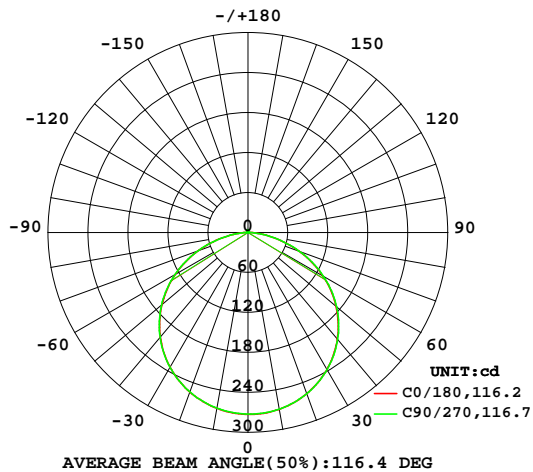


LUMINAIRE PHOTOMETRIC TEST REPORT

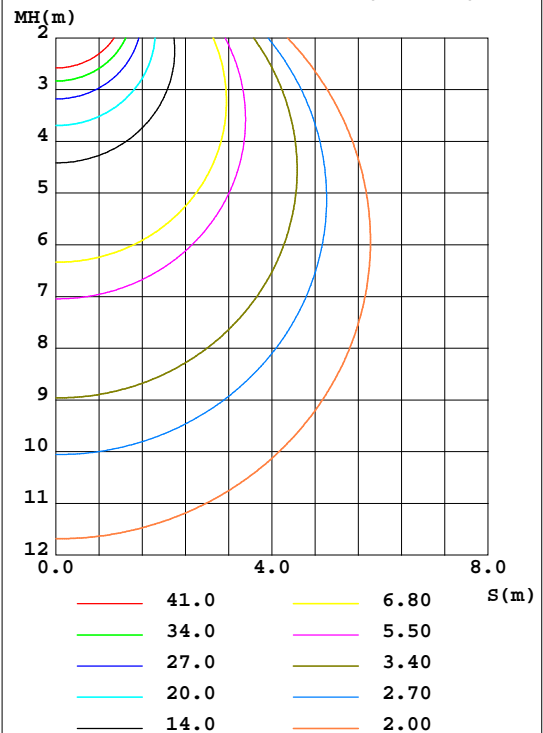
Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm		
NAME: D81204810NO	TYPE:	WEIGHT:
SPEC.:D81204810NO-9NWDA012WC0100	DIM.: 1000*10*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*10	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 96.96 lm/W			
MODEL	D81204810NO	I _{max} (cd)	273.0	S/MH(C0/180)	1.27
NOMINAL POWER(W)	8.8	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	824.19	h UP,DN(C0-180)	0.8,49.8
NOMINAL FLUX(lm)	824.186	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.7,48.7
LAMPS INSIDE	1	h up(%)	1.5	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	48	h down(%)	98.5	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-27

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

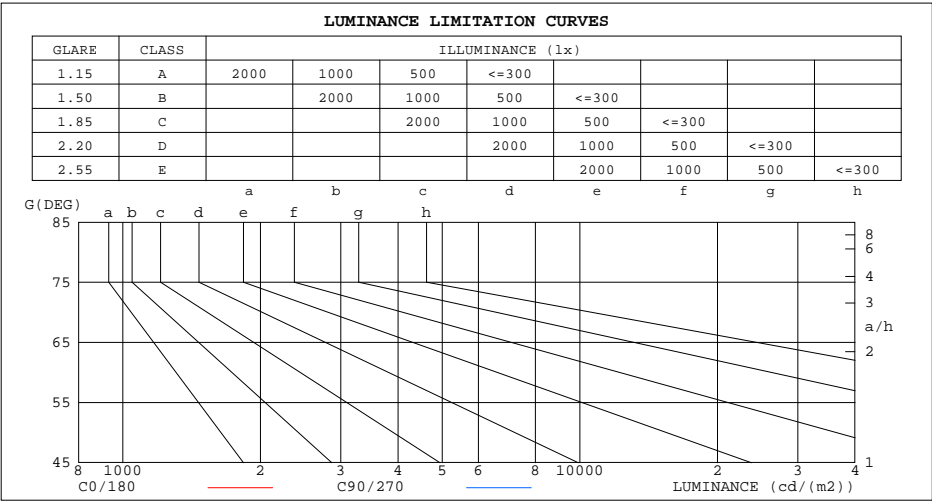
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	269.5	270.1	269.3	268.8	268.1	267.6	267.8	268.6	0- 10	25.85	25.85	3.14,3.14
20	257.6	258.8	257.6	256.5	254.9	253.9	254.8	256.1	10- 20	74.41	100.3	12.2,12.2
30	237.3	239.1	237.6	236.1	233.8	232.5	233.9	235.5	20- 30	113.9	214.1	26,26
40	208.9	211.3	209.5	207.8	204.9	203.6	205.3	207.0	30- 40	139.2	353.3	42.9,42.9
50	172.8	175.4	173.7	171.9	168.8	167.3	169.5	170.9	40- 50	146.7	500.0	60.7,60.7
60	129.6	132.3	130.6	129.2	126.2	124.7	127.0	128.1	50- 60	134.6	634.5	77,77
70	80.97	83.24	81.62	80.71	78.47	77.16	79.16	79.97	60- 70	103.6	738.1	89.6,89.6
80	31.85	33.36	31.78	31.80	30.92	29.90	31.16	31.63	70- 80	58.45	796.5	96.6,96.6
90	2.815	2.736	1.035	2.267	2.135	1.987	0.4038	2.317	80- 90	14.99	811.5	98.5,98.5
100	0.8216	0.9221	0.8216	0.8822	0.6354	0.5657	0.6028	0.5736	90-100	0.9421	812.5	98.6,98.6
110	1.456	1.438	1.403	1.363	1.258	1.122	1.276	1.134	100-110	1.061	813.5	98.7,98.7
120	2.104	2.119	2.096	1.931	1.845	1.708	1.785	1.688	110-120	1.598	815.1	98.9,98.9
130	2.737	2.680	2.664	2.485	2.412	2.317	2.218	2.096	120-130	1.958	817.1	99.1,99.1
140	3.179	3.026	3.072	3.013	2.879	2.859	2.545	2.431	130-140	2.067	819.2	99.4,99.4
150	3.566	3.267	3.305	3.527	3.214	3.413	2.974	2.665	140-150	1.917	821.1	99.6,99.6
160	3.940	3.480	3.819	4.008	3.661	3.920	3.627	3.058	150-160	1.597	822.7	99.8,99.8
170	4.175	4.008	4.348	4.402	3.907	4.268	4.248	3.833	160-170	1.106	823.8	100,100
180	4.148	4.689	4.783	4.702	4.161	4.702	4.783	4.709	170-180	0.4087	824.2	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-04-27

g Range: 0 - 180DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.950m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm		
NAME: D81204810NO	TYPE:	WEIGHT:
SPEC.:D81204810NO-9NWDA012WC0100	DIM.: 1000*10*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*10	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	143820	135806
80	183415	182996
75	215339	216690
70	236732	238637
65	250563	252571
60	259264	261227
55	265105	266838
50	268792	270264
45	271199	272440

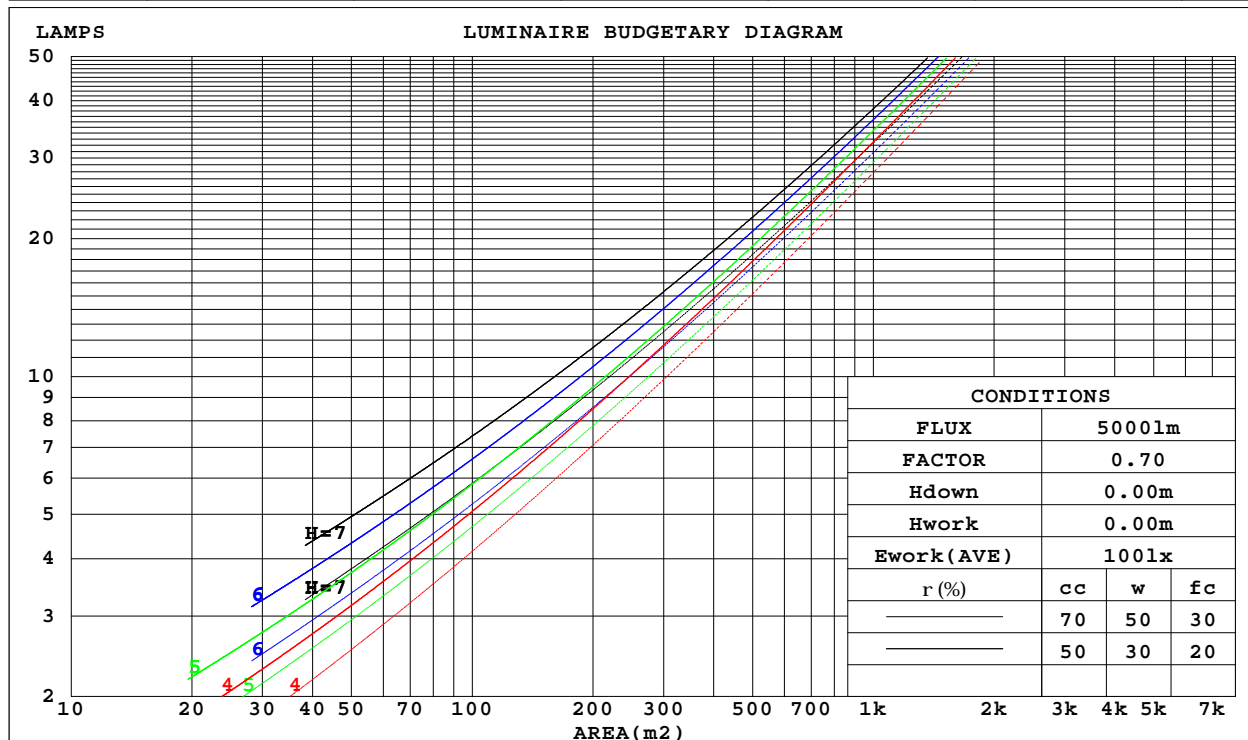
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-27

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm		
NAME: D81204810NO	TYPE:	WEIGHT:
SPEC.:D81204810NO-9NWDA012WC0100	DIM.: 1000*10*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*10	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-04-27

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.950m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm		
NAME: D81204810NO	TYPE:	WEIGHT:
SPEC.:D81204810NO-9NWDA012WC0100	DIM.: 1000*10*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*10	Shielding Angle:

rcc	80%	70%	50%	30%	10%	0
rw	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
rfc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)					
0.0						
1.0	.312 .177 .056	.304 .173 .055	.290 .166 .053	.277 .160 .051	.265 .154 .050	
2.0	.294 .161 .049	.287 .158 .049	.274 .153 .047	.263 .147 .046	.252 .143 .045	
3.0	.272 .145 .043	.266 .142 .043	.255 .138 .042	.244 .134 .041	.235 .130 .040	
4.0	.251 .130 .038	.245 .128 .038	.235 .125 .037	.226 .122 .037	.218 .118 .036	
5.0	.232 .118 .034	.227 .117 .034	.218 .114 .033	.210 .111 .033	.202 .108 .032	
6.0	.215 .108 .031	.211 .106 .031	.203 .104 .030	.195 .101 .030	.188 .099 .029	
7.0	.200 .099 .028	.196 .098 .028	.189 .096 .028	.182 .093 .027	.176 .091 .027	
8.0	.186 .091 .026	.183 .090 .025	.177 .088 .025	.171 .087 .025	.165 .085 .025	
9.0	.175 .084 .024	.172 .084 .023	.166 .082 .023	.161 .080 .023	.155 .079 .023	
10.0	.164 .079 .022	.161 .078 .022	.156 .077 .022	.151 .075 .021	.147 .074 .021	

rcc	80%	70%	50%	30%	10%	0
rw	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
rfc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)					
0.0	.202 .202 .202	.173 .173 .173	.118 .118 .118	.068 .068 .068	.022 .022 .022	
1.0	.192 .168 .146	.164 .144 .126	.112 .099 .087	.065 .057 .051	.021 .018 .016	
2.0	.184 .144 .110	.158 .124 .095	.108 .086 .066	.062 .050 .039	.020 .016 .013	
3.0	.177 .126 .086	.152 .109 .075	.104 .076 .052	.060 .044 .031	.019 .014 .010	
4.0	.169 .113 .070	.145 .098 .061	.100 .068 .043	.058 .040 .025	.019 .013 .008	
5.0	.162 .103 .059	.139 .089 .051	.096 .062 .036	.055 .036 .022	.018 .012 .007	
6.0	.155 .094 .051	.133 .082 .044	.092 .057 .031	.053 .034 .019	.017 .011 .006	
7.0	.148 .087 .045	.127 .076 .039	.088 .053 .028	.051 .031 .017	.016 .010 .005	
8.0	.141 .082 .041	.122 .071 .036	.084 .050 .025	.049 .029 .015	.016 .010 .005	
9.0	.135 .077 .037	.117 .067 .033	.081 .047 .023	.047 .028 .014	.015 .009 .005	
10.0	.130 .073 .035	.112 .063 .030	.078 .044 .021	.045 .026 .013	.015 .009 .004	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-27

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm											
NAME: D81204810NO					TYPE:			WEIGHT:			
SPEC.:D81204810NO-9NWDA012WC0100					DIM.: 1000*10*1.5			SERIAL No.:01			
MFR.: COLORS					SUR.:1000*10			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	33.0	34.5	33.3	34.7	35.0	33.0	34.5	33.3	34.8	35.0	
	3H	34.5	35.9	34.9	36.2	36.5	34.6	36.0	34.9	36.2	36.5
	4H	35.1	36.5	35.5	36.7	37.0	35.2	36.5	35.5	36.8	37.1
	6H	35.5	36.8	35.9	37.1	37.4	35.6	36.8	35.9	37.1	37.4
	8H	35.6	36.8	36.0	37.1	37.5	35.7	36.9	36.0	37.2	37.5
	12H	35.7	36.8	36.0	37.2	37.5	35.7	36.9	36.1	37.2	37.5
4H	2H	33.6	35.0	34.0	35.3	35.5	33.7	35.0	34.0	35.3	35.6
	3H	35.4	36.5	35.7	36.9	37.2	35.4	36.6	35.8	36.9	37.2
	4H	36.1	37.1	36.5	37.5	37.9	36.1	37.2	36.5	37.5	37.9
	6H	36.6	37.5	37.0	37.9	38.3	36.6	37.5	37.0	37.9	38.3
	8H	36.7	37.6	37.2	38.0	38.4	36.7	37.6	37.2	38.0	38.4
	12H	36.8	37.6	37.3	38.0	38.5	36.8	37.6	37.3	38.0	38.5
8H	4H	36.3	37.2	36.8	37.6	38.0	36.4	37.2	36.8	37.6	38.1
	6H	37.0	37.7	37.4	38.1	38.6	37.0	37.7	37.5	38.2	38.6
	8H	37.2	37.8	37.7	38.3	38.8	37.2	37.9	37.7	38.3	38.8
	12H	37.3	37.9	37.9	38.4	38.9	37.4	37.9	37.9	38.4	38.9
12H	4H	36.3	37.1	36.8	37.6	38.0	36.4	37.2	36.8	37.6	38.0
	6H	37.0	37.7	37.5	38.1	38.6	37.0	37.7	37.5	38.1	38.6
	8H	37.3	37.8	37.8	38.3	38.8	37.3	37.9	37.8	38.3	38.8
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					

CIE Pub.117, 824.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.7)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-27

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm		
NAME: D81204810NO	TYPE:	WEIGHT:
SPEC.:D81204810NO-9NWDA012WC0100	DIM.: 1000*10*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*10	Shielding Angle:

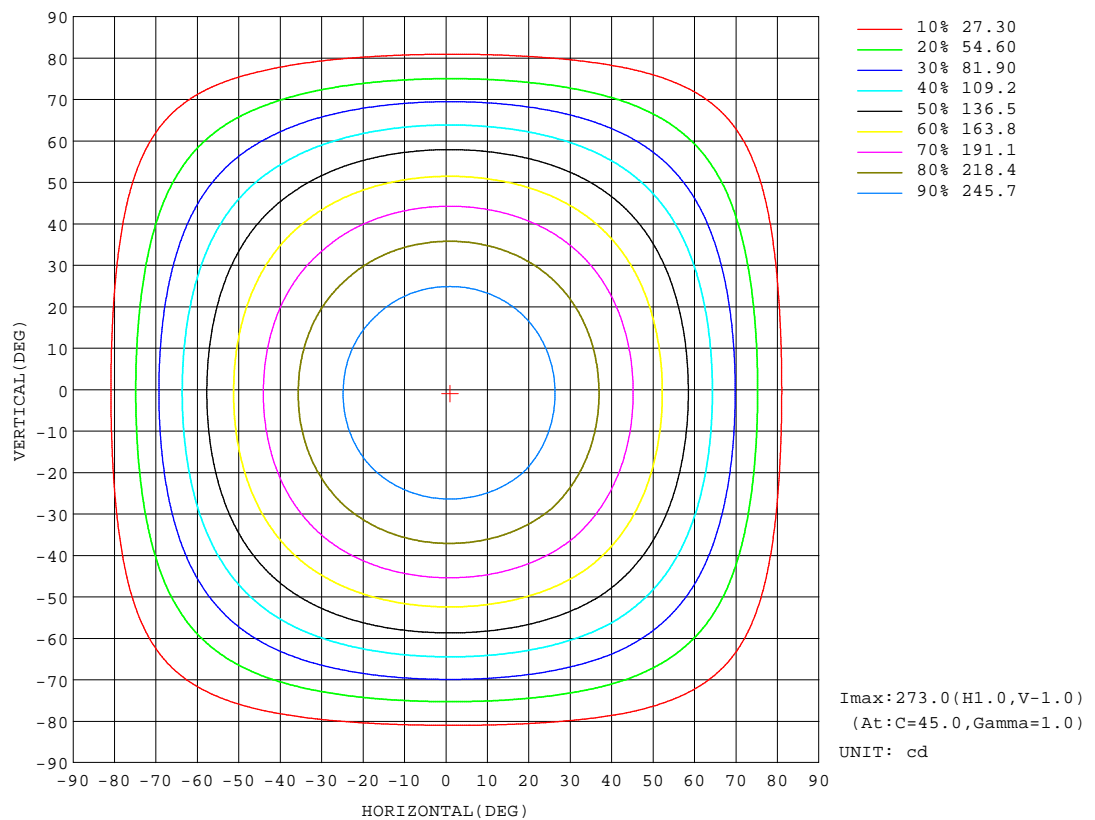
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	45	38	56	44	38	54	44	37	31
0.80	67	55	47	65	54	47	63	53	47	40
1.00	75	64	56	74	63	56	71	64	55	48
1.25	82	71	64	81	71	64	78	69	63	55
1.50	87	77	70	85	76	69	82	74	68	60
2.00	94	85	79	92	84	78	88	82	76	68
2.50	98	90	84	96	89	83	92	86	81	72
3.00	102	95	89	99	93	88	95	90	85	77
4.00	106	100	95	103	98	94	99	94	91	81
5.00	108	103	99	106	101	97	101	97	94	84
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-27

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm		
NAME: D81204810NO	TYPE:	WEIGHT:
SPEC.:D81204810NO-9NWDA012WC0100	DIM.: 1000*10*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*10	Shielding Angle:



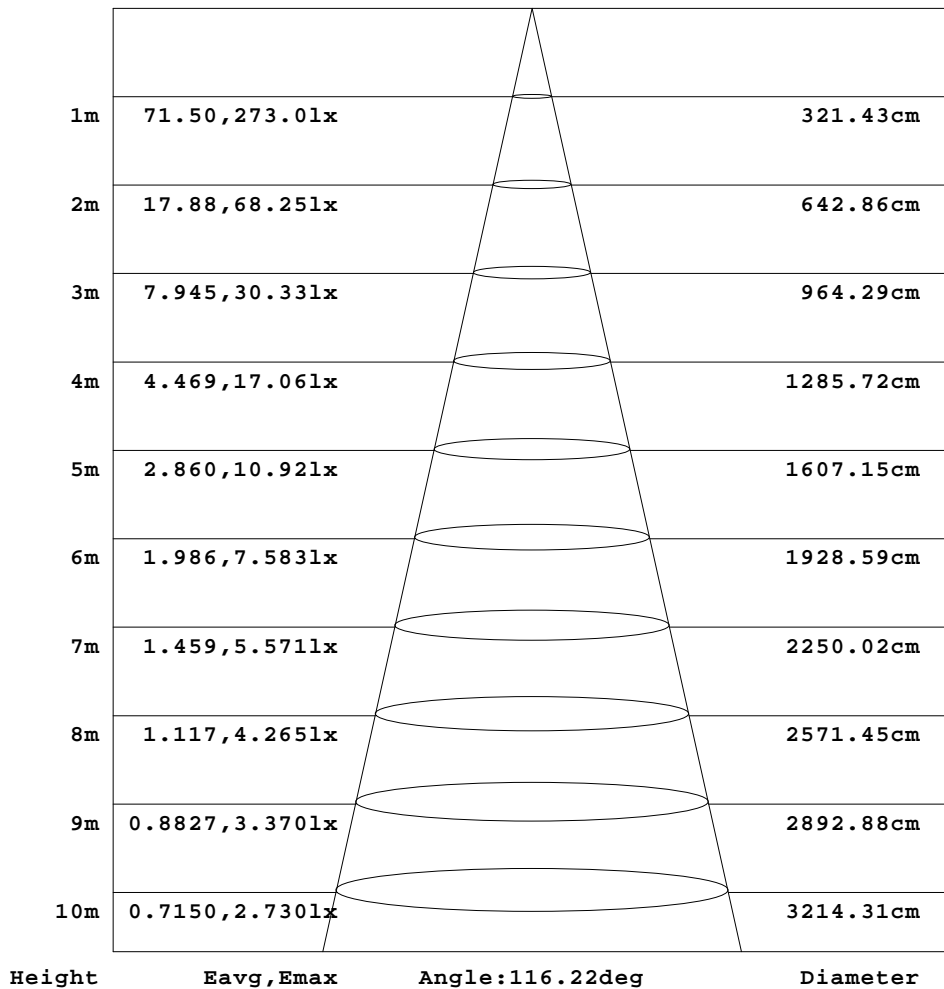
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-27

Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

AAI Figure

Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm		
NAME: D81204810NO	TYPE:	WEIGHT:
SPEC.:D81204810NO-9NWDA012WC0100	DIM.: 1000*10*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*10	Shielding Angle:

Flux out:622.2 lm



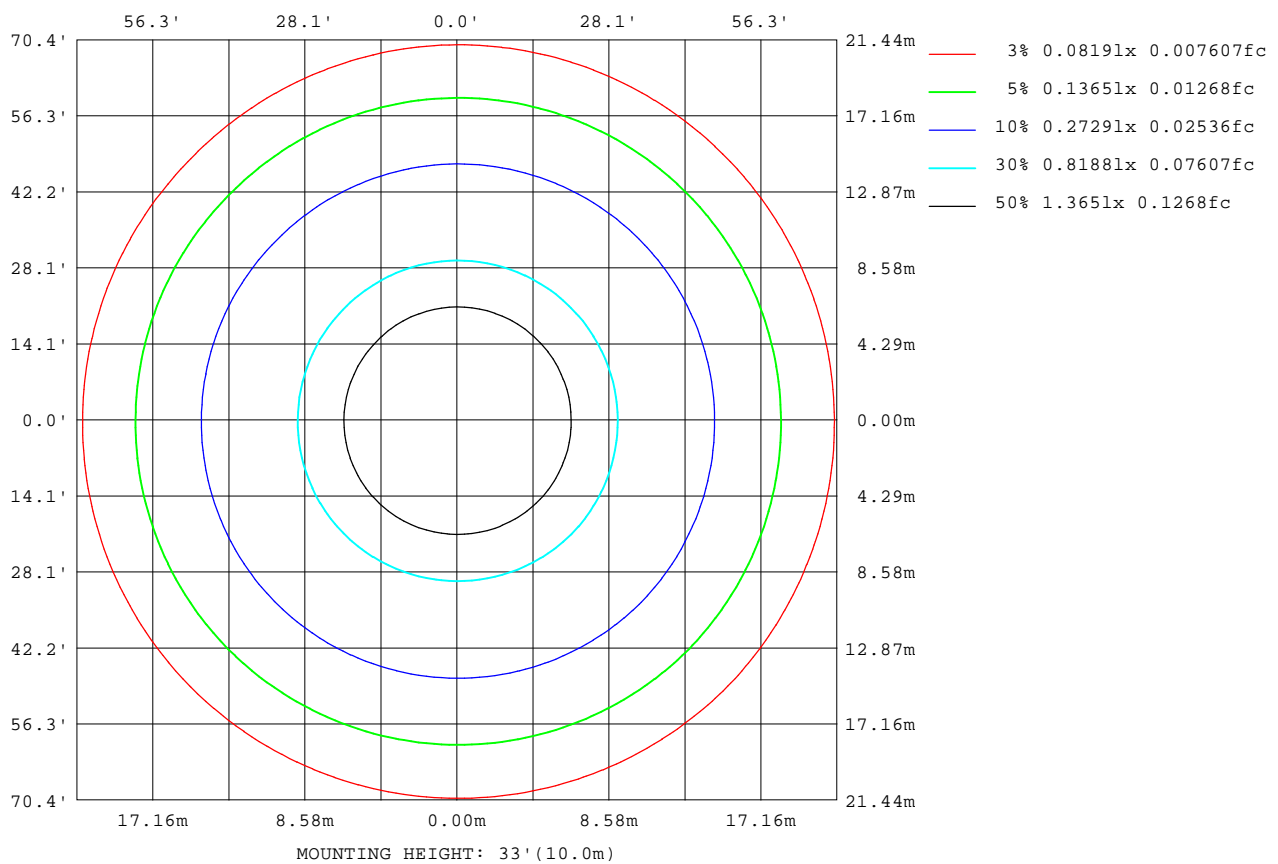
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-27

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

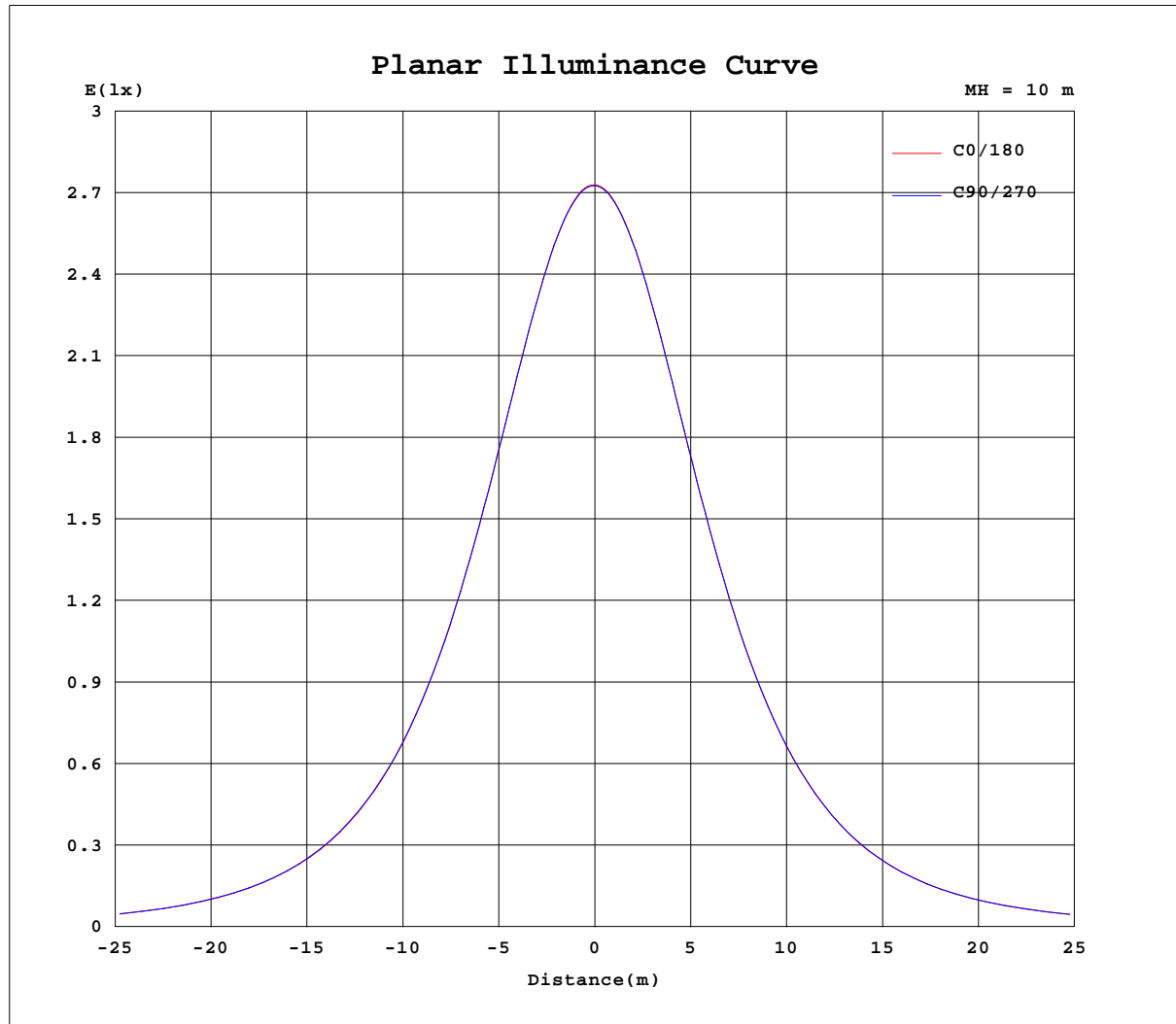
Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm		
NAME: D81204810NO	TYPE:	WEIGHT:
SPEC.:D81204810NO-9NWDA012WC0100	DIM.: 1000*10*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*10	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-27

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2020-04-27

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.950m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:48.00V I:0.1790A P:8.500W PF:1.000 Freq:0Hz Lamp Flux:824.186x1 lm		
NAME: D81204810NO	TYPE:	WEIGHT:
SPEC.:D81204810NO-9NWDA012WC0100	DIM.: 1000*10*1.5	SERIAL No.:01
MFR.: COLORS	SUR.:1000*10	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	273	273	273	273	273	273	273	273										
5	272	273	272	272	272	271	271	272										
10	270	270	269	269	268	268	268	269										
15	265	266	264	264	262	262	262	263										
20	258	259	258	257	255	254	255	256										
25	248	250	249	247	245	244	245	247										
30	237	239	238	236	234	233	234	235										
35	224	226	225	223	220	219	221	222										
40	209	211	210	208	205	204	205	207										
45	192	194	193	191	188	186	188	190										
50	173	175	174	172	169	167	170	171										
55	152	155	153	151	148	147	149	150										
60	130	132	131	129	126	125	127	128										
65	106	108	107	105	103	101	104	105										
70	81.0	83.2	81.6	80.7	78.5	77.2	79.2	80.0										
75	55.7	57.7	56.1	55.6	54.0	52.9	54.6	55.1										
80	31.8	33.4	31.8	31.8	30.9	29.9	31.2	31.6										
85	12.5	13.3	11.8	12.5	12.2	11.4	11.8	12.3										
90	2.82	2.74	1.03	2.27	2.14	1.99	0.40	2.32										
95	0.96	0.93	0.83	0.80	0.53	0.45	0.33	0.51										
100	0.82	0.92	0.82	0.88	0.64	0.57	0.60	0.57										
105	1.13	1.14	1.03	1.09	0.95	0.83	0.94	0.89										
110	1.46	1.44	1.40	1.36	1.26	1.12	1.28	1.13										
115	1.80	1.78	1.77	1.65	1.54	1.42	1.54	1.41										
120	2.10	2.12	2.10	1.93	1.85	1.71	1.78	1.69										
125	2.42	2.44	2.40	2.20	2.13	2.00	2.01	1.90										
130	2.74	2.68	2.66	2.49	2.41	2.32	2.22	2.10										
135	2.97	2.89	2.88	2.75	2.66	2.58	2.41	2.32										
140	3.18	3.03	3.07	3.01	2.88	2.86	2.54	2.43										
145	3.39	3.15	3.18	3.27	3.07	3.16	2.70	2.54										
150	3.57	3.27	3.31	3.53	3.21	3.41	2.97	2.66										
155	3.75	3.36	3.53	3.79	3.43	3.69	3.31	2.84										
160	3.94	3.48	3.82	4.01	3.66	3.92	3.63	3.06										
165	4.14	3.69	4.07	4.21	3.87	4.09	3.93	3.43										
170	4.17	4.01	4.35	4.40	3.91	4.27	4.25	3.83										
175	4.03	4.36	4.57	4.58	3.93	4.48	4.54	4.25										
180	4.15	4.69	4.78	4.70	4.16	4.70	4.78	4.71										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-04-27

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.950m [K=1.0000]
Remarks: