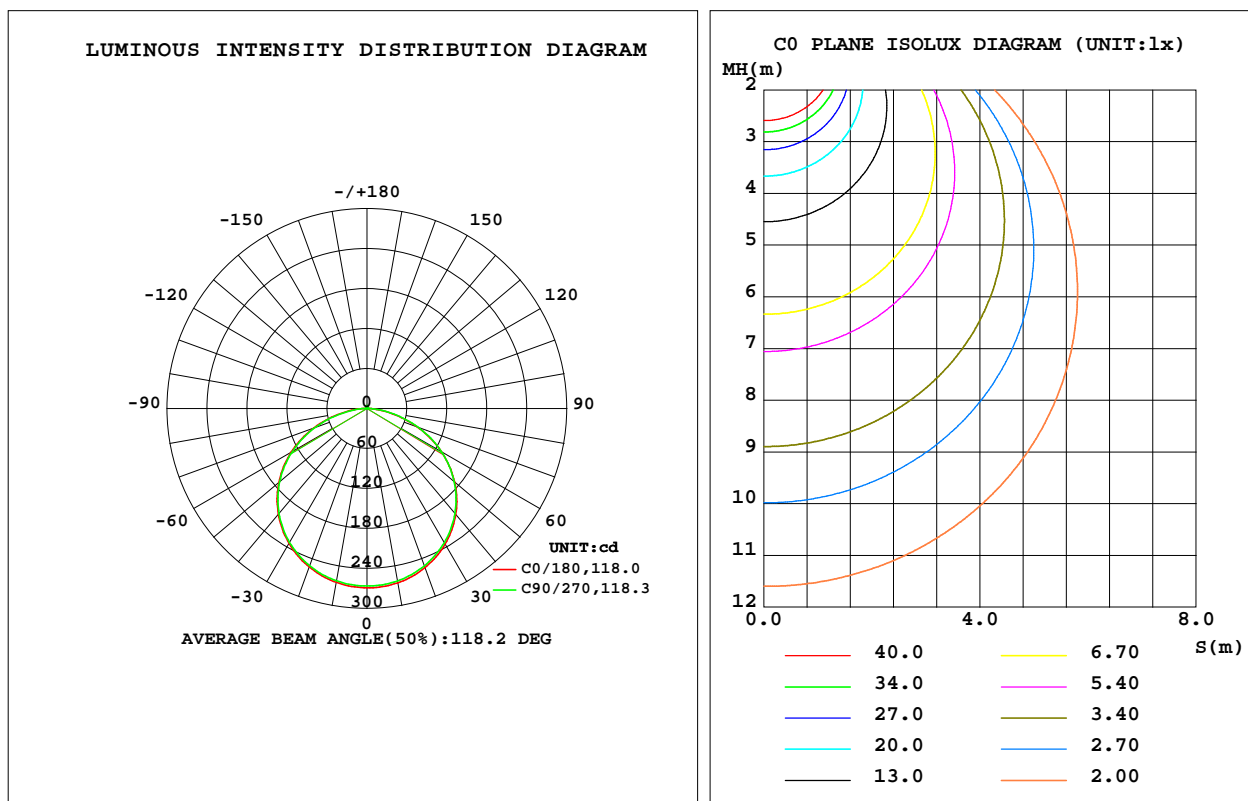


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.75lx1 lm		
NAME: D81202405NO	TYPE:	WEIGHT:
SPEC.:D81202405NO-9NWDA012WC0100	DIM.: 1000*5*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*5	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 93.81 lm/W			
MODEL	D81202405NO	I _{max} (cd)	269.0	S/MH(C0/180)	1.30
NOMINAL POWER(W)	8.4	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	827.74	h UP,DN(C0-180)	0.9,49.0
NOMINAL FLUX(lm)	827.751	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.8,49.3
LAMPS INSIDE	1	h up(%)	1.7	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	98.3	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-09

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:

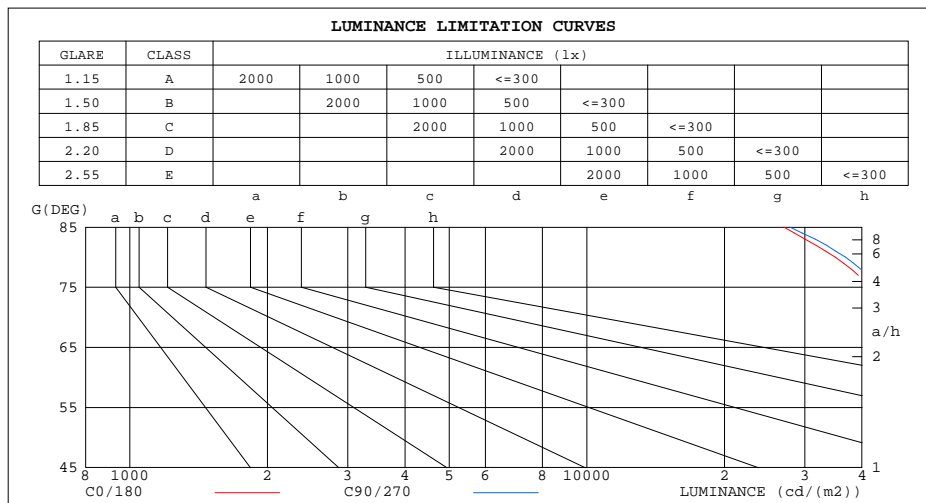
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	265.7	265.6	262.8	263.4	265.0	263.5	262.7	264.9	0- 10	25.40	25.40	3.07,3.07
20	254.3	255.1	251.5	251.3	253.3	251.0	251.3	254.0	10- 20	73.27	98.67	11.9,11.9
30	235.0	236.6	232.3	231.5	234.0	231.0	232.3	235.3	20- 30	112.5	211.2	25.5,25.5
40	207.4	209.9	205.4	203.8	207.1	203.5	205.6	208.7	30- 40	138.2	349.4	42.2,42.2
50	171.8	175.1	170.8	168.9	172.7	168.5	171.2	174.2	40- 50	146.5	495.9	59.9,59.9
60	128.7	132.6	129.0	127.6	131.5	126.7	129.6	132.3	50- 60	135.4	631.3	76.3,76.3
70	79.45	83.68	81.07	80.77	84.43	79.80	82.03	84.40	60- 70	105.1	736.4	89,89
80	30.37	33.68	31.94	33.54	36.19	32.59	33.40	35.67	70- 80	60.41	796.8	96.3,96.3
90	3.070	2.920	1.230	3.136	3.801	2.384	0.9320	5.764	80- 90	16.66	813.5	98.3,98.3
100	1.176	1.089	0.9888	1.163	0.7151	0.7007	0.6701	1.638	90-100	1.579	815.1	98.5,98.5
110	1.622	1.586	1.441	1.658	1.464	1.356	1.391	1.302	100-110	1.269	816.3	98.6,98.6
120	2.356	2.279	2.196	2.300	2.165	1.904	1.965	1.982	110-120	1.802	818.1	98.8,98.8
130	2.971	2.813	2.664	2.813	2.800	2.464	2.426	2.556	120-130	2.177	820.3	99.1,99.1
140	3.413	3.167	3.052	3.227	3.274	2.992	2.766	2.772	130-140	2.239	822.5	99.4,99.4
150	3.732	3.353	3.300	3.627	3.574	3.487	3.073	2.970	140-150	2.025	824.6	99.6,99.6
160	3.974	3.534	3.806	4.021	3.868	3.927	3.721	3.206	150-160	1.644	826.2	99.8,99.8
170	4.222	4.088	4.368	4.369	3.801	4.268	4.310	3.994	160-170	1.119	827.3	100,99.9
180	4.054	4.749	4.796	4.823	4.061	4.716	4.809	4.816	170-180	0.4113	827.7	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:2020-12-09

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:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.75lx1 lm		
NAME: D81202405NO	TYPE:	WEIGHT:
SPEC.:D81202405NO-9NWDA012WC0100	DIM.: 1000*5*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*5	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	26978	27821
80	34976	36791
75	41760	43309
70	46458	47409
65	49512	49968
60	51472	51594
55	52713	52584
50	53458	53151
45	53915	53468

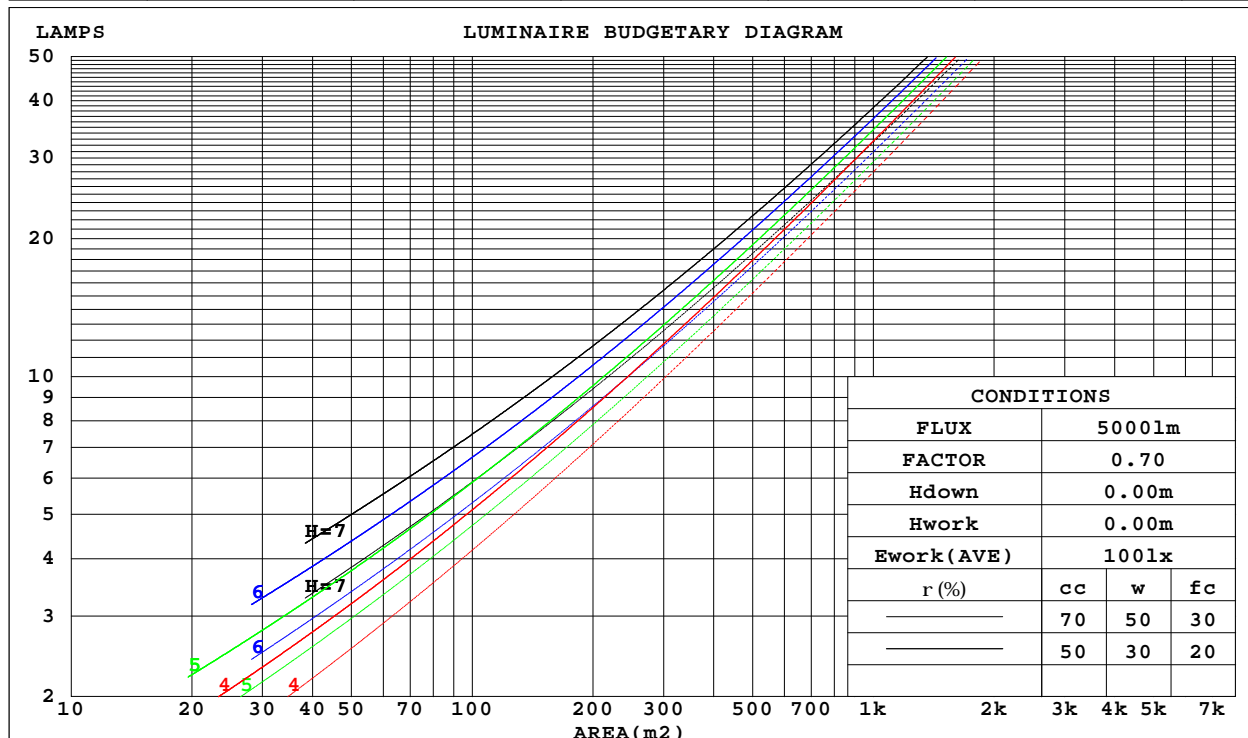
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-09

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:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.75lx1 lm		
NAME: D81202405NO	TYPE:	WEIGHT:
SPEC.:D81202405NO-9NWDA012WC0100	DIM.: 1000*5*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*5	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:2020-12-09

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:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.751x1 lm		
NAME: D81202405NO	TYPE:	WEIGHT:
SPEC.:D81202405NO-9NWDA012WC0100	DIM.: 1000*5*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*5	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	.315	.179	.057	.308	.176	.056	.293	.168	.054	.280	.162	.052	.268	.155	.050															
2.0	.296	.162	.050	.289	.159	.049	.277	.154	.048	.265	.149	.047	.254	.144	.045															
3.0	.274	.146	.044	.268	.143	.043	.256	.139	.042	.246	.135	.041	.236	.131	.040															
4.0	.252	.131	.039	.247	.129	.038	.237	.126	.038	.227	.122	.037	.219	.119	.036															
5.0	.233	.119	.034	.228	.117	.034	.219	.114	.034	.211	.111	.033	.203	.108	.033															
6.0	.216	.108	.031	.211	.107	.031	.203	.104	.030	.196	.102	.030	.189	.099	.030															
7.0	.200	.099	.028	.197	.098	.028	.190	.096	.028	.183	.094	.027	.177	.092	.027															
8.0	.187	.091	.026	.184	.090	.026	.177	.089	.025	.171	.087	.025	.166	.085	.025															
9.0	.175	.085	.024	.172	.084	.024	.166	.082	.023	.161	.081	.023	.156	.079	.023															
10.0	.165	.079	.022	.162	.078	.022	.157	.077	.022	.152	.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	.204	.204	.204	.174	.174	.174	.119	.119	.119	.068	.068	.068	.022	.022	.022	
1.0	.194	.169	.147	.166	.145	.127	.113	.100	.088	.065	.058	.051	.021	.019	.016	
2.0	.186	.145	.111	.159	.125	.096	.109	.086	.067	.063	.050	.039	.020	.016	.013	
3.0	.179	.128	.087	.153	.110	.076	.105	.077	.053	.061	.045	.031	.020	.015	.010	
4.0	.171	.115	.071	.147	.099	.062	.101	.069	.044	.058	.040	.026	.019	.013	.008	
5.0	.164	.104	.060	.141	.090	.052	.097	.063	.037	.056	.037	.022	.018	.012	.007	
6.0	.156	.096	.052	.134	.083	.046	.093	.058	.032	.054	.034	.019	.017	.011	.006	
7.0	.150	.089	.047	.129	.077	.041	.089	.054	.029	.052	.032	.017	.017	.010	.006	
8.0	.143	.083	.042	.123	.072	.037	.085	.051	.026	.050	.030	.016	.016	.010	.005	
9.0	.137	.078	.039	.118	.068	.034	.082	.048	.024	.048	.028	.014	.015	.009	.005	
10.0	.131	.074	.036	.113	.064	.031	.079	.045	.022	.046	.027	.013	.015	.009	.004	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-09

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:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.75lx1 lm											
NAME: D81202405NO					TYPE:			WEIGHT:			
SPEC.:D81202405NO-9NWDA012WC0100					DIM.: 1000*5*1.5mm			SERIAL No.:			
MFR.: COLORS					SUR.:1000*5			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	27.4	28.9	27.6	29.1	29.3	27.3	28.9	27.6	29.1	29.3	
	3H	28.9	30.3	29.2	30.5	30.8	28.9	30.3	29.2	30.6	30.8
	4H	29.4	30.8	29.8	31.1	31.4	29.5	30.8	29.8	31.1	31.4
	6H	29.8	31.1	30.2	31.4	31.7	29.9	31.1	30.3	31.5	31.8
	8H	29.9	31.1	30.3	31.4	31.8	30.0	31.2	30.4	31.5	31.9
	12H	29.9	31.1	30.3	31.4	31.8	30.0	31.2	30.4	31.5	31.9
4H	2H	28.0	29.3	28.3	29.6	29.9	28.0	29.3	28.3	29.6	29.9
	3H	29.7	30.9	30.1	31.2	31.5	29.7	30.9	30.1	31.2	31.6
	4H	30.4	31.5	30.8	31.8	32.2	30.4	31.5	30.8	31.9	32.2
	6H	30.9	31.8	31.3	32.2	32.6	31.0	31.9	31.4	32.3	32.7
	8H	31.0	31.9	31.4	32.3	32.7	31.1	32.0	31.5	32.4	32.8
	12H	31.1	31.9	31.5	32.3	32.7	31.2	32.0	31.6	32.4	32.9
8H	4H	30.7	31.5	31.1	31.9	32.4	30.7	31.6	31.1	32.0	32.4
	6H	31.3	32.0	31.7	32.4	32.9	31.4	32.1	31.8	32.5	33.0
	8H	31.5	32.1	32.0	32.6	33.1	31.6	32.2	32.1	32.7	33.2
	12H	31.6	32.2	32.1	32.7	33.2	31.7	32.3	32.2	32.8	33.3
12H	4H	30.7	31.5	31.1	31.9	32.3	30.7	31.5	31.2	31.9	32.4
	6H	31.3	32.0	31.8	32.4	32.9	31.4	32.1	31.9	32.5	33.0
	8H	31.6	32.1	32.1	32.6	33.1	31.7	32.2	32.2	32.7	33.2
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2				+ 0.1 / - 0.2						
1.5H	+ 0.2 / - 0.3				+ 0.2 / - 0.3						
2.0H	+ 0.2 / - 0.4				+ 0.2 / - 0.4						

CIE Pub.117, 827.8 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:2020-12-09

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:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.75lx1 lm		
NAME: D81202405NO	TYPE:	WEIGHT:
SPEC.:D81202405NO-9NWDA012WC0100	DIM.: 1000*5*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*5	Shielding Angle:

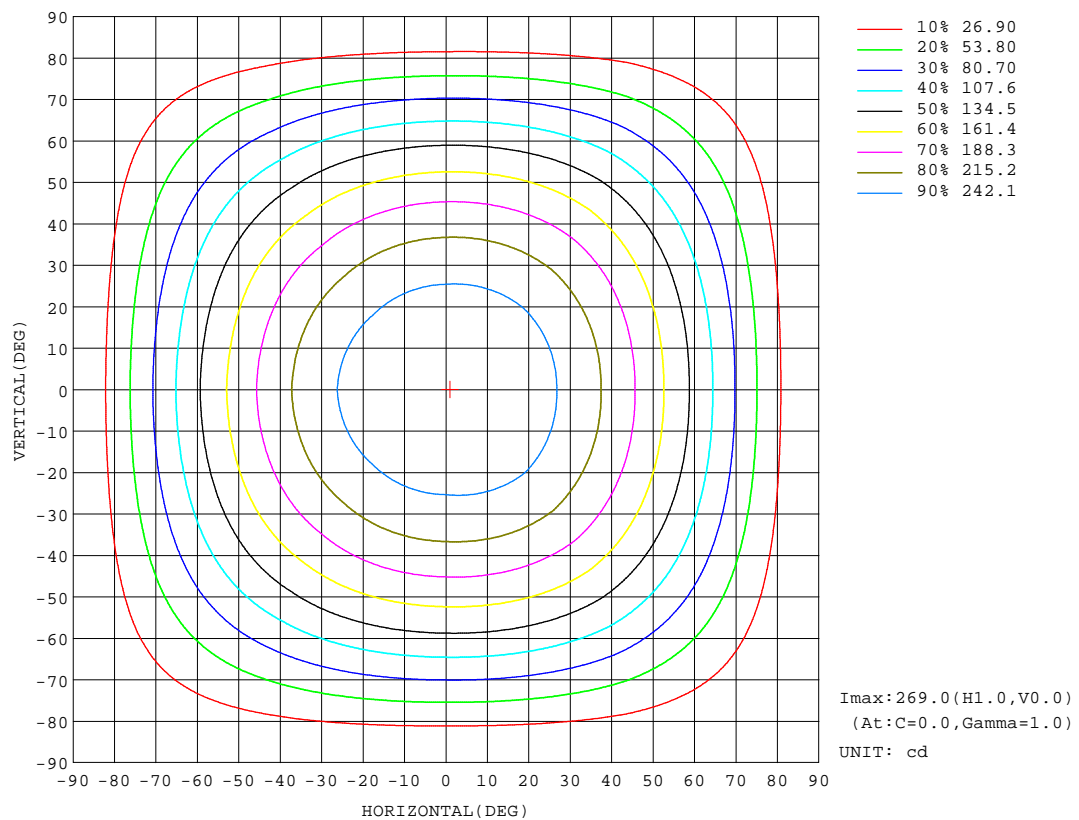
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	44	37	55	44	37	54	43	37	30
0.80	66	54	47	65	54	47	63	53	46	39
1.00	75	63	56	73	63	55	71	64	55	47
1.25	82	71	64	80	70	63	77	69	62	55
1.50	87	77	70	85	76	69	82	74	68	60
2.00	94	85	78	92	84	78	88	81	76	68
2.50	98	90	84	96	88	83	92	85	81	72
3.00	101	94	89	99	93	87	95	89	85	76
4.00	105	100	95	103	98	93	98	94	90	81
5.00	108	103	99	105	101	97	100	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:2020-12-09

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:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.75lx1 lm		
NAME: D81202405NO	TYPE:	WEIGHT:
SPEC.:D81202405NO-9NWDA012WC0100	DIM.: 1000*5*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*5	Shielding Angle:



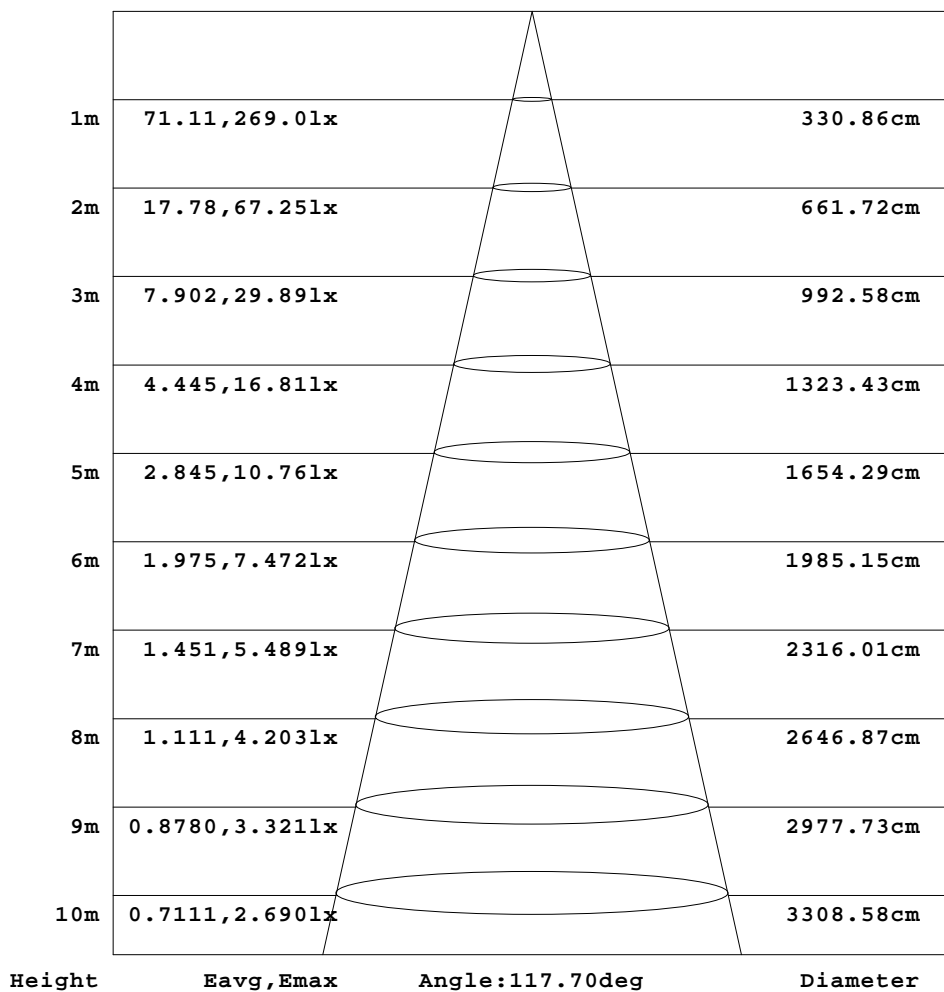
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-12-09

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:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.75lx1 lm		
NAME: D81202405NO	TYPE:	WEIGHT:
SPEC.:D81202405NO-9NWDA012WC0100	DIM.: 1000*5*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*5	Shielding Angle:

Flux out:618.8 lm



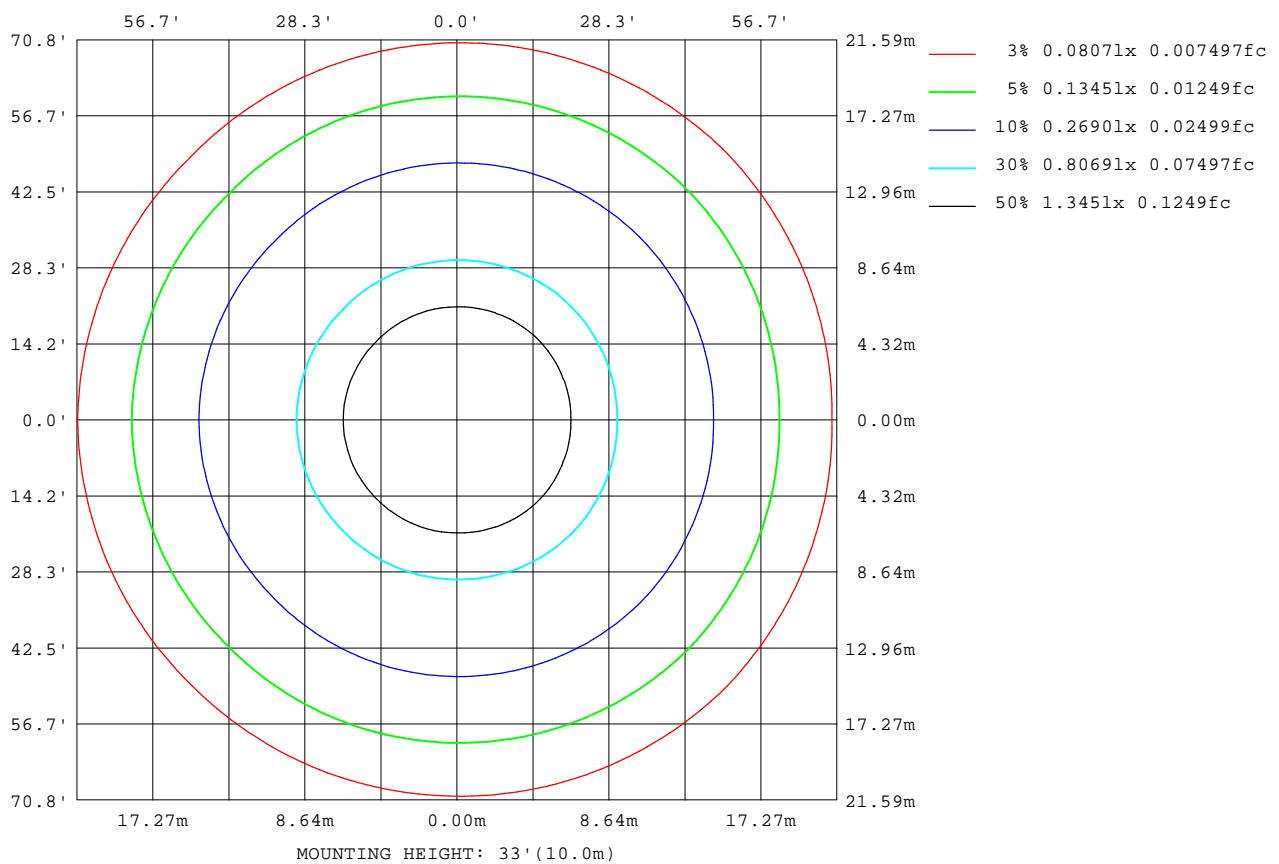
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-09

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

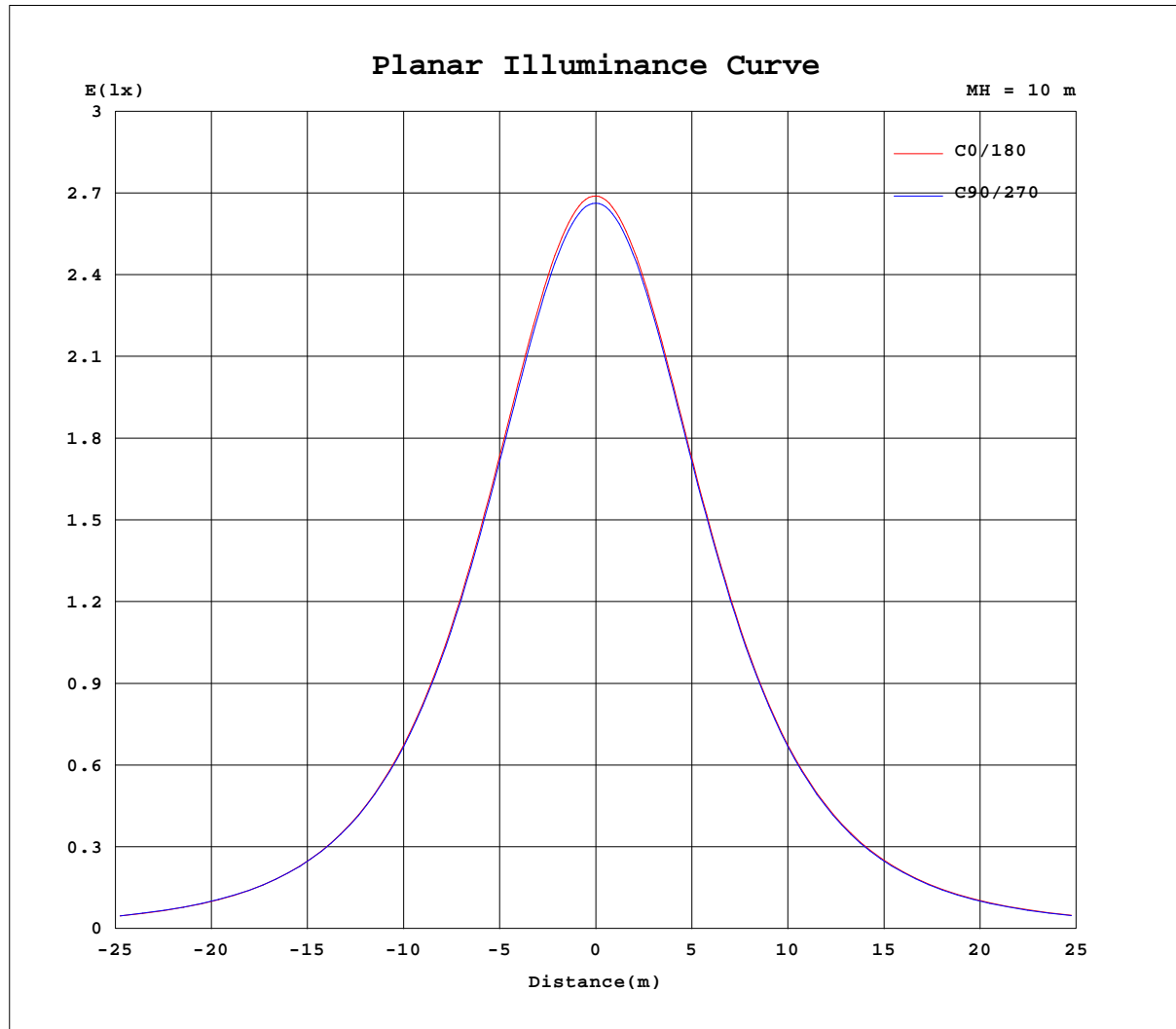
Test:U:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.75lx1 lm		
NAME: D81202405NO	TYPE:	WEIGHT:
SPEC.:D81202405NO-9NWDA012WC0100	DIM.: 1000*5*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*5	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-12-09

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: 2020-12-09

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:24.00V I:0.3677A P:8.824W PF:1.000 Freq:0Hz Lamp Flux:827.75lx1 lm		
NAME: D81202405NO	TYPE:	WEIGHT:
SPEC.:D81202405NO-9NWDA012WC0100	DIM.: 1000*5*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*5	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	269	268	266	268	269	268	266	268										
5	268	268	266	267	268	267	265	267										
10	266	266	263	263	265	263	263	265										
15	261	261	258	258	260	258	258	260										
20	254	255	251	251	253	251	251	254										
25	246	247	243	242	245	242	243	246										
30	235	237	232	231	234	231	232	235										
35	222	224	220	219	221	218	220	223										
40	207	210	205	204	207	203	206	209										
45	191	194	189	187	191	187	189	192										
50	172	175	171	169	173	168	171	174										
55	151	155	151	149	153	148	151	154										
60	129	133	129	128	131	127	130	132										
65	105	109	106	105	109	104	106	109										
70	79.4	83.7	81.1	80.8	84.4	79.8	82.0	84.4										
75	54.0	58.0	56.0	56.6	59.8	55.6	57.3	59.4										
80	30.4	33.7	31.9	33.5	36.2	32.6	33.4	35.7										
85	11.8	14.0	12.1	14.2	16.0	13.3	13.6	15.8										
90	3.07	2.92	1.23	3.14	3.80	2.38	0.93	5.76										
95	1.51	1.33	1.03	1.25	1.02	0.66	0.35	3.25										
100	1.18	1.09	0.99	1.16	0.72	0.70	0.67	1.64										
105	1.28	1.30	1.10	1.37	1.08	1.03	1.06	1.08										
110	1.62	1.59	1.44	1.66	1.46	1.36	1.39	1.30										
115	1.98	1.96	1.82	1.99	1.82	1.68	1.69	1.68										
120	2.36	2.28	2.20	2.30	2.17	1.90	1.97	1.98										
125	2.68	2.59	2.44	2.58	2.51	2.19	2.19	2.34										
130	2.97	2.81	2.66	2.81	2.80	2.46	2.43	2.56										
135	3.20	3.02	2.88	3.03	3.05	2.76	2.61	2.67										
140	3.41	3.17	3.05	3.23	3.27	2.99	2.77	2.77										
145	3.54	3.27	3.20	3.42	3.43	3.25	2.90	2.84										
150	3.73	3.35	3.30	3.63	3.57	3.49	3.07	2.97										
155	3.82	3.44	3.51	3.85	3.73	3.71	3.35	3.05										
160	3.97	3.53	3.81	4.02	3.87	3.93	3.72	3.21										
165	4.15	3.73	4.08	4.18	3.92	4.07	4.03	3.57										
170	4.22	4.09	4.37	4.37	3.80	4.27	4.31	3.99										
175	4.04	4.45	4.59	4.61	3.75	4.48	4.61	4.45										
180	4.05	4.75	4.80	4.82	4.06	4.72	4.81	4.82										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-09

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: