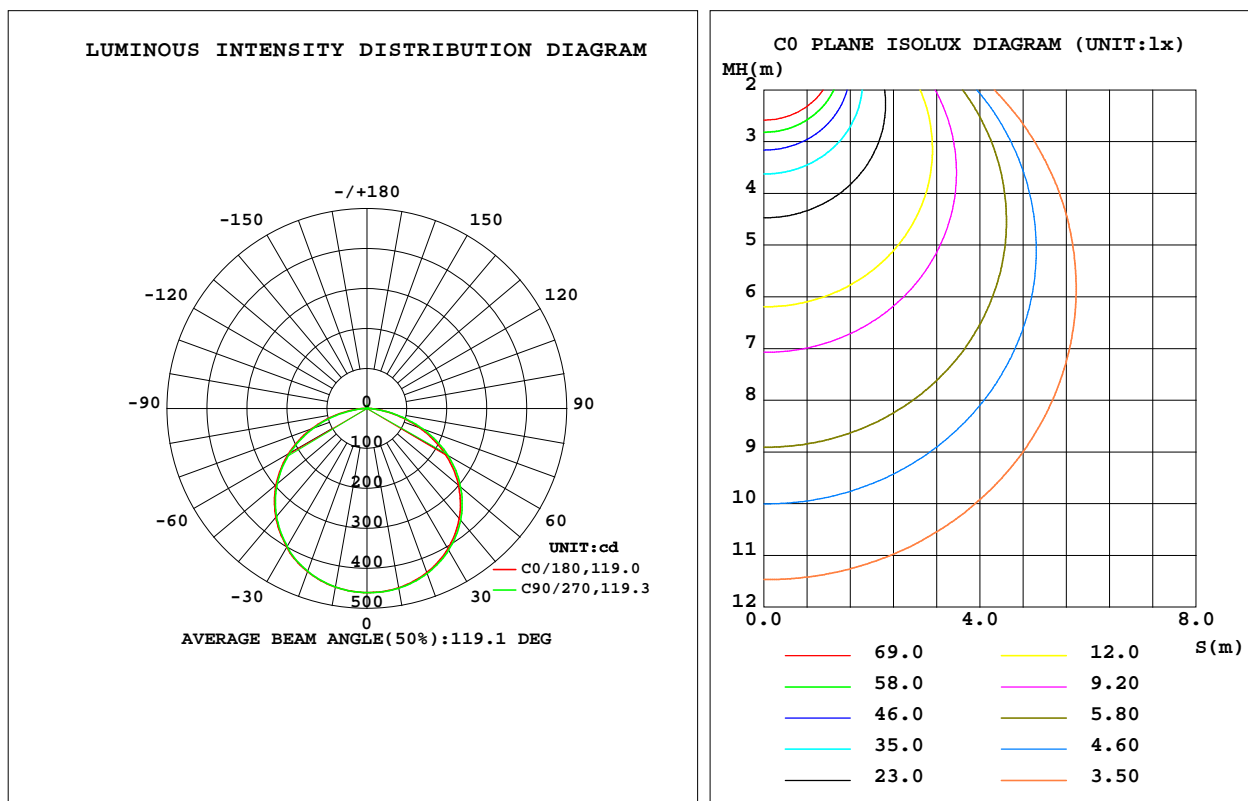


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.00V I:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-8NWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 156.83 lm/W			
MODEL	D81282408NO	I _{max} (cd)	461.3	S/MH(C0/180)	1.31
NOMINAL POWER(W)	8.7	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	1436.2	h UP,DN(C0-180)	0.9,49.7
NOMINAL FLUX(lm)	1436.21	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.8,48.7
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:2020-12-03

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:

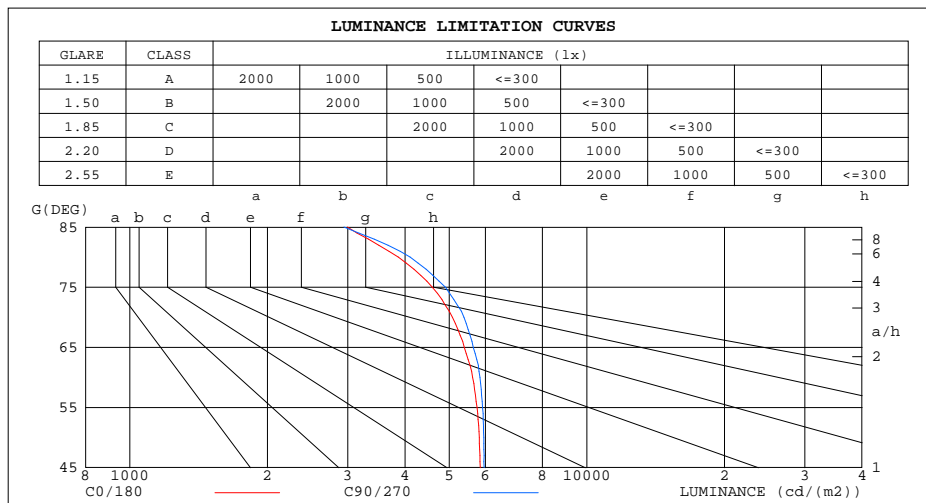
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	455.2	457.0	456.6	456.5	453.7	453.5	453.4	454.4	0- 10	43.72	43.72	3.04,3.04
20	437.2	439.9	439.6	439.0	434.6	433.2	433.3	434.2	10- 20	126.4	170.1	11.8,11.8
30	404.9	409.6	409.0	408.9	400.8	400.1	398.7	400.9	20- 30	194.6	364.7	25.4,25.4
40	359.2	362.1	364.7	362.1	355.0	354.7	352.2	354.5	30- 40	239.3	604.0	42.1,42.1
50	299.1	302.9	305.9	304.6	297.3	296.3	293.4	294.3	40- 50	254.7	858.7	59.8,59.8
60	225.2	229.7	233.3	233.8	227.0	225.3	222.2	221.3	50- 60	236.5	1095	76.3,76.3
70	139.1	144.4	147.3	151.3	146.3	142.9	140.3	136.3	60- 70	184.0	1279	89.1,89.1
80	53.74	56.68	57.05	64.66	62.17	59.55	56.05	52.28	70- 80	105.5	1385	96.4,96.4
90	4.246	4.589	2.562	5.440	5.679	4.842	1.180	2.803	80- 90	27.64	1412	98.3,98.3
100	1.870	1.931	1.750	1.873	1.249	1.233	1.212	1.342	90-100	2.029	1414	98.5,98.5
110	2.905	2.821	2.514	2.736	2.621	2.357	2.512	2.348	100-110	2.161	1416	98.6,98.6
120	4.114	4.010	3.821	3.915	3.821	3.384	3.427	3.510	110-120	3.163	1420	98.8,98.8
130	5.130	4.944	4.702	4.776	4.870	4.275	4.101	4.268	120-130	3.775	1423	99.1,99.1
140	5.850	5.585	5.415	5.465	5.692	5.170	4.603	4.709	130-140	3.862	1427	99.4,99.4
150	6.311	5.925	5.837	6.120	6.173	5.991	5.266	4.923	140-150	3.492	1431	99.6,99.6
160	6.826	6.233	6.511	6.828	6.673	6.691	6.441	5.504	150-160	2.826	1434	99.8,99.8
170	7.141	7.021	7.467	7.435	6.705	7.313	7.449	6.845	160-170	1.926	1436	100,100
180	7.047	8.116	8.209	8.316	7.040	8.116	8.242	8.316	170-180	0.7065	1436	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:2020-12-03

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:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-8NWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	2992	2943
80	3868	4107
75	4592	4902
70	5084	5382
65	5398	5644
60	5629	5834
55	5754	5917
50	5816	5950
45	5847	5959

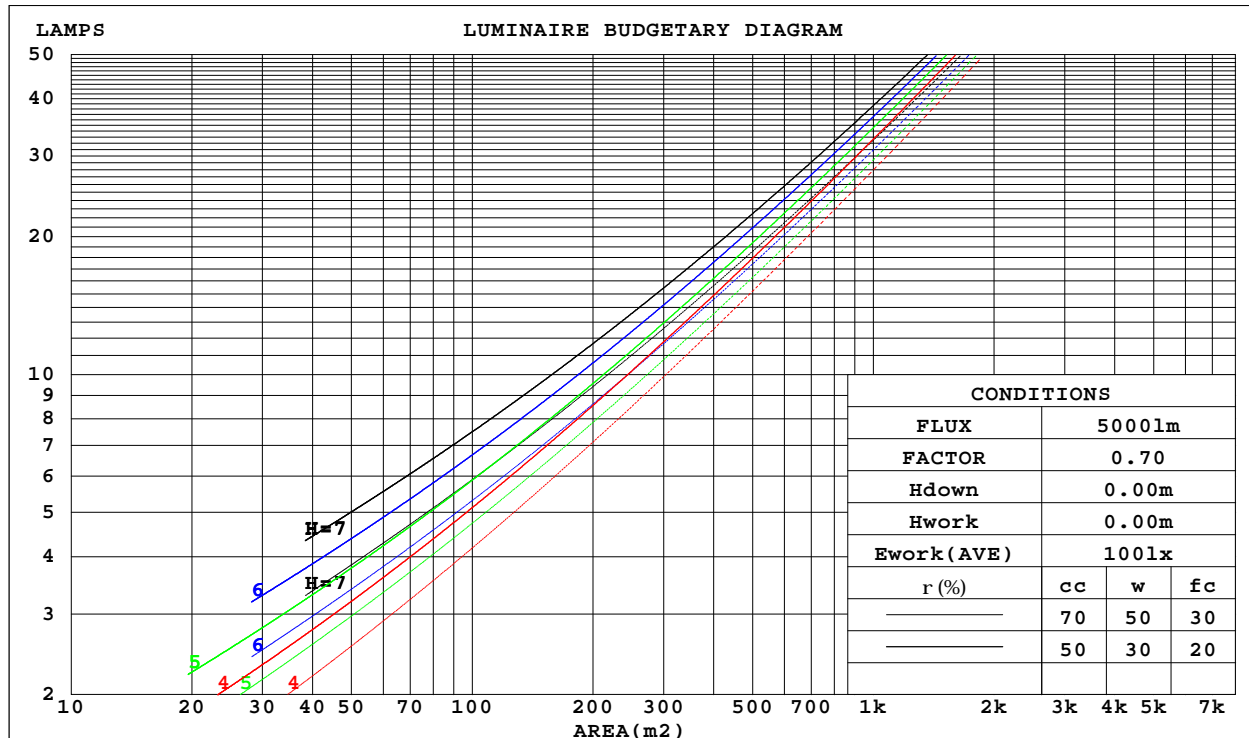
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-12-03

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:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-8NWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	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 Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.98
1.0	1.03	.99	.95	1.01	.97	.93	.96	.93	.90	.92	.89	.87	.88	.86	.84	.82
2.0	.90	.83	.77	.88	.81	.76	.84	.78	.74	.80	.76	.72	.77	.73	.70	.68
3.0	.78	.70	.63	.77	.69	.63	.73	.67	.61	.70	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.62	.56	.51	.60	.55	.50	.48
5.0	.62	.52	.46	.60	.52	.45	.58	.51	.45	.56	.49	.44	.54	.48	.43	.41
6.0	.55	.46	.40	.54	.46	.39	.52	.45	.39	.50	.44	.38	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.41	.35	.47	.40	.34	.46	.39	.34	.44	.38	.34	.32
8.0	.46	.37	.31	.45	.37	.31	.43	.36	.31	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.33	.28	.41	.33	.28	.40	.33	.27	.39	.32	.27	.38	.31	.27	.25
10.0	.39	.31	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-8NWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	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	.307	.175	.056	.293	.168	.054	.280	.162	.052	.268	.155	.050	
2.0	.296	.162	.050	.290	.159	.049	.277	.154	.048	.265	.149	.047	.255	.144	.045	
3.0	.274	.146	.044	.268	.143	.043	.257	.139	.042	.246	.135	.041	.237	.131	.041	
4.0	.252	.131	.039	.247	.129	.038	.237	.126	.038	.228	.122	.037	.219	.119	.036	
5.0	.233	.119	.034	.228	.117	.034	.219	.114	.034	.211	.111	.033	.203	.109	.033	
6.0	.216	.108	.031	.212	.107	.031	.204	.104	.030	.196	.102	.030	.189	.100	.030	
7.0	.201	.099	.028	.197	.098	.028	.190	.096	.028	.183	.094	.027	.177	.092	.027	
8.0	.187	.092	.026	.184	.091	.026	.178	.089	.025	.171	.087	.025	.166	.085	.025	
9.0	.175	.085	.024	.172	.084	.024	.167	.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	.203	.203	.203	.174	.174	.174	.119	.119	.119	.068	.068	.068	.022	.022	.022	
1.0	.193	.169	.147	.166	.145	.126	.113	.100	.087	.065	.058	.051	.021	.019	.016	
2.0	.186	.145	.110	.159	.125	.095	.109	.086	.067	.063	.050	.039	.020	.016	.013	
3.0	.178	.127	.087	.153	.110	.075	.105	.076	.053	.061	.045	.031	.019	.014	.010	
4.0	.171	.114	.071	.146	.099	.062	.101	.069	.043	.058	.040	.026	.019	.013	.008	
5.0	.163	.104	.060	.140	.090	.052	.097	.063	.037	.056	.037	.022	.018	.012	.007	
6.0	.156	.095	.052	.134	.083	.045	.093	.058	.032	.054	.034	.019	.017	.011	.006	
7.0	.149	.089	.046	.128	.077	.040	.089	.054	.028	.052	.032	.017	.017	.010	.006	
8.0	.143	.083	.042	.123	.072	.036	.085	.050	.026	.049	.030	.015	.016	.010	.005	
9.0	.137	.078	.038	.118	.068	.033	.082	.048	.024	.048	.028	.014	.015	.009	.005	
10.0	.131	.074	.035	.113	.064	.031	.078	.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:2020-12-03

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:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm										
NAME: D81282408NO					TYPE:			WEIGHT:		
SPEC.:D81282408NO-8NWDA012WC0100					DIM.: 1000*8*1.6mm			SERIAL No.:		
MFR.: COLORS					SUR.:1000*8			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	17.7	19.3	18.0	19.5	19.7	17.9	19.4	18.2	19.6	19.9
3H	19.3	20.7	19.6	20.9	21.2	19.4	20.9	19.8	21.1	21.4
4H	19.8	21.2	20.2	21.5	21.7	20.1	21.4	20.4	21.7	22.0
6H	20.2	21.5	20.6	21.8	22.1	20.4	21.7	20.8	22.0	22.3
8H	20.3	21.5	20.7	21.8	22.2	20.5	21.8	20.9	22.1	22.4
12H	20.3	21.5	20.7	21.8	22.2	20.6	21.7	21.0	22.1	22.4
4H 2H	18.4	19.7	18.7	20.0	20.3	18.5	19.8	18.8	20.1	20.4
3H	20.1	21.3	20.5	21.6	21.9	20.2	21.4	20.6	21.7	22.1
4H	20.8	21.8	21.2	22.2	22.6	21.0	22.0	21.4	22.4	22.8
6H	21.3	22.2	21.7	22.6	23.0	21.5	22.4	21.9	22.8	23.2
8H	21.4	22.3	21.8	22.7	23.1	21.6	22.5	22.0	22.9	23.3
12H	21.5	22.3	21.9	22.7	23.1	21.7	22.5	22.1	22.9	23.3
8H 4H	21.0	21.9	21.5	22.3	22.7	21.2	22.1	21.6	22.5	22.9
6H	21.7	22.4	22.1	22.8	23.3	21.8	22.6	22.3	23.0	23.5
8H	21.9	22.5	22.4	23.0	23.5	22.1	22.7	22.5	23.2	23.6
12H	22.0	22.6	22.5	23.0	23.6	22.2	22.7	22.7	23.2	23.7
12H 4H	21.0	21.9	21.5	22.3	22.7	21.2	22.0	21.7	22.4	22.9
6H	21.7	22.4	22.2	22.8	23.3	21.9	22.5	22.4	23.0	23.5
8H	21.9	22.5	22.4	23.0	23.5	22.1	22.7	22.6	23.2	23.7
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 / - 0.4					+ 0.2 / - 0.3				

CIE Pub.117, 1436 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.3)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-8NWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

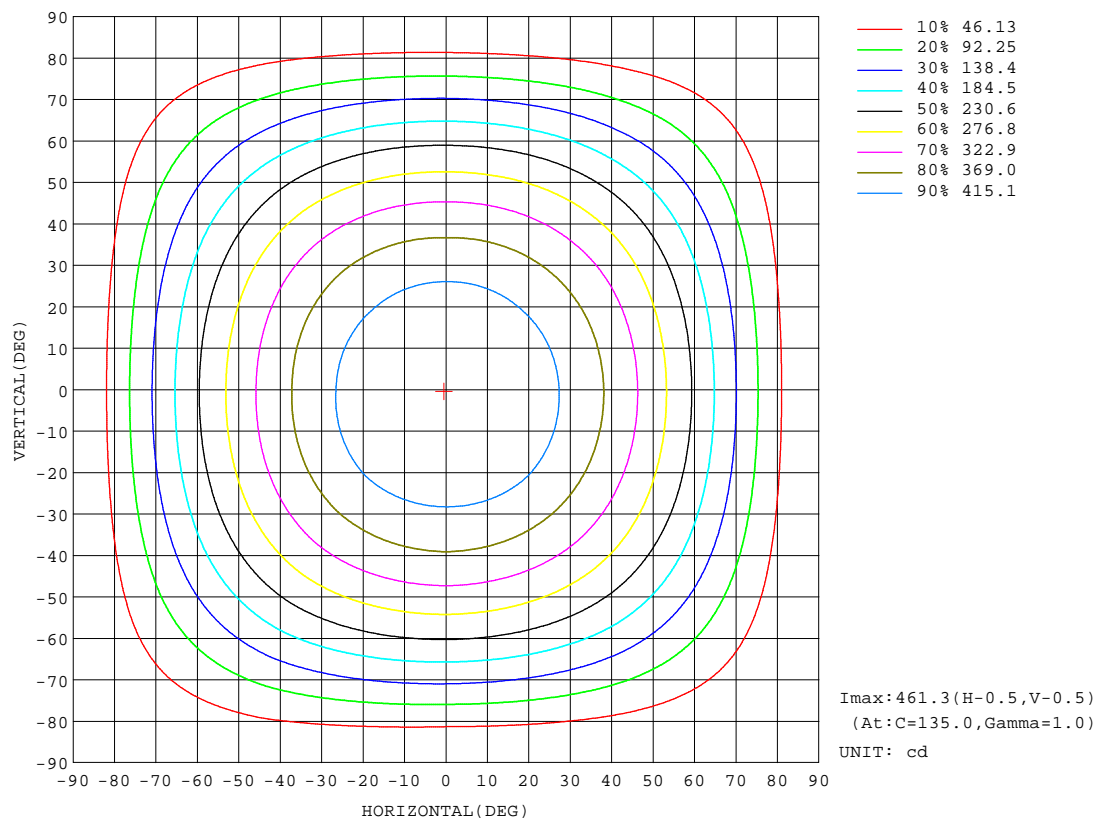
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	47	65	54	46	63	53	46	39
1.00	75	63	56	73	62	55	71	64	55	47
1.25	82	71	64	80	70	63	77	69	62	55
1.50	87	77	69	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	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:2020-12-03

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:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-8NWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



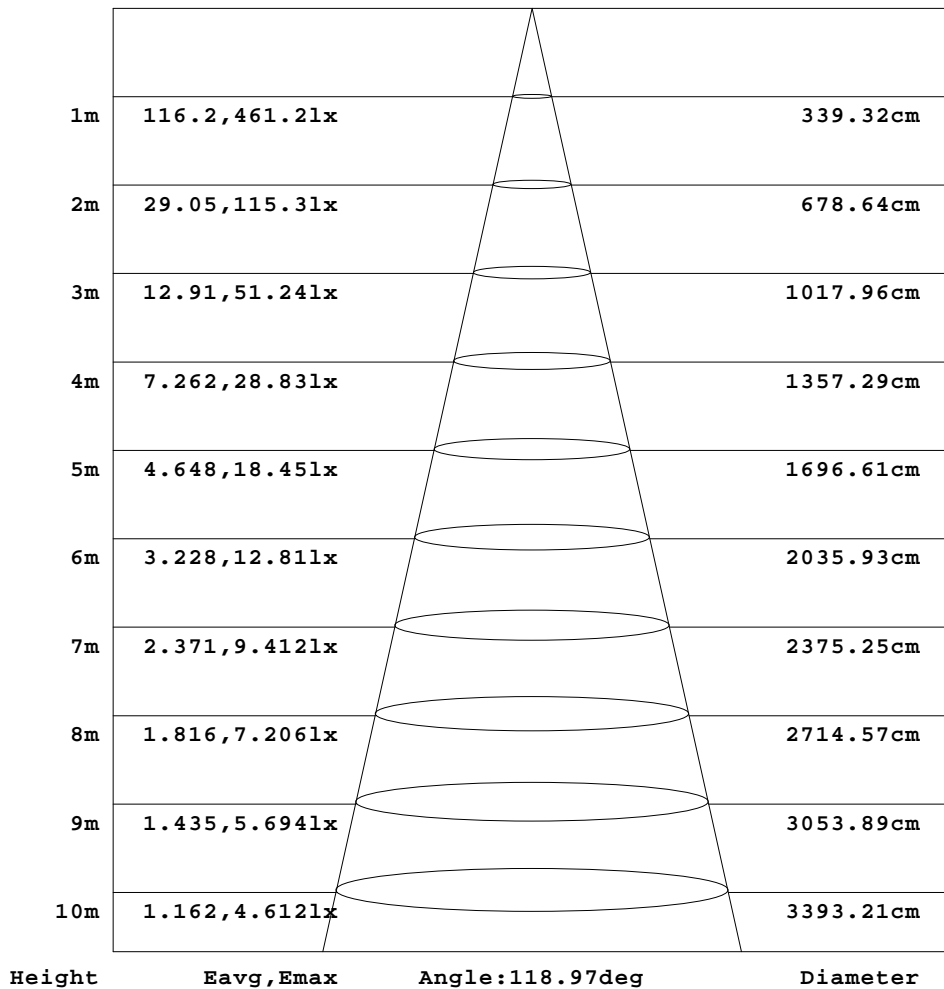
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-8NWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

Flux out:1095 lm



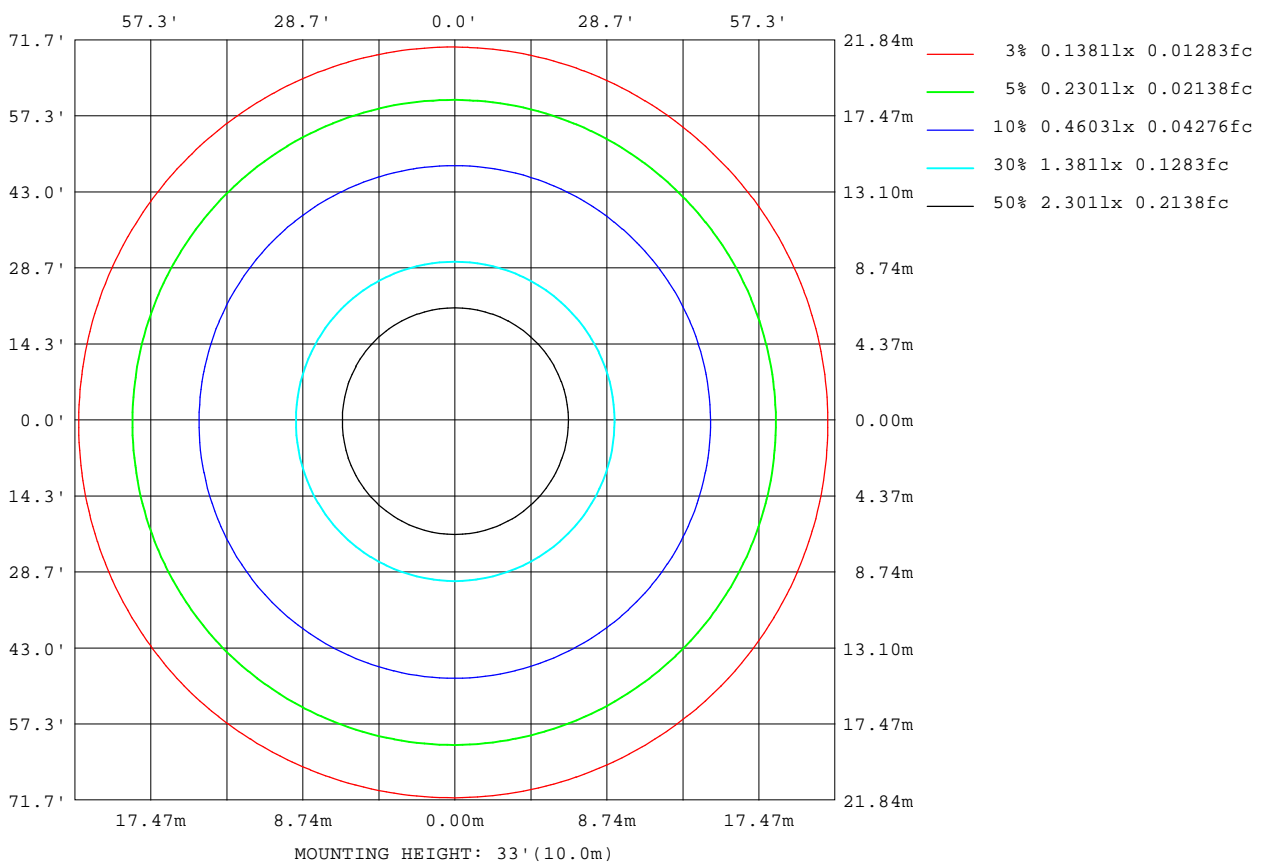
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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

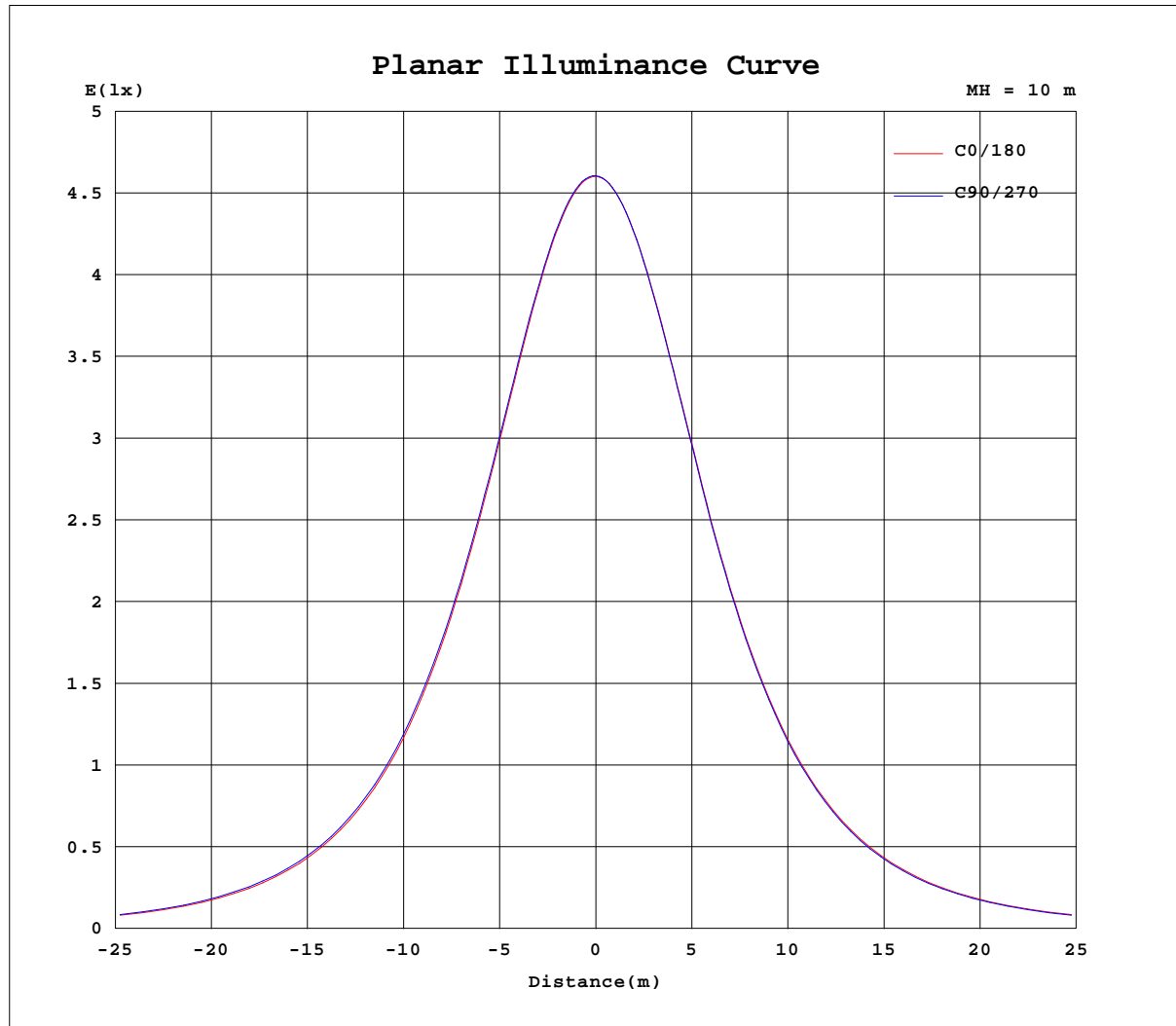
Test:U:24.00V I:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-8NWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2020-12-03

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: 2020-12-03

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:0.3816A P:9.158W PF:1.000 Freq:0Hz Lamp Flux:1436.21x1 lm		
NAME: D81282408NO	TYPE:	WEIGHT:
SPEC.:D81282408NO-8NWDA012WC0100	DIM.: 1000*8*1.6mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	460	461	461	461	460	461	461	461										
5	459	461	460	460	458	459	459	459										
10	455	457	457	456	454	454	453	454										
15	448	450	450	449	446	445	445	446										
20	437	440	440	439	435	433	433	434										
25	423	426	426	425	420	418	419	419										
30	405	410	409	409	401	400	399	401										
35	384	386	388	386	379	379	377	379										
40	359	362	365	362	355	355	352	355										
45	331	334	337	335	328	327	324	326										
50	299	303	306	305	297	296	293	294										
55	264	268	272	271	264	262	259	259										
60	225	230	233	234	227	225	222	221										
65	183	188	191	194	188	184	182	179										
70	139	144	147	151	146	143	140	136										
75	95.1	99.6	101	107	104	100	97.5	93.0										
80	53.7	56.7	57.1	64.7	62.2	59.5	56.1	52.3										
85	20.9	22.0	20.5	28.1	25.3	24.3	21.3	19.3										
90	4.25	4.59	2.56	5.44	5.68	4.84	1.18	2.80										
95	1.89	2.01	1.84	2.45	1.39	1.07	0.66	1.06										
100	1.87	1.93	1.75	1.87	1.25	1.23	1.21	1.34										
105	2.31	2.27	1.91	2.20	1.94	1.80	1.93	1.90										
110	2.91	2.82	2.51	2.74	2.62	2.36	2.51	2.35										
115	3.52	3.44	3.18	3.35	3.23	2.87	3.02	2.98										
120	4.11	4.01	3.82	3.91	3.82	3.38	3.43	3.51										
125	4.69	4.51	4.29	4.38	4.36	3.84	3.78	3.93										
130	5.13	4.94	4.70	4.78	4.87	4.27	4.10	4.27										
135	5.54	5.31	5.13	5.14	5.30	4.73	4.38	4.56										
140	5.85	5.58	5.41	5.46	5.69	5.17	4.60	4.71										
145	6.09	5.78	5.64	5.78	5.98	5.58	4.84	4.80										
150	6.31	5.92	5.84	6.12	6.17	5.99	5.27	4.92										
155	6.59	6.07	6.09	6.49	6.45	6.37	5.81	5.13										
160	6.83	6.23	6.51	6.83	6.67	6.69	6.44	5.50										
165	7.12	6.51	7.05	7.11	6.87	6.93	6.98	6.14										
170	7.14	7.02	7.47	7.43	6.71	7.31	7.45	6.84										
175	6.91	7.62	7.90	7.86	6.60	7.66	7.90	7.64										
180	7.05	8.12	8.21	8.32	7.04	8.12	8.24	8.32										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2020-12-03

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: