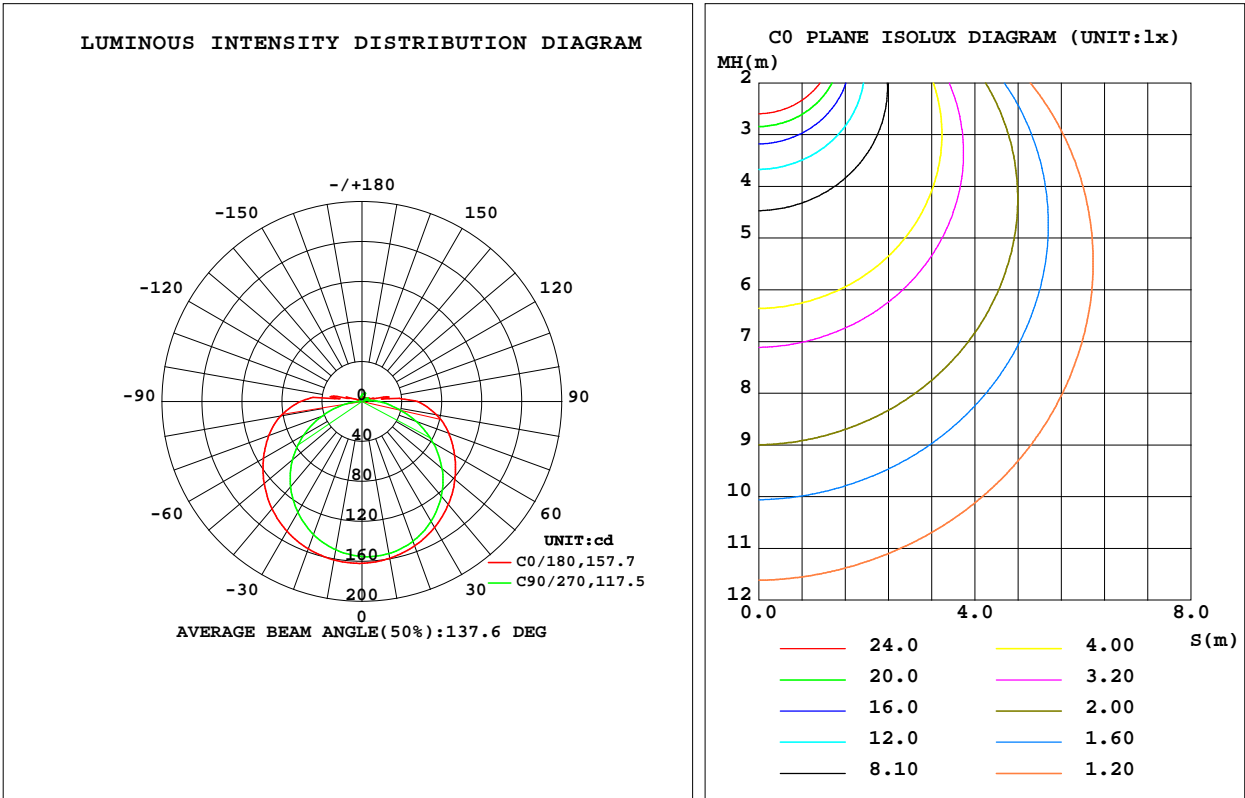


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.00V I:0.4183A P:10.04W PF:1.000 Freq:0Hz Lamp Flux:649.09x1 lm		
NAME: DRF102408NO	TYPE:	WEIGHT:
SPEC.:DRF102408NO-9SWNSA012WC0100	DIM.: 1000*8*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 64.66 lm/W			
MODEL	DRF102408NO	I _{max} (cd)	162.0	S/MH(C0/180)	1.34
NOMINAL POWER(W)	9.2	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	649.09	h UP,DN(C0-180)	5.1,47.4
NOMINAL FLUX(lm)	649.09	CIE CLASS	DIRECT	h UP,DN(C180-360)	3.6,43.8
LAMPS INSIDE	1	h up(%)	8.8	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	91.2	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-29

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

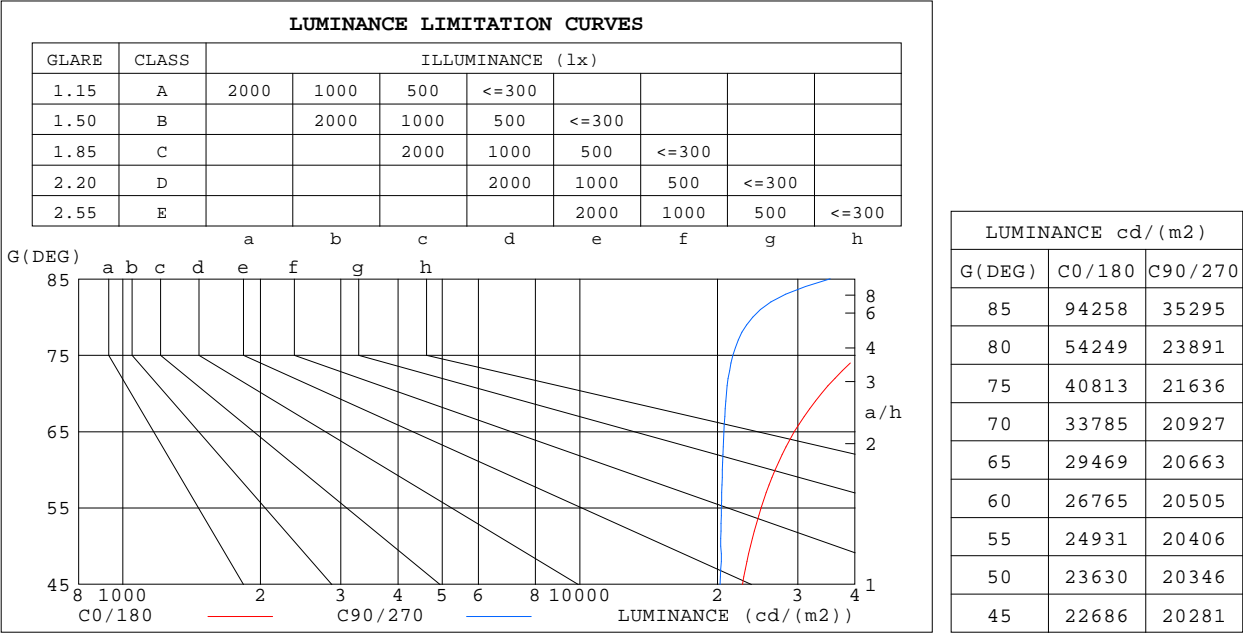
ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	159.3	156.9	154.6	152.5	161.0	155.9	150.7	147.9	0- 10	14.88	14.88	2.29,2.29
20	153.9	151.6	148.9	148.9	157.0	149.3	141.8	139.8	10- 20	43.05	57.93	8.92,8.92
30	145.5	142.8	138.5	141.4	150.0	139.2	128.2	128.7	20- 30	66.69	124.6	19.2,19.2
40	134.5	130.6	123.6	130.1	140.1	125.8	111.3	113.1	30- 40	83.40	208.0	32,32
50	121.5	115.6	104.6	115.7	127.8	109.6	90.88	97.76	40- 50	91.35	299.4	46.1,46.1
60	107.1	99.05	82.02	99.15	113.9	92.18	67.47	80.29	50- 60	91.03	390.4	60.1,60.1
70	92.44	82.02	57.26	82.38	99.11	75.30	42.21	62.62	60- 70	82.69	473.1	72.9,72.9
80	75.36	64.87	33.19	65.67	82.35	58.96	17.91	46.08	70- 80	68.60	541.7	83.5,83.5
90	55.71	45.74	17.06	46.43	61.46	40.38	2.822	28.28	80- 90	50.38	592.1	91.2,91.2
100	27.35	6.592	8.732	17.52	31.18	9.980	1.697	4.210	90-100	25.58	617.6	95.2,95.2
110	9.023	14.25	3.155	8.550	7.555	3.474	2.286	3.340	100-110	9.547	627.2	96.6,96.6
120	7.060	12.53	2.576	8.880	3.442	3.046	2.855	3.760	110-120	6.051	633.2	97.6,97.6
130	5.619	10.81	2.962	6.365	3.580	3.411	3.317	4.575	120-130	4.625	637.9	98.3,98.3
140	4.629	8.507	3.423	3.454	3.868	3.736	3.736	5.588	130-140	3.702	641.6	98.8,98.8
150	4.407	4.018	3.813	6.215	4.168	4.005	4.018	6.608	140-150	2.807	644.4	99.3,99.3
160	4.413	4.324	8.941	8.282	4.372	4.323	4.534	7.543	150-160	2.417	646.8	99.6,99.6
170	4.599	5.157	7.976	8.515	4.641	4.587	5.320	8.239	160-170	1.704	648.5	99.9,99.9
180	4.683	4.791	6.890	8.239	4.779	4.983	6.302	8.809	170-180	0.5876	649.1	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:2024-04-29

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

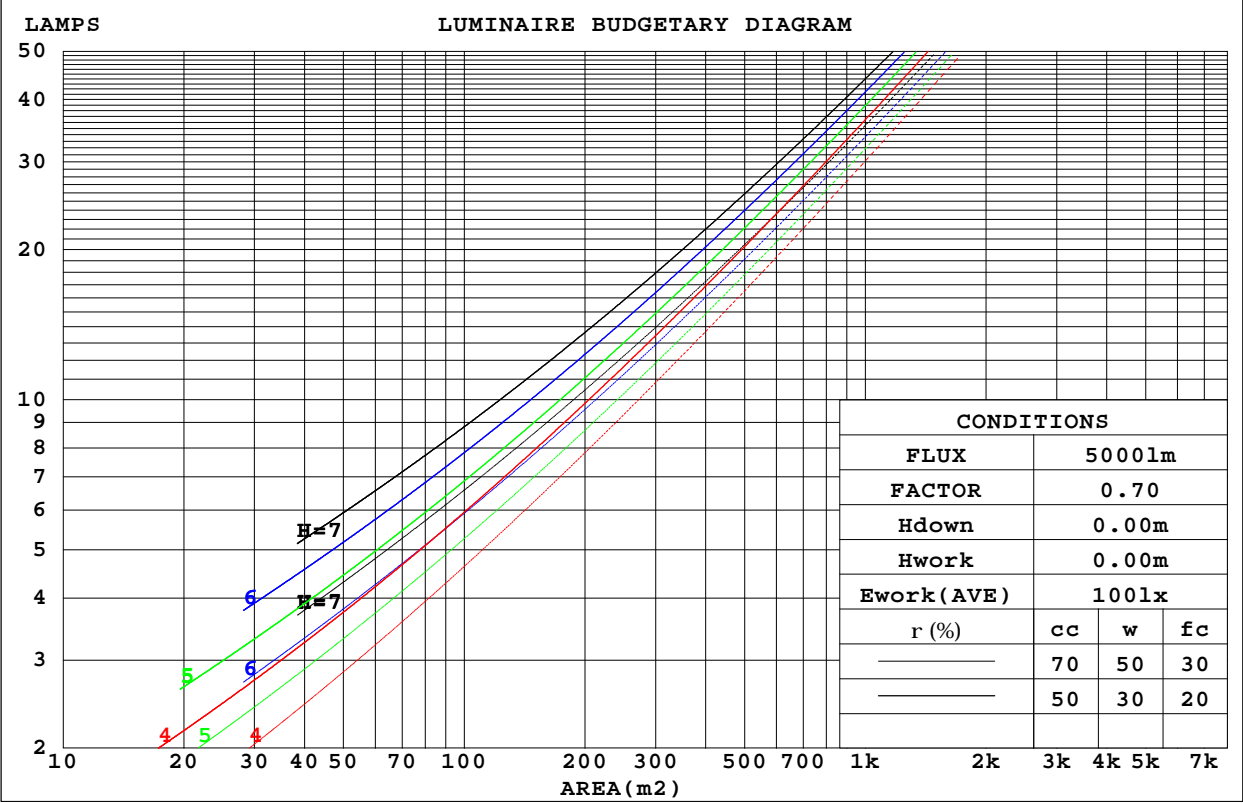


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-29

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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			Coefficients of Utilization(CU)												
0.0	1.17	1.17	1.17	1.13	1.13	1.13	1.06	1.06	1.06	.00	.00	.00	.94	.94	.94	.91
1.0	.97	.92	.87	.94	.89	.85	.88	.84	.80	.83	.79	.76	.78	.75	.72	.70
2.0	.83	.75	.68	.80	.73	.67	.75	.69	.64	.71	.65	.61	.66	.62	.58	.55
3.0	.72	.63	.55	.70	.61	.54	.65	.58	.52	.61	.55	.50	.58	.52	.48	.45
4.0	.63	.53	.46	.61	.52	.45	.57	.50	.44	.54	.47	.42	.51	.45	.41	.38
5.0	.56	.46	.39	.54	.45	.39	.51	.43	.37	.48	.41	.36	.45	.40	.35	.32
6.0	.50	.41	.34	.49	.40	.33	.46	.38	.32	.43	.37	.31	.41	.35	.30	.28
7.0	.45	.36	.30	.44	.35	.29	.42	.34	.28	.39	.33	.27	.37	.31	.27	.24
8.0	.41	.32	.26	.40	.32	.26	.38	.30	.25	.36	.29	.24	.34	.28	.24	.22
9.0	.38	.29	.23	.37	.29	.23	.35	.28	.22	.33	.27	.22	.32	.26	.21	.19
10.0	.35	.26	.21	.34	.26	.21	.32	.25	.20	.31	.24	.20	.29	.23	.19	.17



C Range: 0 - 360DEG

C Interval: 45.0DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:JYH

Test Date:2024-04-29

g Range: 0 - 180DEG

g Interval: 1.0DEG

Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362

Humidity:65.0%

Test Distance:10.375m [K=1.0000]

Remarks:

WEC AND CCEC

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	.394	.224	.071	.384	.219	.070	.366	.210	.067	.348	.201	.065	.333	.193	.062	
2.0	.342	.187	.057	.333	.183	.056	.316	.176	.055	.301	.169	.053	.286	.162	.051	
3.0	.303	.162	.048	.295	.158	.048	.280	.152	.046	.266	.146	.045	.254	.140	.043	
4.0	.273	.142	.042	.266	.139	.041	.252	.134	.040	.240	.129	.039	.228	.124	.038	
5.0	.248	.126	.037	.241	.124	.036	.229	.119	.035	.218	.115	.034	.207	.111	.033	
6.0	.227	.114	.033	.221	.112	.032	.210	.108	.031	.200	.104	.031	.190	.100	.030	
7.0	.209	.103	.029	.204	.102	.029	.194	.098	.028	.184	.095	.028	.176	.091	.027	
8.0	.194	.095	.027	.189	.093	.026	.180	.090	.026	.171	.087	.025	.163	.084	.024	
9.0	.180	.087	.024	.176	.086	.024	.168	.083	.024	.160	.080	.023	.153	.078	.022	
10.0	.169	.081	.022	.165	.080	.022	.157	.077	.022	.150	.075	.021	.143	.072	.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	.257	.257	.257	.220	.220	.220	.150	.150	.150	.086	.086	.086	.028	.028	.028	
1.0	.254	.223	.195	.217	.191	.168	.148	.132	.116	.085	.076	.068	.027	.025	.022	
2.0	.247	.200	.160	.211	.172	.138	.145	.119	.096	.084	.069	.057	.027	.022	.018	
3.0	.239	.183	.138	.205	.158	.120	.141	.110	.084	.081	.064	.049	.026	.021	.016	
4.0	.231	.170	.123	.198	.147	.107	.136	.102	.075	.079	.060	.045	.025	.020	.015	
5.0	.223	.160	.113	.192	.139	.099	.132	.097	.070	.077	.057	.041	.025	.019	.014	
6.0	.216	.152	.106	.185	.132	.093	.128	.092	.065	.074	.054	.039	.024	.018	.013	
7.0	.209	.145	.101	.179	.126	.088	.124	.088	.062	.072	.052	.037	.023	.017	.012	
8.0	.202	.140	.097	.174	.121	.085	.120	.085	.060	.070	.050	.036	.023	.016	.012	
9.0	.195	.135	.094	.168	.117	.082	.117	.082	.058	.068	.049	.035	.022	.016	.011	
10.0	.189	.130	.091	.163	.113	.080	.113	.080	.057	.066	.047	.034	.021	.015	.011	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-29

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

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	2H	25.3	26.8	25.7	27.2	27.6	24.4	25.9	24.8	26.3	26.7		
	3H	27.9	29.3	28.3	29.7	30.1	26.3	27.7	26.7	28.1	28.5		
	4H	29.3	30.6	29.7	31.1	31.5	27.2	28.5	27.6	28.9	29.4		
	6H	30.8	32.1	31.3	32.5	33.0	28.0	29.3	28.5	29.7	30.2		
	8H	31.6	32.9	32.1	33.3	33.8	28.4	29.6	28.8	30.1	30.5		
	12H	32.6	33.8	33.1	34.2	34.7	28.8	30.0	29.3	30.4	30.9		
	4H	2H	26.0	27.4	26.5	27.8	28.3	25.4	26.7	25.8	27.1	27.6	
			3H	28.8	30.0	29.3	30.5	31.0	27.5	28.7	28.0	29.2	29.7
			4H	30.4	31.5	30.9	32.0	32.5	28.6	29.7	29.1	30.2	30.7
			6H	32.1	33.1	32.7	33.6	34.2	29.7	30.6	30.2	31.2	31.7
			8H	33.1	34.0	33.6	34.5	35.1	30.1	31.1	30.7	31.6	32.2
			12H	34.1	35.0	34.7	35.5	36.1	30.7	31.5	31.2	32.1	32.7
	8H	4H	30.9	31.8	31.4	32.3	32.9	29.5	30.4	30.0	30.9	31.5	
			6H	32.9	33.7	33.5	34.2	34.8	30.8	31.6	31.4	32.2	32.8
			8H	34.0	34.7	34.6	35.3	35.9	31.5	32.2	32.1	32.8	33.5
			12H	35.3	35.9	35.9	36.5	37.2	32.3	32.9	32.9	33.5	34.1
12H	4H	31.0	31.8	31.5	32.4	33.0	29.7	30.6	30.3	31.1	31.7		
		6H	33.1	33.8	33.7	34.3	35.0	31.3	32.0	31.8	32.5	33.2	
		8H	34.3	34.9	34.9	35.5	36.2	32.1	32.7	32.7	33.3	34.0	
Variations with the observer position at spacings:													
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1							
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3							
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4							

CIE Pub.117, 649.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.5)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-29

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

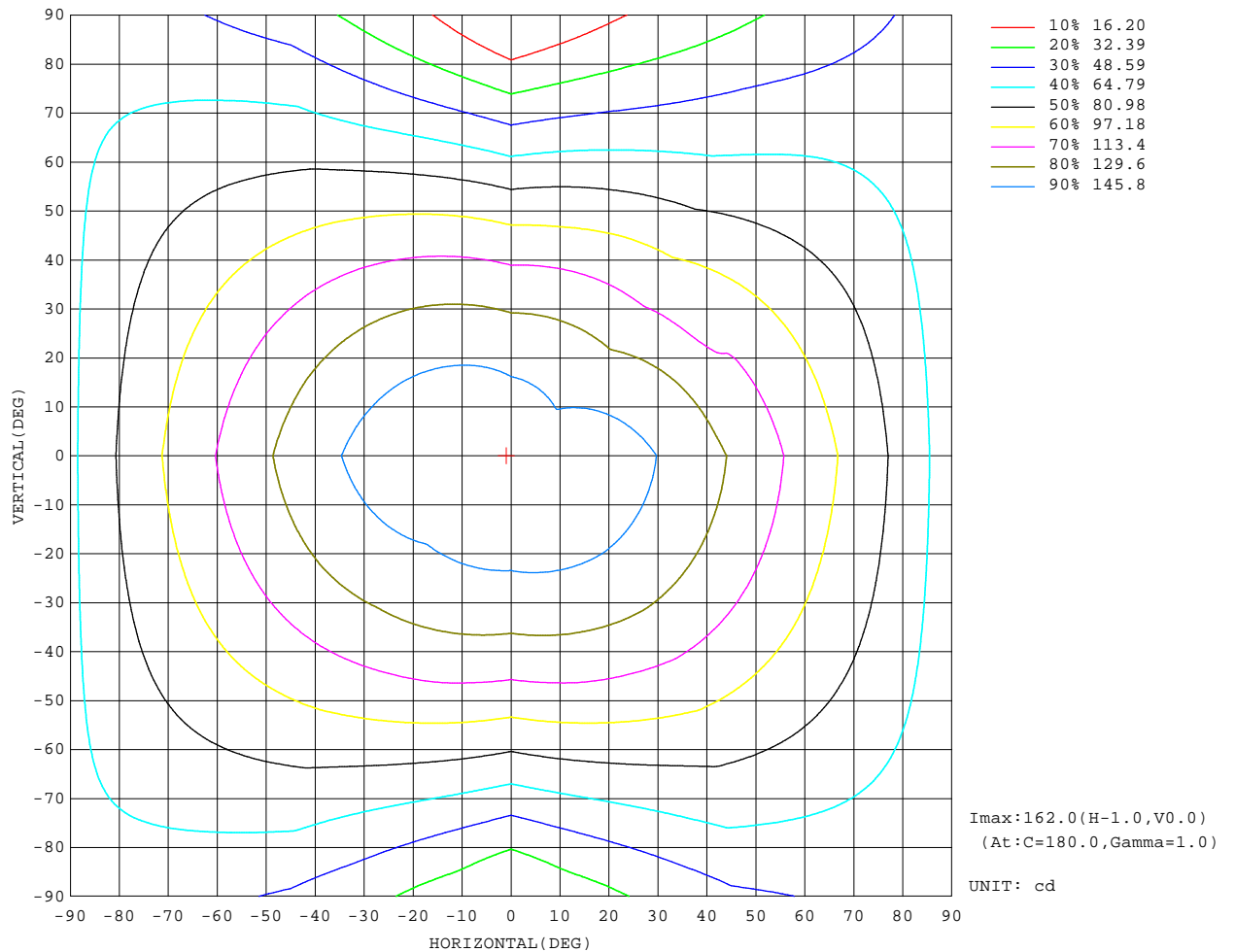
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	50	38	30	49	37	30	48	37	30	23
0.80	60	47	39	58	46	38	56	45	38	30
1.00	67	55	46	66	54	46	63	55	45	37
1.25	74	62	53	72	61	53	69	59	52	43
1.50	79	67	59	77	66	58	73	64	57	47
2.00	87	76	68	84	74	67	79	71	65	54
2.50	91	81	73	88	79	72	83	76	70	59
3.00	95	86	78	92	84	77	86	80	74	63
4.00	99	92	85	96	89	83	91	85	80	68
5.00	102	96	90	99	93	88	93	88	84	71
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:2024-04-29

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

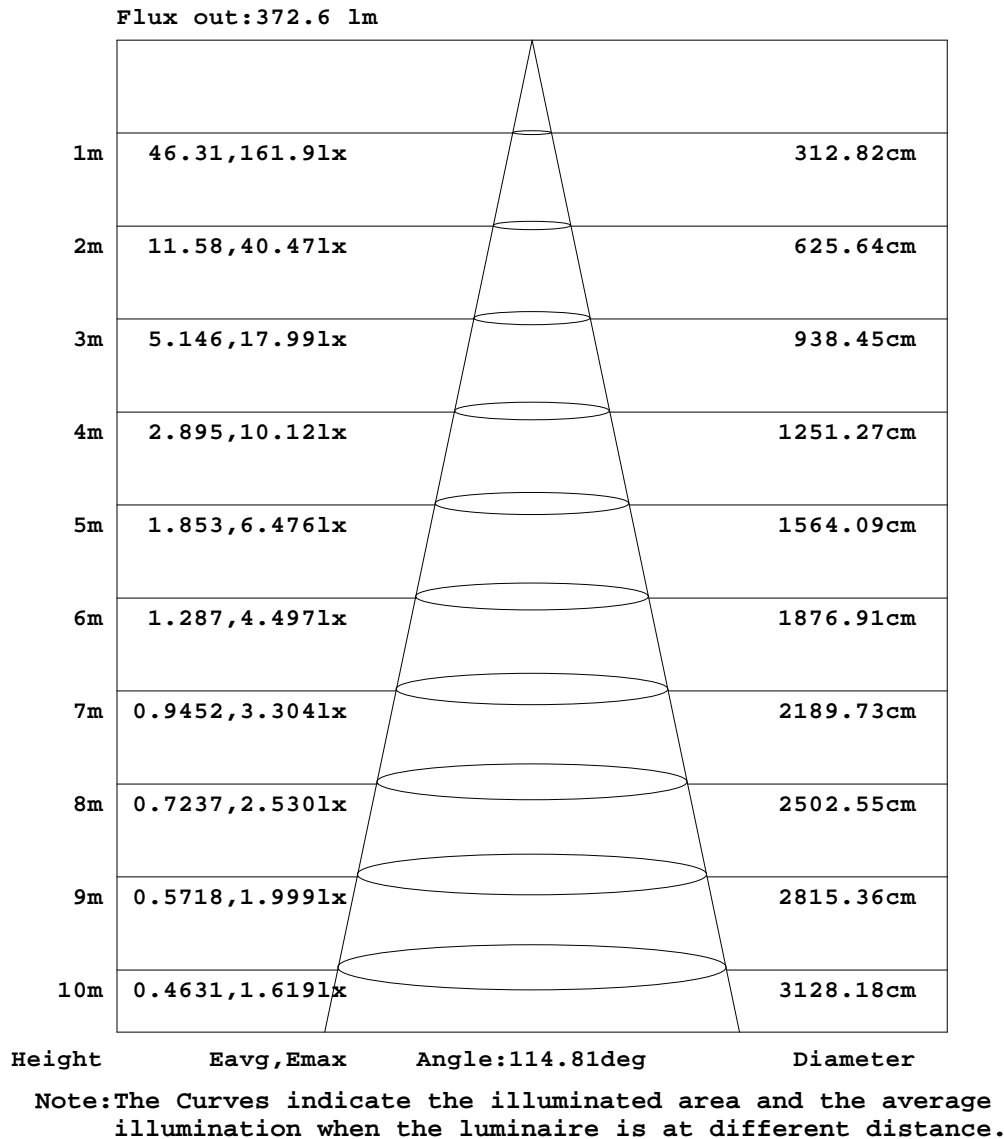
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-29

deg Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

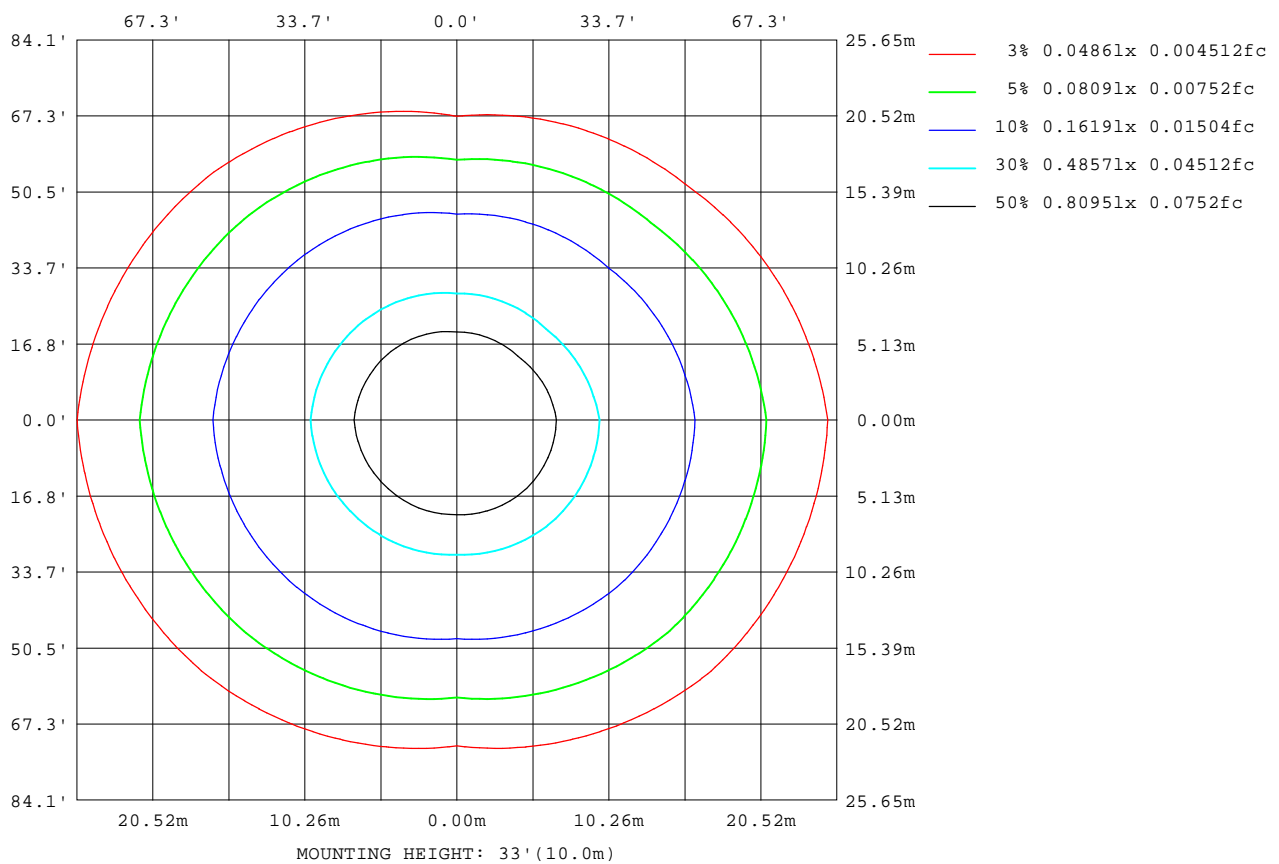
AAI Figure



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-29

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2024-04-29

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.375m [K=1.0000]
Remarks:

LED Avg.L Report

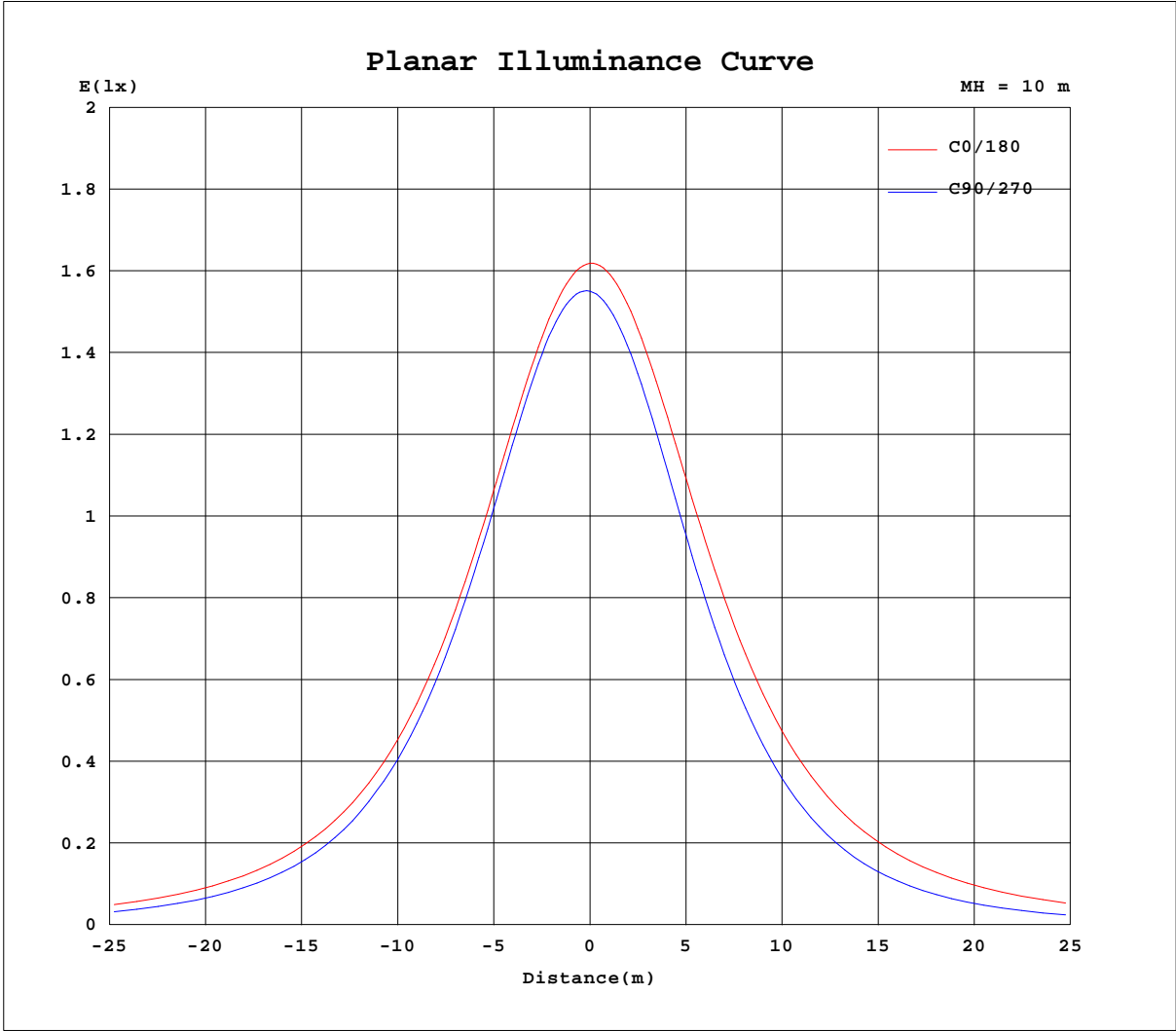
Test:U:24.00V I:0.4183A P:10.04W PF:1.000 Freq:0Hz Lamp Flux:649.09x1 lm		
NAME: DRF102408NO	TYPE:	WEIGHT:
SPEC.:DRF102408NO-9SWNSA012WC0100	DIM.: 1000*8*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8mm	Shielding Angle:

AvgL	cd/m2
L_0~180(65)av	30495
L_0~180(75)av	42461
L_0~180(85)av	98926
L_90~270(65)av	18460
L_90~270(75)av	17957
L_90~270(85)av	23769
L_45(65)av	24875
L_45(75)av	32529
L_45(85)av	70984

Standard: GB/T 29293-2012

C Range: 0 - 360DEG	g Range: 0 - 180DEG
C Interval: 45.0DEG	g Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Temperature:25.3DEG	Humidity:65.0%
Operators:JYH	Test Distance:10.375m [K=1.0000]
Test Date:2024-04-29	Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG	C Range: 0 - 180DEG
C Interval: 45.0DEG	C Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Temperature:25.3DEG	Humidity:65.0%
Operators:JYH	Test Distance:10.375m [K=1.0000]
Test Date:2024-04-29	Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	162	158	155	152	162	158	155	152										
5	161	158	155	153	162	158	154	151										
10	159	157	155	153	161	156	151	148										
15	157	155	152	151	159	153	147	144										
20	154	152	149	149	157	149	142	140										
25	150	148	144	146	154	145	136	135										
30	145	143	138	141	150	139	128	129										
35	140	137	132	136	145	133	120	122										
40	135	131	124	130	140	126	111	113										
45	128	124	115	123	134	118	102	100										
50	122	116	105	116	128	110	90.9	97.8										
55	114	107	93.6	108	121	101	79.5	89.1										
60	107	99.0	82.0	99.1	114	92.2	67.5	80.3										
65	99.6	90.5	69.9	90.8	107	83.7	55.0	71.4										
70	92.4	82.0	57.3	82.4	99.1	75.3	42.2	62.6										
75	84.5	73.8	44.8	74.0	91.3	67.2	29.6	54.4										
80	75.4	64.9	33.2	65.7	82.3	59.0	17.9	46.1										
85	65.7	55.1	24.6	56.2	72.2	49.8	8.54	36.8										
90	55.7	45.7	17.1	46.4	61.5	40.4	2.82	28.3										
95	37.9	18.9	12.4	24.7	49.2	15.8	1.43	11.1										
100	27.3	6.59	8.73	17.5	31.2	9.98	1.70	4.21										
105	11.6	12.0	5.54	6.93	12.7	6.77	2.00	3.34										
110	9.02	14.2	3.16	8.55	7.56	3.47	2.29	3.34										
115	7.92	13.4	7.19	9.35	4.01	2.94	2.57	3.52										
120	7.06	12.5	2.58	8.88	3.44	3.05	2.85	3.76										
125	6.30	11.7	7.12	4.12	3.45	3.24	3.11	4.11										
130	5.62	10.8	2.96	6.36	3.58	3.41	3.32	4.57										
135	5.03	9.01	3.58	3.72	3.71	3.59	3.58	5.05										
140	4.63	8.51	3.42	3.45	3.87	3.74	3.74	5.59										
145	4.48	4.60	3.62	3.63	4.04	3.82	3.86	6.10										
150	4.41	4.02	3.81	6.22	4.17	4.01	4.02	6.61										
155	4.41	4.16	3.95	7.73	4.28	4.18	4.24	7.10										
160	4.41	4.32	8.94	8.28	4.37	4.32	4.53	7.54										
165	4.53	5.54	8.47	8.49	4.50	4.50	4.92	7.95										
170	4.60	5.16	7.98	8.51	4.64	4.59	5.32	8.24										
175	4.68	4.97	7.44	8.42	4.73	4.77	5.82	8.53										
180	4.68	4.79	6.89	8.24	4.78	4.98	6.30	8.81										

C Range: 0 - 360DEGC Interval: 45.0DEGTest Speed: HIGHTemperature:25.3DEGOperators:JYHTest Date:2024-04-29

g Range: 0 - 180DEGInterval: 1.0DEGTest System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362Humidity:65.0%Test Distance:10.375m [K=1.0000]Remarks: