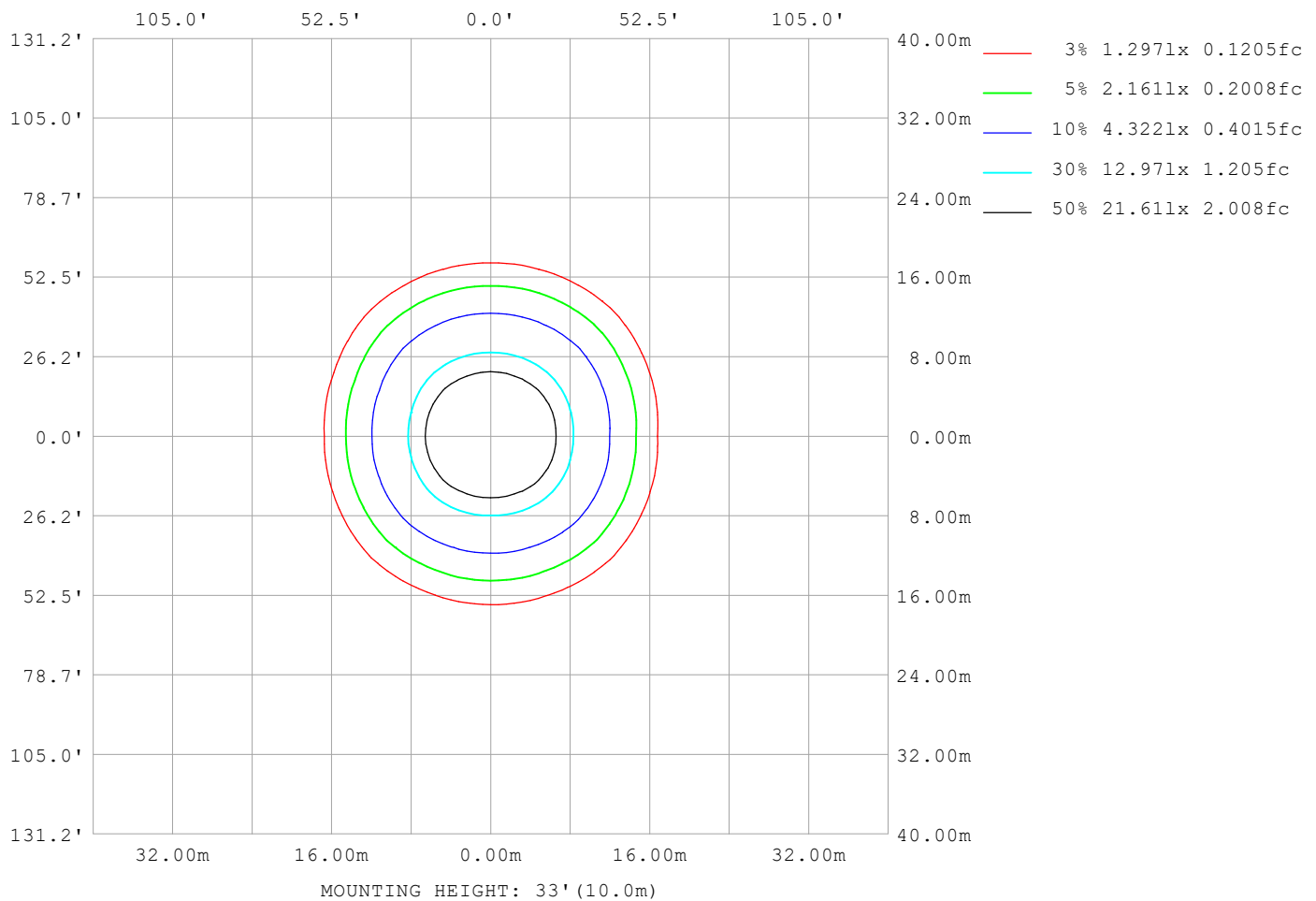
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25°C
 Operators: LI
 Test Date: 2025-10-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.485
 Humidity: 65.0%
 Test Distance: 8.300m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm		
NAME: 2853-90D*90D*90D-4080		
SPEC.: VS ECXe 350.619 (187326)		
MFR.: SOTEN		



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25°C
 Operators: LI
 Test Date: 2025-10-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.485
 Humidity: 65.0%
 Test Distance: 8.300m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:229.55V I:0.256A P:57.8W PF:0.986 Freq:49.99Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:11086x1 lm		
NAME: 2853-90D*90D*90D-4080		
SPEC.: VS ECXe 350.619 (187326)		
MFR.: SOTEN		

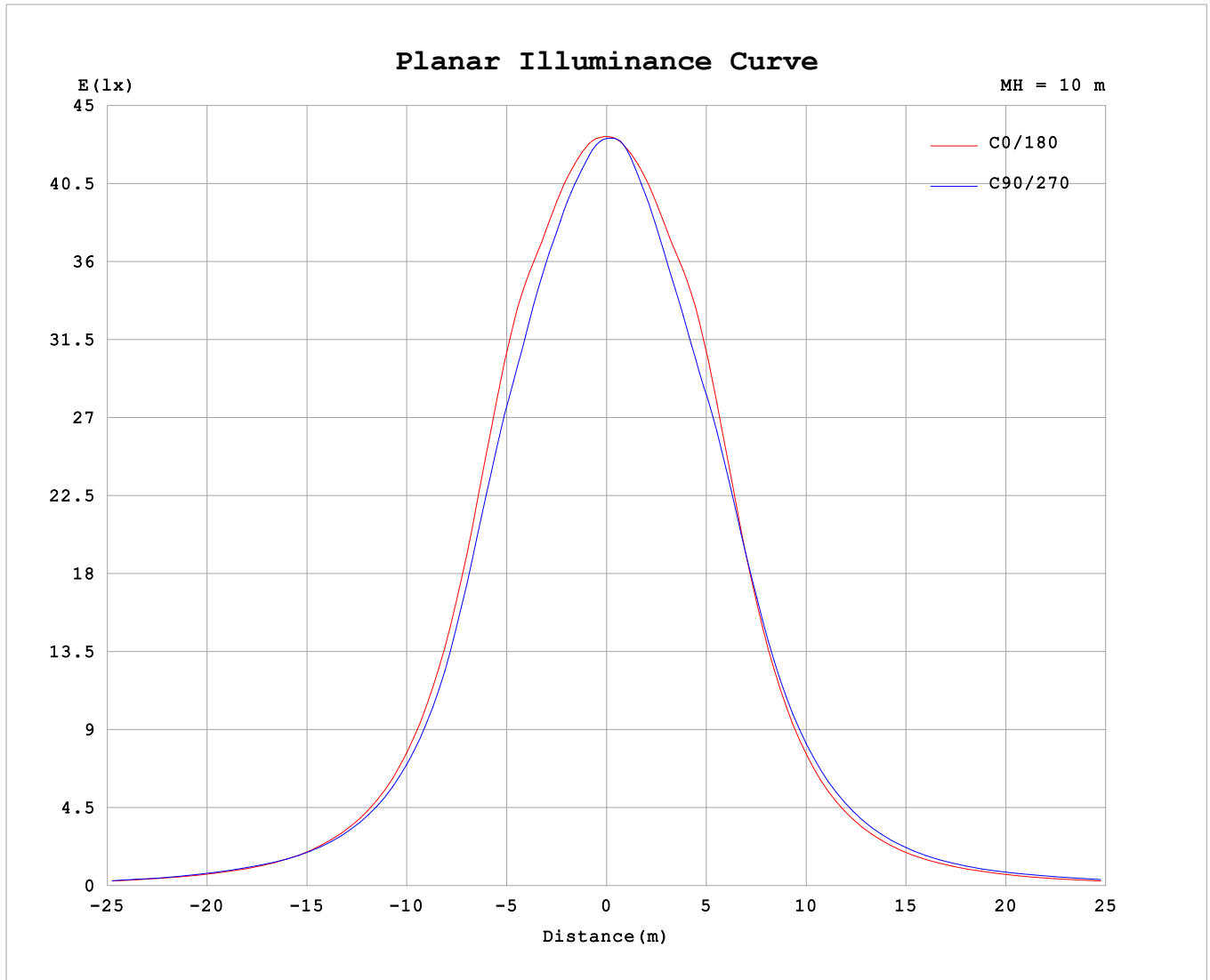
AvgL	cd/m2
L_0~180 (65) av	15411
L_0~180 (75) av	11946
L_0~180 (85) av	9867
L_90~270 (65) av	17841
L_90~270 (75) av	14177
L_90~270 (85) av	13476
L_45 (65) av	17812
L_45 (75) av	13350
L_45 (85) av	11680

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25℃
 Operators: LI
 Test Date: 2025-10-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.485
 Humidity: 65.0%
 Test Distance: 8.300m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25°C
Operators: LI
Test Date: 2025-10-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.485
Humidity: 65.0%
Test Distance: 8.300m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.485
Humidity:65.0%
Test Distance:8.300m [K=1.0000]
Remarks:

```