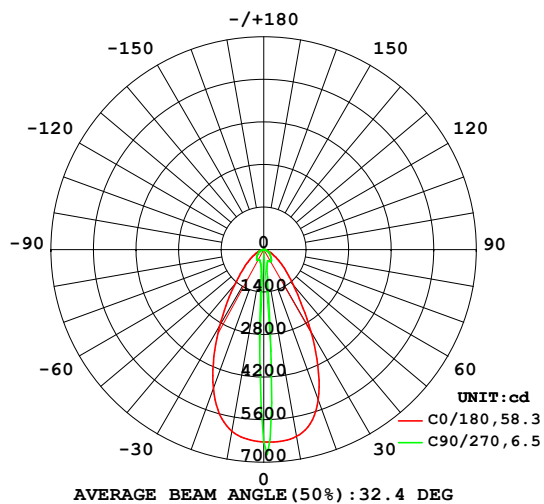


## LUMINAIRE PHOTOMETRIC TEST REPORT

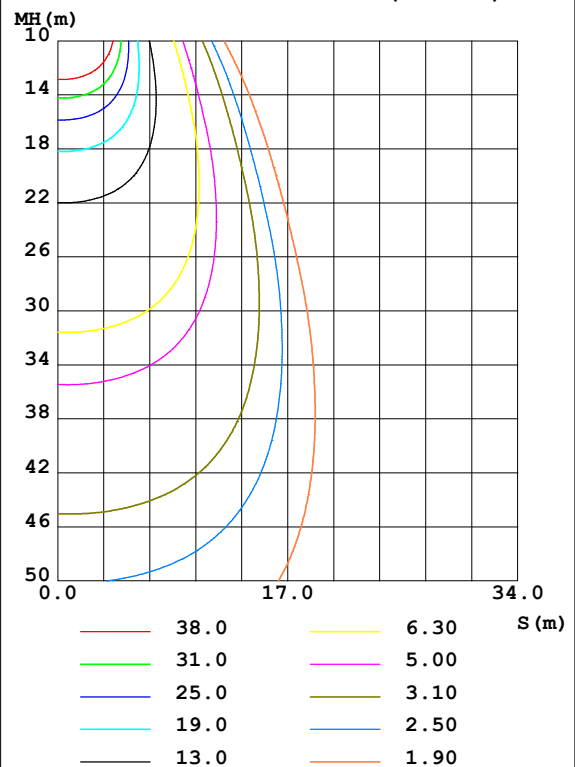
Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm		
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 93.97 lm/W			
LED 20000mm	1300lm 940 HV ADV6	Imax(cd)	6831	S/MH(C0/180)	0.88
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.09
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	2404.8	$\eta$ UP,DN(C0-180)	0.0,52.0
NOMINAL FLUX(lm)	2404.8	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,48.0
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	230	$\eta$ down(%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:20 February 2024

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.890m [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	6240	1098	643.5	1092	6069	725.8	554.2	722.6	0- 10	289.6	289.6	12,12
20	5258	474.8	399.7	479.8	4857	447.0	393.1	448.9	10- 20	385.0	674.6	28.1,28.1
30	3107	404.1	460.3	401.5	2913	381.1	411.1	383.8	20- 30	425.4	1100	45.7,45.7
40	1511	390.9	387.9	388.7	1455	355.7	369.9	357.6	30- 40	411.4	1511	62.9,62.9
50	802.8	296.4	278.3	295.5	759.7	280.4	274.9	283.6	40- 50	354.8	1866	77.6,77.6
60	400.1	203.2	191.5	202.4	375.1	198.8	193.7	202.4	50- 60	270.6	2137	88.9,88.9
70	164.0	116.8	106.3	116.0	152.7	114.7	106.5	117.6	60- 70	174.8	2312	96.1,96.1
80	40.72	35.06	28.94	34.72	37.60	36.25	31.81	37.12	70- 80	78.60	2390	99.4,99.4
90	0.8893	0.3161	0.2986	0.3328	0.5166	0.4007	0.3908	0.4179	80- 90	14.50	2405	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): 1698 lm

%lum = 70.6%

%lamp = 70.6%

Conical surface Flux(120deg): 2136.9 lm

%lum = 88.9%

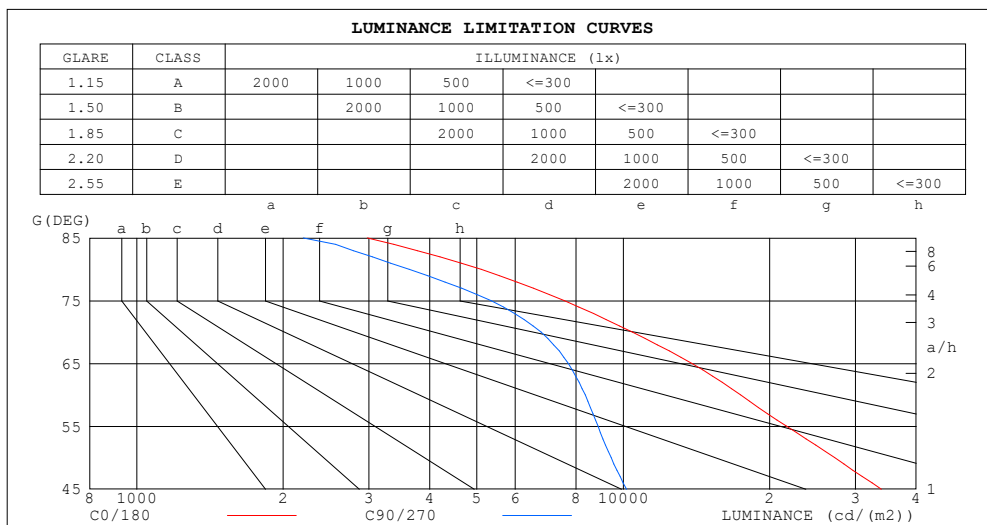
%lamp = 88.9%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:20 February 2024

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.890m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm		
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2980	2201
80	5109	3634
75	7570	5349
70	10446	6775
65	13846	7715
60	17436	8351
55	21667	8875
50	27210	9441
45	33919	10163

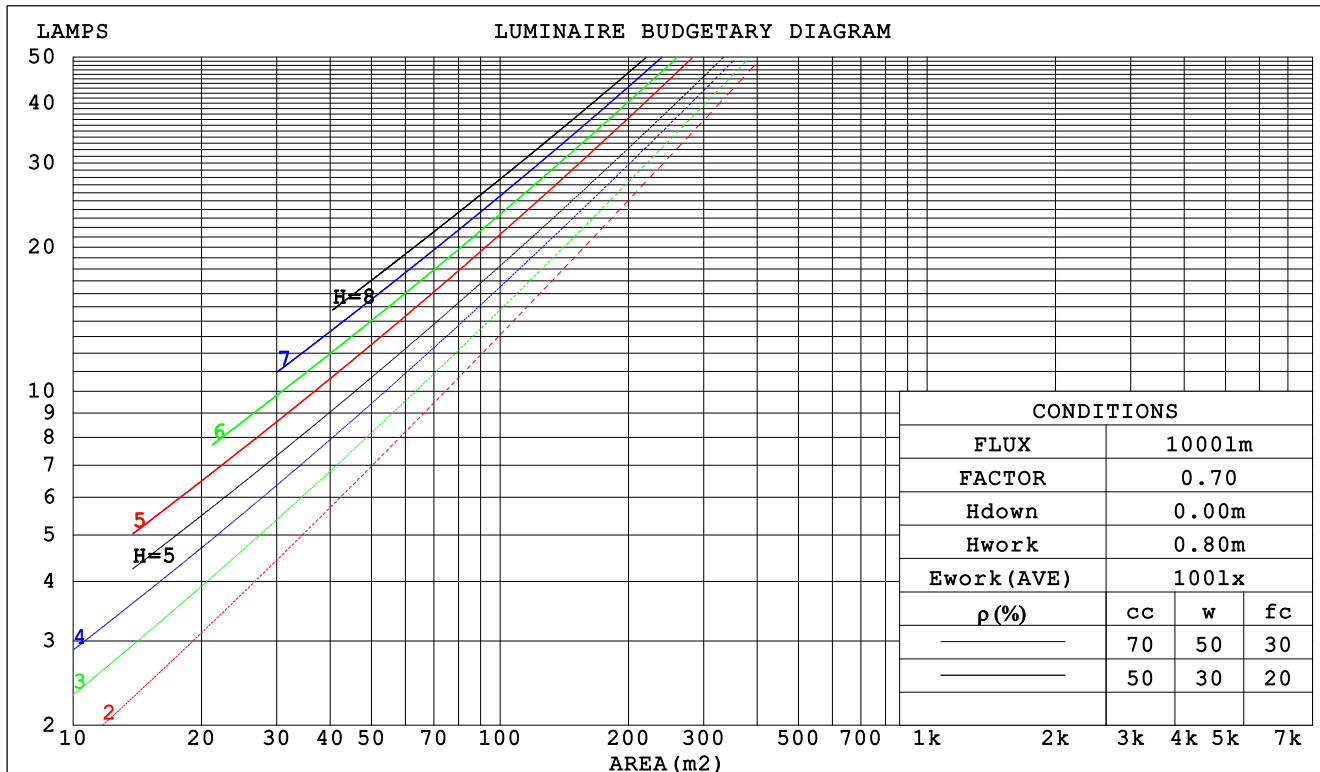
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:20 February 2024

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.890m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm		
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED		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	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
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	1.07	1.04	1.01	1.05	1.02	.99	1.01	.99	.96	.97	.95	.93	.94	.92	.91	.89
2.0	.97	.91	.87	.95	.90	.86	.91	.87	.84	.88	.85	.82	.85	.83	.80	.78
3.0	.87	.81	.75	.86	.80	.75	.83	.78	.74	.81	.76	.72	.78	.74	.71	.69
4.0	.80	.72	.67	.78	.72	.66	.76	.70	.66	.74	.69	.65	.72	.68	.64	.62
5.0	.73	.66	.60	.72	.65	.60	.70	.64	.59	.68	.63	.59	.66	.62	.58	.56
6.0	.67	.60	.54	.66	.59	.54	.65	.59	.54	.63	.58	.53	.62	.57	.53	.51
7.0	.62	.55	.50	.62	.55	.50	.60	.54	.49	.59	.53	.49	.58	.53	.49	.47
8.0	.58	.51	.46	.58	.51	.46	.56	.50	.46	.55	.50	.45	.54	.49	.45	.44
9.0	.55	.48	.43	.54	.47	.43	.53	.47	.43	.52	.46	.42	.51	.46	.42	.41
10.0	.51	.45	.40	.51	.44	.40	.50	.44	.40	.49	.44	.40	.48	.43	.40	.38



C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:JEFF

Test Date:20 February 2024

 $\gamma$  Range: 0 - 90DEG $\gamma$  Interval: 1.0DEG

Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295

Humidity:65.0%

Test Distance:7.890m [K=1.0000]

Remarks:

**WEC AND CCEC**

Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm		
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED	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	.242	.138	.044	.236	.134	.043	.223	.128	.041	.211	.122	.039	.200	.116	.037		
2.0	.232	.127	.039	.226	.125	.038	.215	.120	.037	.205	.115	.036	.195	.111	.035		
3.0	.218	.116	.035	.213	.114	.034	.203	.110	.033	.194	.106	.033	.186	.103	.032		
4.0	.204	.106	.031	.199	.104	.031	.191	.101	.030	.183	.098	.030	.176	.095	.029		
5.0	.191	.097	.028	.187	.096	.028	.179	.093	.027	.172	.091	.027	.166	.089	.027		
6.0	.179	.089	.026	.175	.088	.025	.168	.086	.025	.162	.084	.025	.156	.082	.024		
7.0	.168	.083	.023	.164	.082	.023	.159	.080	.023	.153	.078	.023	.148	.077	.023		
8.0	.158	.077	.022	.155	.076	.022	.150	.075	.021	.145	.073	.021	.140	.072	.021		
9.0	.149	.072	.020	.146	.071	.020	.142	.070	.020	.137	.069	.020	.133	.067	.019		
10.0	.141	.067	.019	.138	.067	.019	.134	.066	.019	.130	.065	.018	.126	.064	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.176	.157	.140	.150	.135	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.164	.132	.105	.141	.114	.091	.096	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.082	.132	.098	.071	.091	.068	.050	.053	.040	.029	.017	.013	.010	
4.0	.146	.100	.065	.125	.086	.057	.086	.060	.040	.050	.035	.024	.016	.011	.008	
5.0	.138	.089	.053	.118	.077	.046	.081	.054	.033	.047	.032	.019	.015	.010	.006	
6.0	.130	.080	.044	.112	.069	.038	.077	.049	.027	.045	.029	.016	.014	.009	.005	
7.0	.124	.073	.037	.106	.063	.033	.073	.044	.023	.043	.026	.014	.014	.009	.005	
8.0	.117	.067	.032	.101	.058	.028	.070	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.112	.062	.028	.096	.054	.025	.067	.038	.017	.039	.022	.010	.013	.007	.003	
10.0	.106	.057	.025	.092	.050	.022	.064	.035	.015	.037	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:20 February 2024

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.890m [K=1.0000]  
Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm										
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED								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	22.7	23.9	22.9	24.1	24.3	18.5	19.8	18.8	20.0	20.2
3H	23.4	24.6	23.7	24.8	25.0	19.7	20.9	20.0	21.1	21.3
4H	23.6	24.7	23.9	25.0	25.2	20.1	21.2	20.4	21.4	21.7
6H	23.7	24.7	24.0	25.0	25.3	20.2	21.3	20.6	21.5	21.8
8H	23.7	24.7	24.0	25.0	25.2	20.2	21.2	20.6	21.5	21.8
12H	23.7	24.6	24.0	24.9	25.2	20.2	21.2	20.6	21.5	21.8
4H 2H	22.7	23.8	23.0	24.0	24.3	19.2	20.3	19.5	20.6	20.8
3H	23.6	24.6	24.0	24.9	25.1	20.5	21.5	20.9	21.8	22.1
4H	23.9	24.8	24.3	25.1	25.4	21.0	21.9	21.3	22.2	22.5
6H	24.1	24.8	24.4	25.2	25.5	21.2	22.0	21.6	22.3	22.7
8H	24.1	24.8	24.5	25.1	25.5	21.2	21.9	21.6	22.3	22.7
12H	24.1	24.7	24.5	25.1	25.5	21.2	21.9	21.6	22.2	22.6
8H 4H	23.9	24.6	24.3	25.0	25.4	21.2	21.9	21.6	22.3	22.6
6H	24.1	24.7	24.6	25.1	25.5	21.5	22.1	21.9	22.5	22.9
8H	24.2	24.7	24.6	25.1	25.5	21.5	22.0	22.0	22.5	22.9
12H	24.2	24.6	24.6	25.1	25.5	21.6	22.0	22.0	22.4	22.9
12H 4H	23.9	24.5	24.3	24.9	25.3	21.2	21.8	21.6	22.2	22.6
6H	24.1	24.6	24.5	25.0	25.5	21.5	22.0	21.9	22.4	22.9
8H	24.1	24.6	24.6	25.0	25.5	21.6	22.0	22.0	22.4	22.9
Variations with the observer position at spacings:										
S = 1.0H	+ 1.8 / - 0.7					+ 0.3 / - 0.4				
1.5H	+ 2.9 / - 1.7					+ 0.1 / - 0.2				
2.0H	+ 3.3 / - 2.2					+ 0.3 / - 0.4				

CIE Pub.117 Corrected 2405 lm Total Lamp Luminous Flux. (8log(F/F0) = 3.0)

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:20 February 2024

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.890m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm		
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

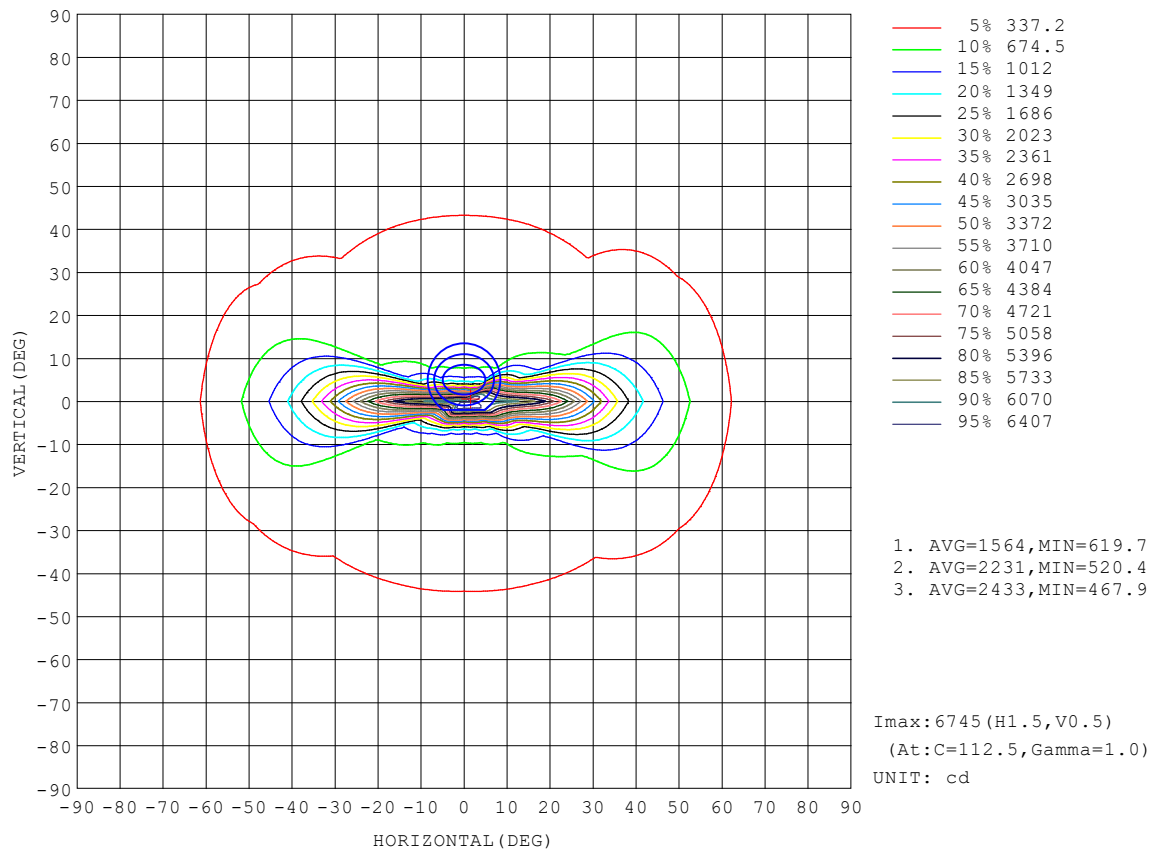
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	59	53	68	58	53	67	58	53	47
0.80	78	68	62	77	68	62	75	67	62	56
1.00	85	76	70	84	76	70	82	76	69	64
1.25	91	83	77	90	82	77	88	81	76	70
1.50	95	88	82	94	87	82	91	85	81	74
2.00	101	94	89	99	93	88	96	91	87	80
2.50	104	98	93	102	96	92	98	94	90	83
3.00	106	101	97	104	100	96	101	97	93	86
4.00	110	105	102	107	103	100	103	100	97	89
5.00	111	108	105	109	106	103	105	102	100	91
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:JEFF  
Test Date:20 February 2024

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.890m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm		
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



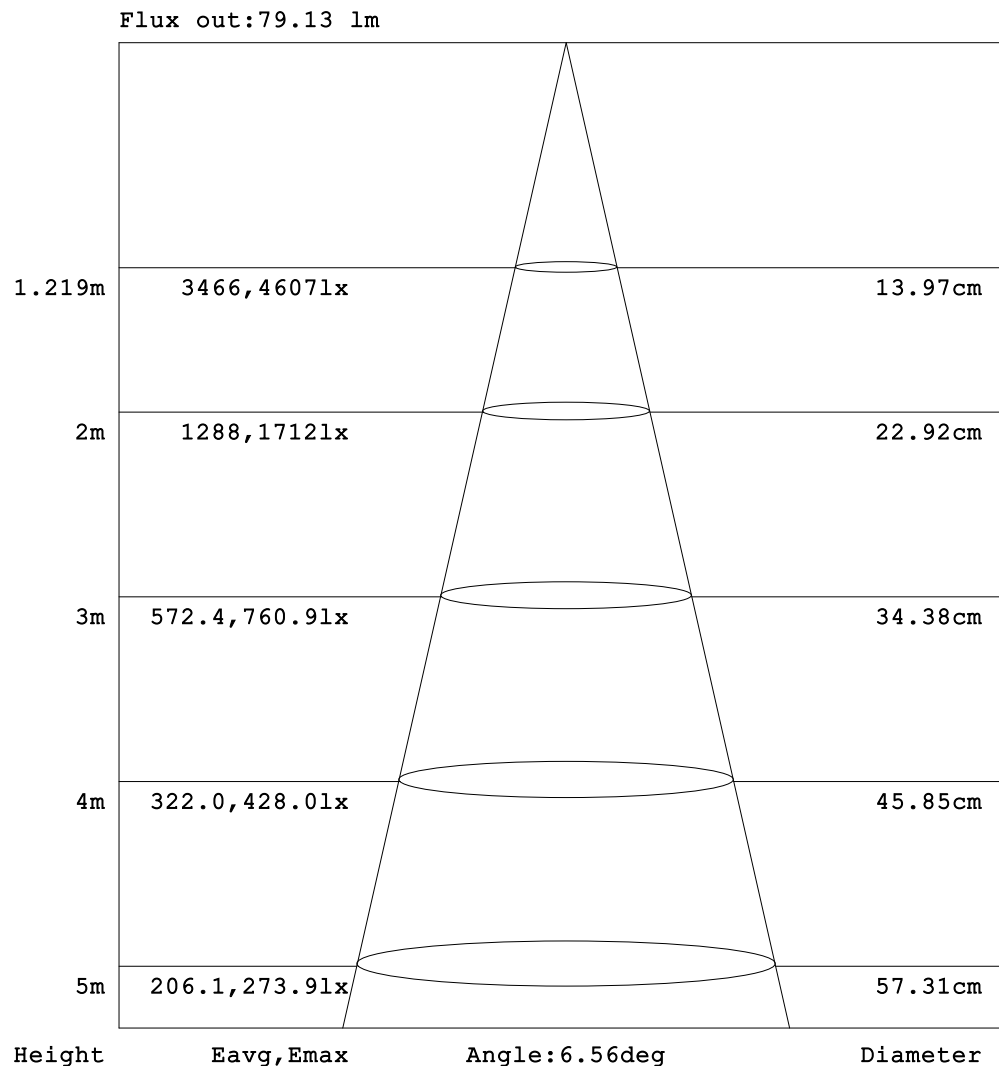
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:20 February 2024

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.890m [K=1.0000]  
Remarks:



**AAI Figure**

Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm		
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



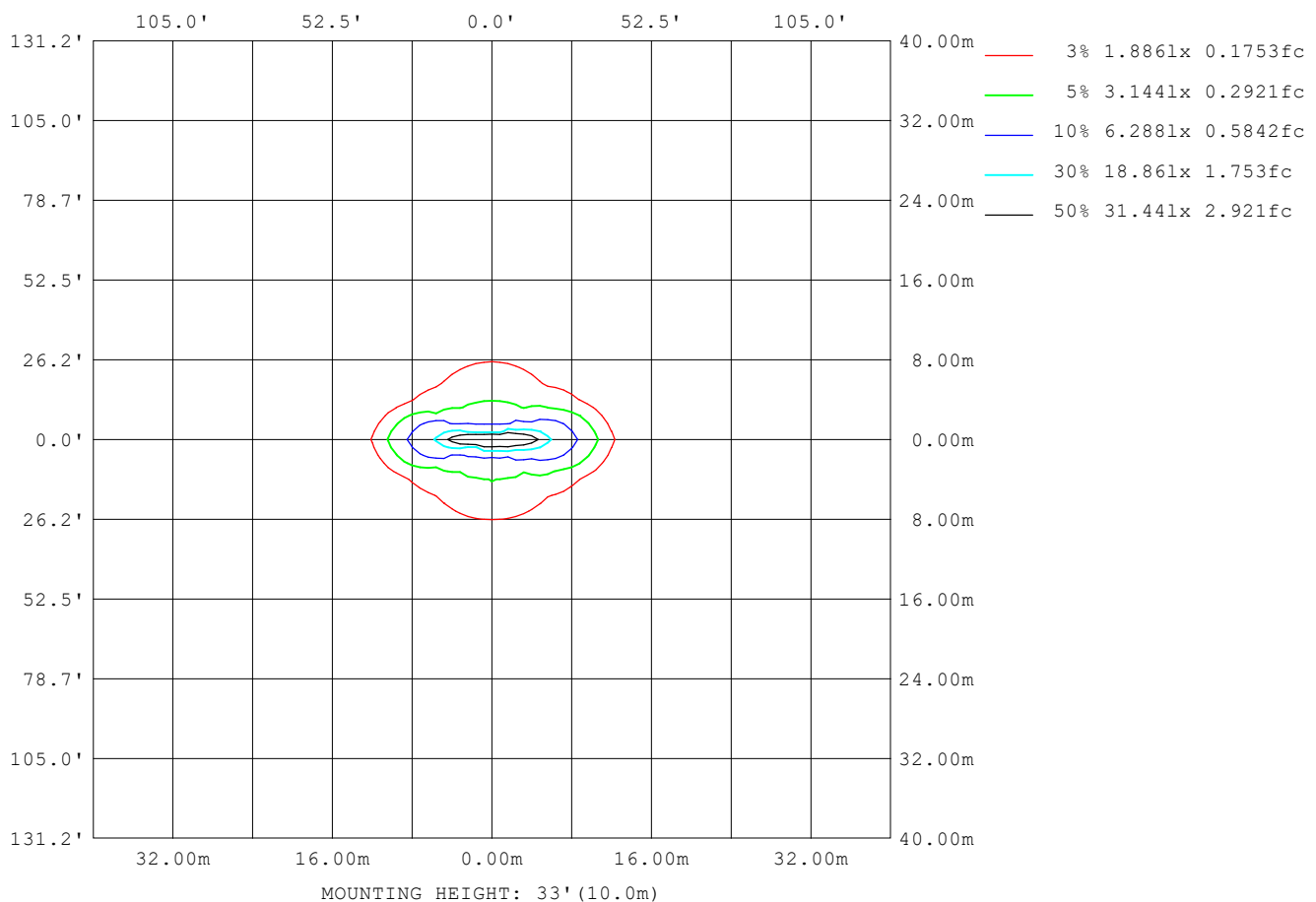
**Note:**The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JEFF  
Test Date: 20 February 2024

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity: 65.0%  
Test Distance: 7.890m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm		
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED	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:JEFF  
Test Date:20 February 2024

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.890m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:239.8V I:0.1149A P:25.59W PF:0.9284 Lamp Flux:2404.8x1 lm		
NAME: SLIM C_1160_NA_WHT_NARROW_HE_500mA_4000K CRI90TYPE:LED	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

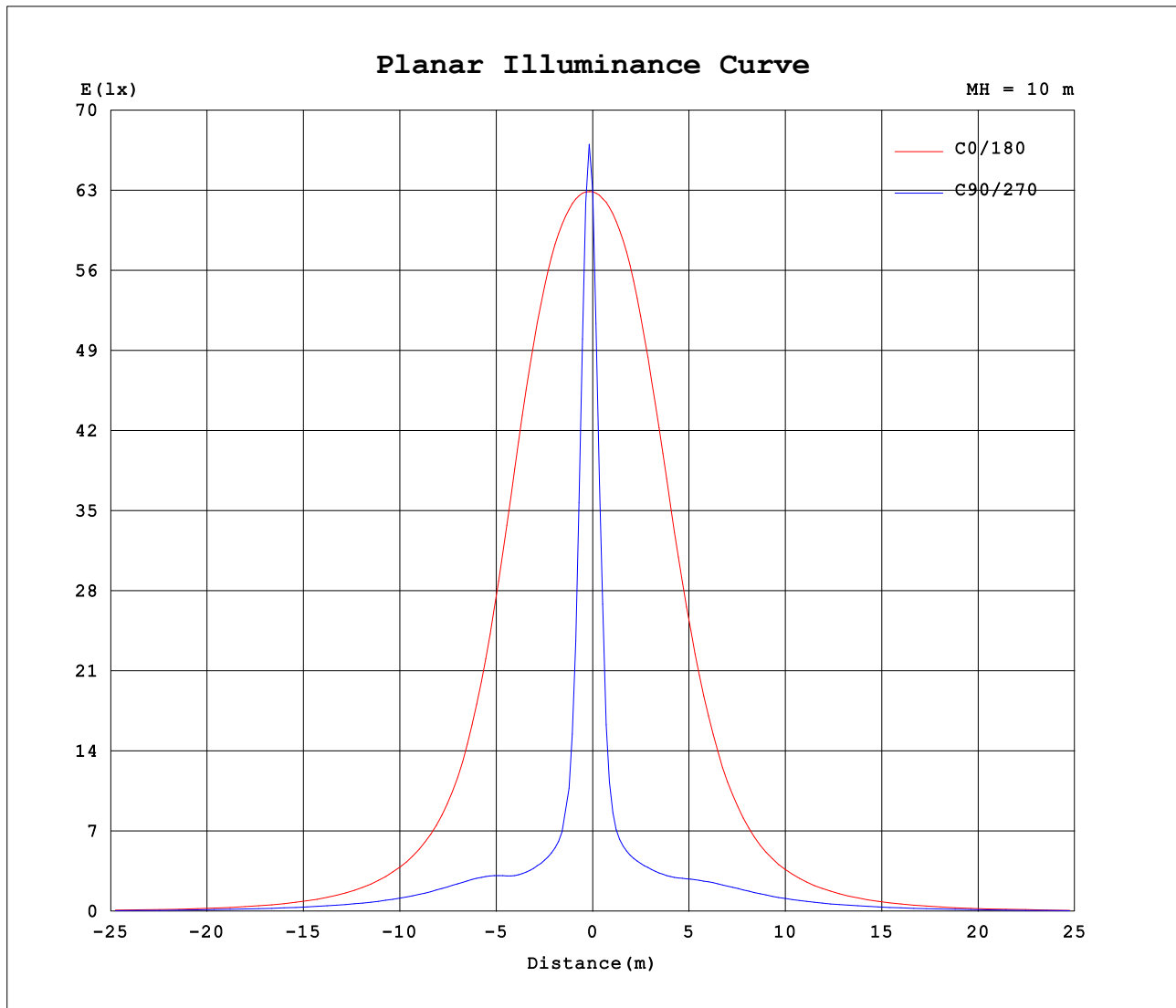
AvgL	cd/m2
L_0~180 (65) av	13470
L_0~180 (75) av	7352
L_0~180 (85) av	2845
L_90~270 (65) av	7762
L_90~270 (75) av	5455
L_90~270 (85) av	2582
L_45 (65) av	8292
L_45 (75) av	6191
L_45 (85) av	2947

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JEFF  
Test Date:20 February 2024

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity:65.0%  
Test Distance:7.890m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JEFF  
Test Date: 20 February 2024

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
Humidity: 65.0%  
Test Distance: 7.890m [K=1.0000]  
Remarks:

