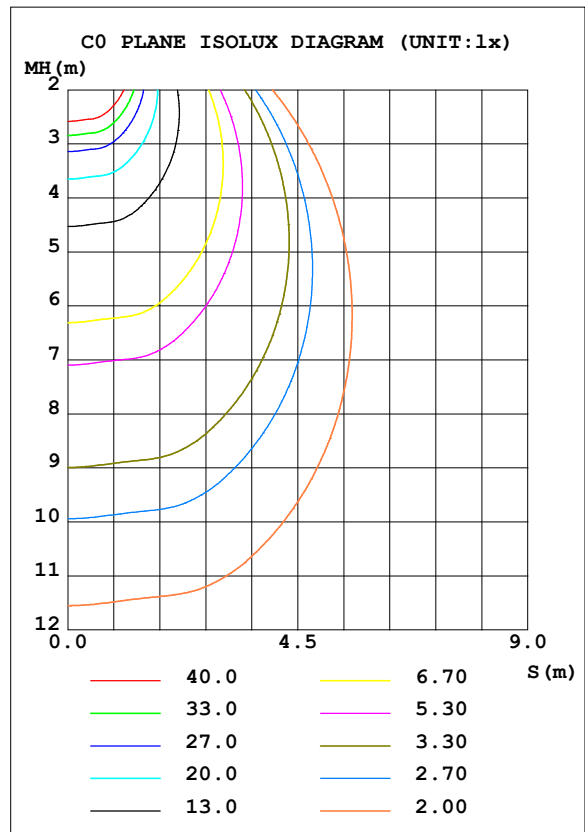
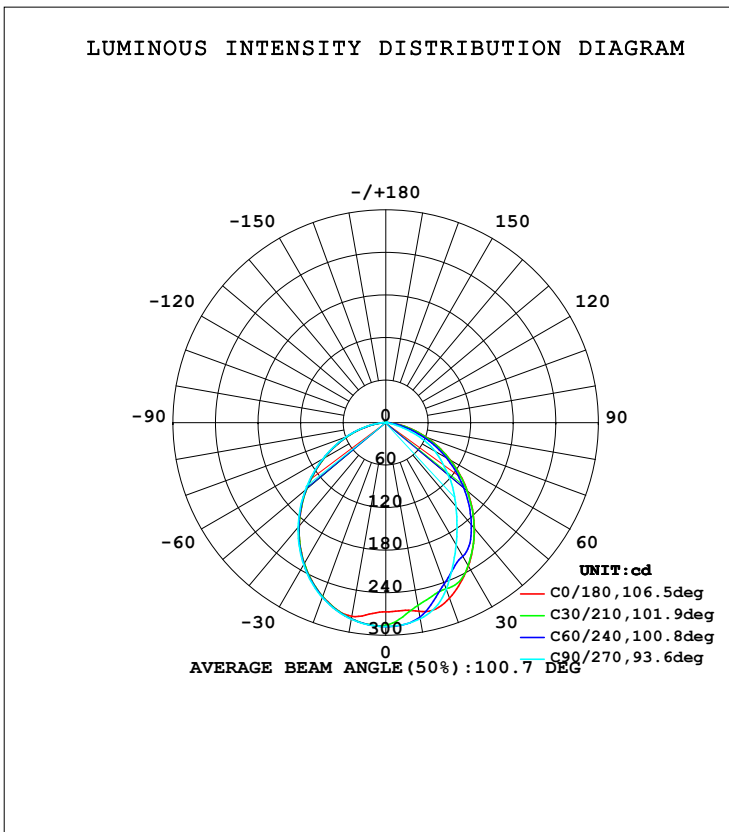


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: Bollards	TYPE:ELA908	WEIGHT:
SPEC.:3000k	DIM.:	SERIAL No.:1
MFR.: Eurolumen	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	2835	Imax (cd)	287.5	S/MH (C0/180)	1.28
NOMINAL POWER (W)	10	LOR (%)	3.7	S/MH (C90/270)	1.06
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	709.32	η UP, DN (C0-180)	0.0, 1.8
NOMINAL FLUX (lm)	400	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 1.9
LAMPS INSIDE	48	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	3.7	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators: YU
 Test Date: 19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity: 74%
 Test Distance: 10.000m [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	270.2	269.9	280.7	280.2	277.3	280.9	281.3	281.7	0- 10	26.80	26.80	3.78,0.14
20	263.1	245.6	249.9	259.9	260.8	261.3	262.2	263.1	10- 20	76.00	102.8	14.5,0.54
30	233.1	225.1	198.9	226.4	229.7	230.5	231.7	232.8	20- 30	112.1	214.9	30.3,1.12
40	194.5	191.0	154.0	185.2	190.1	190.8	192.3	193.2	30- 40	130.1	345.0	48.6,1.8
50	150.5	147.0	115.2	140.9	145.8	146.4	148.1	148.5	40- 50	128.0	473.0	66.7,2.46
60	105.0	101.2	79.88	97.20	100.6	101.4	103.0	103.2	50- 60	108.7	581.7	82,3.03
70	61.25	56.44	38.36	53.28	57.69	58.75	60.14	60.66	60- 70	76.96	658.7	92.9,3.43
80	22.32	18.18	3.476	16.88	19.86	21.22	22.15	22.59	70- 80	38.57	697.2	98.3,3.63
90	0.4318	0.2901	0.0846	0.3175	0.5907	0.9756	1.107	0.8639	80- 90	7.840	705.1	99.4,3.67
100	0.2746	0.2217	0.2254	0.3485	0.5564	0.8942	0.9364	0.6759	90-100	0.5689	705.6	99.5,3.68
110	0.2745	0.2887	0.3805	0.4789	0.6831	0.9892	0.9505	0.7288	100-110	0.5955	706.2	99.6,3.68
120	0.4084	0.4225	0.6409	0.6196	0.8802	0.7886	0.5142	0.6055	110-120	0.6224	706.8	99.7,3.68
130	0.5279	0.5527	0.8027	0.7850	1.007	0.7573	0.5280	0.6655	120-130	0.5830	707.4	99.7,3.68
140	0.6900	0.7112	0.9013	0.9222	1.105	0.7852	0.6477	0.7325	130-140	0.5813	708.0	99.8,3.69
150	0.8026	0.8202	0.8942	0.9189	1.077	0.8414	0.7954	0.8731	140-150	0.5185	708.5	99.9,3.69
160	0.8800	0.9188	0.9365	0.9330	0.9927	0.9188	0.9291	0.9400	150-160	0.4191	709.0	99.9,3.69
170	0.9645	1.003	1.014	1.003	0.9998	1.010	1.014	1.031	160-170	0.2735	709.2	100,3.69
180	1.035	1.053	1.070	1.074	1.035	1.053	1.063	1.070	170-180	0.0981	709.3	100,3.69
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

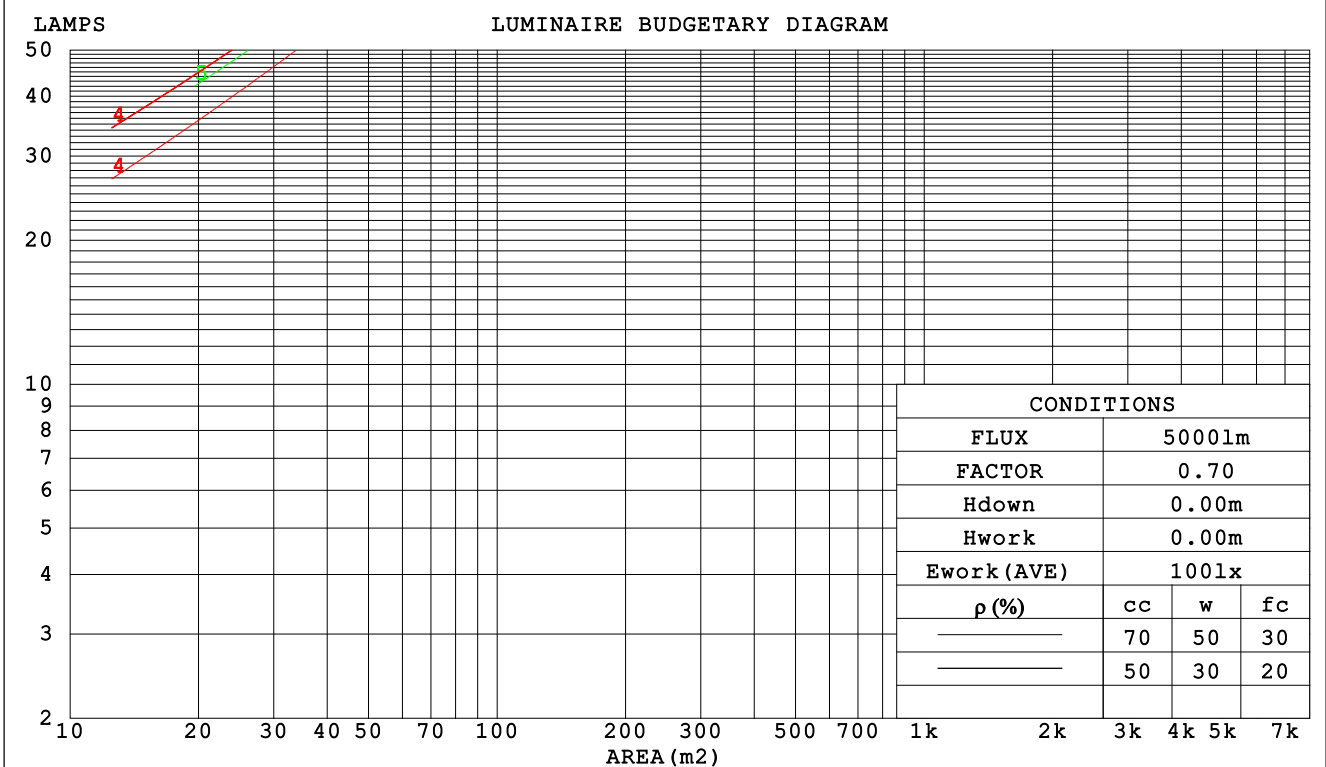
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: Bollards	TYPE:ELA908	WEIGHT:
SPEC.:3000k	DIM.:	SERIAL No.:1
MFR.: Eurolumen	SUR.:	Shielding 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						Coefficients of Utilization(CU)									
0.0	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04
1.0	.04	.04	.04	.04	.04	.04	.04	.04	.03	.03	.03	.03	.03	.03	.03	.03
2.0	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03
3.0	.03	.03	.02	.03	.03	.02	.03	.03	.02	.03	.03	.02	.03	.02	.02	.02
4.0	.03	.02	.02	.03	.02	.02	.03	.02	.02	.02	.02	.02	.02	.02	.02	.02
5.0	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
6.0	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.01
7.0	.02	.02	.01	.02	.02	.01	.02	.02	.01	.02	.02	.01	.02	.02	.01	.01
8.0	.02	.01	.01	.02	.01	.01	.02	.01	.01	.02	.01	.01	.02	.01	.01	.01
9.0	.02	.01	.01	.02	.01	.01	.02	.01	.01	.02	.01	.01	.02	.01	.01	.01
10.0	.02	.01	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME: Bollards	TYPE:ELA908	WEIGHT:
SPEC.:3000k	DIM.:	SERIAL No.:1
MFR.: Eurolumen	SUR.:	Shielding 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	.011	.006	.002	.010	.006	.002	.010	.006	.002	.009	.005	.002	.009	.005	.002	
2.0	.010	.006	.002	.010	.005	.002	.009	.005	.002	.009	.005	.002	.009	.005	.002	
3.0	.009	.005	.002	.009	.005	.001	.009	.005	.001	.009	.005	.001	.008	.005	.001	
4.0	.009	.005	.001	.009	.005	.001	.008	.004	.001	.008	.004	.001	.008	.004	.001	
5.0	.008	.004	.001	.008	.004	.001	.008	.004	.001	.007	.004	.001	.007	.004	.001	
6.0	.008	.004	.001	.007	.004	.001	.007	.004	.001	.007	.004	.001	.007	.004	.001	
7.0	.007	.004	.001	.007	.003	.001	.007	.003	.001	.007	.003	.001	.006	.003	.001	
8.0	.007	.003	.001	.007	.003	.001	.006	.003	.001	.006	.003	.001	.006	.003	.001	
9.0	.006	.003	.001	.006	.003	.001	.006	.003	.001	.006	.003	.001	.006	.003	.001	
10.0	.006	.003	.001	.006	.003	.001	.006	.003	.001	.005	.003	.001	.005	.003	.001	

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	.007	.007	.007	.006	.006	.006	.004	.004	.004	.002	.002	.002	.001	.001	.001	
1.0	.007	.006	.005	.006	.005	.004	.004	.004	.003	.002	.002	.002	.001	.001	.001	
2.0	.006	.005	.004	.006	.004	.003	.004	.003	.002	.002	.002	.001	.001	.001	.000	
3.0	.006	.004	.003	.005	.004	.003	.004	.003	.002	.002	.002	.001	.001	.000	.000	
4.0	.006	.004	.002	.005	.003	.002	.003	.002	.001	.002	.001	.001	.001	.000	.000	
5.0	.006	.004	.002	.005	.003	.002	.003	.002	.001	.002	.001	.001	.001	.000	.000	
6.0	.005	.003	.002	.005	.003	.001	.003	.002	.001	.002	.001	.001	.001	.000	.000	
7.0	.005	.003	.001	.004	.003	.001	.003	.002	.001	.002	.001	.001	.001	.000	.000	
8.0	.005	.003	.001	.004	.002	.001	.003	.002	.001	.002	.001	.000	.001	.000	.000	
9.0	.005	.003	.001	.004	.002	.001	.003	.002	.001	.002	.001	.000	.001	.000	.000	
10.0	.004	.002	.001	.004	.002	.001	.003	.001	.001	.002	.001	.000	.001	.000	.000	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

NAME: Bollards		TYPE:ELA908					WEIGHT:				
SPEC.:3000k		DIM.:					SERIAL No.:1				
MFR.: Eurolumen		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	15.6	17.1	15.9	17.3	17.5	14.7	16.2	15.0	16.4	16.6	
3H	16.9	18.2	17.2	18.5	18.7	15.7	17.0	16.0	17.3	17.5	
4H	17.4	18.7	17.7	18.9	19.2	15.8	17.1	16.2	17.4	17.6	
6H	17.7	18.9	18.0	19.2	19.4	15.8	17.0	16.1	17.3	17.6	
8H	17.7	18.9	18.1	19.2	19.5	15.8	16.9	16.1	17.2	17.5	
12H	17.7	18.9	18.1	19.2	19.5	15.7	16.8	16.1	17.1	17.4	
4H 2H	16.1	17.3	16.4	17.6	17.9	15.4	16.7	15.7	16.9	17.2	
3H	17.6	18.7	17.9	19.0	19.3	16.5	17.7	16.9	18.0	18.3	
4H	18.2	19.2	18.5	19.5	19.8	16.8	17.8	17.2	18.2	18.5	
6H	18.6	19.4	19.0	19.8	20.2	16.9	17.8	17.3	18.1	18.5	
8H	18.7	19.5	19.1	19.9	20.3	16.8	17.7	17.2	18.0	18.4	
12H	18.7	19.5	19.1	19.9	20.3	16.8	17.6	17.2	17.9	18.4	
8H 4H	18.3	19.1	18.7	19.5	19.9	17.1	17.9	17.5	18.3	18.7	
6H	18.8	19.5	19.2	19.9	20.3	17.2	17.9	17.7	18.3	18.8	
8H	19.0	19.6	19.4	20.0	20.5	17.2	17.8	17.7	18.3	18.7	
12H	19.0	19.6	19.5	20.0	20.5	17.2	17.7	17.7	18.2	18.7	
12H 4H	18.3	19.0	18.7	19.4	19.8	17.1	17.8	17.5	18.2	18.7	
6H	18.8	19.4	19.3	19.8	20.3	17.3	17.9	17.7	18.3	18.8	
8H	19.0	19.5	19.5	20.0	20.4	17.3	17.8	17.8	18.3	18.8	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.4 / - 0.4					
1.5H	+ 0.2 / - 0.3					+ 0.4 / - 0.6					
2.0H	+ 0.3 / - 0.3					+ 0.4 / - 0.8					

CIE Pub.117 Corrected 19200 lm Total Lamp Luminous Flux. (8log(F/F0) = 10.3)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

NAME: Bollards	TYPE:ELA908	WEIGHT:
SPEC.:3000k	DIM.:	SERIAL No.:1
MFR.: Eurolumen	SUR.:	Shielding Angle:

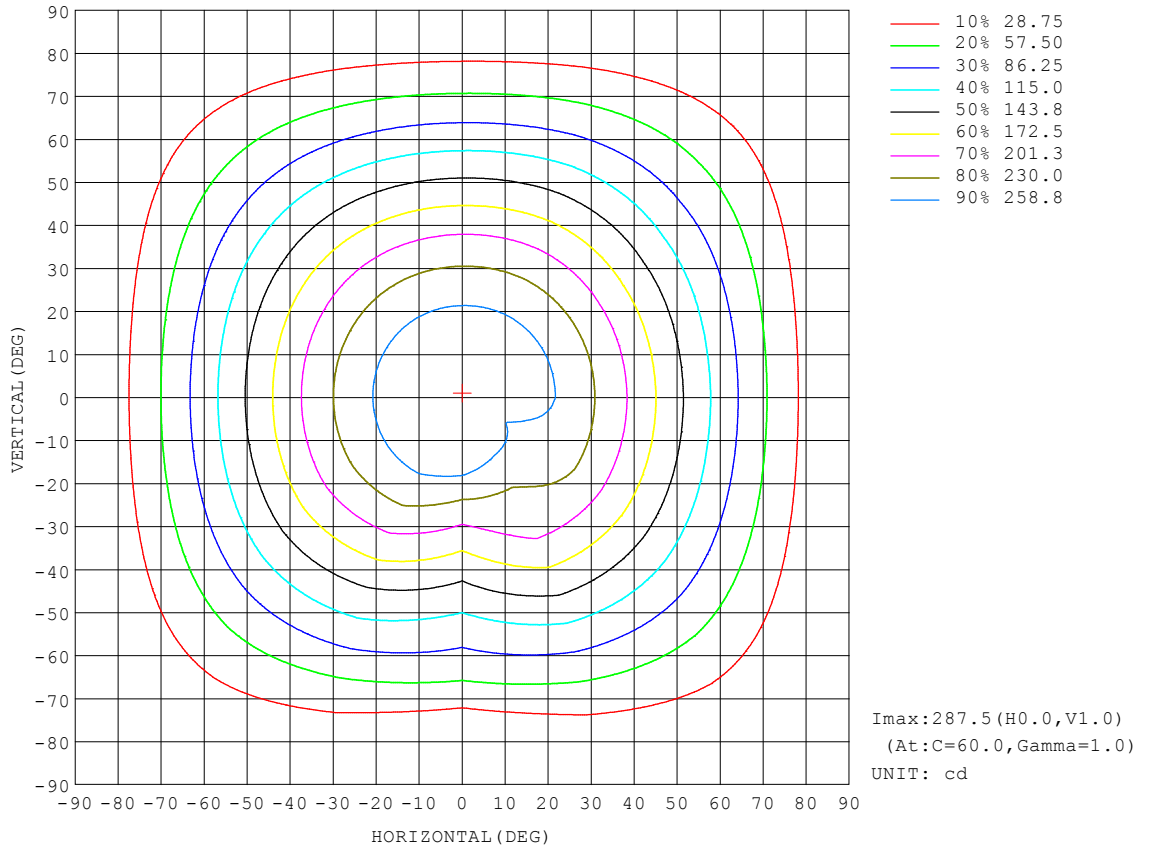
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	2	2	2	2	2	2	2	2	2	1
0.80	3	2	2	3	2	2	2	2	2	2
1.00	3	2	2	3	2	2	3	3	2	2
1.25	3	3	3	3	3	3	3	3	2	2
1.50	3	3	3	3	3	3	3	3	3	2
2.00	4	3	3	3	3	3	3	3	3	3
2.50	4	3	3	4	3	3	3	3	3	3
3.00	4	4	3	4	4	3	4	3	3	3
4.00	4	4	4	4	4	4	4	4	3	3
5.00	4	4	4	4	4	4	4	4	4	3
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME: Bollards	TYPE:ELA908	WEIGHT:
SPEC.:3000k	DIM.:	SERIAL No.:1
MFR.: Eurolumen	SUR.:	Shielding Angle:

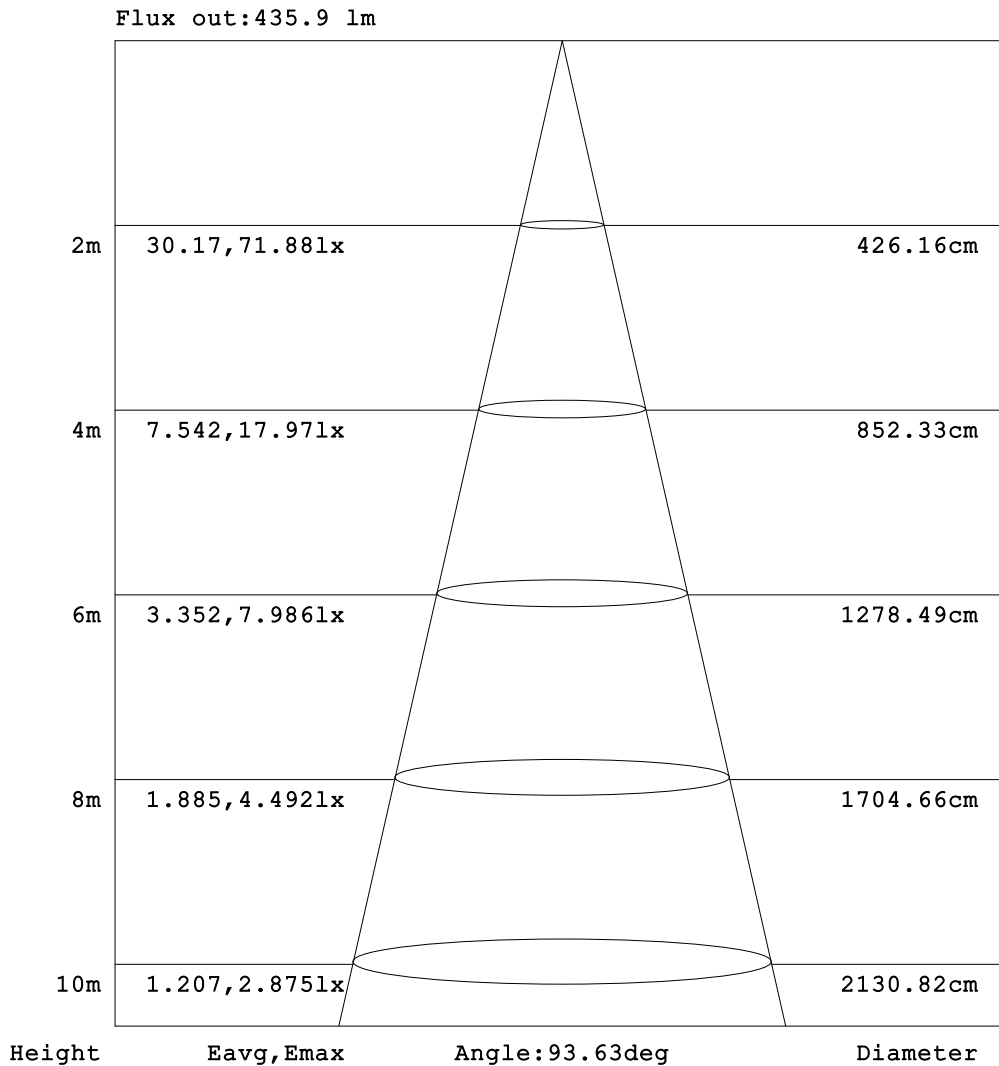


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks:

AAI Figure

NAME: Bollards	TYPE:ELA908	WEIGHT:
SPEC.:3000k	DIM.:	SERIAL No.:1
MFR.: Eurolumen	SUR.:	Shielding Angle:



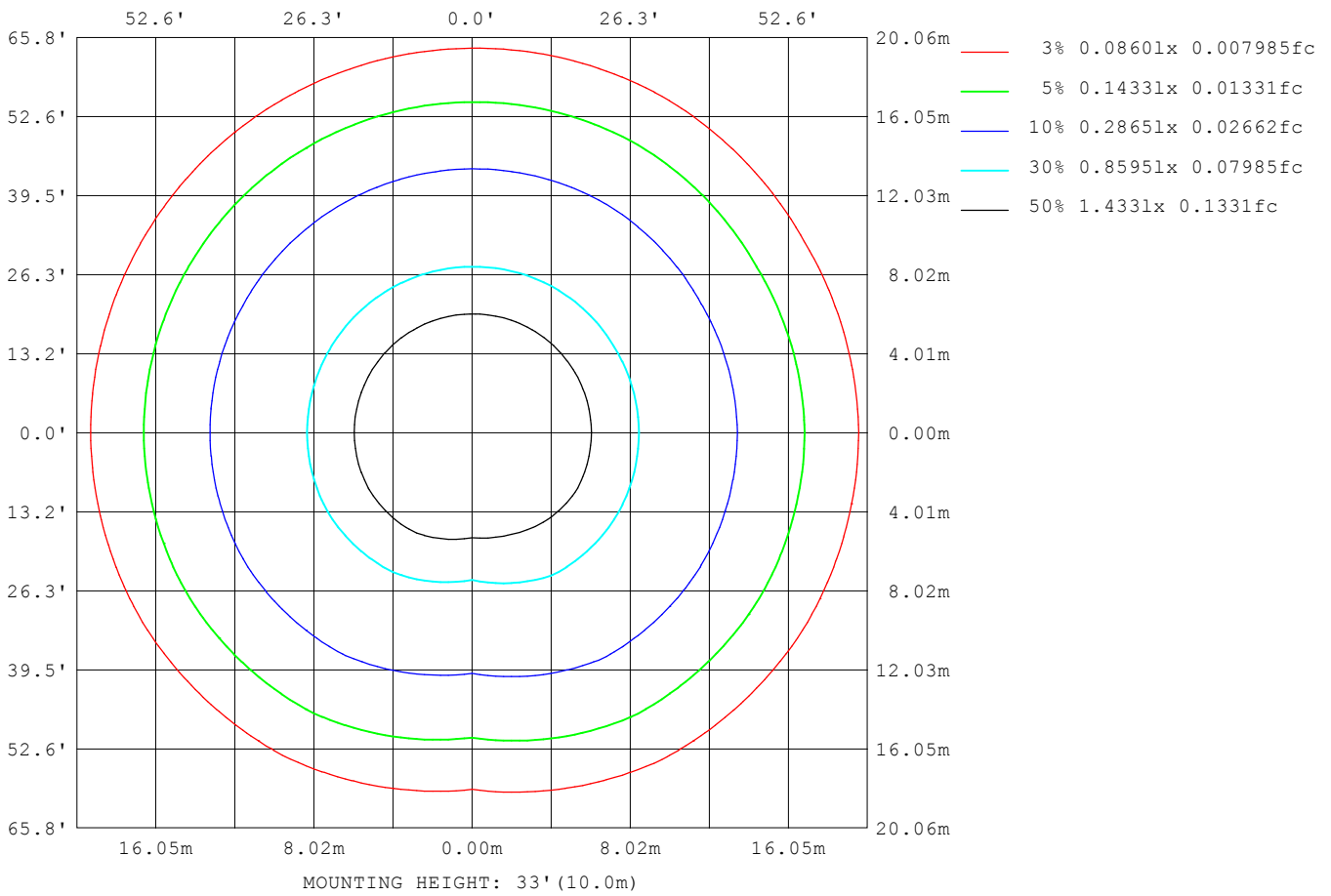
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

NAME: Bollards	TYPE: ELA908	WEIGHT:
SPEC.: 3000k	DIM.:	SERIAL No.: 1
MFR.: Eurolumen	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks:

LED Avg.L Report

NAME: Bollards	TYPE:ELA908	WEIGHT:
SPEC.:3000k	DIM.:	SERIAL No.:1
MFR.: Eurolumen	SUR.:	Shielding Angle:

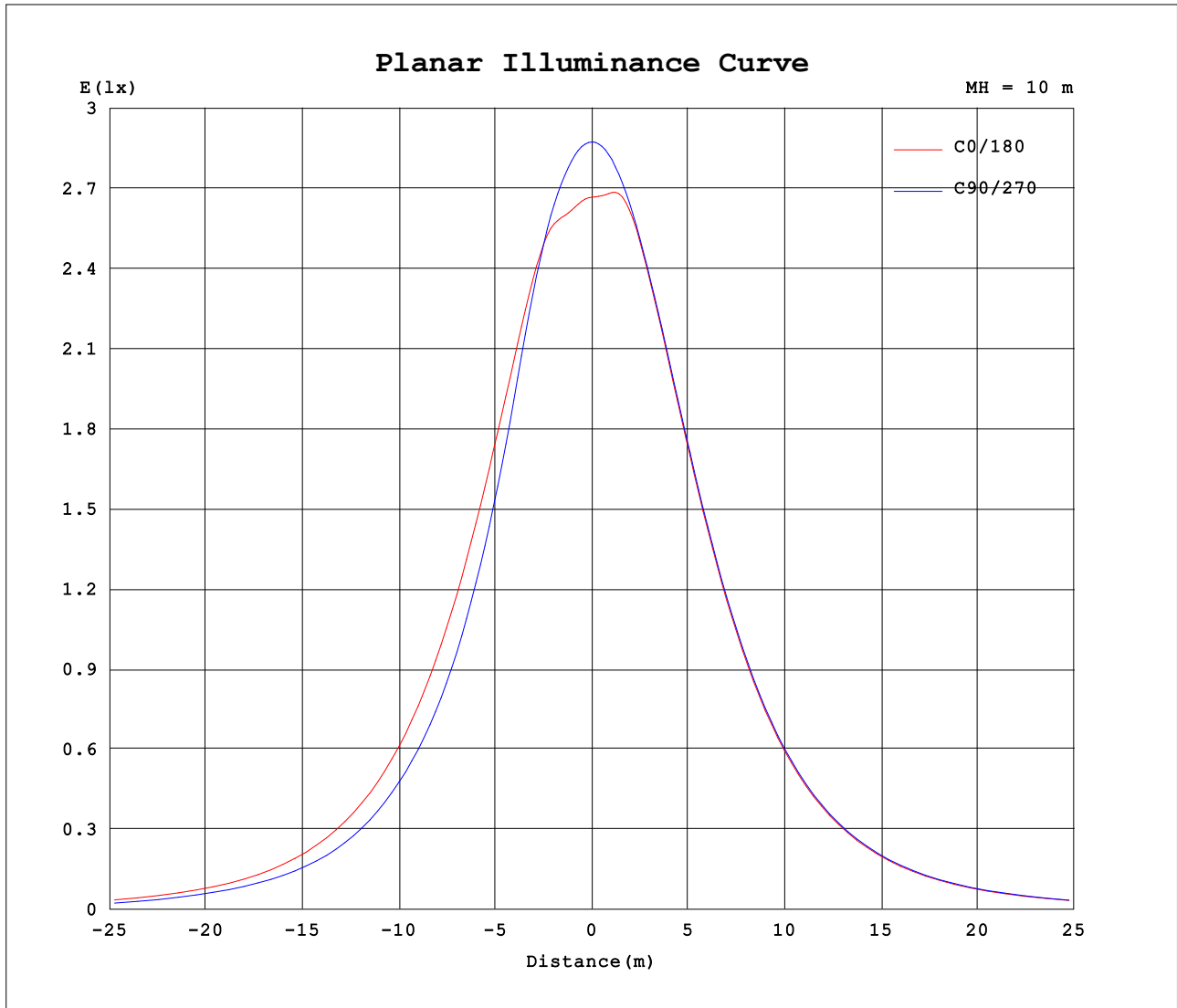
AvgL	cd/m2
L_0~180 (65) av	1911
L_0~180 (75) av	1521
L_0~180 (85) av	742
L_90~270 (65) av	1683
L_90~270 (75) av	1101
L_90~270 (85) av	503
L_45 (65) av	1871
L_45 (75) av	1454
L_45 (85) av	730

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators: YU
 Test Date: 19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity: 74%
 Test Distance: 10.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Bollards	TYPE:ELA908	WEIGHT:
SPEC.:3000k	DIM.:	SERIAL No.:1
MFR.: Eurolumen	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	267	285	288	287	287	287	267	285	288	287	287	287							
5	266	275	286	286	285	286	271	286	286	286	286	286							
10	270	262	278	281	280	280	277	281	281	281	282	282							
15	272	253	260	270	272	272	272	272	273	273	274	274							
20	263	249	242	250	260	260	261	261	262	262	263	263							
25	249	247	226	223	243	246	247	247	248	248	249	249							
30	233	233	217	199	224	229	230	230	231	232	233	233							
35	215	214	207	175	203	210	211	211	212	213	214	214							
40	195	194	188	154	181	190	190	190	191	192	194	193							
45	173	172	167	135	158	168	168	168	170	171	172	170							
50	150	150	144	115	137	145	146	146	147	148	150	147							
55	128	127	121	96.7	116	122	123	123	124	125	127	124							
60	105	104	98.3	79.9	94.8	99.6	101	101	102	103	105	102							
65	82.8	81.7	75.5	61.0	72.4	77.7	78.7	79.1	80.2	81.3	82.7	80.5							
70	61.2	60.0	52.9	38.4	50.1	56.4	57.7	58.2	59.3	60.1	61.5	59.8							
75	40.9	39.5	32.0	16.8	30.3	36.4	37.9	38.5	39.6	40.2	41.4	40.2							
80	22.3	21.0	15.4	3.48	15.2	18.5	19.9	20.7	21.7	22.2	23.0	22.1							
85	7.33	6.73	4.51	1.22	4.19	5.04	5.61	6.52	7.38	7.55	8.10	7.58							
90	0.43	0.32	0.26	0.08	0.22	0.42	0.59	0.89	1.06	1.11	0.98	0.75							
95	0.28	0.18	0.23	0.15	0.22	0.37	0.52	0.80	0.96	1.00	0.80	0.56							
100	0.27	0.18	0.26	0.23	0.28	0.42	0.56	0.82	0.96	0.94	0.80	0.56							
105	0.29	0.23	0.21	0.29	0.37	0.50	0.63	0.89	1.00	0.93	0.82	0.60							
110	0.27	0.29	0.29	0.38	0.40	0.56	0.68	0.98	1.00	0.95	0.80	0.65							
115	0.35	0.35	0.44	0.54	0.50	0.55	0.78	1.05	0.86	0.80	0.72	0.73							
120	0.41	0.37	0.48	0.64	0.65	0.59	0.88	1.07	0.51	0.51	0.44	0.77							
125	0.45	0.43	0.49	0.73	0.72	0.68	0.91	1.15	0.51	0.46	0.47	0.83							
130	0.53	0.53	0.58	0.80	0.80	0.77	1.01	0.97	0.55	0.53	0.51	0.82							
135	0.62	0.60	0.68	0.85	0.88	0.85	0.88	1.01	0.61	0.58	0.59	0.87							
140	0.69	0.67	0.75	0.90	0.96	0.88	1.11	0.92	0.66	0.65	0.68	0.79							
145	0.73	0.73	0.81	0.93	1.01	0.86	0.89	0.80	0.73	0.73	0.75	0.90							
150	0.80	0.80	0.84	0.89	0.98	0.86	1.08	0.90	0.78	0.80	0.82	0.93							
155	0.84	0.86	0.88	0.92	0.95	0.86	1.14	0.98	0.85	0.86	0.88	0.94							
160	0.88	0.90	0.94	0.94	0.95	0.92	0.99	0.93	0.91	0.93	0.93	0.95							
165	0.92	0.94	0.97	0.98	0.96	0.95	0.96	0.97	0.97	0.98	0.99	1.01							
170	0.96	0.99	1.02	1.01	1.01	1.00	1.00	1.01	1.01	1.01	1.04	1.03							
175	1.00	1.04	1.05	1.04	1.05	1.04	1.01	1.03	1.03	1.06	1.05	1.06							
180	1.04	1.04	1.06	1.07	1.08	1.07	1.04	1.04	1.06	1.06	1.07	1.07							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:YU
 Test Date:19 March 2026

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.293
 Humidity:74%
 Test Distance:10.000m [K=1.0000]
 Remarks: