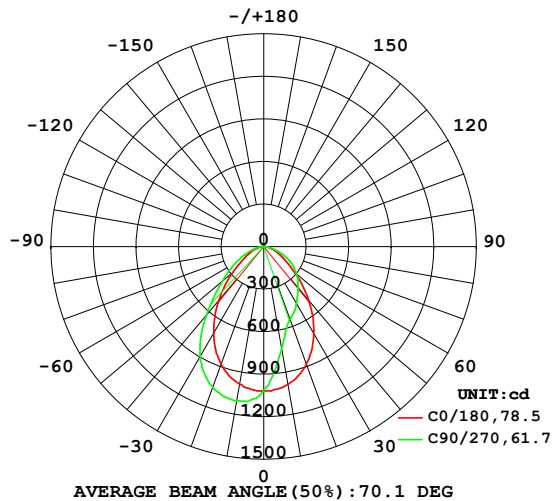


LUMINAIRE PHOTOMETRIC TEST REPORT

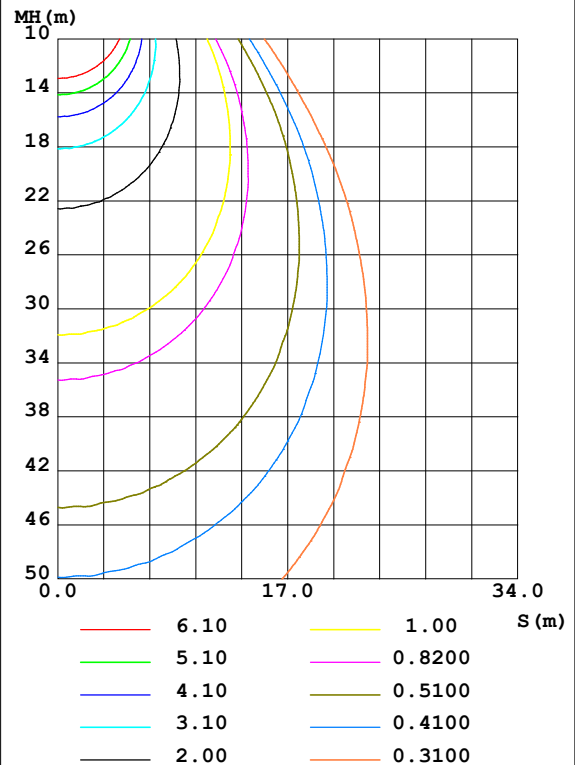
Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm		
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 86.01 lm/W			
LLE 24x560mm I2200lm 927-965 LV PRE3		Imax(cd)	1106	S/MH(C0/180)	1.07
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1987.7	η UP,DN(C0-180)	0.0,39.4
NOMINAL FLUX(lm)	1987.69	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,60.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.10

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 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [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	988.4	796.9	730.4	795.3	985.0	1090	1105	1099	0- 10	93.66	93.66	4.71,4.71
20	882.5	581.1	546.2	582.5	882.3	1056	1056	1069	10- 20	250.5	344.1	17.3,17.3
30	707.9	496.0	464.0	499.3	707.2	950.4	897.4	968.9	20- 30	355.6	699.8	35.2,35.2
40	493.0	411.3	378.7	416.3	492.0	766.3	625.9	786.4	30- 40	394.7	1094	55.1,55.1
50	288.4	307.3	301.7	310.9	286.2	527.2	384.2	545.3	40- 50	358.1	1453	73.1,73.1
60	153.9	205.4	218.5	207.3	150.7	300.7	226.9	312.6	50- 60	271.0	1724	86.7,86.7
70	83.38	108.2	117.2	108.9	81.19	140.4	115.0	146.6	60- 70	170.4	1894	95.3,95.3
80	28.66	33.07	36.43	33.20	27.19	40.77	39.28	42.47	70- 80	77.09	1971	99.2,99.2
90	0.5494	0.3519	0.2859	0.3644	0.3347	0.4099	0.4416	0.4785	80- 90	16.64	1988	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): 1282.2 lm

%lum = 64.5%

%lamp = 64.5%

Conical surface Flux(120deg): 1723.6 lm

%lum = 86.7%

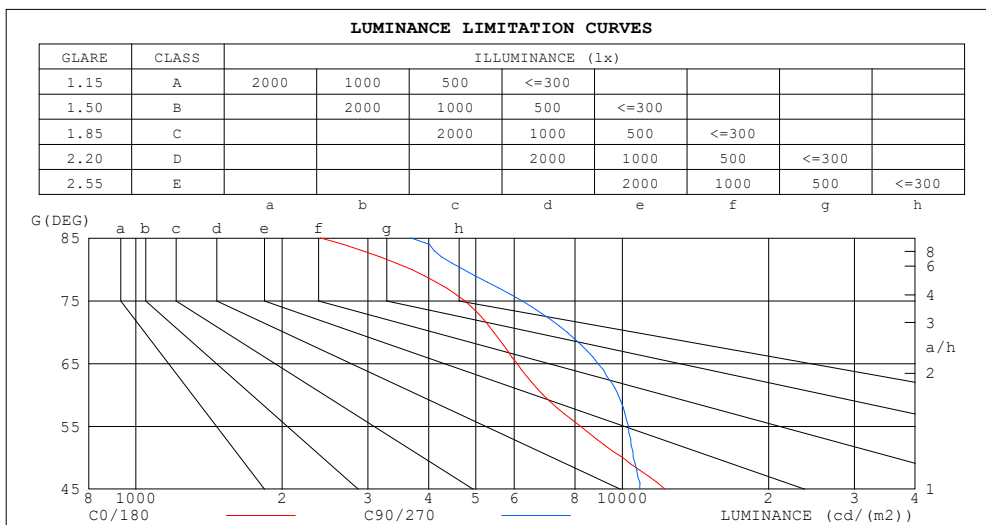
%lamp = 86.7%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JEFF
 Test Date:20 January 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:7.995m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm		
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2399	3677
80	3686	4710
75	4739	6215
70	5445	7696
65	6075	8909
60	6874	9813
55	8205	10294
50	10020	10539
45	12246	10859

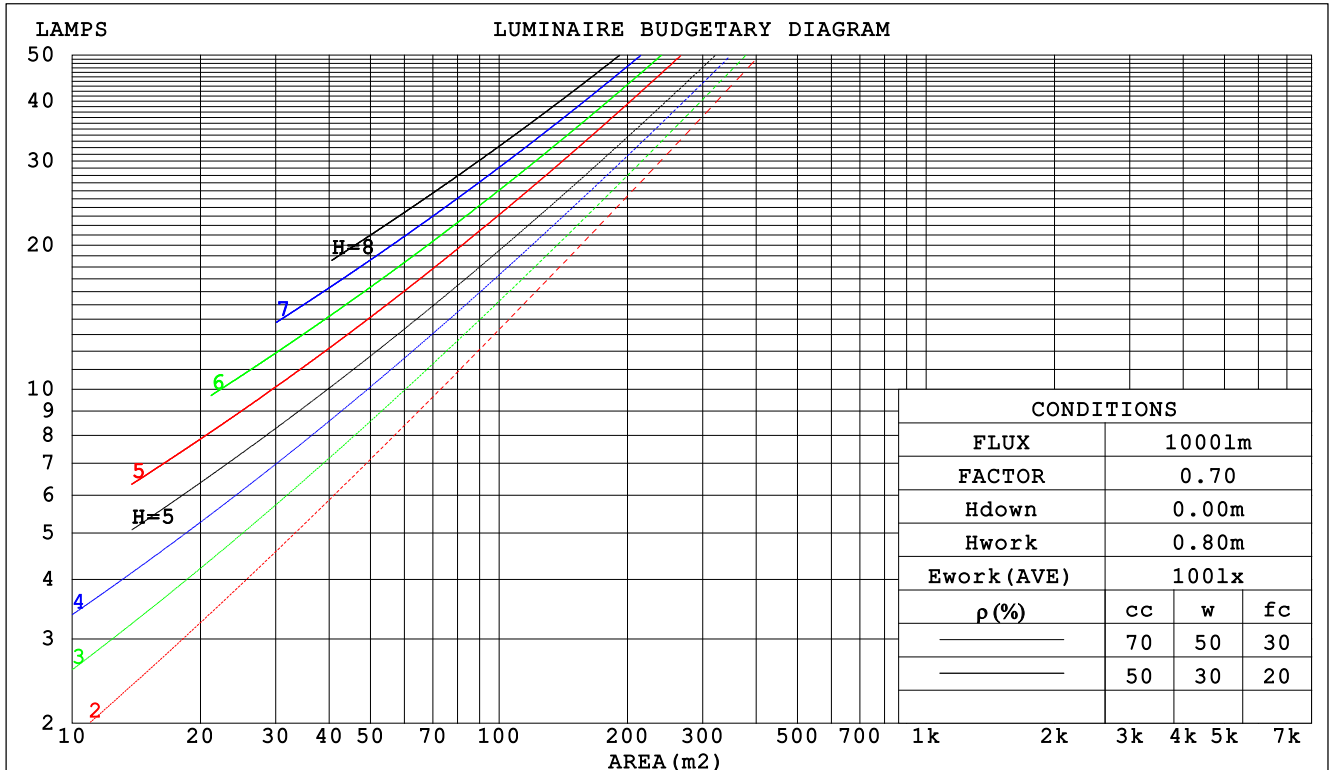
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 20 January 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.995m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm		
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{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	.00
1.0	1.06	1.02	.99	1.04	1.01	.97	.90	.97	.94	.96	.94	.92	.92	.91	.89	.87
2.0	.94	.88	.83	.92	.87	.82	.89	.84	.80	.86	.82	.78	.83	.80	.77	.75
3.0	.84	.77	.71	.82	.76	.70	.80	.74	.69	.77	.72	.68	.74	.70	.67	.65
4.0	.75	.67	.61	.74	.67	.61	.72	.65	.60	.69	.64	.59	.67	.62	.58	.56
5.0	.68	.60	.54	.67	.59	.53	.65	.58	.53	.63	.57	.52	.61	.56	.52	.50
6.0	.62	.53	.48	.61	.53	.47	.59	.52	.47	.57	.51	.47	.56	.50	.46	.44
7.0	.56	.48	.42	.56	.48	.42	.54	.47	.42	.53	.46	.42	.51	.46	.41	.40
8.0	.52	.44	.38	.51	.44	.38	.50	.43	.38	.49	.42	.38	.48	.42	.38	.36
9.0	.48	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.34	.44	.38	.34	.33
10.0	.44	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.32	.41	.35	.31	.30



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 January 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm		
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K	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	.267	.152	.048	.260	.148	.047	.247	.141	.045	.235	.135	.043	.223	.130	.042		
2.0	.256	.140	.043	.250	.138	.042	.238	.133	.041	.228	.128	.040	.218	.123	.039		
3.0	.241	.128	.038	.235	.126	.038	.225	.122	.037	.216	.118	.036	.207	.115	.036		
4.0	.225	.117	.034	.220	.115	.034	.211	.112	.033	.203	.109	.033	.196	.106	.032		
5.0	.210	.107	.031	.206	.106	.031	.198	.103	.030	.191	.101	.030	.184	.098	.030		
6.0	.197	.099	.028	.193	.097	.028	.186	.095	.028	.180	.093	.027	.173	.091	.027		
7.0	.184	.091	.026	.181	.090	.026	.175	.088	.025	.169	.087	.025	.164	.085	.025		
8.0	.173	.085	.024	.170	.084	.024	.165	.082	.024	.160	.081	.023	.155	.079	.023		
9.0	.163	.079	.022	.161	.078	.022	.156	.077	.022	.151	.076	.022	.147	.074	.022		
10.0	.154	.074	.021	.152	.073	.020	.147	.072	.020	.143	.071	.020	.139	.070	.020		

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	.177	.157	.138	.152	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.102	.143	.114	.088	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.078	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.151	.100	.062	.129	.087	.054	.089	.060	.038	.052	.035	.022	.017	.012	.007	
5.0	.143	.090	.050	.123	.078	.044	.085	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.137	.081	.042	.117	.070	.036	.081	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.130	.074	.035	.112	.064	.031	.077	.045	.022	.045	.027	.013	.015	.009	.004	
8.0	.124	.068	.030	.107	.059	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.063	.026	.102	.055	.023	.071	.039	.016	.041	.023	.010	.013	.007	.003	
10.0	.113	.059	.023	.097	.051	.020	.067	.036	.015	.039	.021	.009	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm										
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K								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	19.3	20.7	19.6	20.9	21.1	19.7	21.1	20.0	21.3	21.5
3H	20.2	21.5	20.5	21.7	21.9	21.0	22.2	21.3	22.5	22.7
4H	20.5	21.7	20.8	21.9	22.2	21.3	22.6	21.7	22.8	23.0
6H	20.6	21.8	21.0	22.0	22.3	21.5	22.7	21.9	22.9	23.2
8H	20.7	21.8	21.0	22.0	22.3	21.6	22.7	21.9	22.9	23.2
12H	20.6	21.7	21.0	22.0	22.3	21.6	22.6	21.9	22.9	23.2
4H 2H	19.9	21.1	20.2	21.3	21.6	20.2	21.4	20.5	21.7	21.9
3H	21.0	22.0	21.3	22.3	22.6	21.6	22.6	21.9	22.9	23.2
4H	21.4	22.3	21.7	22.6	23.0	22.1	23.0	22.4	23.3	23.7
6H	21.6	22.4	22.0	22.8	23.1	22.3	23.2	22.7	23.5	23.9
8H	21.6	22.4	22.0	22.8	23.2	22.4	23.2	22.8	23.6	23.9
12H	21.6	22.4	22.1	22.7	23.1	22.5	23.2	22.9	23.6	24.0
8H 4H	21.5	22.3	21.9	22.7	23.1	22.2	23.0	22.6	23.3	23.7
6H	21.8	22.5	22.3	22.9	23.3	22.5	23.2	23.0	23.6	24.0
8H	21.9	22.5	22.4	22.9	23.4	22.7	23.2	23.1	23.7	24.1
12H	22.0	22.5	22.5	22.9	23.4	22.8	23.3	23.2	23.7	24.2
12H 4H	21.5	22.2	21.9	22.6	23.0	22.2	22.9	22.6	23.3	23.7
6H	21.9	22.4	22.3	22.9	23.3	22.5	23.1	23.0	23.5	24.0
8H	22.0	22.5	22.4	22.9	23.4	22.7	23.2	23.2	23.6	24.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.5					+ 0.2 / - 0.3				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.4				
2.0H	+ 0.4 / - 1.2					+ 0.3 / - 0.3				

CIE Pub.117 Corrected 1988 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.4)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm		
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

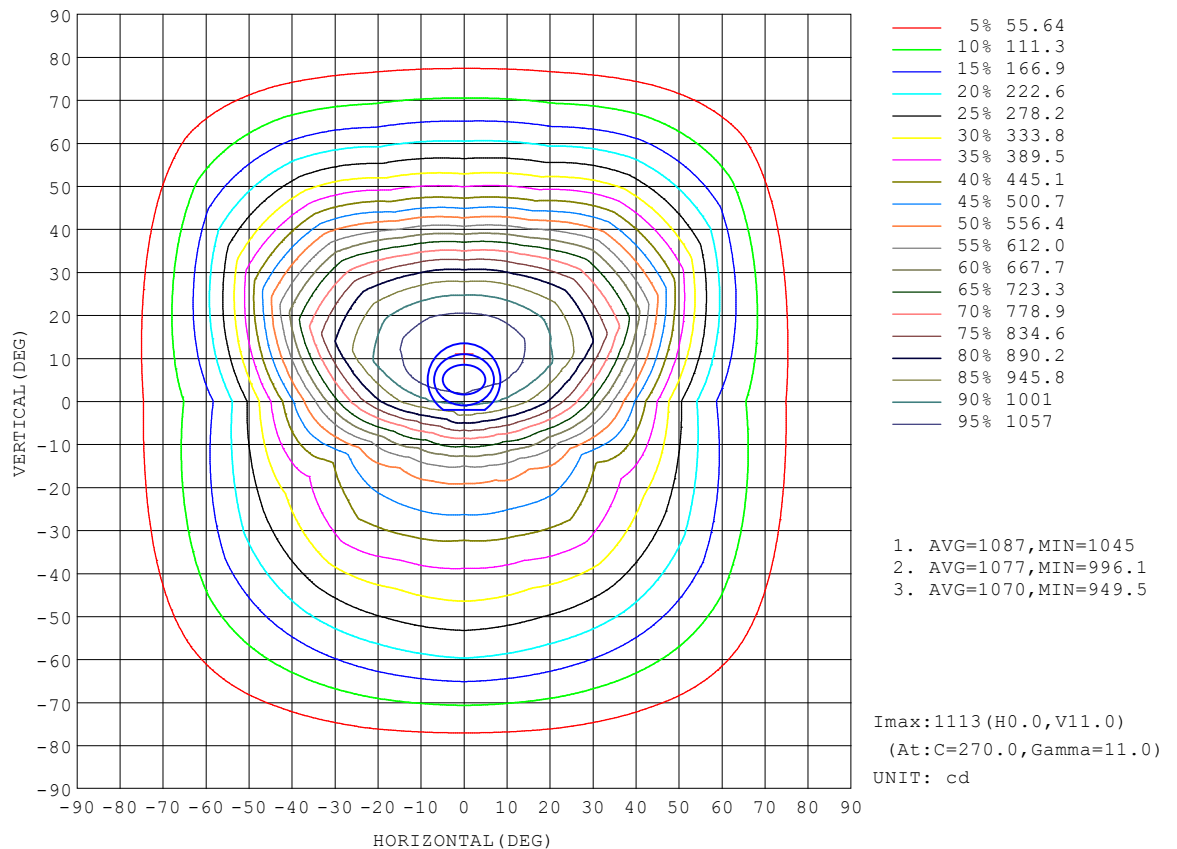
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	63	53	47	63	53	46	62	52	46	40
0.80	73	63	57	73	63	56	71	62	56	50
1.00	82	72	65	80	71	65	78	72	65	58
1.25	88	79	73	87	78	72	84	77	72	65
1.50	93	84	78	91	83	78	88	82	77	70
2.00	99	92	86	97	90	85	94	88	84	77
2.50	102	95	90	100	94	89	97	92	88	80
3.00	105	99	94	103	98	93	99	95	91	83
4.00	108	104	100	106	102	98	102	99	96	87
5.00	110	106	103	108	104	101	104	101	98	90
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 January 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.995m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm		
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

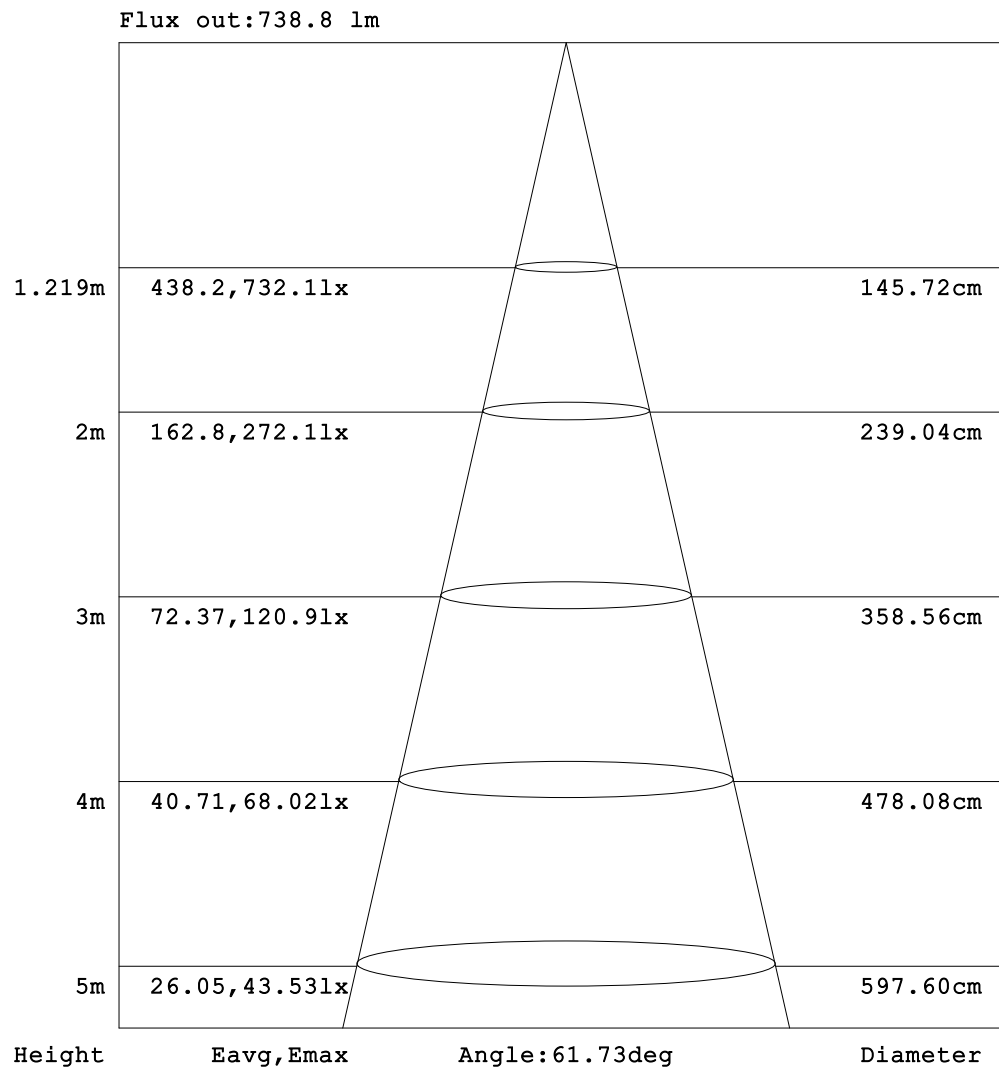


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm		
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



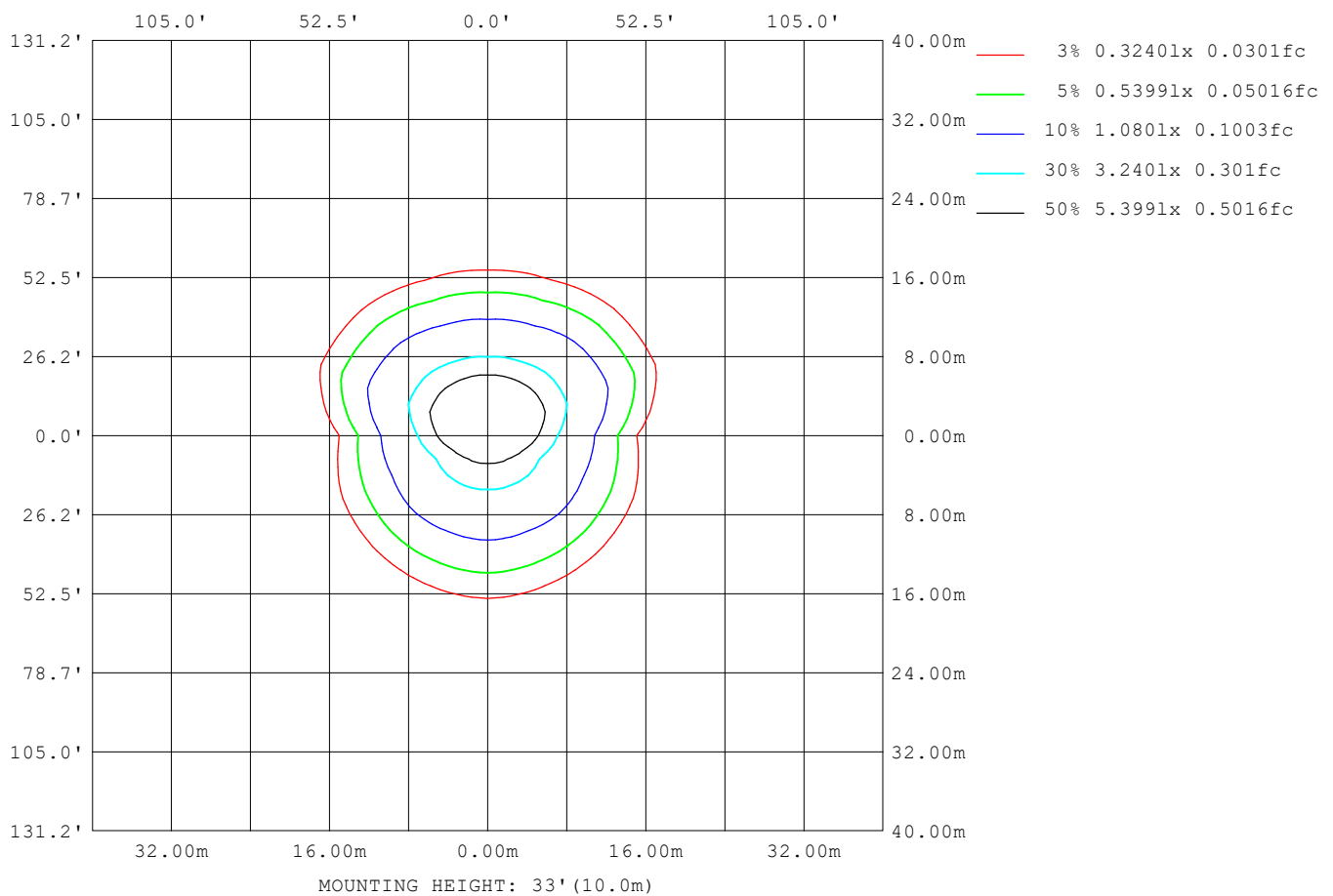
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 20 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.995m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm		
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K		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 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:240.0V I:0.1091A P:23.11W PF:0.8829 Lamp Flux:1987.69x1 lm		
NAME: SLIM C_1160_NA_WHT_ASY_HE_150mA_TUNABLE WHITE @ 4000K		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

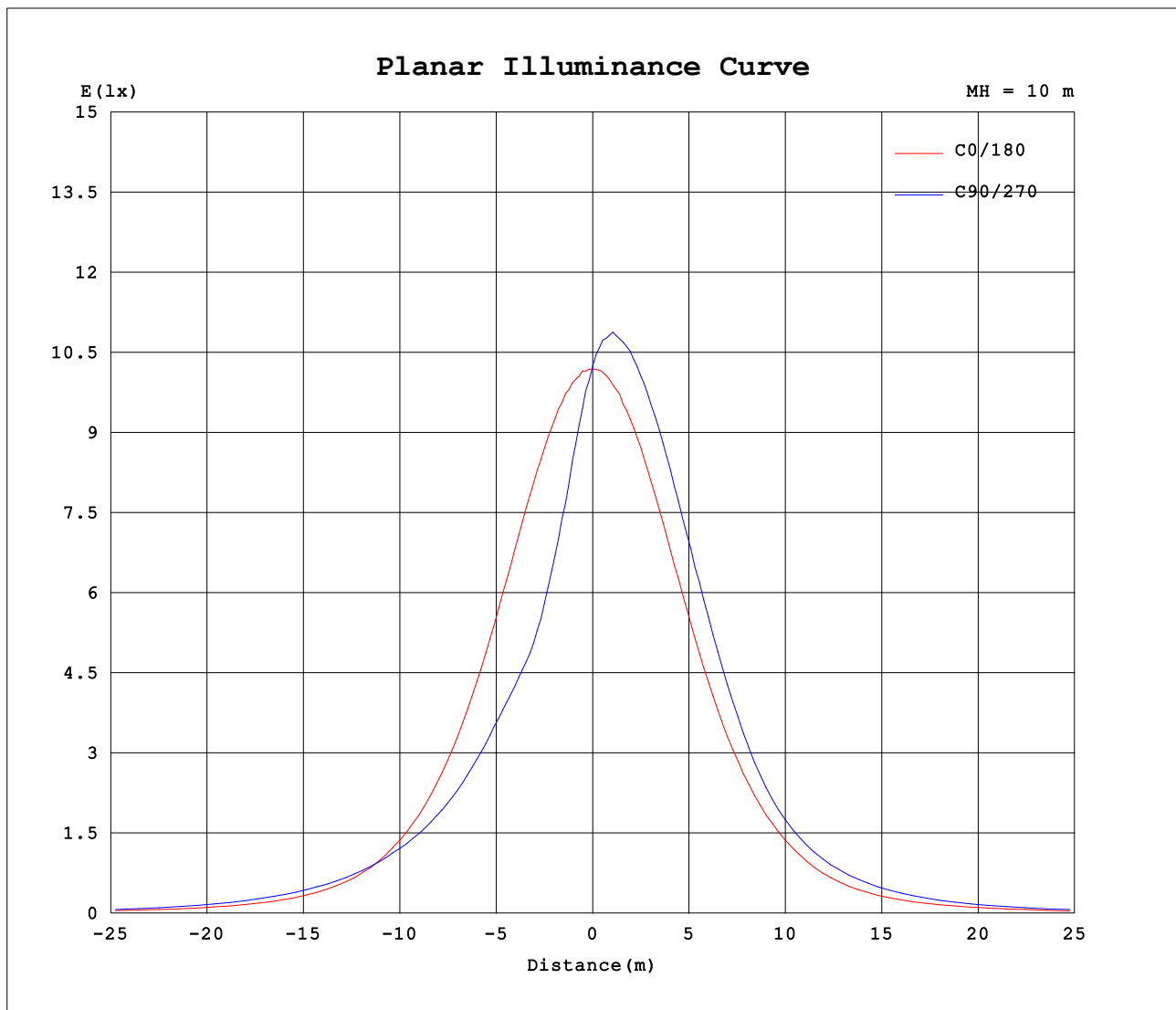
AvgL	cd/m2
L_0~180 (65) av	6002
L_0~180 (75) av	4651
L_0~180 (85) av	2284
L_90~270 (65) av	8841
L_90~270 (75) av	6195
L_90~270 (85) av	4071
L_45 (65) av	9865
L_45 (75) av	6465
L_45 (85) av	3822

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 January 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.995m [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 January 2023

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.995m [K=1.0000]
Remarks:

