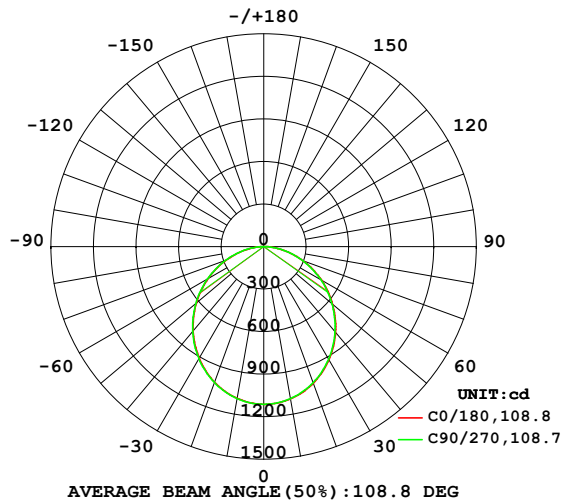


LUMINAIRE PHOTOMETRIC TEST REPORT

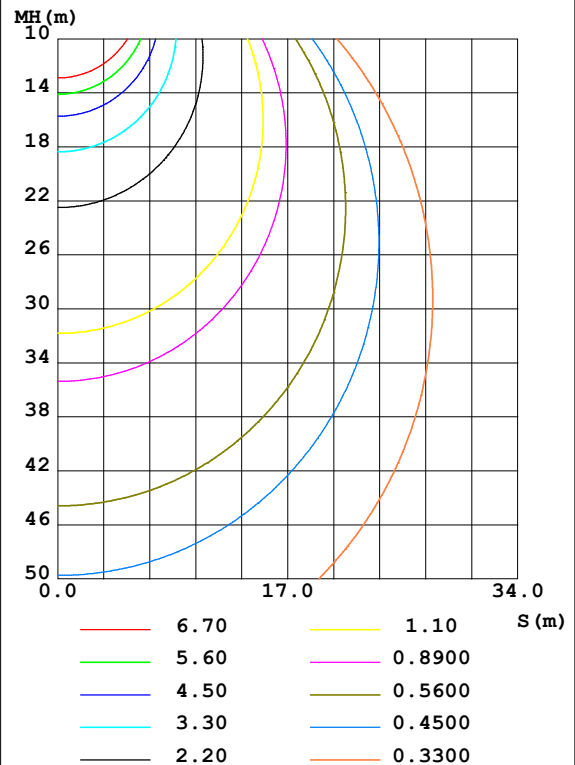
Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm		
NAME: PORT C_WHT_CLE315G3_900mA_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 92.72 lm/W			
CLE315mm	4000lm 830 ADV EM	Imax(cd)	1112	S/MH(C0/180)	1.22
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.23
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	3069.4	η UP,DN(C0-180)	0.0,50.2
NOMINAL FLUX(lm)	3069.42	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.8
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

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:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [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	1091	1090	1089	1088	1087	1087	1088	1089	0- 10	105.0	105.0	3.42,3.42
20	1025	1024	1021	1019	1017	1018	1020	1022	10- 20	298.9	403.9	13.2,13.2
30	921.2	919.9	916.3	913.4	910.3	911.6	914.5	917.4	20- 30	447.9	851.9	27.8,27.8
40	788.7	787.4	782.4	779.3	775.5	777.0	780.4	784.3	30- 40	532.7	1385	45.1,45.1
50	635.6	634.6	629.7	625.5	621.1	622.3	626.2	630.4	40- 50	545.4	1930	62.9,62.9
60	469.0	468.1	463.8	459.2	454.0	455.8	459.3	463.6	50- 60	488.0	2418	78.8,78.8
70	296.9	296.3	292.9	288.1	282.3	284.0	288.1	292.0	60- 70	371.9	2790	90.9,90.9
80	132.1	131.7	129.1	124.8	119.9	121.6	125.4	128.3	70- 80	218.3	3008	98,98
90	3.308	3.086	2.244	1.853	1.908	1.908	1.890	1.912	80- 90	61.34	3069	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): 1660.1 lm

%lum = 54.1%

%lamp = 54.1%

Conical surface Flux(120deg): 2417.9 lm

%lum = 78.8%

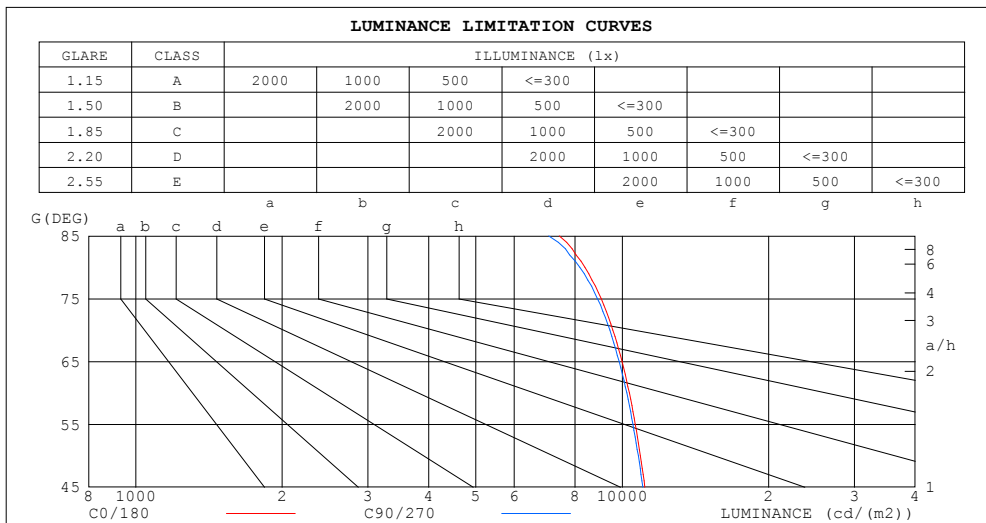
%lamp = 78.8%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm		
NAME: PORT C_WHT_CLE315G3_900mA_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	7425	7061
80	8388	8187
75	9048	8891
70	9569	9432
65	9990	9858
60	10340	10217
55	10637	10516
50	10899	10790
45	11132	11028

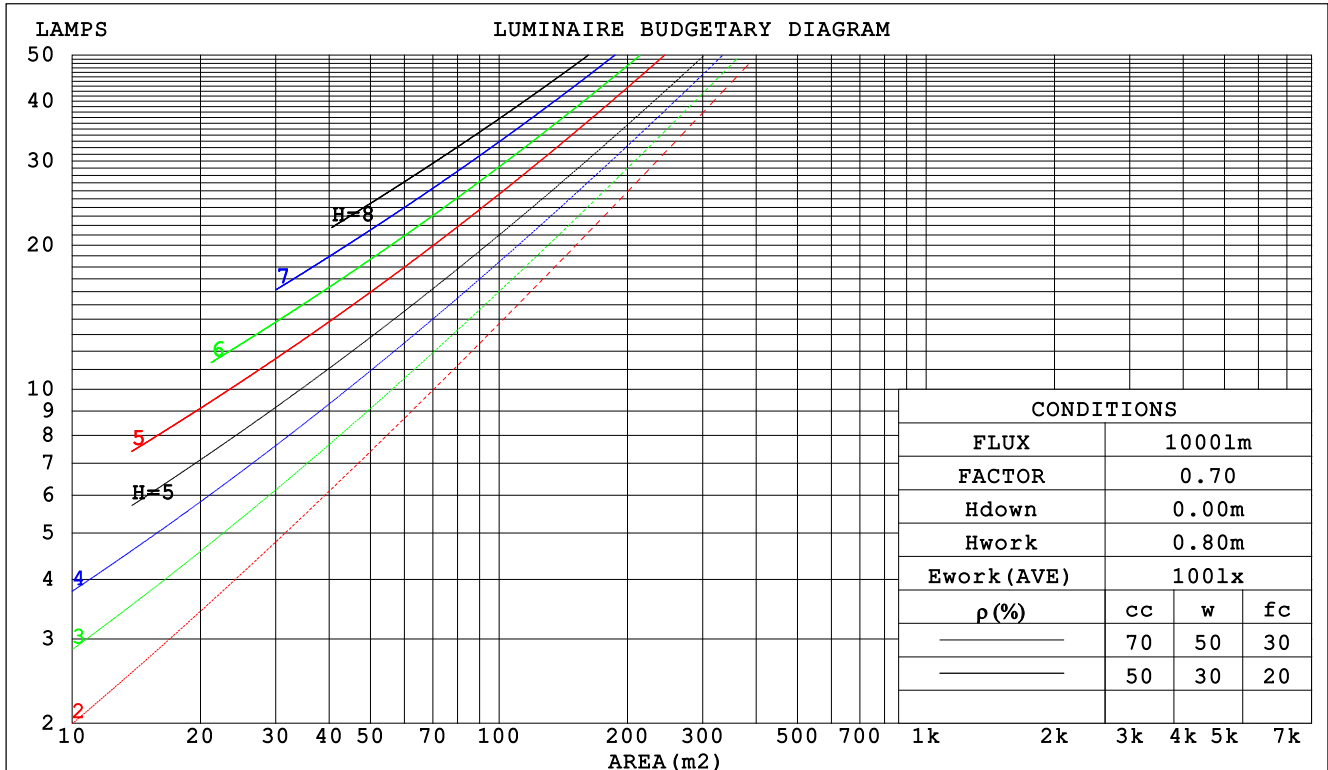
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm		
NAME: PORT C_WHT_CLE315G3_900mA_3K	TYPE:LED	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	.00
1.0	1.04	.00	.96	1.02	.98	.94	.97	.94	.91	.93	.91	.88	.90	.88	.86	.84
2.0	.90	.84	.78	.89	.82	.77	.85	.80	.75	.82	.77	.73	.79	.75	.72	.70
3.0	.79	.71	.65	.78	.70	.64	.75	.68	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.70	.62	.55	.69	.61	.54	.67	.59	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.46	.58	.51	.46	.56	.50	.45	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.45	.40	.51	.45	.40	.38
7.0	.51	.43	.36	.51	.42	.36	.49	.42	.36	.48	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.33	.46	.38	.32	.45	.37	.32	.44	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.27	.39	.32	.27	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm		
NAME: PORT C_WHT_CLE315G3_900mA_3K	TYPE: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	.310 .176 .056	.303 .173 .055	.290 .166 .053	.278 .160 .051	.267 .154 .050	
2.0	.291 .160 .049	.285 .157 .048	.274 .152 .047	.263 .147 .046	.253 .143 .045	
3.0	.269 .143 .043	.264 .141 .043	.254 .137 .042	.244 .134 .041	.235 .130 .040	
4.0	.249 .129 .038	.244 .128 .038	.235 .124 .037	.226 .121 .037	.218 .119 .036	
5.0	.230 .117 .034	.225 .116 .034	.217 .113 .033	.210 .111 .033	.203 .108 .033	
6.0	.213 .107 .031	.209 .106 .030	.202 .104 .030	.195 .101 .030	.189 .099 .030	
7.0	.198 .098 .028	.195 .097 .028	.188 .095 .027	.182 .093 .027	.177 .092 .027	
8.0	.185 .090 .025	.182 .090 .025	.176 .088 .025	.171 .087 .025	.166 .085 .025	
9.0	.174 .084 .023	.171 .083 .023	.166 .082 .023	.161 .081 .023	.156 .079 .023	
10.0	.163 .078 .022	.161 .078 .022	.156 .076 .022	.152 .075 .021	.147 .074 .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	.180 .156 .134	.154 .134 .116	.106 .092 .080	.061 .053 .046	.019 .017 .015	
2.0	.172 .132 .098	.147 .114 .085	.101 .079 .059	.058 .046 .035	.019 .015 .011	
3.0	.164 .114 .074	.141 .099 .064	.097 .068 .045	.056 .040 .027	.018 .013 .009	
4.0	.157 .101 .058	.134 .087 .051	.092 .061 .036	.053 .036 .021	.017 .012 .007	
5.0	.149 .091 .047	.128 .078 .041	.088 .055 .029	.051 .032 .017	.016 .010 .006	
6.0	.142 .082 .039	.122 .071 .034	.084 .050 .024	.049 .029 .014	.016 .010 .005	
7.0	.135 .075 .033	.116 .065 .029	.080 .046 .021	.047 .027 .012	.015 .009 .004	
8.0	.129 .069 .029	.111 .060 .025	.077 .042 .018	.045 .025 .011	.014 .008 .004	
9.0	.123 .065 .025	.106 .056 .022	.073 .039 .016	.043 .023 .009	.014 .008 .003	
10.0	.117 .060 .022	.101 .052 .020	.070 .037 .014	.041 .022 .008	.013 .007 .003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm										
NAME: PORT C_WHT_CLE315G3_900mA_3K					TYPE: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	17.2	18.7	17.5	18.9	19.1	17.2	18.7	17.4	18.9	19.1
3H	18.7	20.1	19.0	20.4	20.6	18.7	20.1	19.0	20.3	20.6
4H	19.4	20.7	19.7	21.0	21.2	19.3	20.7	19.6	20.9	21.2
6H	19.9	21.1	20.2	21.4	21.7	19.8	21.0	20.1	21.3	21.6
8H	20.0	21.2	20.4	21.5	21.8	19.9	21.2	20.3	21.4	21.7
12H	20.1	21.3	20.5	21.6	21.9	20.0	21.2	20.4	21.5	21.8
4H 2H	17.8	19.1	18.1	19.4	19.6	17.8	19.1	18.1	19.4	19.6
3H	19.5	20.7	19.9	21.0	21.3	19.5	20.7	19.9	21.0	21.3
4H	20.3	21.4	20.7	21.7	22.0	20.3	21.3	20.6	21.7	22.0
6H	20.9	21.9	21.3	22.2	22.6	20.9	21.8	21.3	22.2	22.5
8H	21.1	22.0	21.6	22.4	22.8	21.1	22.0	21.5	22.3	22.7
12H	21.3	22.1	21.7	22.5	22.9	21.2	22.0	21.7	22.4	22.8
8H 4H	20.6	21.5	21.0	21.8	22.2	20.6	21.4	21.0	21.8	22.2
6H	21.4	22.1	21.8	22.5	22.9	21.3	22.1	21.8	22.5	22.9
8H	21.7	22.3	22.1	22.8	23.2	21.6	22.3	22.1	22.7	23.2
12H	21.9	22.5	22.4	22.9	23.4	21.9	22.4	22.3	22.9	23.3
12H 4H	20.6	21.4	21.0	21.8	22.2	20.6	21.4	21.0	21.8	22.2
6H	21.4	22.1	21.9	22.5	23.0	21.4	22.0	21.9	22.5	22.9
8H	21.8	22.4	22.3	22.8	23.3	21.7	22.3	22.2	22.8	23.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 3069 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.9$)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm		
NAME: PORT C_WHT_CLE315G3_900mA_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:

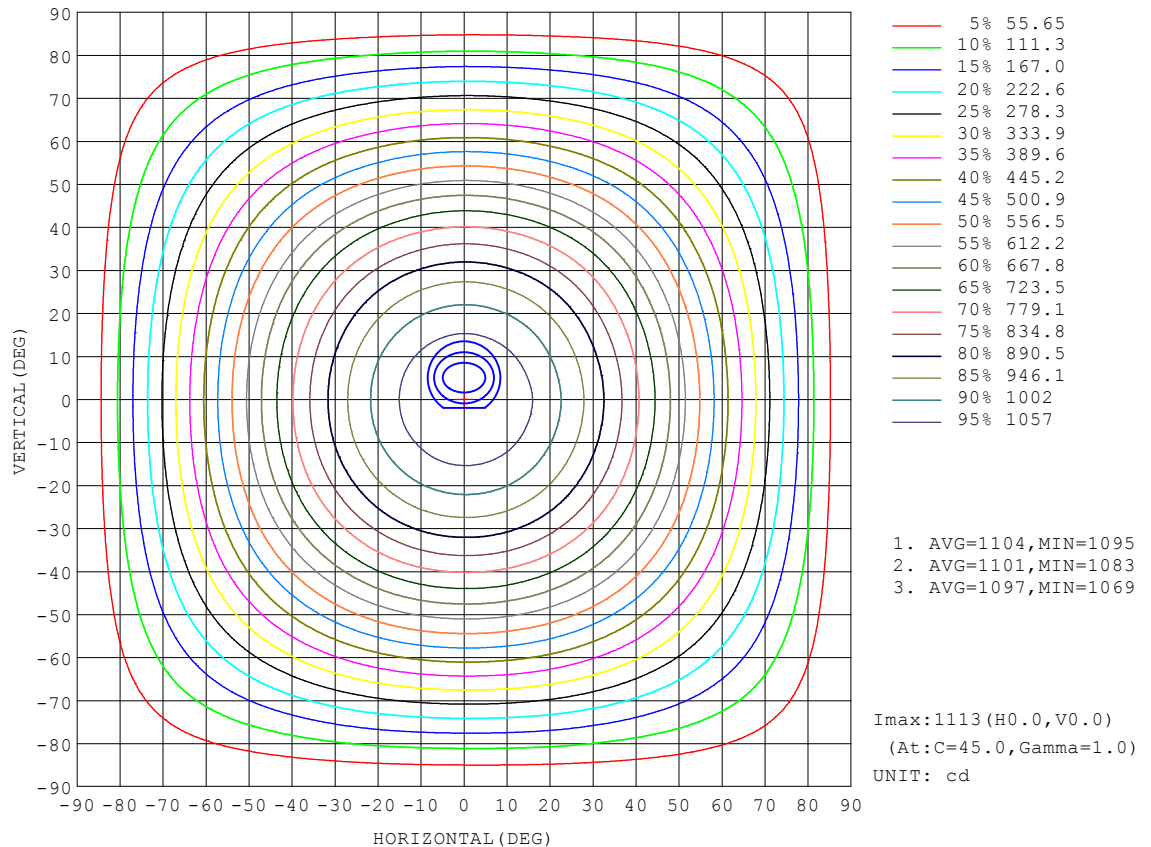
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	46	39	33
0.80	68	56	49	67	56	49	65	55	48	41
1.00	76	65	58	75	65	58	73	66	57	50
1.25	83	73	66	82	72	65	79	71	64	57
1.50	88	78	71	87	77	71	84	76	70	62
2.00	95	86	80	93	85	79	90	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	87	78
4.00	106	101	96	104	99	94	100	95	92	83
5.00	109	104	100	106	102	98	102	98	95	86
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:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm		
NAME: PORT C_WHT_CLE315G3_900mA_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:

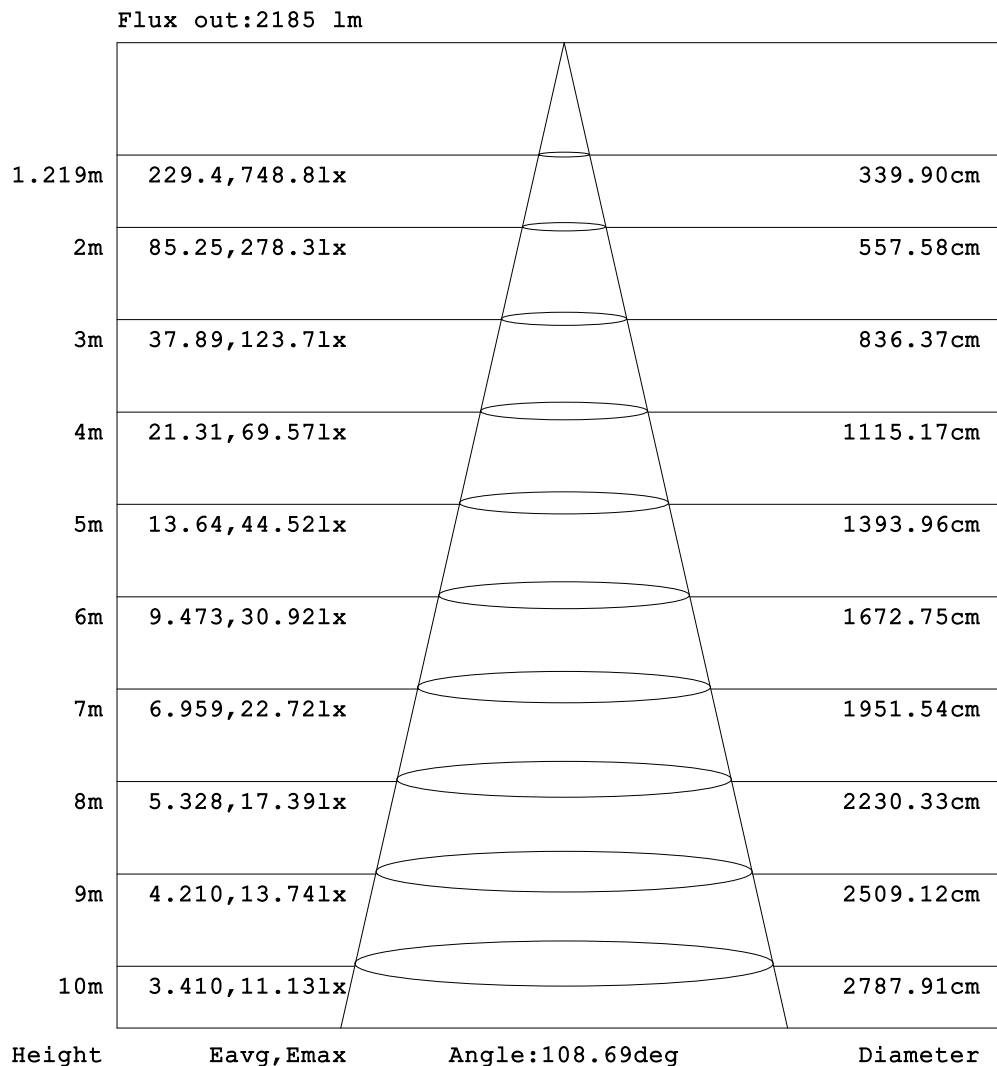


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

AAI Figure

Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm		
NAME: PORT C_WHT_CLE315G3_900mA_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:



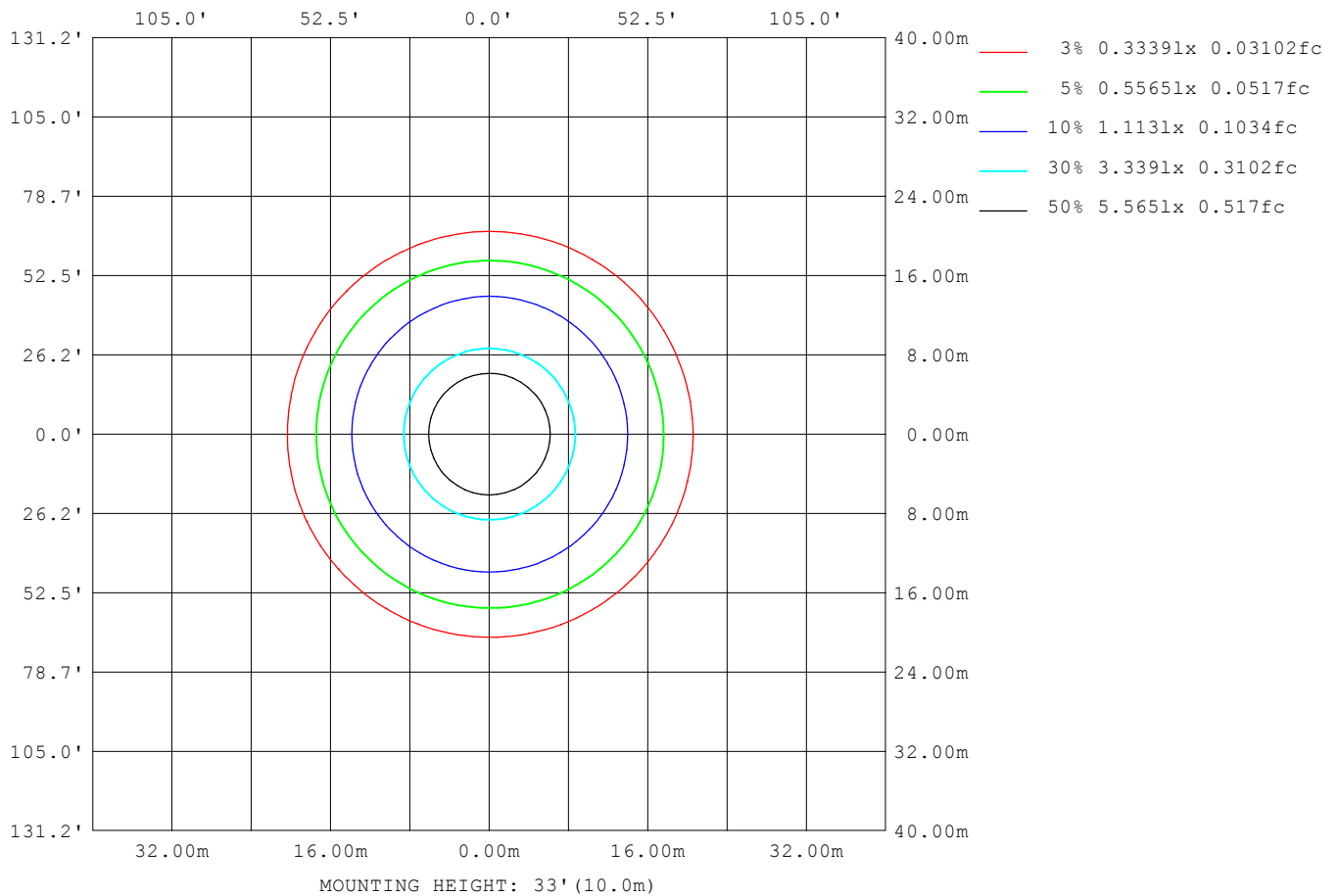
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm		
NAME: PORT C_WHT_CLE315G3_900mA_3K	TYPE: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:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:239.95V I:0.1448A P:33.105W PF:0.9529 Freq:50.08Hz Lamp Flux:3069.42x1 lm		
NAME: PORT C_WHT_CLE315G3_900mA_3K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: Darkon	SUR.:	Shielding Angle:

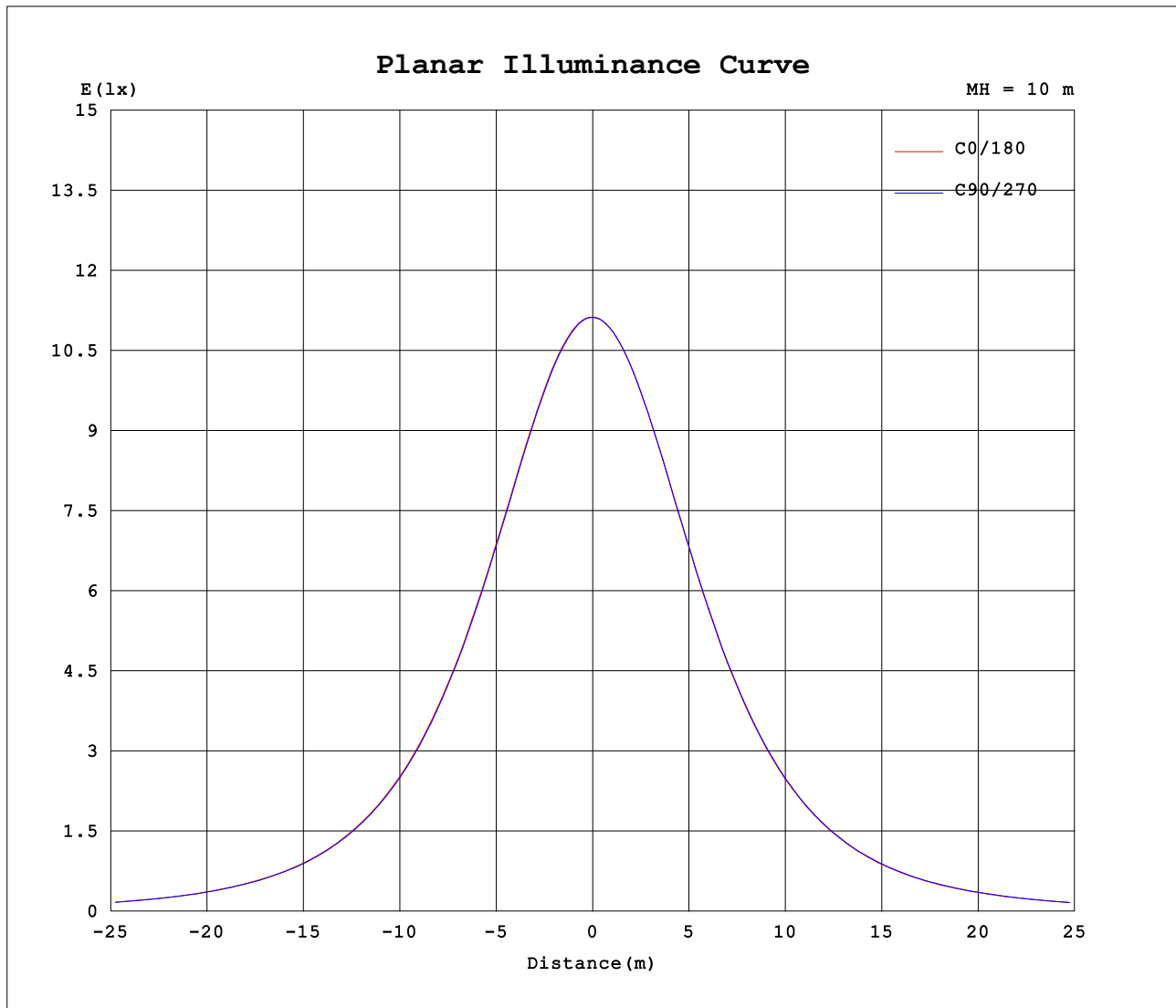
AvgL	cd/m2
L_0~180 (65) av	9786
L_0~180 (75) av	8754
L_0~180 (85) av	6713
L_90~270 (65) av	9800
L_90~270 (75) av	8801
L_90~270 (85) av	6799
L_45 (65) av	9793
L_45 (75) av	8778
L_45 (85) av	6755

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Ky
Test Date:06 June 2017

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:7.220m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Ky
Test Date: 06 June 2017

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 7.220m [K=1.0000]
Remarks:

