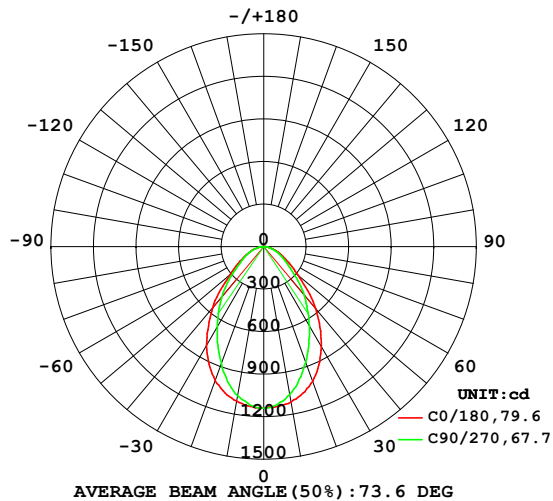


LUMINAIRE PHOTOMETRIC TEST REPORT

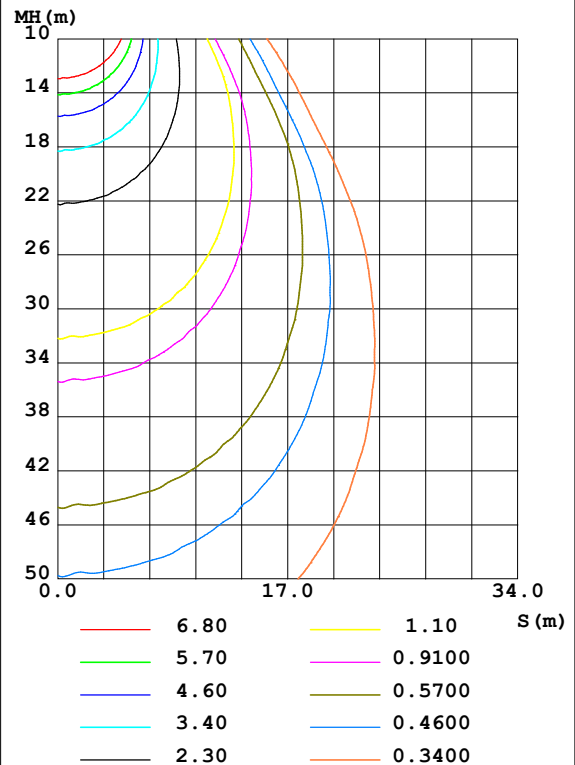
Test:U:240.0V I:0.1091A P:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm		
NAME: SLIM C_1160_NA_WHT_C-DG_HE_150mA_TUNABLE WHITE @ 4000K		WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 80.47 lm/W			
MODEL: LLE 24x560mm E122001m 927-965 LV PRE3		Imax(cd)	1146	S/MH(C0/180)	1.09
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.94
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	1858.8	η UP,DN(C0-180)	0.0,49.5
NOMINAL FLUX(lm)	1858.83	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.5
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	1114	1086	1060	1083	1105	1085	1067	1081	0- 10	106.1	106.1	5.71,5.71
20	1011	926.8	869.1	920.2	1005	934.6	876.9	937.9	10- 20	285.7	391.9	21.1,21.1
30	814.9	711.9	646.4	705.2	807.6	718.5	658.5	723.4	20- 30	381.5	773.4	41.6,41.6
40	569.4	497.9	443.5	491.5	560.6	504.7	457.7	506.9	30- 40	380.8	1154	62.1,62.1
50	315.5	282.8	252.5	278.8	311.8	294.5	273.9	298.5	40- 50	302.2	1456	78.3,78.3
60	178.3	158.1	152.9	157.9	177.0	165.0	164.2	166.0	50- 60	197.1	1653	89,89
70	98.07	88.85	84.58	89.35	96.30	93.22	94.51	93.24	60- 70	125.4	1779	95.7,95.7
80	33.44	29.95	29.55	30.65	32.42	34.17	36.52	33.82	70- 80	64.82	1844	99.2,99.2
90	0.4553	0.2516	0.2361	0.2550	0.3096	0.2963	0.3269	0.3533	80- 90	15.16	1859	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): 1320.3 lm

%lum = 71.0%

%lamp = 71.0%

Conical surface Flux(120deg): 1653.5 lm

%lum = 89.0%

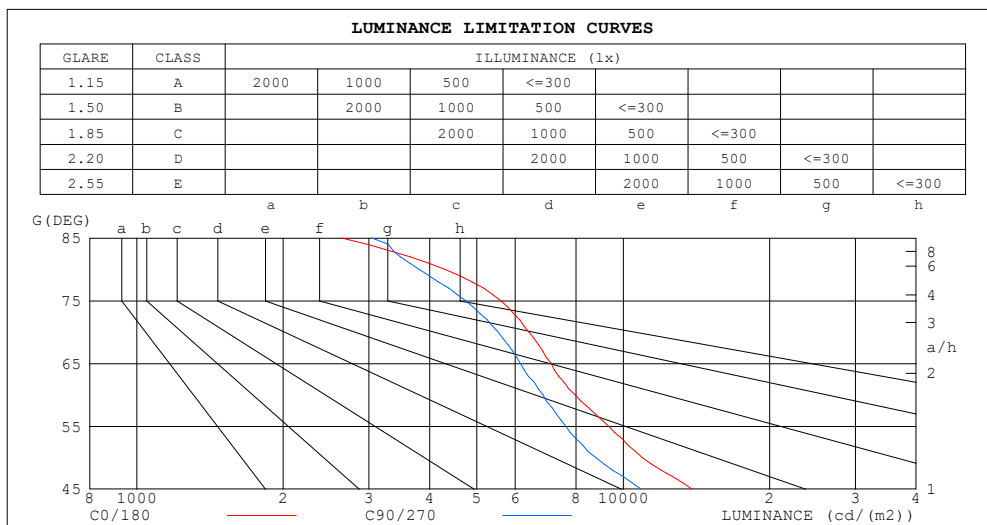
%lamp = 89.0%

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:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm		
NAME: SLIM C_1160_NA_WHT_C-DG_HE_150mA_TUNABLE WHITE @ 4000K	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



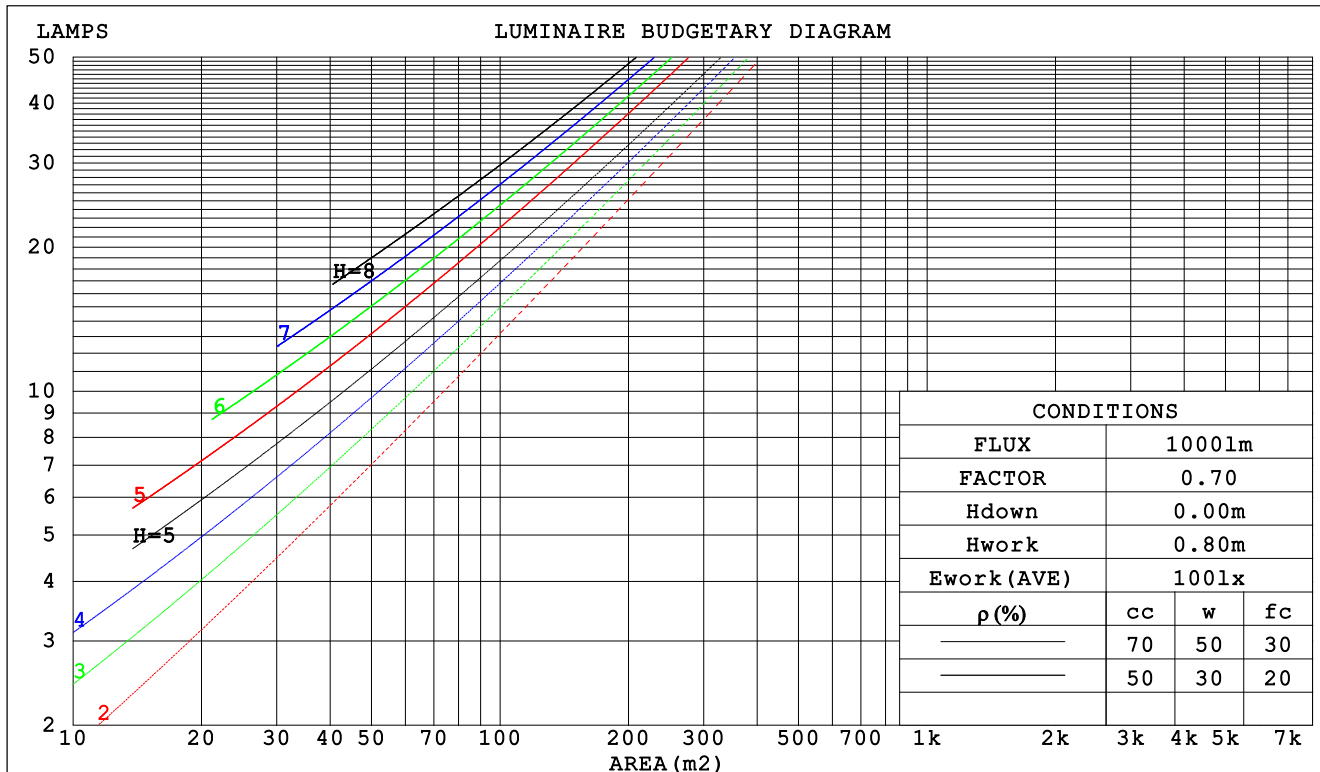
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JEFF
Test Date: 20 January 2023

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.0V I:0.1091A P:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm		
NAME: SLIM C_1160_NA_WHT_C-DG_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	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	1.03	1.00	1.05	1.01	.99	1.01	.98	.96	.97	.95	.93	.93	.91	.90	.88
2.0	.96	.90	.85	.94	.89	.84	.90	.86	.82	.87	.84	.81	.84	.81	.79	.77
3.0	.86	.79	.74	.85	.78	.73	.82	.76	.72	.79	.75	.71	.77	.73	.70	.68
4.0	.78	.70	.65	.77	.70	.64	.74	.68	.63	.72	.67	.63	.70	.66	.62	.60
5.0	.71	.63	.57	.70	.63	.57	.68	.61	.57	.66	.60	.56	.64	.59	.55	.54
6.0	.65	.57	.51	.64	.57	.51	.62	.56	.51	.61	.55	.50	.59	.54	.50	.48
7.0	.60	.52	.46	.59	.52	.46	.57	.51	.46	.56	.50	.46	.55	.49	.45	.44
8.0	.55	.48	.42	.54	.47	.42	.53	.47	.42	.52	.46	.42	.51	.46	.41	.40
9.0	.51	.44	.39	.51	.43	.39	.49	.43	.38	.48	.43	.38	.48	.42	.38	.36
10.0	.48	.40	.36	.47	.40	.36	.46	.40	.35	.45	.39	.35	.44	.39	.35	.34



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:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm		
NAME: SLIM C_1160_NA_WHT_C-DG_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	.252	.143	.045	.245	.140	.044	.232	.133	.043	.220	.127	.041	.209	.121	.039		
2.0	.241	.132	.041	.235	.129	.040	.224	.124	.039	.213	.120	.037	.204	.115	.036		
3.0	.227	.121	.036	.221	.119	.036	.212	.115	.035	.202	.111	.034	.194	.107	.033		
4.0	.212	.110	.032	.208	.109	.032	.199	.106	.032	.191	.103	.031	.183	.100	.030		
5.0	.199	.101	.029	.195	.100	.029	.187	.097	.029	.180	.095	.028	.173	.093	.028		
6.0	.186	.093	.027	.183	.092	.027	.176	.090	.026	.170	.088	.026	.164	.086	.026		
7.0	.175	.087	.025	.172	.086	.024	.166	.084	.024	.160	.082	.024	.155	.081	.024		
8.0	.165	.081	.023	.162	.080	.023	.157	.078	.022	.152	.077	.022	.147	.076	.022		
9.0	.156	.076	.021	.154	.075	.021	.149	.074	.021	.144	.072	.021	.140	.071	.021		
10.0	.148	.071	.020	.146	.070	.020	.141	.069	.019	.137	.068	.019	.133	.067	.019		

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	.139	.151	.134	.120	.103	.092	.083	.059	.054	.048	.019	.017	.016	
2.0	.165	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.156	.114	.080	.134	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.148	.100	.064	.127	.087	.055	.087	.060	.039	.050	.035	.023	.016	.012	.008	
5.0	.140	.089	.052	.120	.077	.045	.083	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.133	.081	.043	.114	.070	.037	.079	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.127	.074	.036	.109	.064	.032	.075	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.121	.068	.031	.104	.059	.027	.072	.041	.019	.042	.024	.012	.014	.008	.004	
9.0	.115	.063	.027	.099	.054	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.110	.058	.024	.095	.051	.021	.066	.036	.015	.038	.021	.009	.012	.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:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm										
NAME: SLIM C_1160_NA_WHT_C-DG_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	19.8	21.1	20.0	21.3	21.5	18.9	20.2	19.1	20.4	20.6
3H	20.6	21.8	20.9	22.1	22.3	19.8	21.0	20.1	21.2	21.4
4H	21.0	22.1	21.3	22.4	22.6	20.1	21.2	20.4	21.5	21.7
6H	21.2	22.2	21.5	22.5	22.8	20.3	21.4	20.6	21.6	21.9
8H	21.2	22.2	21.5	22.5	22.8	20.3	21.4	20.7	21.6	21.9
12H	21.2	22.2	21.5	22.5	22.8	20.4	21.3	20.7	21.6	21.9
4H 2H	20.0	21.1	20.3	21.4	21.6	19.3	20.4	19.6	20.6	20.9
3H	21.1	22.1	21.4	22.3	22.6	20.4	21.3	20.7	21.6	21.9
4H	21.5	22.4	21.9	22.7	23.1	20.8	21.7	21.2	22.0	22.3
6H	21.8	22.6	22.2	22.9	23.3	21.1	21.9	21.5	22.2	22.6
8H	21.9	22.6	22.3	23.0	23.3	21.2	21.9	21.6	22.3	22.6
12H	21.9	22.6	22.3	22.9	23.3	21.2	21.9	21.6	22.3	22.7
8H 4H	21.6	22.4	22.0	22.7	23.1	20.9	21.7	21.3	22.0	22.4
6H	22.0	22.6	22.4	23.0	23.4	21.3	21.9	21.8	22.3	22.8
8H	22.1	22.6	22.5	23.1	23.5	21.5	22.0	21.9	22.4	22.9
12H	22.1	22.6	22.6	23.1	23.5	21.6	22.0	22.0	22.5	22.9
12H 4H	21.6	22.3	22.0	22.6	23.0	20.9	21.6	21.3	22.0	22.4
6H	22.0	22.5	22.4	23.0	23.4	21.3	21.9	21.8	22.3	22.7
8H	22.1	22.6	22.6	23.0	23.5	21.5	22.0	22.0	22.4	22.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.6					+ 0.5 / - 0.6				
1.5H	+ 0.4 / - 0.4					+ 0.3 / - 0.5				
2.0H	+ 1.2 / - 0.7					+ 0.8 / - 0.6				

CIE Pub.117 Corrected 1859 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.2)

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:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm		
NAME: SLIM C_1160_NA_WHT_C-DG_HE_150mA_TUNABLE WHITE @ 4000K	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

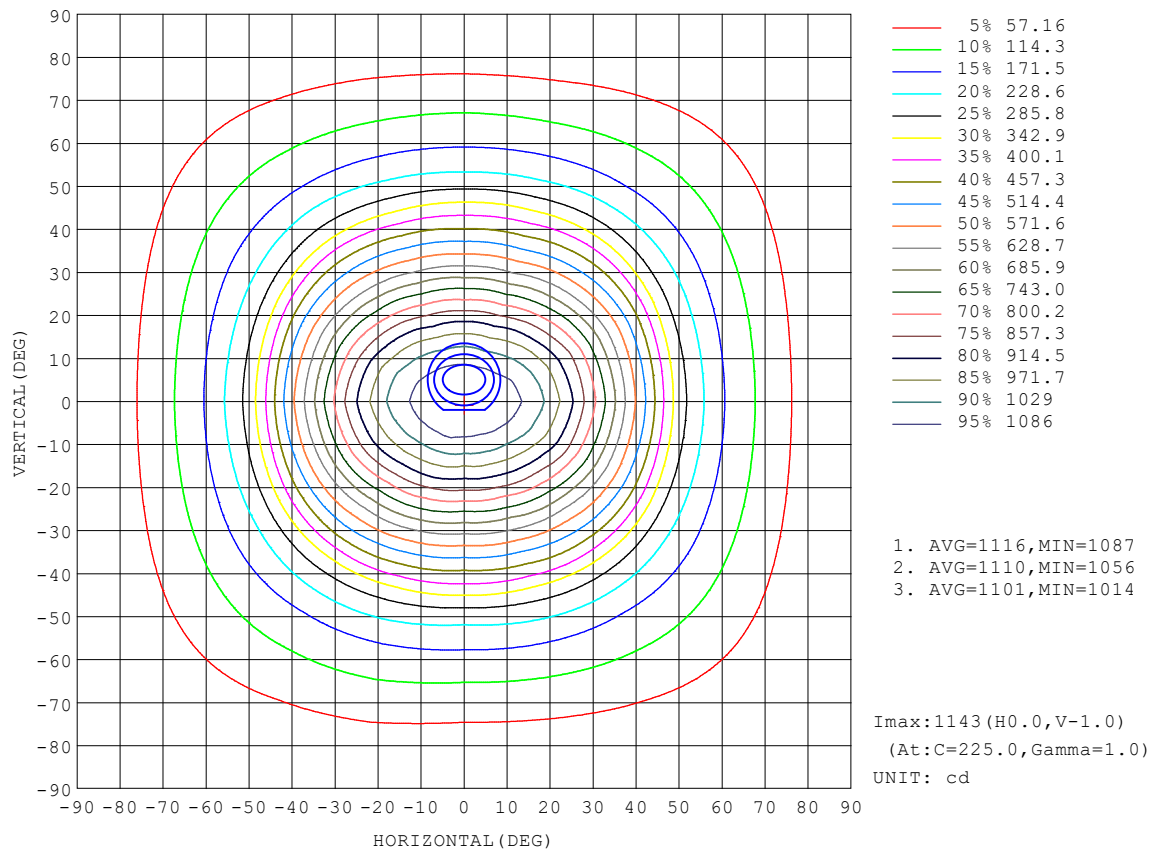
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	58	52	67	58	52	66	57	52	47
0.80	77	68	62	77	68	62	75	67	61	56
1.00	85	76	70	84	75	70	82	76	69	63
1.25	91	83	77	90	82	76	87	81	76	70
1.50	95	87	82	94	87	81	91	85	80	74
2.00	101	94	89	99	93	88	96	91	86	80
2.50	104	97	93	102	96	92	98	94	90	83
3.00	106	101	96	104	99	95	100	96	93	86
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	107	104	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 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:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm		
NAME: SLIM C_1160_NA_WHT_C-DG_HE_150mA_TUNABLE WHITE @ 4000K	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

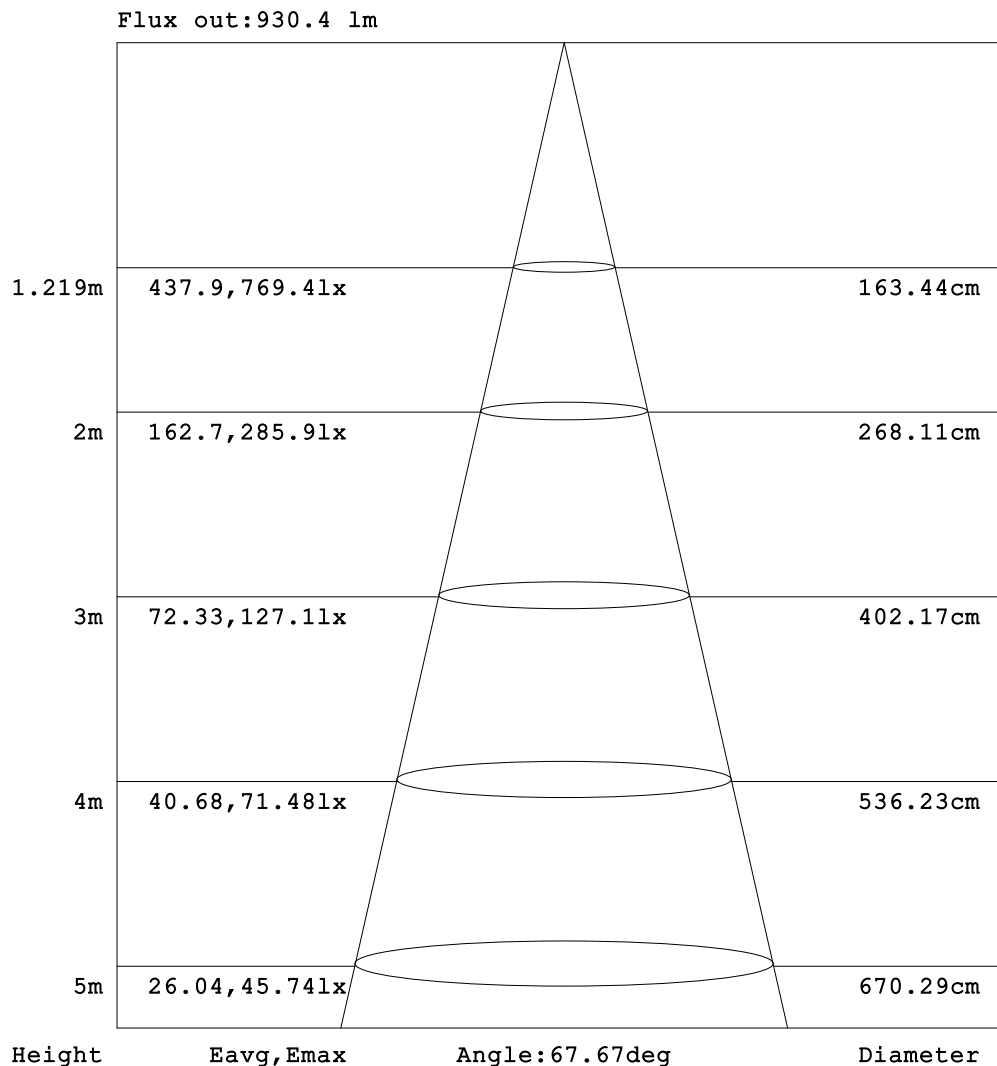


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:20 January 2023

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:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm		
NAME: SLIM C_1160_NA_WHT_C-DG_HE_150mA_TUNABLE WHITE @ 4000K	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



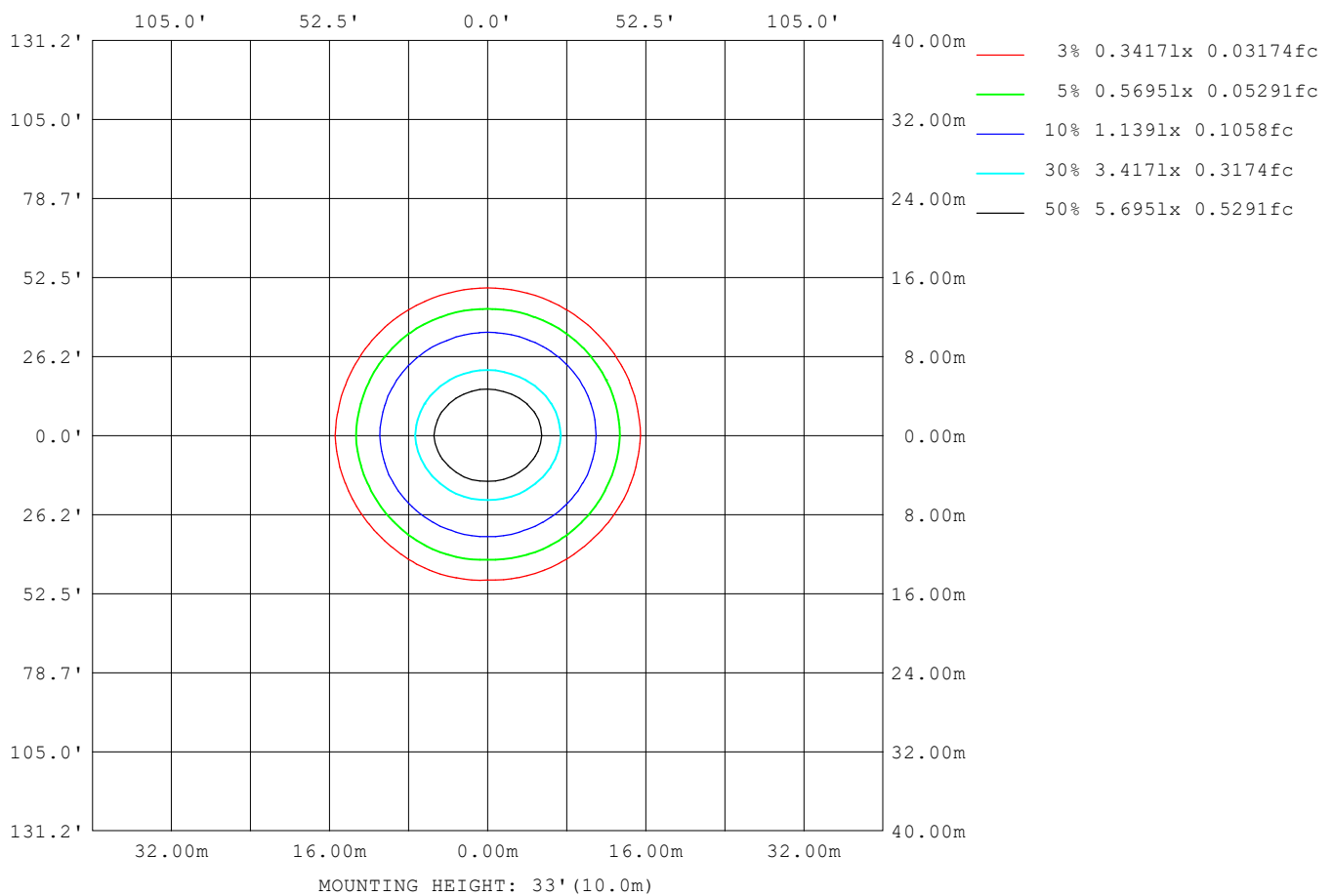
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm		
NAME: SLIM C_1160_NA_WHT_C-DG_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:23.10W PF:0.8826 Lamp Flux:1858.83x1 lm		
NAME: SLIM C_1160_NA_WHT_C-DG_HE_150mA_TUNABLE WHITE @ 4000K	WEIGHT:	
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

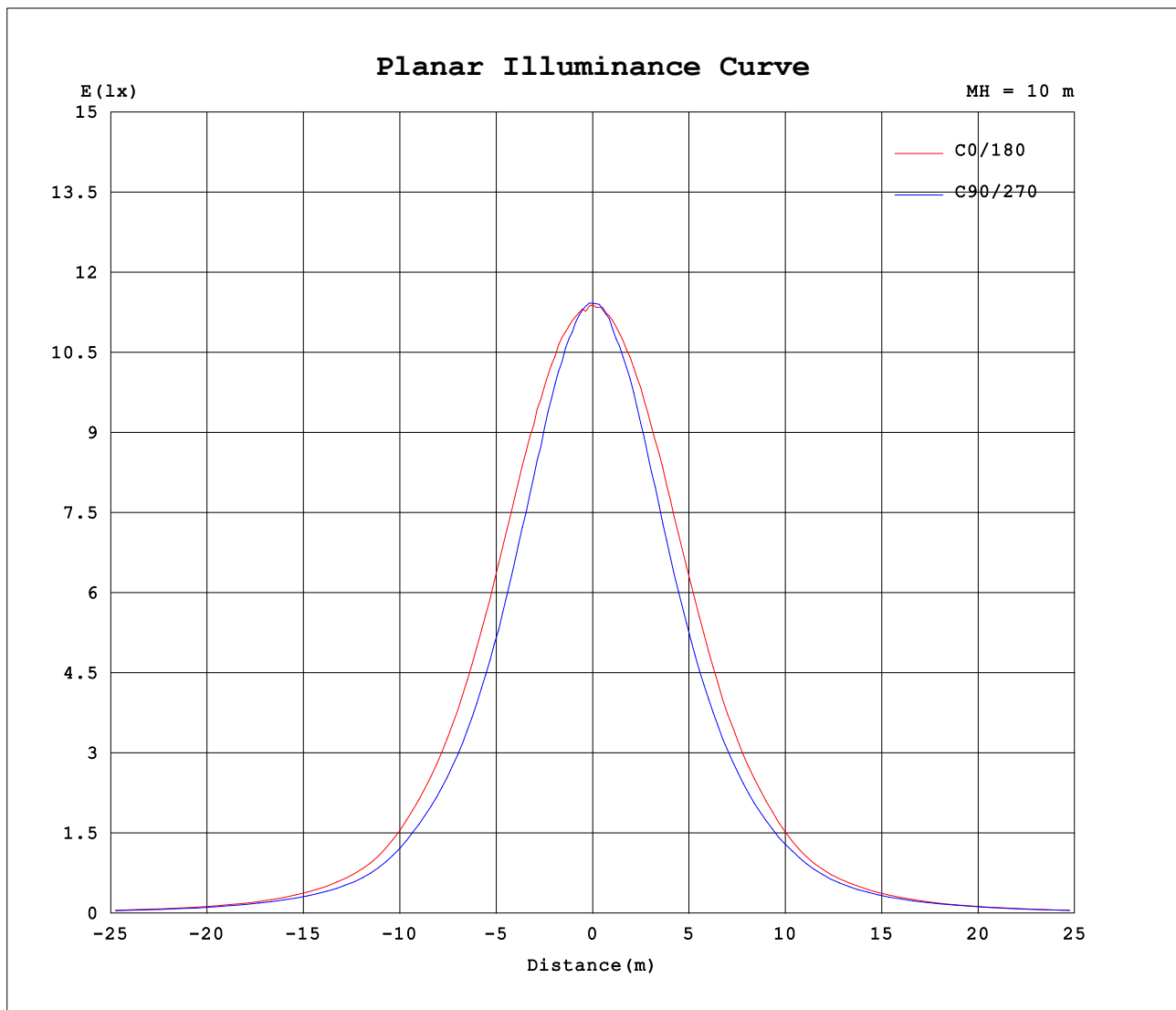
AvgL	cd/m2
L_0~180 (65) av	7019
L_0~180 (75) av	5564
L_0~180 (85) av	2546
L_90~270 (65) av	6452
L_90~270 (75) av	5104
L_90~270 (85) av	3632
L_45 (65) av	6514
L_45 (75) av	5147
L_45 (85) av	3424

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:

