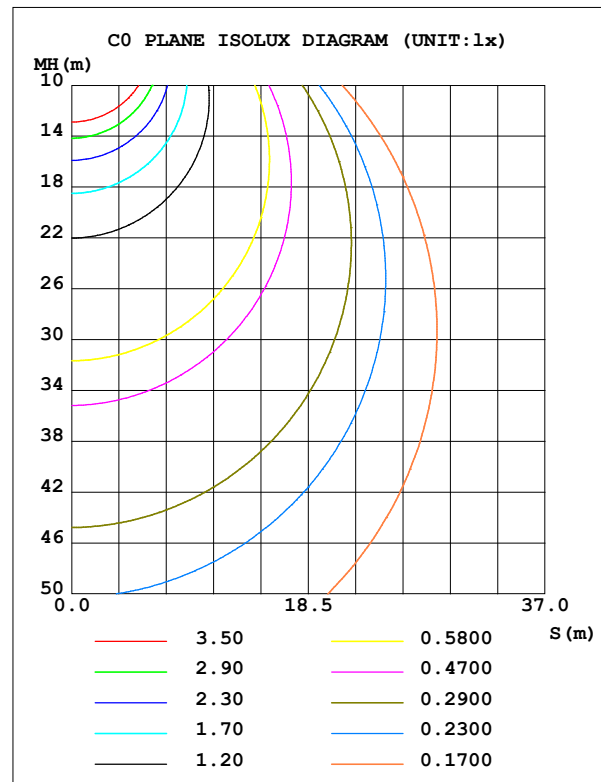
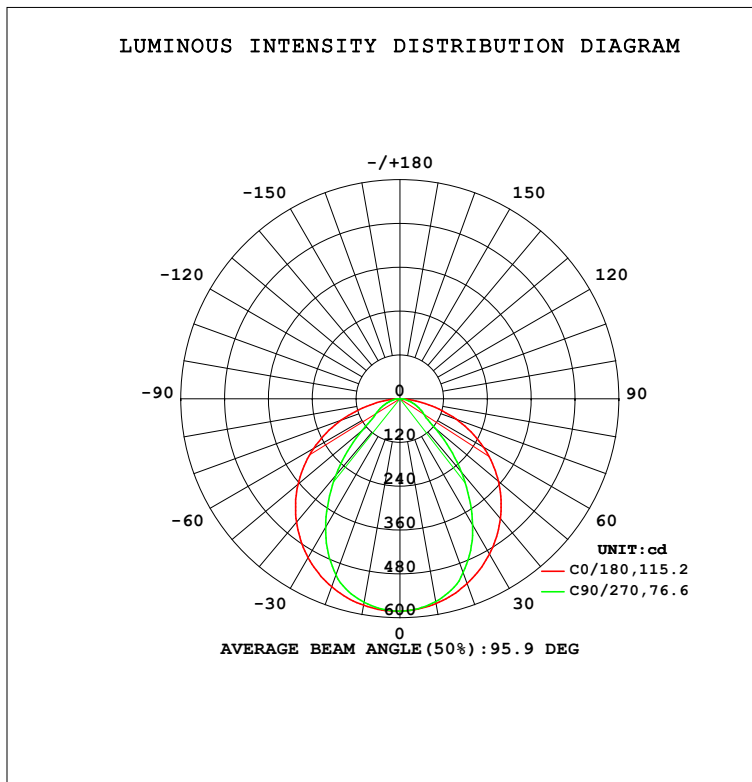


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm		
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 51.94 lm/W
MODEL/CONT	V LM20MB 3000K 1.0M	I _{max} (cd)	582.1	S/MH (C0/180)	1.28	
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.09	
RATED VOLTAGE (V)	220.0	TOTAL FLUX (lm)	1237.5	η UP,DN (C0-180)	0.0,49.5	
NOMINAL FLUX (lm)	1237.49	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.5	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	230	η down (%)	100.0	CIBSE SHR MAX	1.30	



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:17 February 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [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	569.5	564.7	564.0	570.7	574.5	572.0	565.9	565.5	0- 10	54.88	54.88	4.44,4.44
20	538.7	521.9	506.9	533.2	548.0	536.2	513.2	524.5	10- 20	155.5	210.4	17,17
30	491.1	443.3	398.9	460.8	502.9	466.2	407.9	449.4	20- 30	227.1	437.5	35.4,35.4
40	428.1	334.1	261.9	354.0	441.3	361.1	273.6	342.1	30- 40	252.0	689.5	55.7,55.7
50	352.3	207.9	126.3	226.1	364.5	234.3	135.2	217.5	40- 50	225.7	915.2	74,74
60	263.6	88.46	69.90	100.7	273.5	106.5	72.36	94.50	50- 60	162.3	1077	87.1,87.1
70	163.3	44.48	40.57	48.49	170.6	50.02	42.22	45.99	60- 70	100.4	1178	95.2,95.2
80	61.88	17.50	17.12	19.87	64.97	20.85	18.26	18.35	70- 80	47.54	1225	99,99
90	0.7992	0.3918	0.2257	0.4231	0.7428	0.8776	0.2570	0.3886	80- 90	12.08	1237	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): 808.65 lm

%lum = 65.3%

%lamp = 65.3%

Conical surface Flux(120deg): 1077.5 lm

%lum = 87.1%

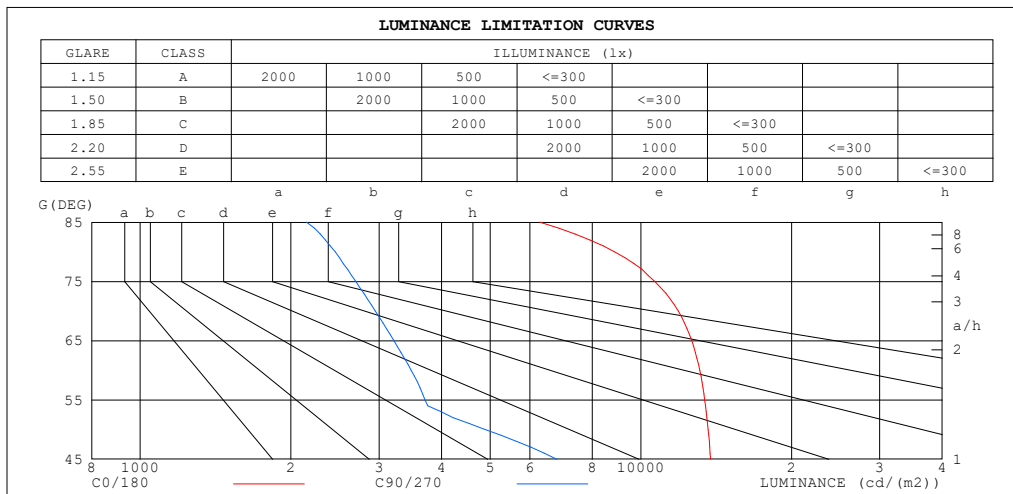
%lamp = 87.1%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:17 February 2020

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm		
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	6280	2150
80	8865	2453
75	10663	2695
70	11878	2951
65	12645	3212
60	13114	3478
55	13417	3704
50	13634	4886
45	13788	6796

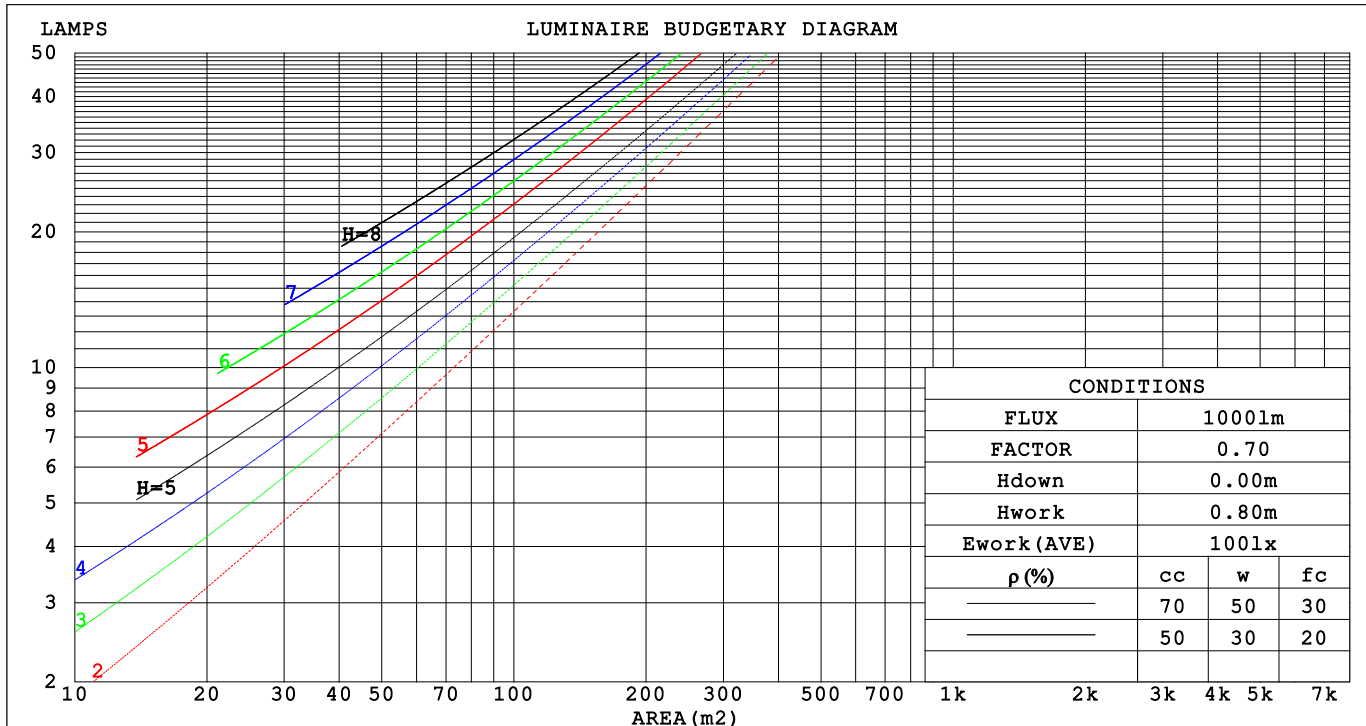
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:17 February 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm		
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
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															



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:17 February 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm		
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
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	.266	.152	.048	.260	.148	.047	.246	.141	.045	.234	.135	.043	.223	.130	.042	
2.0	.255	.140	.043	.249	.137	.042	.238	.132	.041	.227	.128	.040	.218	.123	.039	
3.0	.240	.128	.038	.234	.126	.038	.224	.122	.037	.215	.118	.036	.207	.114	.035	
4.0	.224	.116	.034	.219	.115	.034	.211	.112	.033	.202	.109	.033	.195	.106	.032	
5.0	.210	.107	.031	.205	.105	.031	.198	.103	.030	.190	.100	.030	.184	.098	.029	
6.0	.196	.098	.028	.193	.097	.028	.186	.095	.028	.179	.093	.027	.173	.091	.027	
7.0	.184	.091	.026	.181	.090	.026	.175	.088	.025	.169	.087	.025	.163	.085	.025	
8.0	.173	.085	.024	.170	.084	.024	.165	.082	.023	.159	.081	.023	.154	.079	.023	
9.0	.163	.079	.022	.161	.078	.022	.156	.077	.022	.151	.076	.022	.146	.074	.021	
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	.089	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.159	.114	.079	.136	.098	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.151	.100	.062	.129	.087	.054	.089	.060	.038	.051	.035	.022	.017	.012	.007	
5.0	.143	.090	.050	.123	.078	.044	.085	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.136	.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	.014	.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	.070	.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:17 February 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm											
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K					TYPE:LED			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
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	21.0	22.4	21.2	22.5	22.7	15.8	17.2	16.1	17.4	17.6	
	22.4	23.7	22.7	23.9	24.1	16.4	17.7	16.7	17.9	18.1	
	22.9	24.1	23.2	24.4	24.6	16.7	17.9	17.0	18.1	18.4	
	23.3	24.4	23.6	24.7	25.0	16.9	18.0	17.2	18.3	18.6	
	23.4	24.5	23.8	24.8	25.1	17.0	18.1	17.3	18.3	18.6	
	23.5	24.5	23.8	24.8	25.1	17.0	18.0	17.3	18.3	18.6	
4H	20.9	22.1	21.2	22.3	22.6	16.4	17.6	16.7	17.9	18.1	
	22.4	23.4	22.7	23.7	24.0	17.2	18.2	17.5	18.5	18.8	
	22.9	23.9	23.3	24.2	24.5	17.5	18.5	17.9	18.8	19.1	
	23.4	24.3	23.8	24.6	25.0	17.8	18.6	18.2	19.0	19.4	
	23.6	24.4	24.0	24.7	25.1	17.9	18.7	18.3	19.1	19.4	
	23.7	24.4	24.1	24.8	25.2	18.0	18.7	18.4	19.1	19.5	
8H	22.9	23.6	23.3	24.0	24.4	17.7	18.5	18.1	18.9	19.2	
	23.4	24.0	23.8	24.4	24.9	18.1	18.8	18.6	19.2	19.6	
	23.6	24.2	24.0	24.6	25.0	18.3	18.9	18.7	19.3	19.7	
	23.7	24.2	24.2	24.7	25.1	18.4	18.9	18.9	19.3	19.8	
12H	22.8	23.5	23.2	23.9	24.3	17.7	18.4	18.1	18.8	19.2	
	23.4	23.9	23.8	24.4	24.8	18.2	18.7	18.6	19.1	19.6	
	23.6	24.1	24.0	24.5	25.0	18.3	18.8	18.8	19.3	19.8	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.8 / - 1.0					
1.5H	+ 0.6 / - 0.7					+ 0.5 / - 1.0					
2.0H	+ 1.3 / - 2.2					+ 1.3 / - 1.0					

CIE Pub.117, 1237 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.7)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:17 February 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm		
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

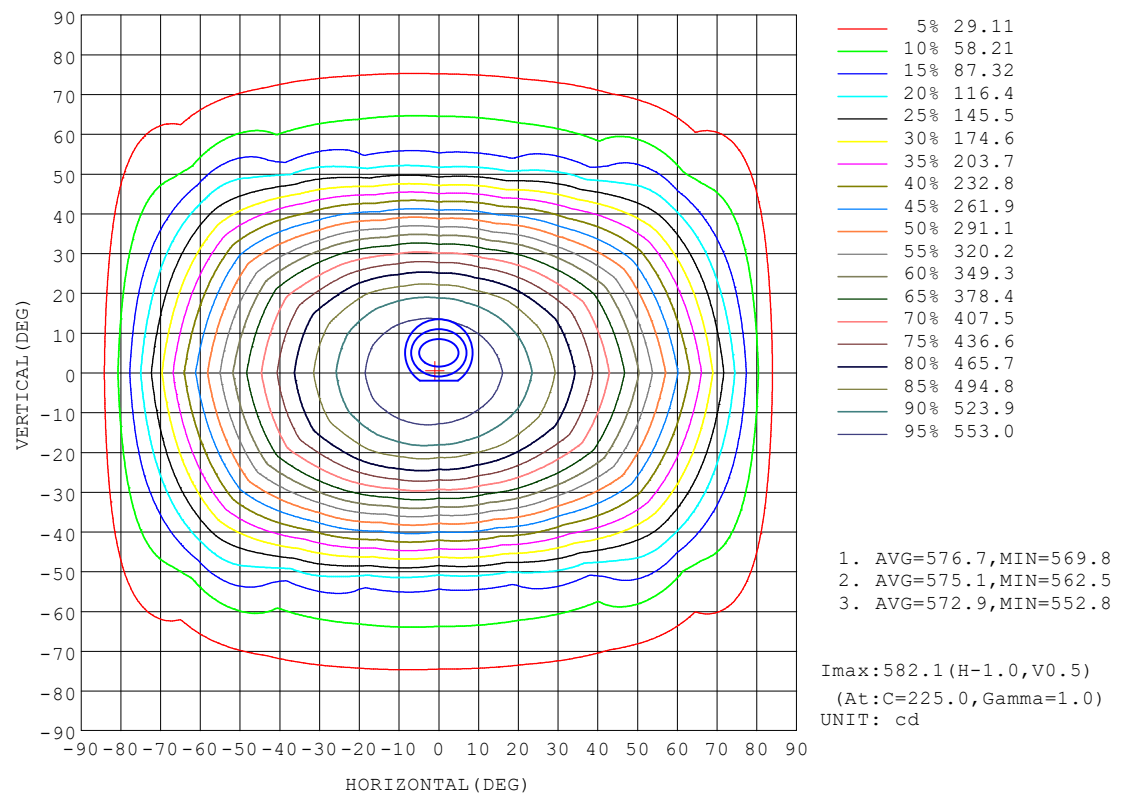
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	64	53	47	63	53	47	62	53	47	41
0.80	74	64	57	73	63	57	71	62	56	50
1.00	82	72	66	81	72	66	79	73	65	59
1.25	89	79	73	87	79	73	85	77	72	66
1.50	93	85	79	91	84	78	89	82	77	70
2.00	99	92	86	97	91	85	94	88	84	77
2.50	102	96	90	100	94	90	97	92	88	80
3.00	105	99	95	103	98	94	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:17 February 2020

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm		
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

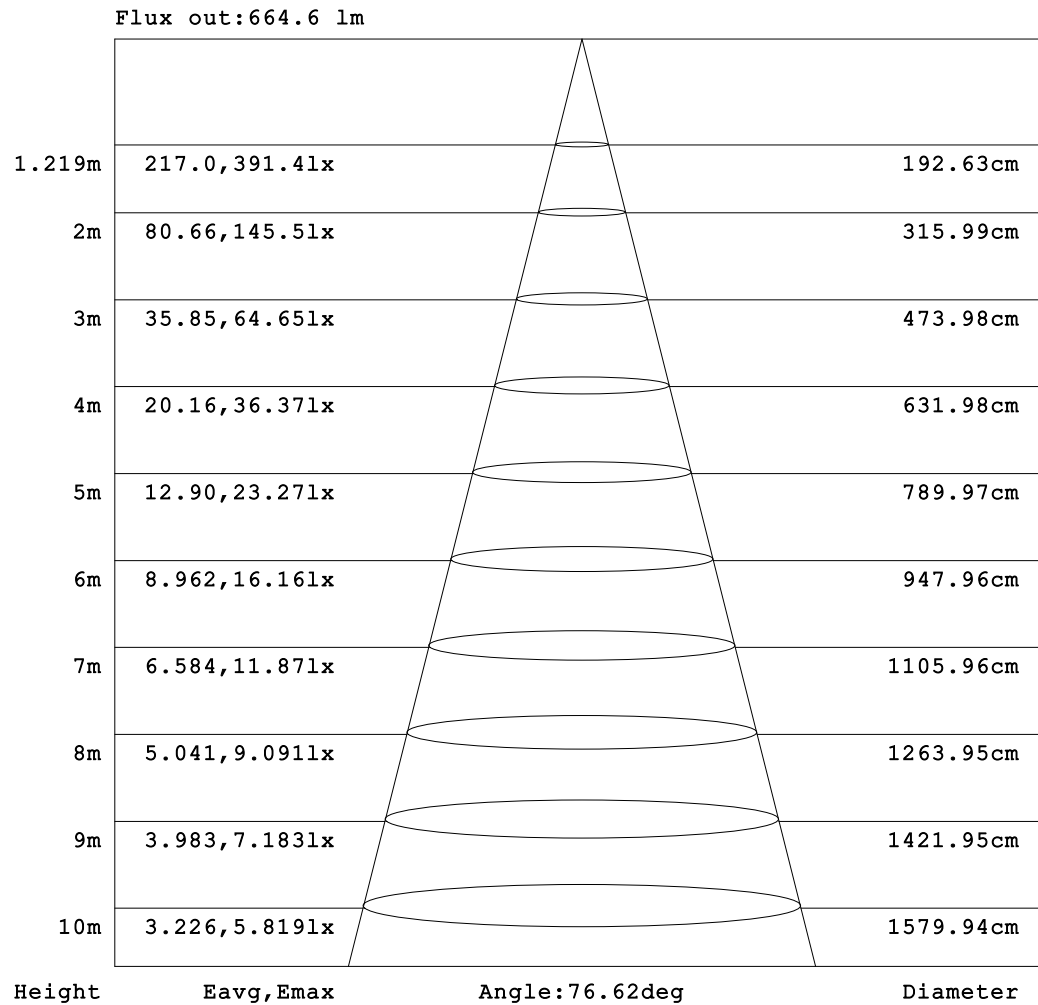


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:17 February 2020

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

AAI Figure

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm		
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



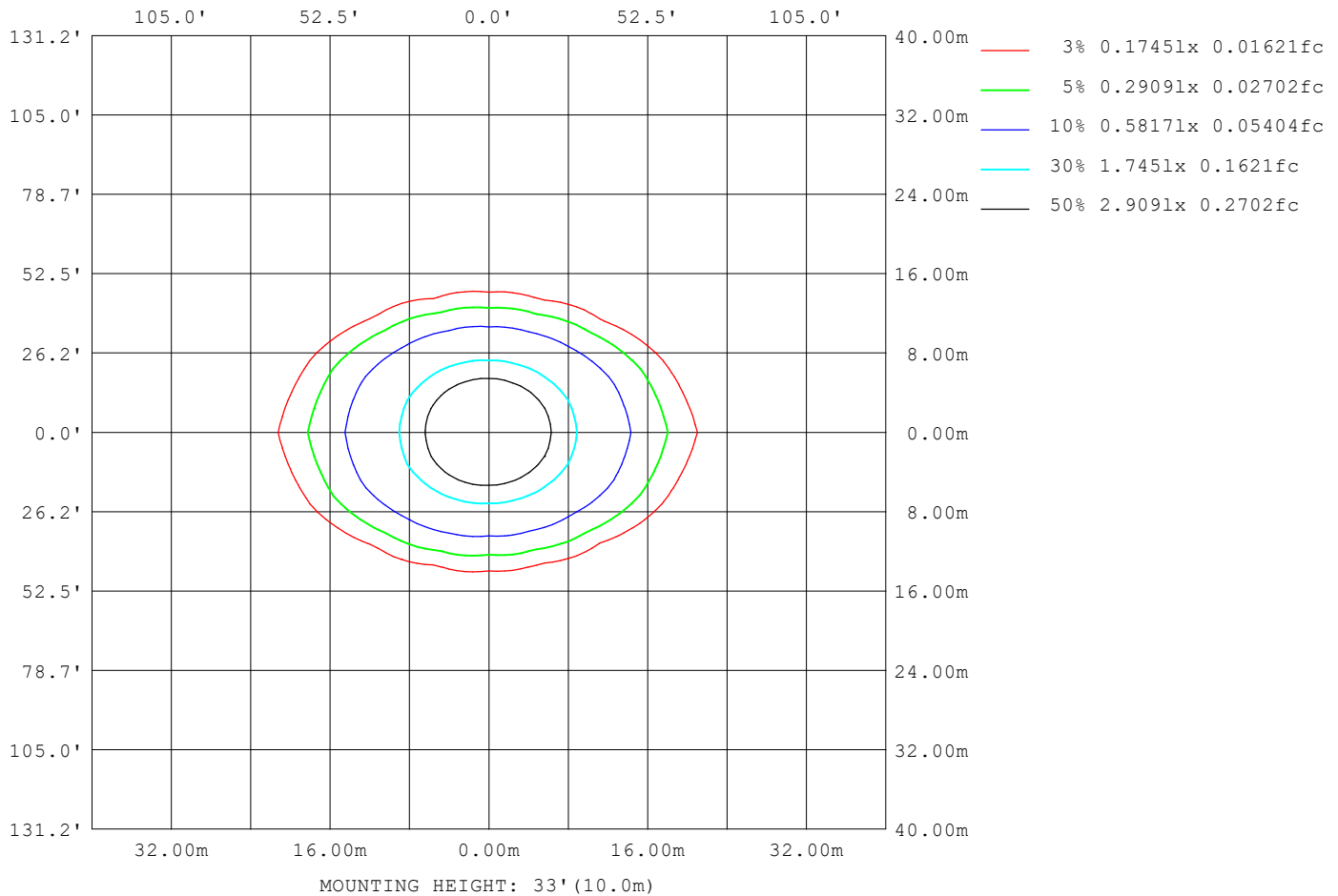
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:17 February 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm		
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:17 February 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:239.93V I:0.2204A P:23.824W PF:0.4504 Freq:50.09Hz Lamp Flux:1237.49x1 lm		
NAME: SLIM TRIM IP67_1031_WHT_WHT_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: DARKON	SUR.:	Shielding Angle:

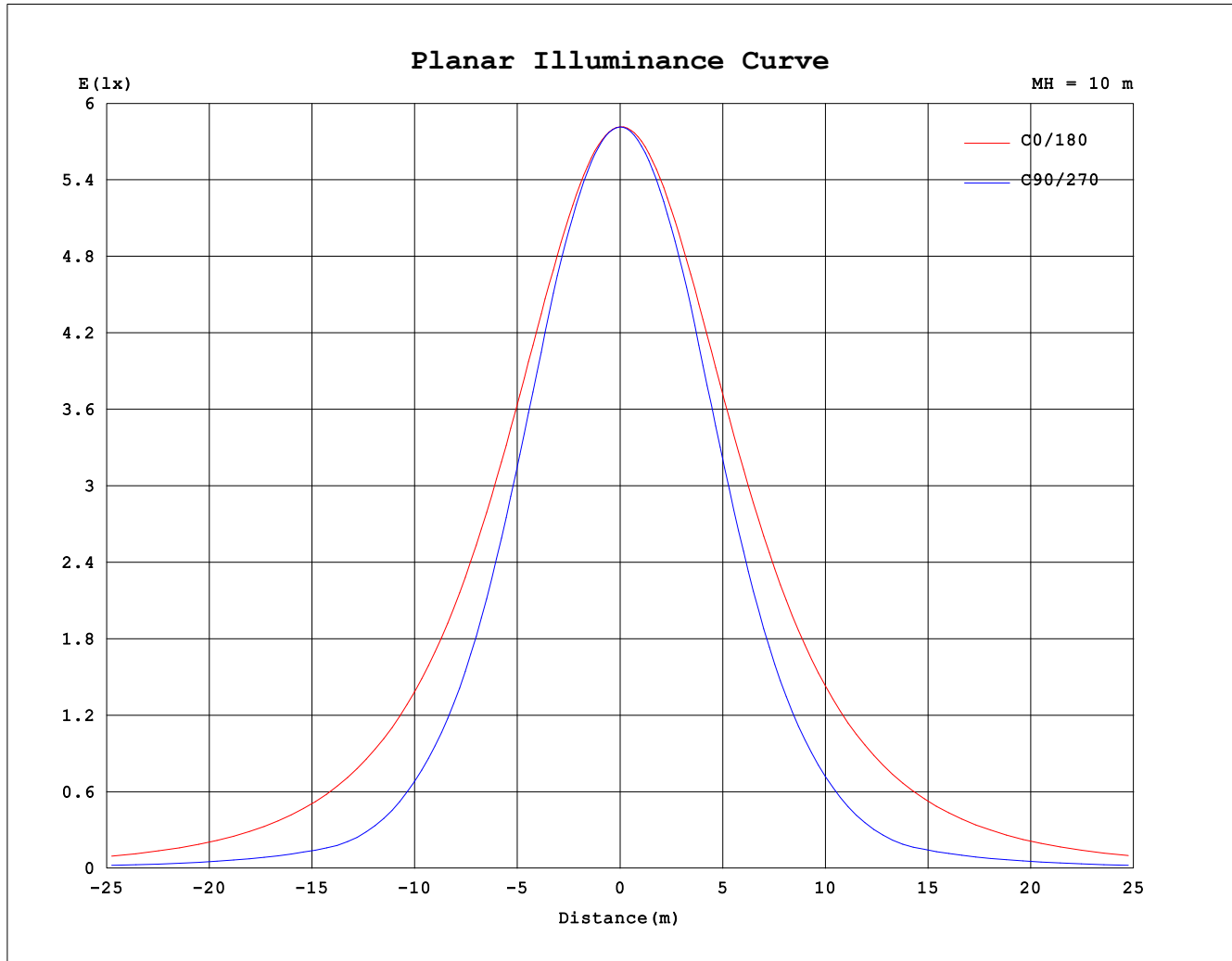
AvgL	cd/m2
L_0~180 (65) av	12890
L_0~180 (75) av	10930
L_0~180 (85) av	6442
L_90~270 (65) av	3270
L_90~270 (75) av	2762
L_90~270 (85) av	2299
L_45 (65) av	3760
L_45 (75) av	3079
L_45 (85) av	2446

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:17 February 2020

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [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: 17 February 2020

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 7.250m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.250m [K=1.0000]
Remarks:

```