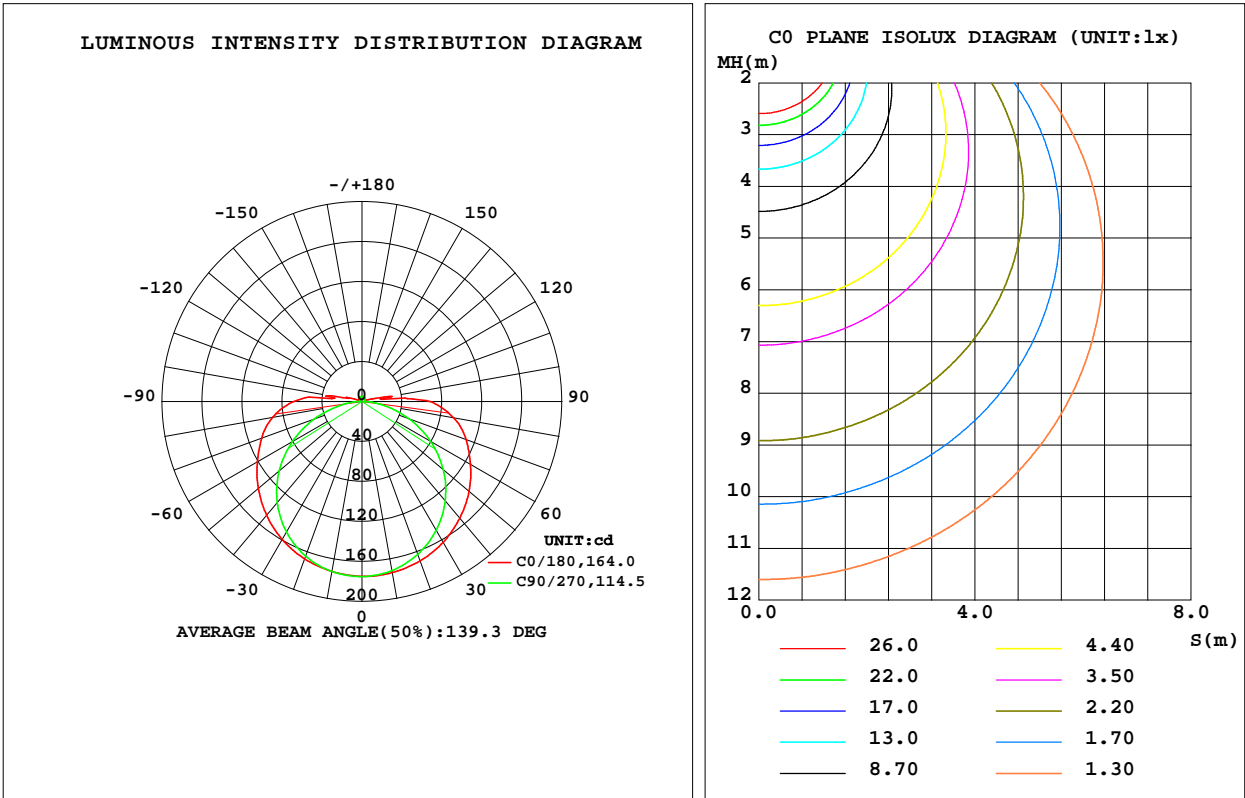


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.00V I:0.4216A P:10.12W PF:1.000 Freq:0Hz Lamp Flux:709.423x1 lm		
NAME: DRF102408NO	TYPE:	WEIGHT:
SPEC.:DRF102408NO-9WWNSA012WC0100	DIM.: 1000*8*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 70.12 lm/W			
MODEL	DRF102408NO	I _{max} (cd)	175.2	S/MH(C0/180)	1.40
NOMINAL POWER(W)	9.2	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	709.42	h UP,DN(C0-180)	3.5,46.6
NOMINAL FLUX(lm)	709.423	CIE CLASS	DIRECT	h UP,DN(C180-360)	3.4,46.5
LAMPS INSIDE	1	h up(%)	6.9	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	h down(%)	93.1	CIBSE SHR MAX	1.55



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

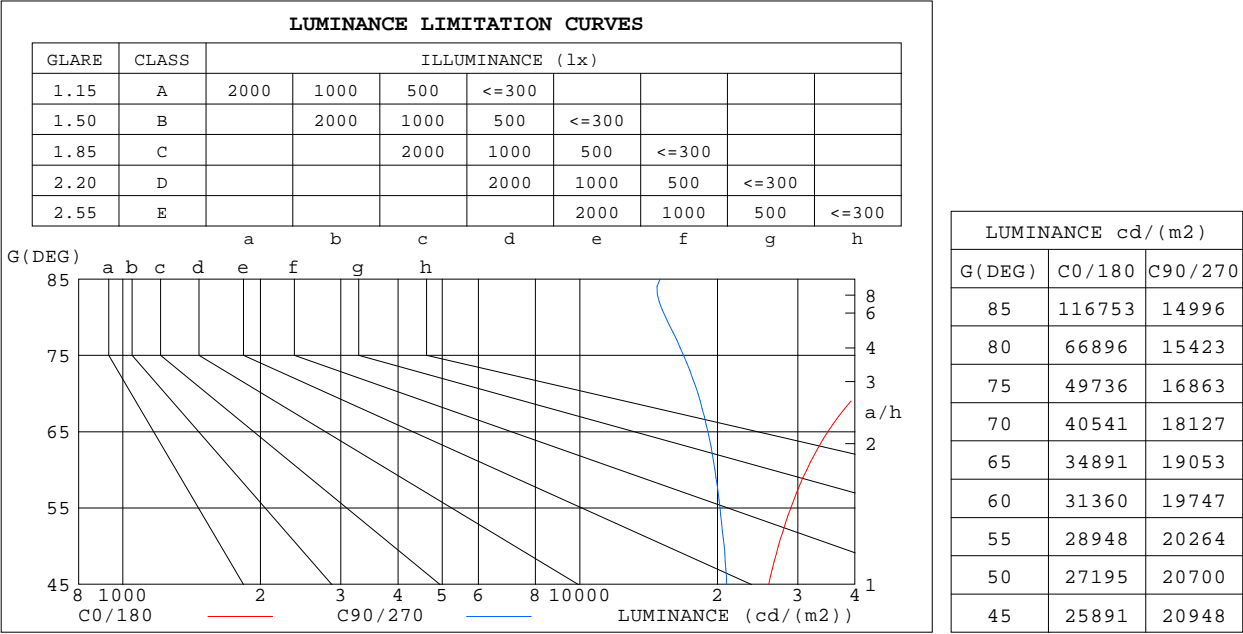
ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	173.7	172.7	171.8	172.3	172.6	172.8	172.7	173.4	0- 10	16.60	16.60	2.34,2.34
20	169.8	166.4	162.9	165.0	167.6	166.3	164.7	167.0	10- 20	48.04	64.64	9.11,9.11
30	162.6	156.1	148.6	153.8	159.5	156.1	150.9	156.6	20- 30	74.46	139.1	19.6,19.6
40	152.4	142.2	129.6	138.9	148.5	142.0	132.0	142.0	30- 40	93.12	232.2	32.7,32.7
50	139.8	125.5	106.4	120.9	135.4	124.9	108.3	124.1	40- 50	102.3	334.5	47.1,47.1
60	125.4	107.4	78.99	101.5	121.0	106.4	80.54	104.7	50- 60	101.5	436.0	61.5,61.5
70	110.9	88.81	49.60	82.54	106.8	87.97	50.12	84.72	60- 70	92.13	528.1	74.4,74.4
80	92.93	70.62	21.42	64.82	90.66	70.32	20.87	65.39	70- 80	76.65	604.7	85.2,85.2
90	68.27	46.54	3.285	43.15	68.30	47.86	2.256	41.18	80- 90	55.64	660.4	93.1,93.1
100	30.65	9.040	2.578	9.039	34.02	9.985	1.620	6.549	90-100	25.81	686.2	96.7,96.7
110	4.252	3.520	3.135	3.503	4.200	2.536	2.189	2.590	100-110	6.868	693.1	97.7,97.7
120	3.651	3.880	3.615	3.910	3.676	3.033	2.609	3.052	110-120	3.218	696.3	98.1,98.1
130	4.000	4.174	4.053	4.282	4.042	3.544	3.179	3.430	120-130	3.265	699.5	98.6,98.6
140	4.233	4.432	4.437	4.617	4.300	3.921	3.676	3.825	130-140	3.106	702.7	99,99
150	4.515	4.683	4.797	4.863	4.593	4.263	4.096	4.197	140-150	2.725	705.4	99.4,99.4
160	4.743	4.960	5.013	5.109	4.869	4.605	4.641	4.551	150-160	2.149	707.5	99.7,99.7
170	4.977	5.205	5.253	5.277	5.169	4.995	4.942	4.893	160-170	1.400	708.9	99.9,99.9
180	5.271	5.325	5.283	5.277	5.253	5.343	5.271	5.271	170-180	0.4940	709.4	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

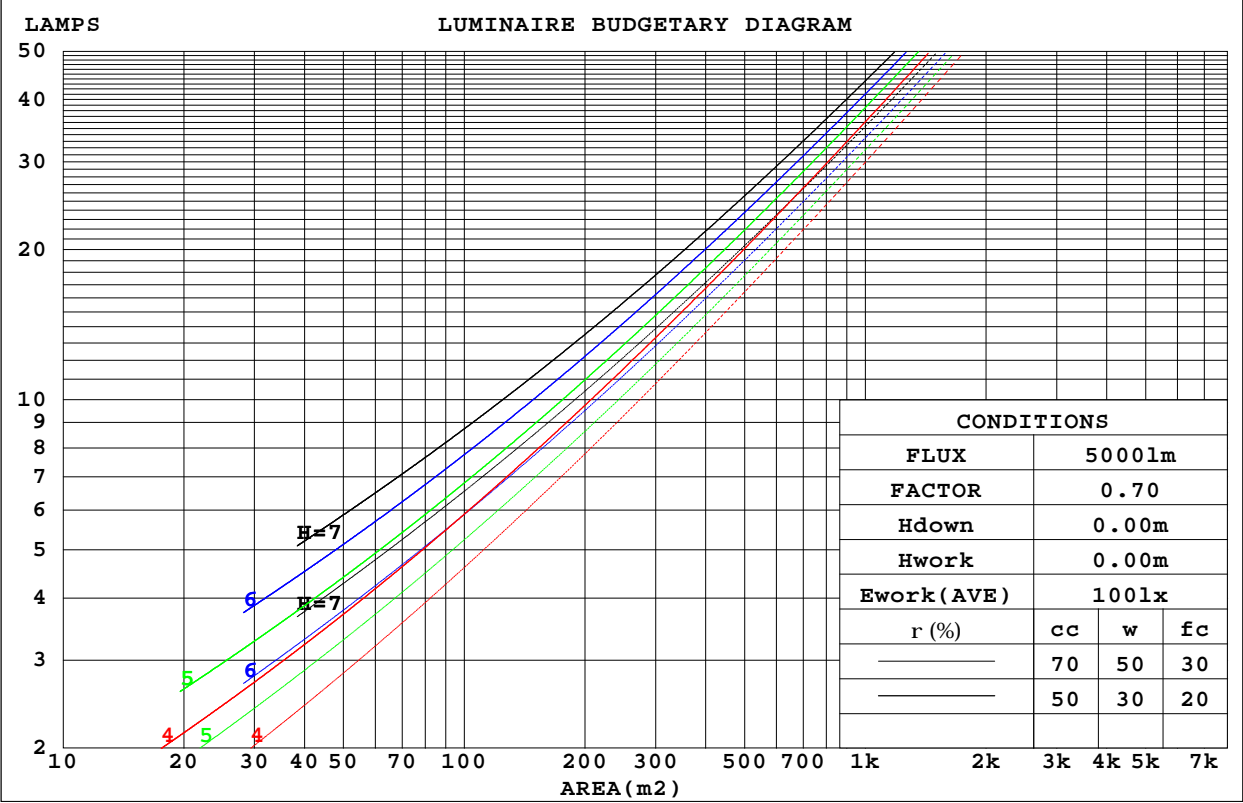


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-29

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	1.14	1.14	1.14	1.07	1.07	1.07	1.01	1.01	1.01	.96	.96	.96	.93
1.0	.98	.92	.87	.95	.90	.85	.89	.85	.81	.84	.80	.77	.79	.76	.74	.71
2.0	.83	.75	.68	.81	.73	.67	.76	.70	.64	.72	.66	.62	.67	.63	.59	.57
3.0	.72	.63	.56	.70	.61	.55	.66	.59	.53	.62	.56	.51	.59	.53	.49	.46
4.0	.63	.54	.46	.62	.52	.45	.58	.50	.44	.55	.48	.43	.52	.46	.41	.39
5.0	.56	.46	.39	.55	.46	.39	.52	.44	.38	.49	.42	.37	.46	.40	.35	.33
6.0	.50	.41	.34	.49	.40	.33	.46	.38	.33	.44	.37	.32	.42	.36	.31	.29
7.0	.45	.36	.30	.44	.36	.29	.42	.34	.29	.40	.33	.28	.38	.32	.27	.25
8.0	.41	.32	.26	.40	.32	.26	.38	.31	.25	.37	.30	.25	.35	.29	.24	.22
9.0	.38	.29	.23	.37	.29	.23	.35	.28	.23	.34	.27	.22	.32	.26	.22	.20
10.0	.35	.27	.21	.34	.26	.21	.33	.25	.20	.31	.25	.20	.30	.24	.20	.18



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:

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	.396	.225	.071	.387	.221	.070	.369	.212	.068	.353	.204	.065	.338	.196	.063	
2.0	.344	.188	.058	.335	.185	.057	.319	.178	.055	.305	.171	.054	.291	.165	.052	
3.0	.305	.162	.049	.297	.159	.048	.283	.154	.047	.270	.148	.045	.258	.143	.044	
4.0	.274	.142	.042	.267	.140	.041	.255	.135	.040	.243	.130	.039	.232	.126	.038	
5.0	.249	.127	.037	.243	.125	.036	.232	.121	.035	.221	.117	.035	.211	.113	.034	
6.0	.228	.114	.033	.222	.112	.032	.212	.109	.032	.203	.105	.031	.194	.102	.030	
7.0	.210	.104	.029	.205	.102	.029	.196	.099	.029	.187	.096	.028	.179	.093	.027	
8.0	.195	.095	.027	.190	.094	.026	.182	.091	.026	.174	.088	.025	.166	.085	.025	
9.0	.181	.088	.024	.177	.086	.024	.169	.084	.024	.162	.081	.023	.155	.079	.023	
10.0	.169	.081	.023	.166	.080	.022	.159	.078	.022	.152	.076	.021	.146	.073	.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	.243	.243	.243	.208	.208	.208	.142	.142	.142	.081	.081	.081	.026	.026	.026	
1.0	.239	.208	.181	.205	.179	.155	.140	.123	.108	.081	.071	.063	.026	.023	.020	
2.0	.233	.185	.145	.199	.159	.126	.137	.110	.088	.079	.064	.051	.025	.021	.017	
3.0	.225	.168	.123	.193	.145	.107	.132	.101	.075	.076	.059	.044	.025	.019	.014	
4.0	.217	.156	.109	.186	.134	.094	.128	.094	.066	.074	.055	.039	.024	.018	.013	
5.0	.209	.145	.099	.180	.126	.086	.124	.088	.061	.072	.052	.036	.023	.017	.012	
6.0	.201	.137	.091	.173	.119	.080	.119	.083	.056	.069	.049	.033	.022	.016	.011	
7.0	.194	.131	.086	.167	.113	.075	.115	.079	.053	.067	.047	.032	.022	.015	.010	
8.0	.187	.125	.082	.161	.108	.072	.111	.076	.051	.065	.045	.030	.021	.015	.010	
9.0	.181	.120	.079	.156	.104	.069	.108	.073	.049	.063	.043	.029	.020	.014	.010	
10.0	.175	.116	.077	.151	.101	.067	.104	.071	.047	.061	.042	.028	.020	.014	.009	

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	25.6	27.2	26.0	27.5	27.8	24.0	25.6	24.4	25.9	26.2		
	3H	28.3	29.7	28.7	30.1	30.5	25.7	27.1	26.1	27.5	27.9	
	4H	29.8	31.2	30.2	31.6	32.0	26.3	27.7	26.8	28.1	28.5	
	6H	31.4	32.7	31.9	33.1	33.6	26.9	28.2	27.3	28.6	29.0	
	8H	32.3	33.6	32.8	34.0	34.4	27.0	28.3	27.5	28.7	29.2	
	12H	33.3	34.5	33.7	34.9	35.4	27.2	28.4	27.6	28.8	29.3	
	4H	2H	26.3	27.6	26.7	28.0	28.4	25.1	26.5	25.5	26.9	27.3
	3H	29.2	30.4	29.6	30.8	31.3	27.1	28.3	27.5	28.7	29.2	
	4H	30.9	32.0	31.3	32.4	32.9	28.0	29.1	28.5	29.6	30.1	
	6H	32.7	33.7	33.2	34.2	34.7	28.7	29.7	29.2	30.2	30.8	
	8H	33.7	34.6	34.2	35.1	35.7	29.0	30.0	29.5	30.5	31.0	
	12H	34.8	35.7	35.3	36.2	36.7	29.2	30.1	29.8	30.6	31.2	
	8H	4H	31.3	32.2	31.8	32.7	33.3	29.0	30.0	29.5	30.5	31.0
	6H	33.4	34.2	33.9	34.7	35.3	30.2	31.0	30.7	31.5	32.1	
	8H	34.6	35.3	35.1	35.8	36.4	30.7	31.4	31.2	31.9	32.5	
	12H	35.9	36.5	36.5	37.1	37.7	31.1	31.7	31.7	32.3	32.9	
12H	4H	31.3	32.2	31.9	32.7	33.3	29.3	30.2	29.8	30.7	31.3	
6H	33.5	34.2	34.1	34.8	35.4	30.7	31.4	31.2	31.9	32.6		
8H	34.8	35.4	35.4	36.0	36.6	31.4	32.0	31.9	32.6	33.2		
Variations with the observer position at spacings:												
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1						
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3						
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.5						

CIE Pub.117, 709.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.2)

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:

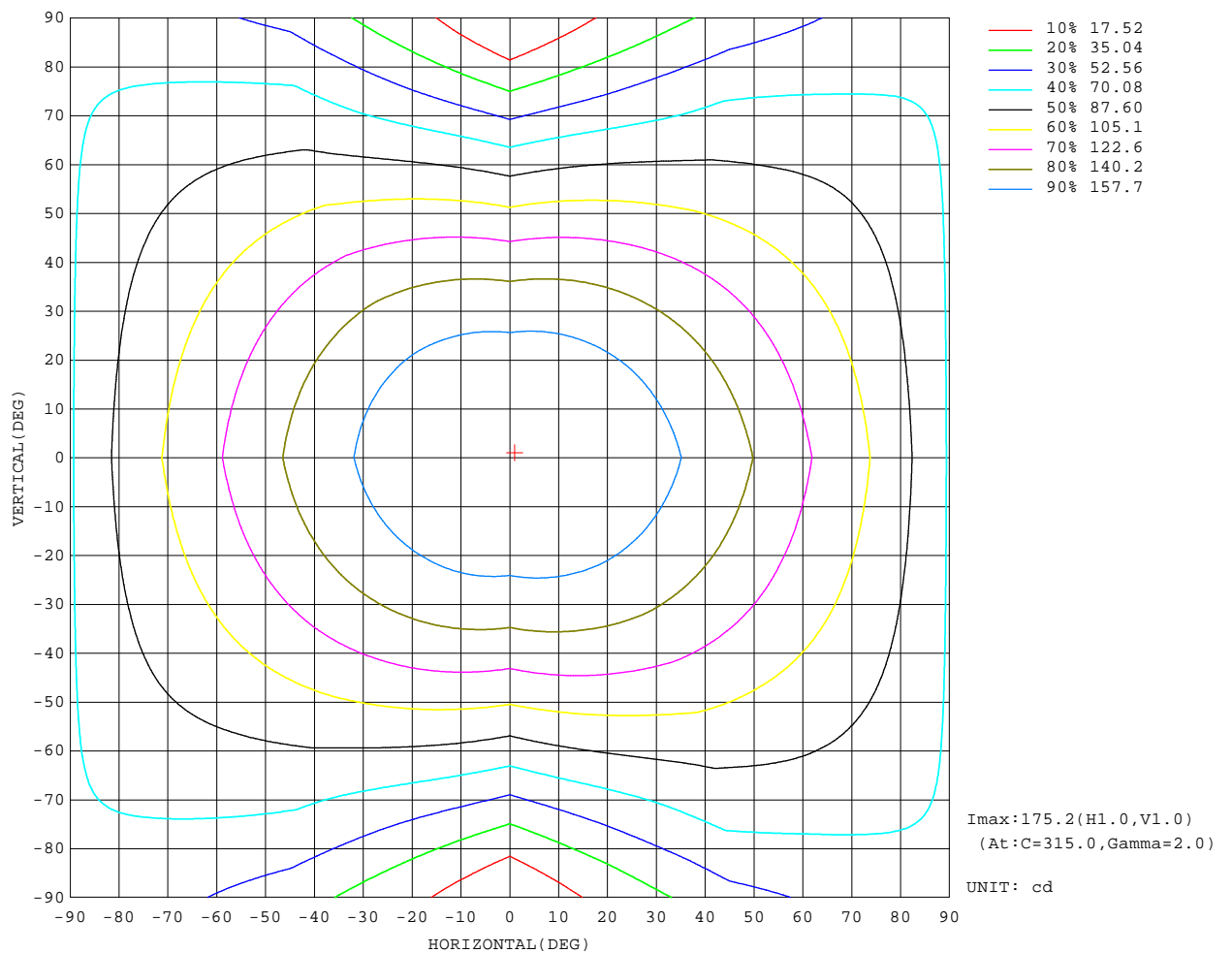
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	51	38	31	50	38	31	48	37	30	24
0.80	60	47	39	59	47	39	57	46	38	31
1.00	68	55	47	66	54	46	64	56	46	38
1.25	75	62	54	73	62	54	70	60	52	44
1.50	80	68	60	78	67	59	74	65	58	48
2.00	87	76	68	85	75	67	80	72	65	56
2.50	92	82	74	89	80	73	84	77	70	60
3.00	95	86	79	93	84	78	87	81	75	64
4.00	100	92	86	97	90	84	91	86	81	69
5.00	103	96	91	100	94	89	94	89	85	73
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
g Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

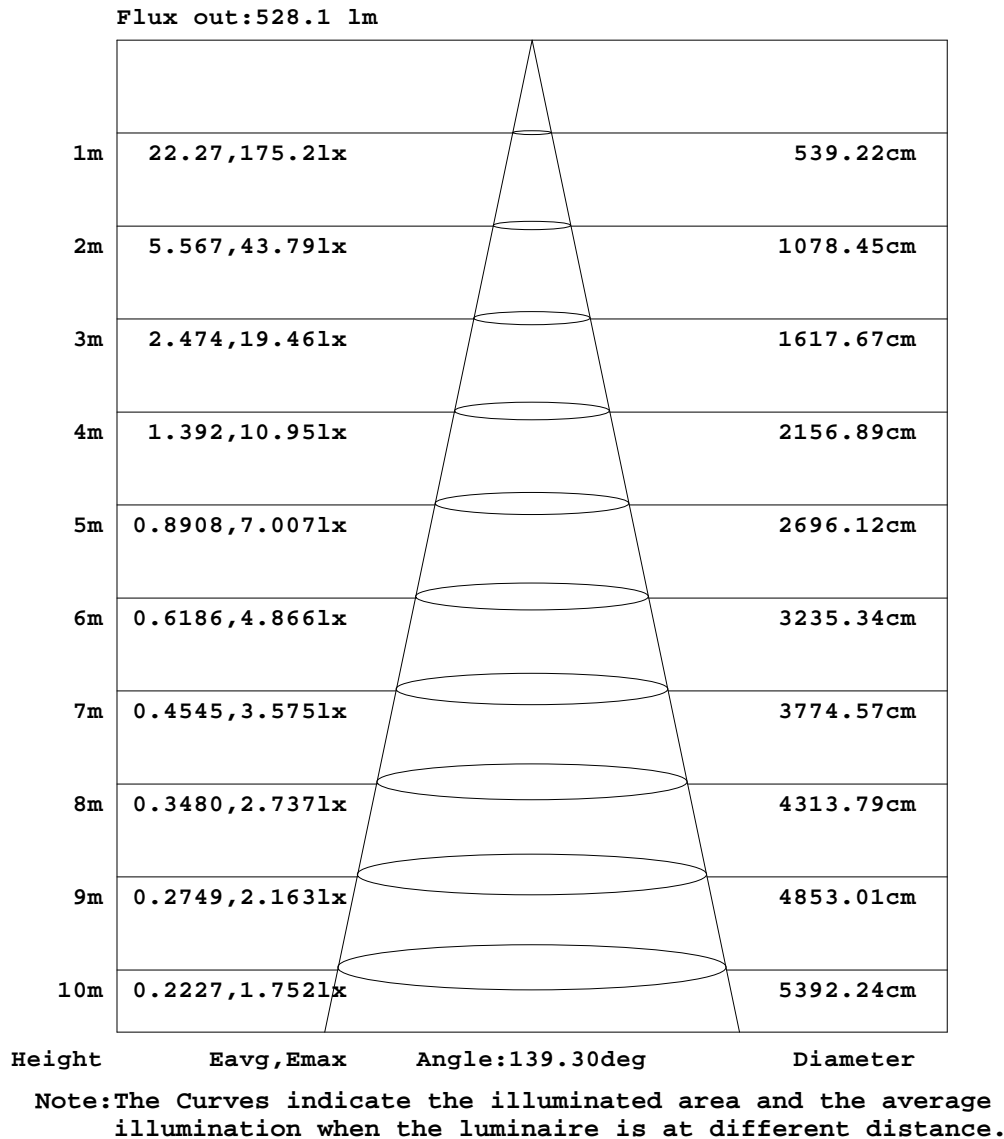
ISOCANDELA DIAGRAM



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:

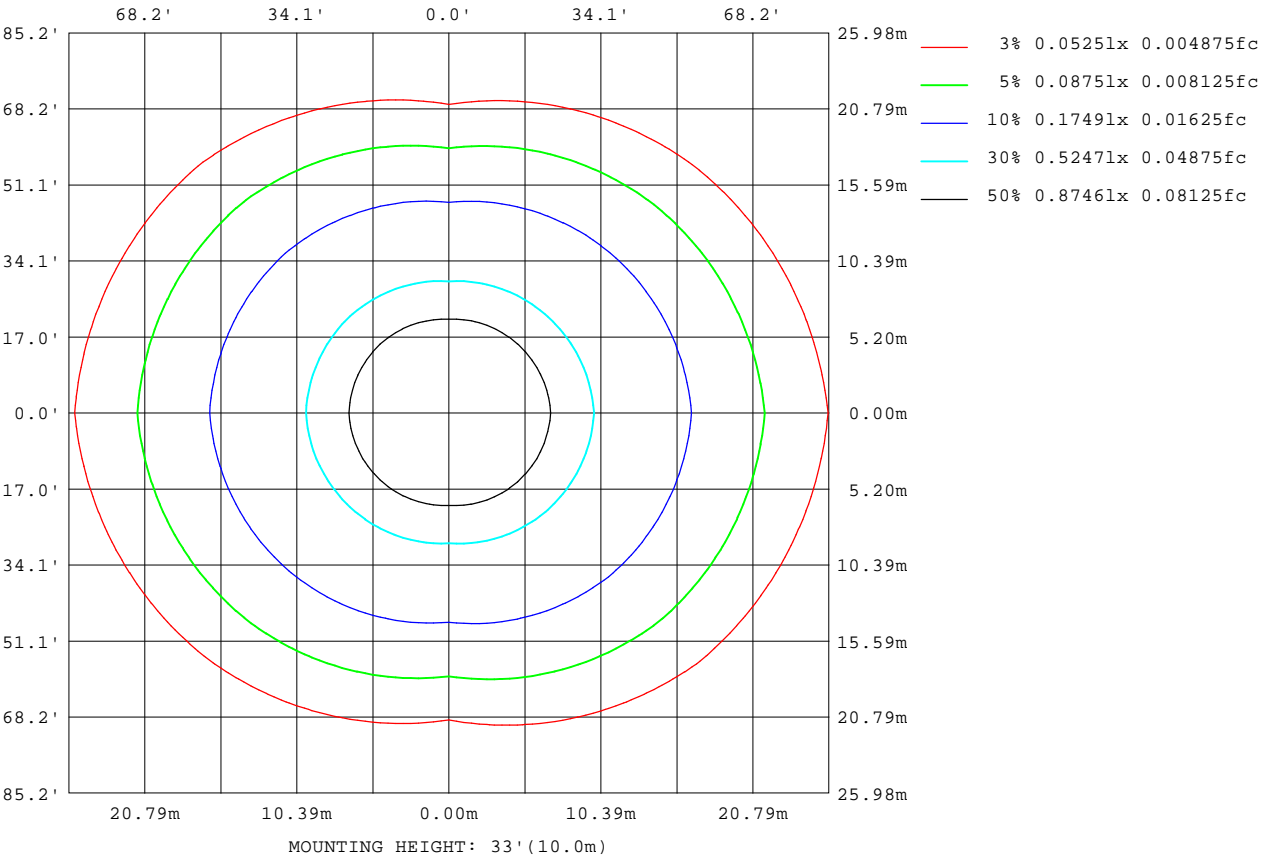
AAI Figure



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

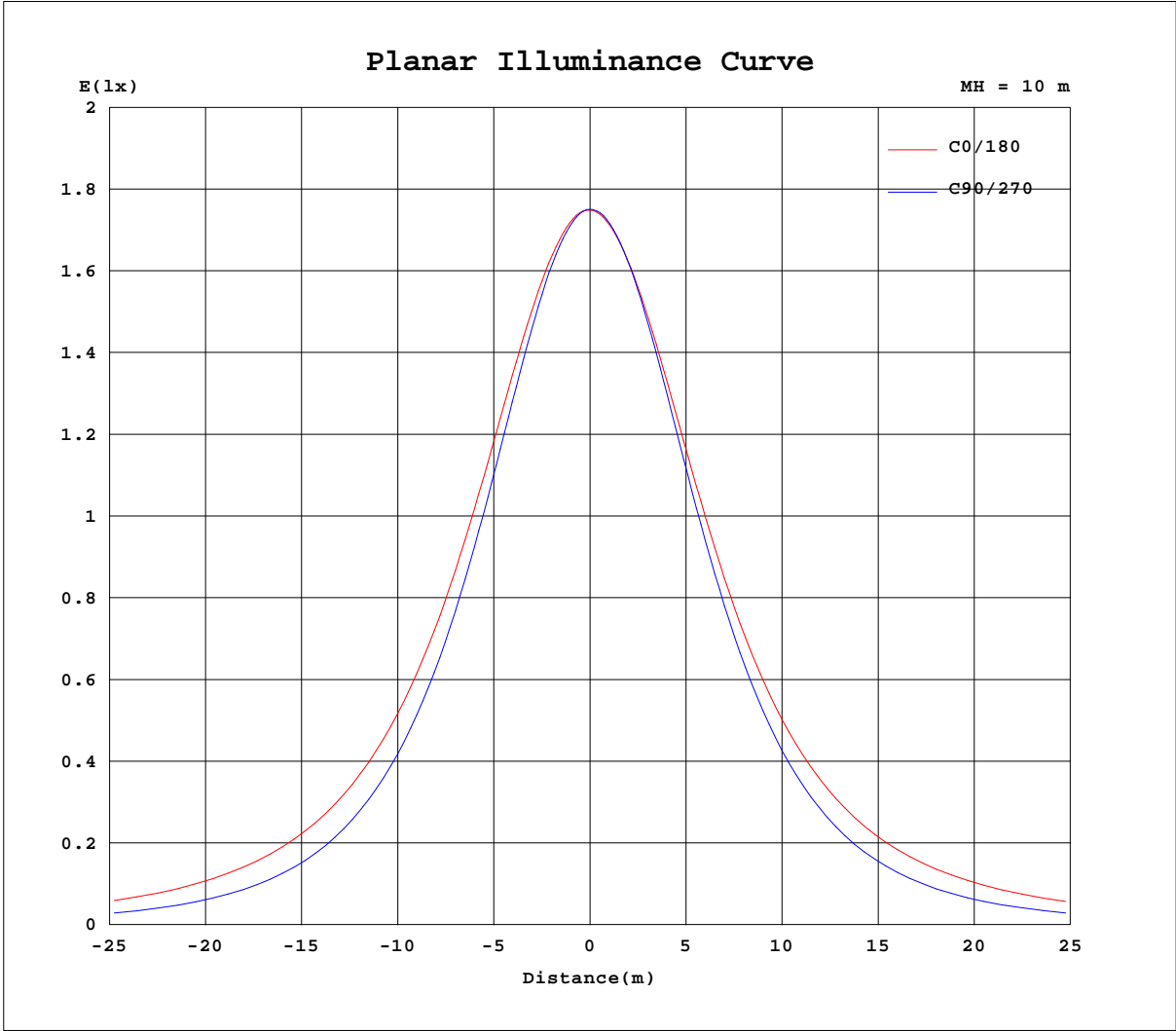
Test:U:24.00V I:0.4216A P:10.12W PF:1.000 Freq:0Hz Lamp Flux:709.423x1 lm		
NAME: DRF102408NO	TYPE:	WEIGHT:
SPEC.:DRF102408NO-9WWNSA012WC0100	DIM.: 1000*8*1.5mm	SERIAL No.:
MFR.: COLORS	SUR.:1000*8mm	Shielding Angle:

AvgL	cd/m2
L_0~180(65)av	34256
L_0~180(75)av	48887
L_0~180(85)av	115849
L_90~270(65)av	19217
L_90~270(75)av	16864
L_90~270(85)av	14301
L_45(65)av	28239
L_45(75)av	37244
L_45(85)av	81112

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(°) \ g(°)	0	45	90	135	180	225	270	315										
0	175	175	175	175	175	175	175	175										
5	175	174	174	174	174	174	175	175										
10	174	173	172	172	173	173	173	173										
15	172	170	168	169	170	170	169	171										
20	170	166	163	165	168	166	165	167										
25	167	162	156	160	164	162	158	162										
30	163	156	149	154	160	156	151	157										
35	158	150	140	147	154	149	142	150										
40	152	142	130	139	148	142	132	142										
45	146	134	119	130	142	134	121	133										
50	140	125	106	121	135	125	108	124										
55	133	117	93.0	111	128	116	94.9	114										
60	125	107	79.0	101	121	106	80.5	105										
65	118	98.1	64.4	91.9	114	97.1	65.5	94.7										
70	111	88.8	49.6	82.5	107	88.0	50.1	84.7										
75	103	80.2	34.9	73.6	99.5	79.4	34.9	75.2										
80	92.9	70.6	21.4	64.8	90.7	70.3	20.9	65.4										
85	81.4	58.9	10.5	54.4	80.1	59.5	9.49	53.5										
90	68.3	46.5	3.29	43.1	68.3	47.9	2.26	41.2										
95	43.3	15.6	2.31	18.1	53.4	20.4	1.36	16.4										
100	30.7	9.04	2.58	9.04	34.0	9.99	1.62	6.55										
105	11.0	3.73	2.84	3.52	16.5	3.18	1.90	2.52										
110	4.25	3.52	3.14	3.50	4.20	2.54	2.19	2.59										
115	3.57	3.69	3.39	3.69	3.45	2.76	2.37	2.85										
120	3.65	3.88	3.62	3.91	3.68	3.03	2.61	3.05										
125	3.82	4.05	3.84	4.10	3.87	3.28	2.90	3.25										
130	4.00	4.17	4.05	4.28	4.04	3.54	3.18	3.43										
135	4.13	4.32	4.25	4.45	4.15	3.75	3.50	3.62										
140	4.23	4.43	4.44	4.62	4.30	3.92	3.68	3.83										
145	4.39	4.55	4.61	4.73	4.45	4.12	3.88	4.01										
150	4.52	4.68	4.80	4.86	4.59	4.26	4.10	4.20										
155	4.60	4.82	4.88	5.00	4.74	4.42	4.31	4.38										
160	4.74	4.96	5.01	5.11	4.87	4.61	4.64	4.55										
165	4.89	5.11	5.17	5.20	5.03	4.80	4.74	4.76										
170	4.98	5.20	5.25	5.28	5.17	4.99	4.94	4.89										
175	5.11	5.30	5.28	5.28	5.26	5.28	5.15	5.08										
180	5.27	5.32	5.28	5.28	5.25	5.34	5.27	5.27										

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

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