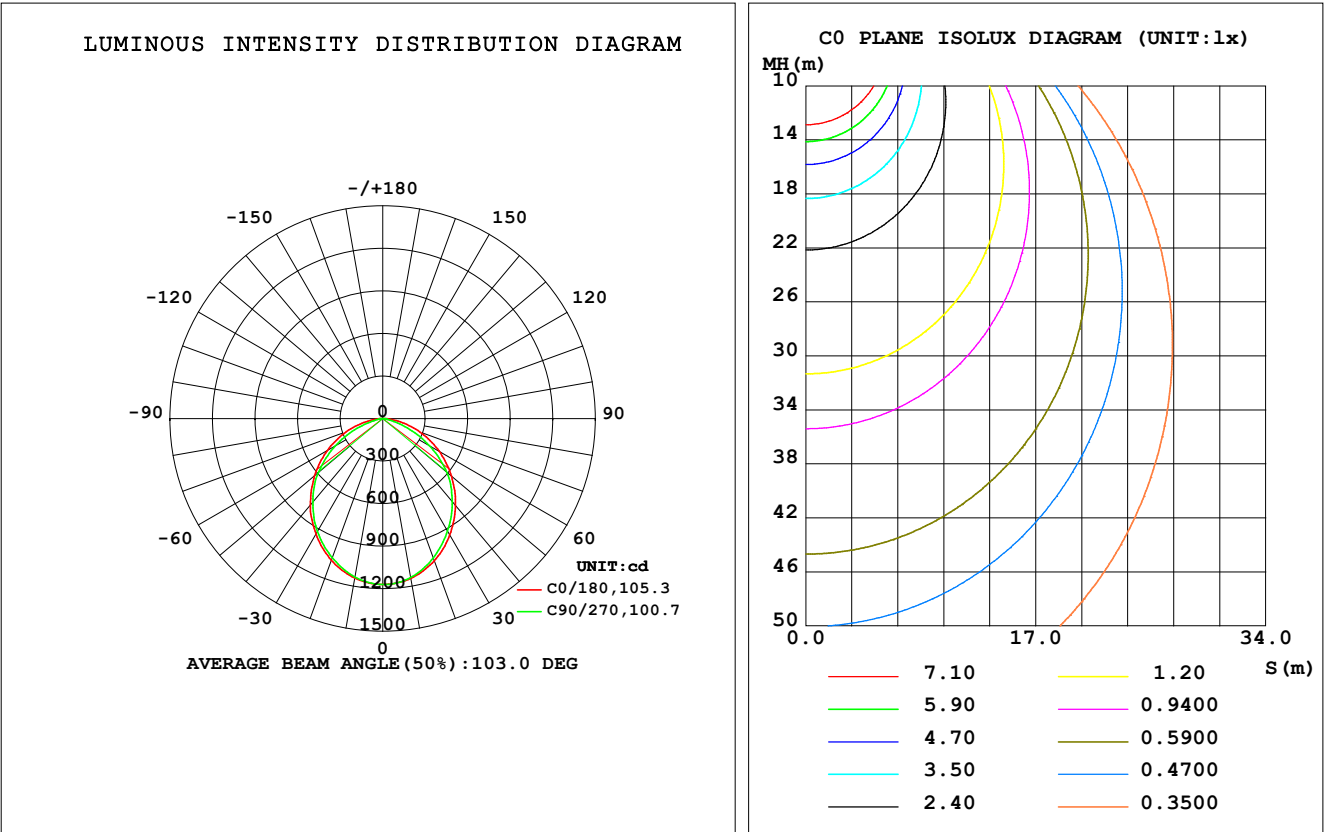


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm		
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K	CRI:90.0	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 78.18 lm/W
LED MODEL	1300lm 940 HV ADV6	Imax(cd)	1176	S/MH(C0/180)	1.20	
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.18	
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2932.5	η UP,DN(C0-180)	0.0,50.0	
NOMINAL FLUX(lm)	2932.46	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:

### ZONAL FLUX DIAGRAM

#### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	1144	1142	1138	1113	1142	1138	1135	1148	0- 10	110.0	110.0	3.75,3.75
20	1066	1056	1045	1068	1062	1051	1044	1065	10- 20	310.4	420.3	14.3,14.3
30	947.1	929.7	915.7	951.5	941.6	927.6	920.3	943.2	20- 30	459.0	879.3	30,30
40	798.8	782.5	762.7	800.0	794.2	782.8	768.2	797.5	30- 40	538.1	1417	48.3,48.3
50	633.7	620.0	589.7	633.2	627.3	619.7	594.6	632.3	40- 50	542.6	1960	66.8,66.8
60	459.1	441.9	379.9	449.8	452.3	440.6	386.0	450.6	50- 60	470.6	2431	82.9,82.9
70	280.8	235.0	167.1	237.2	273.8	234.9	173.9	241.9	60- 70	328.3	2759	94.1,94.1
80	111.6	47.78	24.80	46.55	105.4	47.96	25.58	51.52	70- 80	147.7	2907	99.1,99.1
90	1.154	0.7245	0.5681	0.9040	0.8081	0.6662	0.6518	1.255	80- 90	25.90	2932	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		

Conical surface Flux(90deg): 1692.8 lm

%lum = 57.7%

%lamp = 57.7%

Conical surface Flux(120deg): 2430.6 lm

%lum = 82.9%

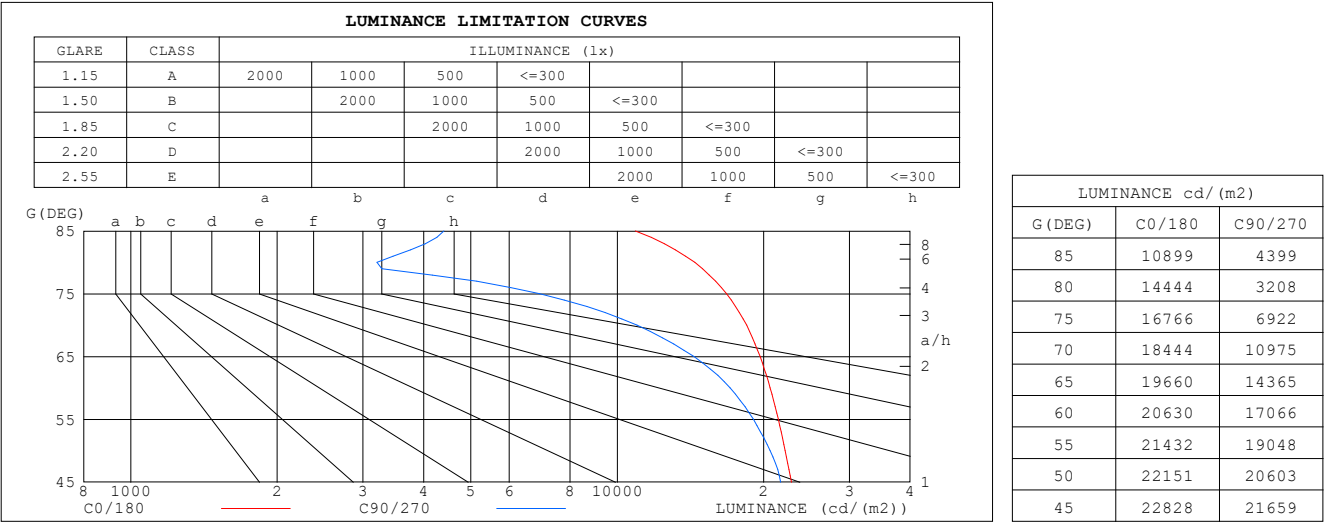
%lamp = 82.9%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm		
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K	CR100E D800	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



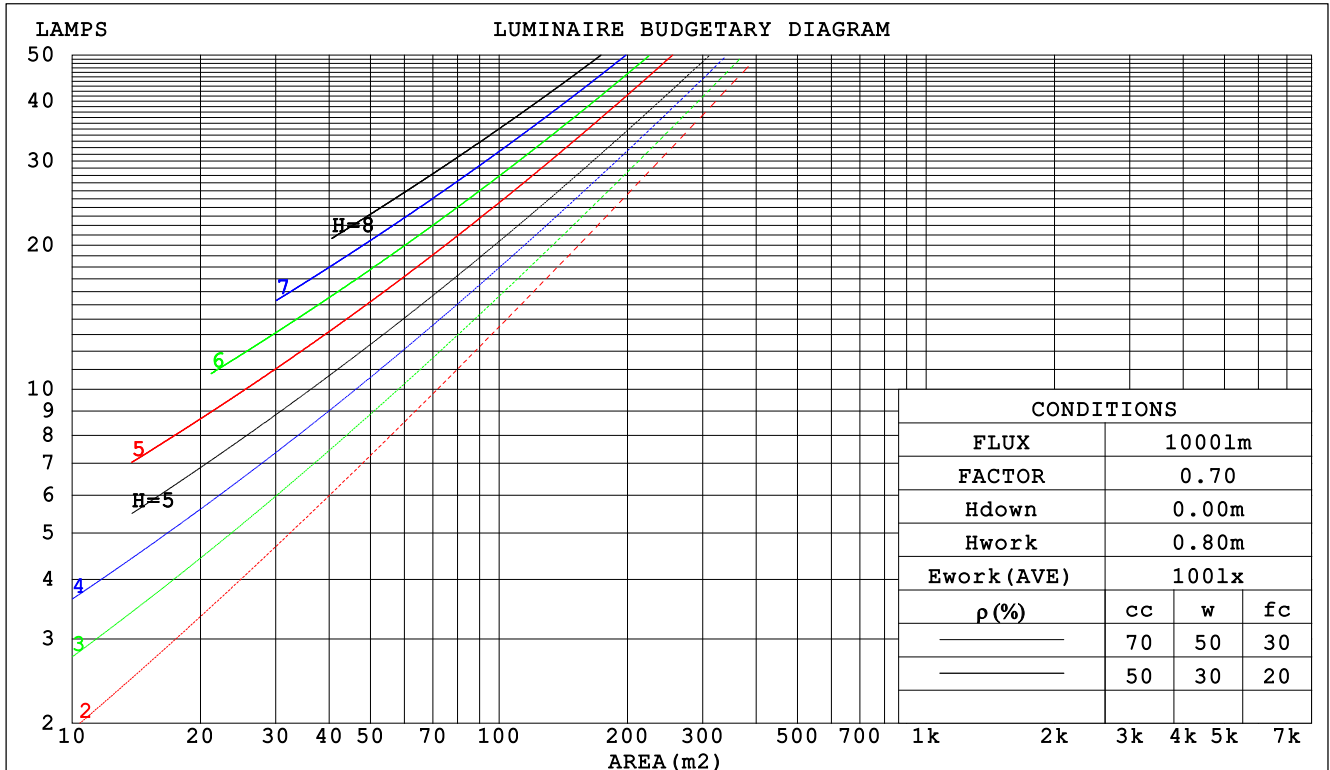
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm		
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K CR100E DART	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	20%			20%			20%			20%			20%			0
RCR	Coefficients of Utilization(CU)															
	RCR:Room Cavity Ratio															
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	1.05	1.01	.98	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.88	.85
2.0	.92	.86	.80	.90	.85	.79	.87	.82	.78	.84	.80	.76	.81	.77	.74	.72
3.0	.81	.74	.67	.80	.73	.67	.77	.71	.66	.74	.69	.65	.72	.67	.63	.61
4.0	.72	.64	.57	.71	.63	.57	.69	.62	.56	.66	.60	.56	.64	.59	.55	.53
5.0	.65	.56	.50	.64	.56	.49	.62	.54	.49	.60	.53	.48	.58	.52	.48	.46
6.0	.59	.50	.44	.58	.49	.43	.56	.48	.43	.54	.48	.43	.53	.47	.42	.40
7.0	.53	.45	.39	.52	.44	.38	.51	.44	.38	.49	.43	.38	.48	.42	.38	.36
8.0	.49	.40	.35	.48	.40	.34	.47	.39	.34	.45	.39	.34	.44	.38	.34	.32
9.0	.45	.37	.31	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.31	.29
10.0	.41	.33	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.28	.26



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:

**WEC AND CCEC**

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm		
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K	CR1000-DART	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	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	.285	.162	.051	.278	.159	.050	.265	.152	.049	.253	.146	.047	.242	.140	.045		
2.0	.274	.150	.046	.268	.147	.045	.256	.142	.044	.246	.138	.043	.236	.133	.042		
3.0	.256	.137	.041	.251	.134	.040	.241	.131	.040	.231	.127	.039	.223	.123	.038		
4.0	.239	.124	.036	.234	.122	.036	.225	.119	.036	.217	.116	.035	.209	.113	.035		
5.0	.222	.113	.033	.218	.112	.033	.210	.109	.032	.202	.107	.032	.195	.104	.031		
6.0	.207	.104	.030	.203	.103	.030	.196	.100	.029	.189	.098	.029	.183	.096	.029		
7.0	.193	.096	.027	.190	.095	.027	.184	.093	.027	.178	.091	.026	.172	.089	.026		
8.0	.181	.088	.025	.178	.088	.025	.172	.086	.025	.167	.085	.024	.162	.083	.024		
9.0	.170	.082	.023	.167	.082	.023	.162	.080	.023	.157	.079	.023	.153	.078	.022		
10.0	.160	.077	.021	.158	.076	.021	.153	.075	.021	.149	.074	.021	.145	.073	.021		

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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.145	.114	.087	.100	.079	.060	.057	.046	.035	.018	.015	.012	
3.0	.162	.114	.076	.139	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.147	.090	.048	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.133	.075	.034	.115	.065	.030	.079	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm										
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K CR1000 DART							WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:1		
MFR.: DARKON					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	23.6	25.1	23.9	25.3	25.5	22.9	24.4	23.2	24.6	24.8
3H	25.1	26.5	25.4	26.7	26.9	23.8	25.1	24.1	25.4	25.6
4H	25.7	27.0	26.0	27.2	27.5	23.9	25.2	24.2	25.4	25.7
6H	26.0	27.3	26.4	27.5	27.8	23.9	25.1	24.2	25.3	25.6
8H	26.1	27.3	26.5	27.6	27.9	23.8	25.0	24.2	25.3	25.6
12H	26.2	27.3	26.5	27.6	27.9	23.8	24.9	24.2	25.2	25.5
4H 2H	24.1	25.4	24.4	25.7	25.9	23.6	24.9	23.9	25.1	25.4
3H	25.8	26.9	26.1	27.2	27.5	24.5	25.7	24.9	25.9	26.2
4H	26.5	27.5	26.8	27.8	28.1	24.7	25.7	25.1	26.1	26.4
6H	26.9	27.8	27.3	28.2	28.6	24.7	25.6	25.1	26.0	26.3
8H	27.1	27.9	27.5	28.3	28.7	24.7	25.5	25.1	25.9	26.3
12H	27.1	27.9	27.6	28.3	28.7	24.7	25.5	25.1	25.8	26.3
8H 4H	26.5	27.4	26.9	27.7	28.1	24.9	25.8	25.3	26.1	26.5
6H	27.1	27.8	27.5	28.2	28.6	25.0	25.6	25.4	26.0	26.5
8H	27.3	27.9	27.7	28.3	28.8	25.0	25.6	25.4	26.0	26.4
12H	27.4	27.9	27.8	28.3	28.8	25.0	25.5	25.5	25.9	26.4
12H 4H	26.5	27.3	26.9	27.6	28.1	24.9	25.7	25.3	26.1	26.5
6H	27.1	27.7	27.5	28.1	28.5	25.0	25.6	25.4	26.0	26.4
8H	27.2	27.8	27.7	28.2	28.7	25.0	25.5	25.5	25.9	26.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.3 / - 0.4				
1.5H	+ 0.2 / - 0.3					+ 0.3 / - 0.5				
2.0H	+ 0.2 / - 0.3					+ 0.5 / - 0.6				

CIE Pub.117 Corrected 2932 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.7)

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm		
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K	CR100E D400	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

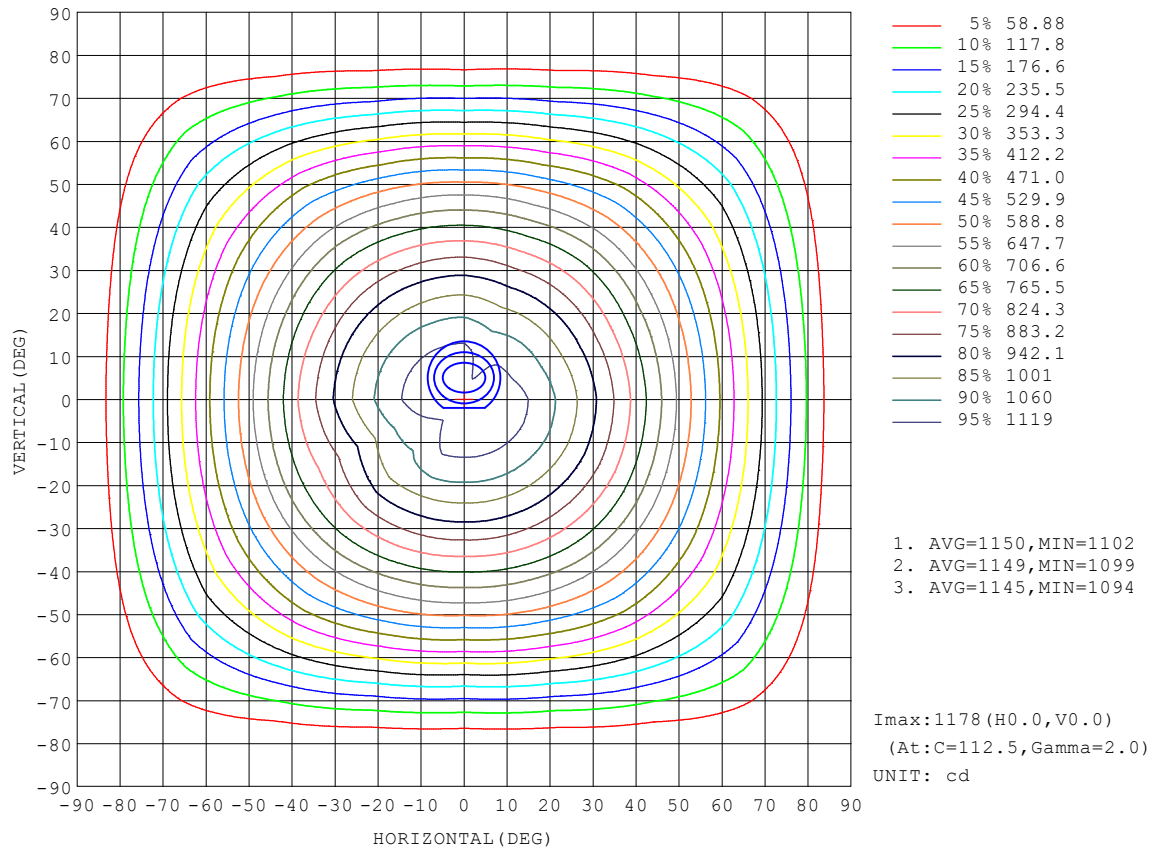
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	59	48	41	58	47	41	35
0.80	70	58	51	69	58	51	67	57	51	44
1.00	78	68	61	77	67	60	75	68	60	53
1.25	85	75	69	84	75	68	81	73	67	60
1.50	90	81	74	88	80	74	86	78	73	65
2.00	97	89	83	95	88	82	92	85	80	73
2.50	100	93	88	98	92	87	95	89	85	77
3.00	104	97	92	102	96	91	98	93	89	81
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	100	97	88
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:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm		
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K CR100E DART	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



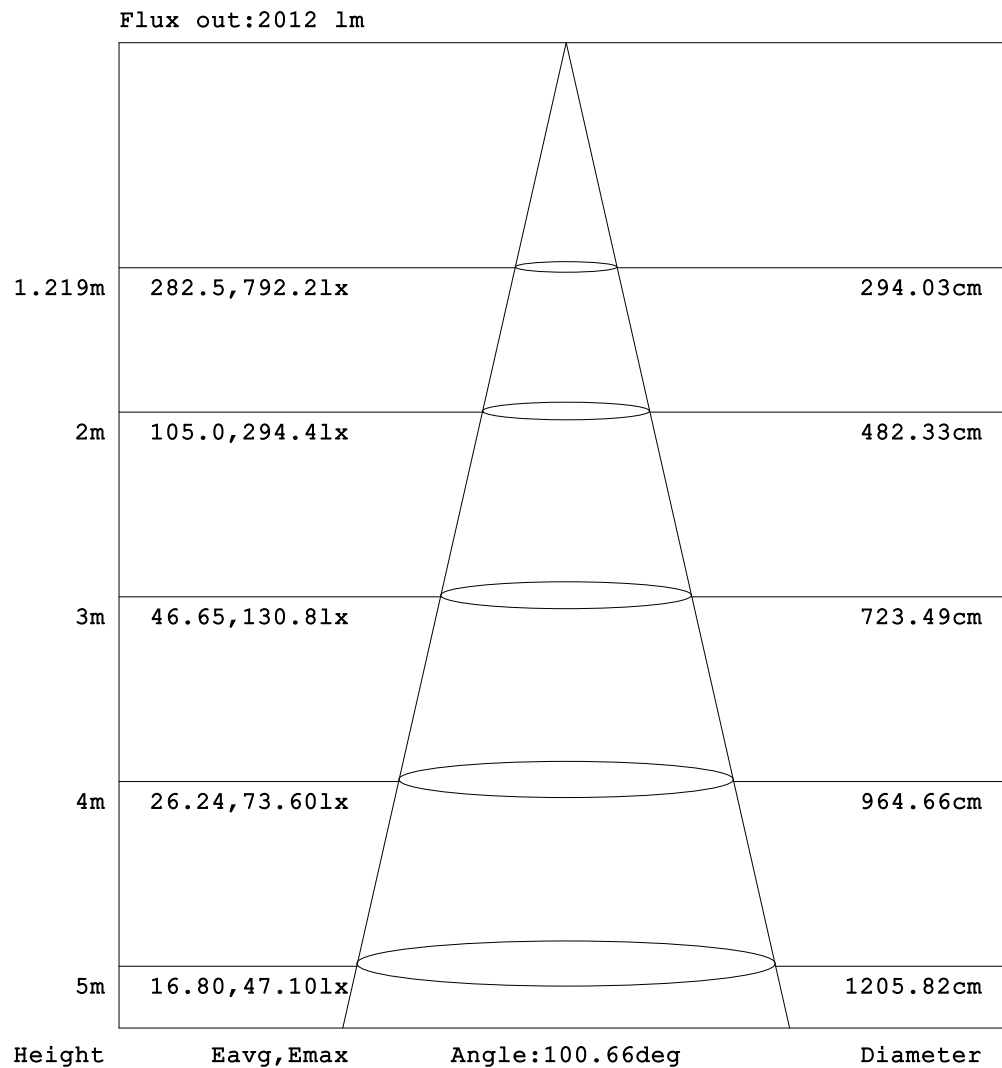
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:



**AAI Figure**

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm		
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K	CR1000 DATA	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



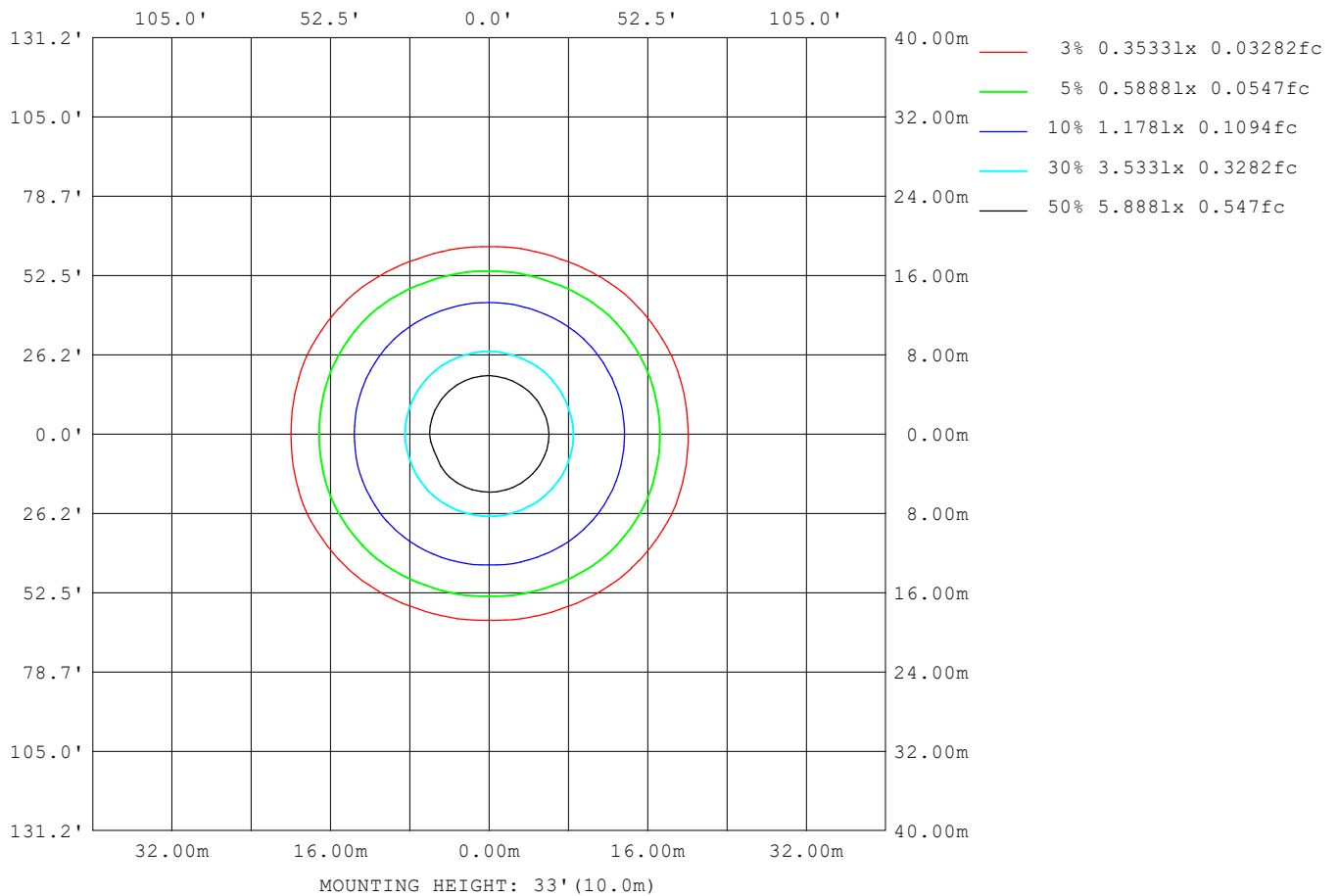
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm		
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K CR100E DART	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:HOPE  
 Test Date:07 May 2025

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:7.888m [K=1.0000]  
 Remarks:

### LED Avg.L Report

Test:U:240.0V I:0.1730A P:37.51W PF:0.9035 Lamp Flux:2932.46x1 lm		
NAME: GRAZER BLADE_1145_NA_WHT_OV_HE_500mA_4000K	CR100E DART	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

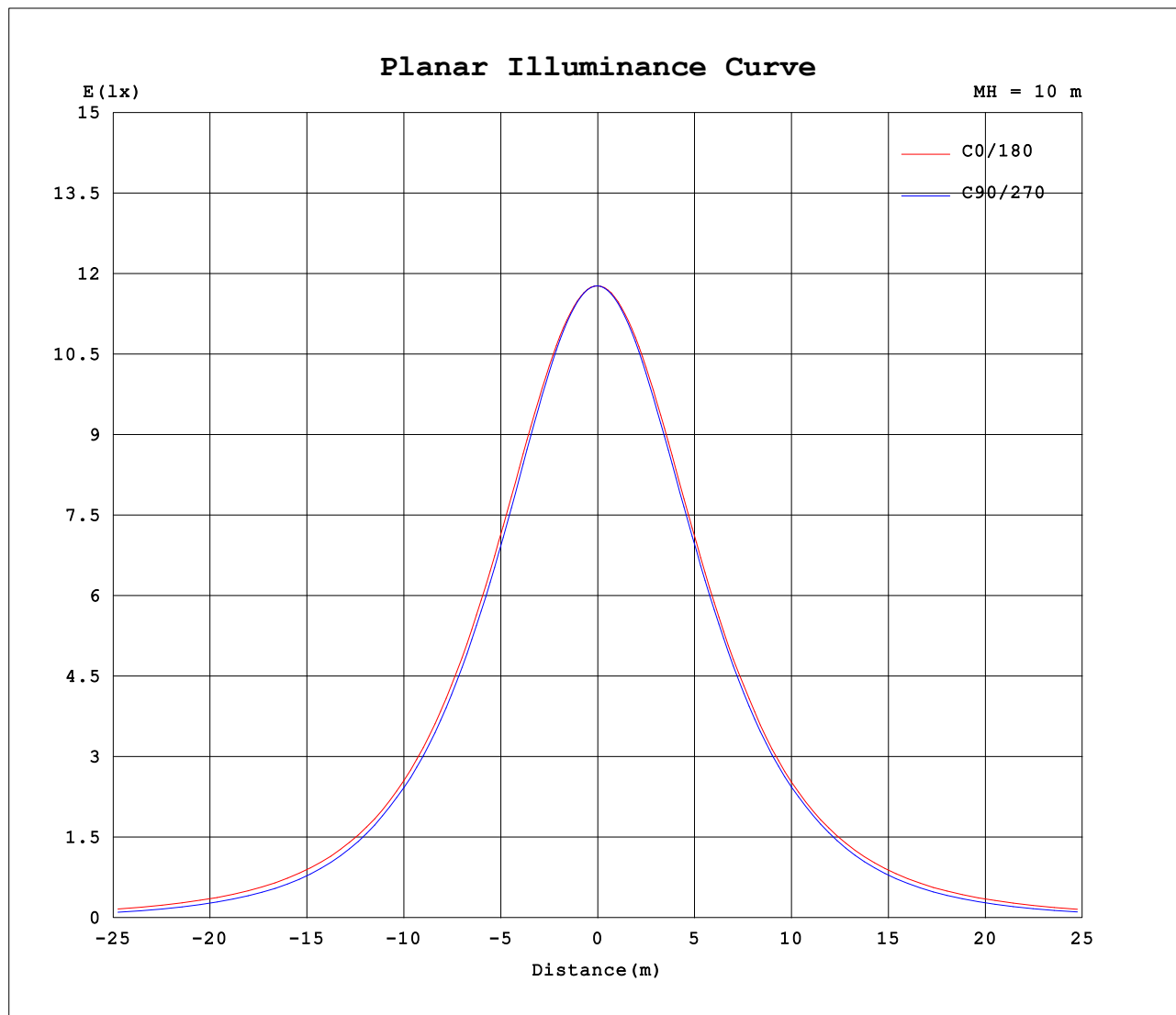
AvgL	cd/m2
L_0~180 (65) av	19352
L_0~180 (75) av	16364
L_0~180 (85) av	10209
L_90~270 (65) av	14508
L_90~270 (75) av	6794
L_90~270 (85) av	4602
L_45 (65) av	18054
L_45 (75) av	11581
L_45 (85) av	4382

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:HOPE  
Test Date:07 May 2025

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.888m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: HOPE  
Test Date: 07 May 2025

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity: 65.0%  
Test Distance: 7.888m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

```