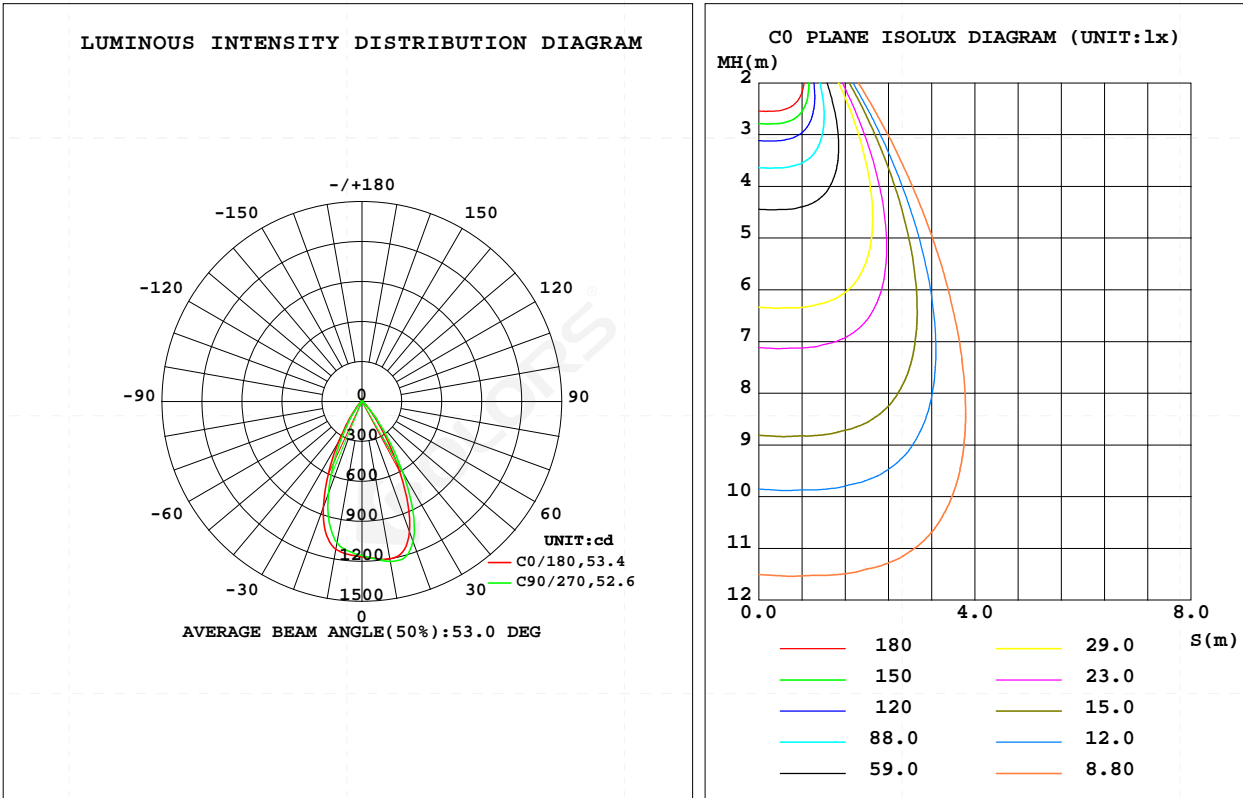


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:48.00V I:0.2400A P:11.52W PF:1.000 Freq:0Hz Lamp Flux:984.966x1 lm		
NAME: FD-HM40S5052(T)-N950B12	TYPE:	WEIGHT:
SPEC.:	DIM.: 50mm	SERIAL No.:
MFR.: COLORS	SUR.:50mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 85.50 lm/W
MODEL		I _{max} (cd)	1226	S/MH(C0/180)		0.85
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)		0.72
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	984.97	h UP,DN(C0-180)		1.6,58.1
NOMINAL FLUX(lm)	984.966	CIE CLASS	DIRECT	h UP,DN(C180-360)		1.8,38.6
LAMPS INSIDE	1	h up(%)	3.4	CIBSE SHR NOM		0.75
TEST VOLTAGE(V)	48	h down(%)	96.6	CIBSE SHR MAX		0.80



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-05-14

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

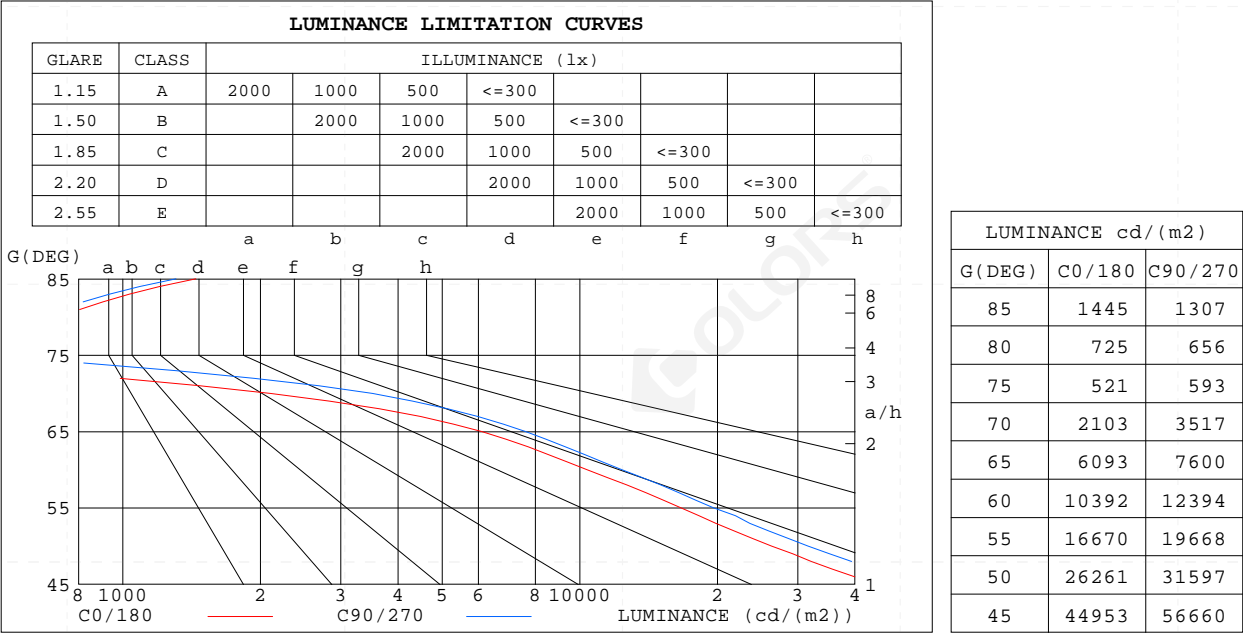
ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	1197	1218	1219	1216	1126	1079	1077	1075	0- 10	110.6	110.6	11.2,11.2
20	1042	1122	1123	1121	850.7	744.3	739.5	740.5	10- 20	300.8	411.3	41.8,41.8
30	507.7	610.0	611.7	611.0	361.5	286.2	281.6	284.4	20- 30	315.4	726.7	73.8,73.8
40	132.0	168.6	172.3	169.2	92.45	71.12	70.17	70.34	30- 40	156.0	882.7	89.6,89.6
50	33.76	40.70	40.62	40.51	25.73	21.11	20.94	20.86	40- 50	48.08	930.8	94.5,94.5
60	10.39	12.37	12.39	12.33	7.249	5.693	5.640	5.630	50- 60	15.85	946.6	96.1,96.1
70	1.439	2.371	2.406	2.383	0.4432	0.2944	0.2818	0.3064	60- 70	4.302	950.9	96.5,96.5
80	0.2518	0.2159	0.2279	0.2219	0.2878	0.2878	0.2998	0.2818	70- 80	0.4663	951.4	96.6,96.6
90	0.2758	0.2939	0.2818	0.2819	0.3178	0.2878	0.3360	0.2818	80- 90	0.2978	951.7	96.6,96.6
100	0.4194	0.4199	0.3658	0.4078	0.4318	0.3896	0.4559	0.4250	90-100	0.3724	952.1	96.7,96.7
110	0.7733	0.7203	0.6716	0.7197	0.7445	0.7853	0.8462	0.7729	100-110	0.5863	952.6	96.7,96.7
120	2.031	1.698	1.630	1.682	1.866	2.169	2.222	2.174	110-120	1.217	953.9	96.8,96.8
130	5.031	4.261	4.184	4.228	4.645	5.292	5.324	5.292	120-130	2.855	956.7	97.1,97.1
140	9.481	8.459	8.377	8.419	9.177	10.09	10.11	10.08	130-140	5.309	962.0	97.7,97.7
150	14.56	13.44	13.36	13.39	14.55	15.22	15.23	15.19	140-150	7.362	969.4	98.4,98.4
160	19.30	18.39	18.29	18.33	18.83	18.84	18.85	18.79	150-160	7.638	977.0	99.2,99.2
170	23.01	22.17	22.04	22.08	22.23	21.76	21.78	21.72	160-170	5.748	982.8	99.8,99.8
180	24.54	23.99	23.87	23.88	24.57	23.98	23.93	23.87	170-180	2.191	985.0	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:2024-05-14

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:

LUMINANCE LIMITATION CURVES

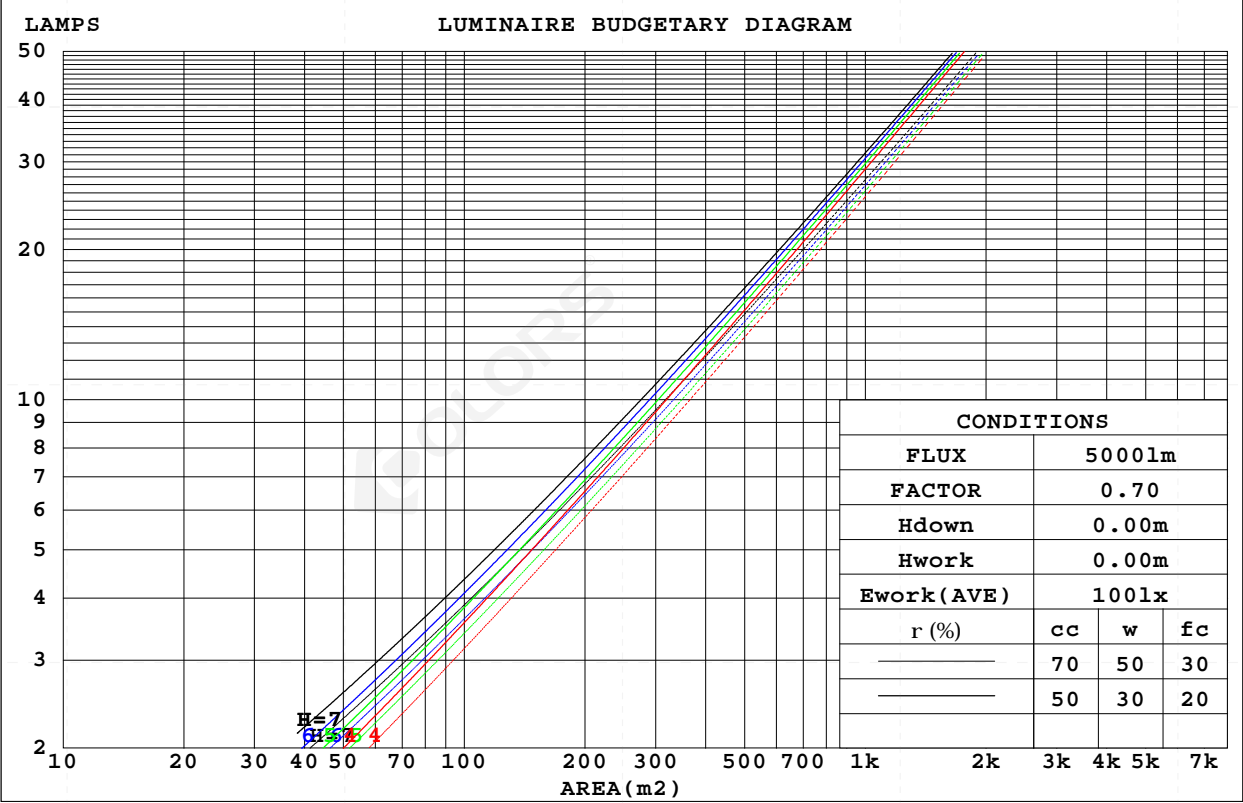


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-05-14

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	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.10	1.08	1.05	1.08	1.05	1.03	1.03	1.01	.00	.99	.97	.96	.95	.94	.93	.91
2.0	1.02	.98	.95	1.00	.97	.94	.97	.94	.91	.93	.91	.89	.90	.88	.86	.85
3.0	.96	.91	.87	.94	.90	.86	.91	.87	.84	.88	.85	.82	.85	.83	.81	.79
4.0	.90	.84	.80	.88	.83	.79	.86	.81	.78	.83	.80	.77	.81	.78	.76	.74
5.0	.84	.78	.74	.83	.78	.74	.81	.76	.73	.79	.75	.72	.77	.73	.71	.69
6.0	.79	.73	.69	.78	.73	.69	.76	.71	.68	.75	.70	.67	.73	.69	.66	.65
7.0	.74	.69	.65	.74	.68	.64	.72	.67	.64	.71	.66	.63	.69	.65	.63	.61
8.0	.70	.65	.61	.70	.64	.60	.68	.63	.60	.67	.63	.59	.66	.62	.59	.58
9.0	.67	.61	.57	.66	.61	.57	.65	.60	.56	.64	.59	.56	.63	.59	.56	.54
10.0	.63	.58	.54	.63	.57	.54	.62	.57	.53	.61	.56	.53	.60	.56	.53	.51



C Range: 0 - 360DEG

C Interval: 45.0DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:JYH

Test Date:2024-05-14

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	.177	.100	.032	.169	.096	.031	.154	.089	.028	.141	.081	.026	.129	.075	.024	
2.0	.169	.092	.028	.162	.089	.027	.150	.083	.026	.138	.078	.024	.128	.072	.023	
3.0	.160	.085	.026	.155	.083	.025	.144	.078	.024	.134	.073	.023	.125	.069	.021	
4.0	.152	.079	.023	.147	.077	.023	.138	.073	.022	.130	.070	.021	.121	.066	.020	
5.0	.145	.074	.021	.141	.072	.021	.133	.069	.020	.125	.066	.020	.118	.063	.019	
6.0	.138	.069	.020	.135	.068	.020	.127	.065	.019	.120	.063	.018	.114	.060	.018	
7.0	.132	.065	.019	.129	.064	.018	.122	.062	.018	.116	.059	.017	.110	.057	.017	
8.0	.126	.062	.017	.123	.061	.017	.117	.059	.017	.112	.057	.016	.107	.055	.016	
9.0	.121	.059	.016	.118	.058	.016	.113	.056	.016	.108	.054	.015	.103	.052	.015	
10.0	.116	.056	.015	.114	.055	.015	.109	.053	.015	.104	.052	.015	.100	.050	.014	

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	.216	.216	.216	.185	.185	.185	.126	.126	.126	.072	.072	.072	.023	.023	.023	
1.0	.197	.183	.171	.169	.157	.147	.115	.108	.102	.066	.063	.059	.021	.020	.019	
2.0	.182	.159	.139	.156	.137	.120	.107	.094	.084	.062	.055	.049	.020	.018	.016	
3.0	.170	.140	.116	.145	.121	.101	.100	.084	.071	.058	.049	.042	.019	.016	.014	
4.0	.159	.125	.099	.137	.108	.086	.094	.075	.061	.054	.044	.036	.018	.014	.012	
5.0	.151	.114	.086	.129	.098	.075	.089	.069	.053	.052	.040	.031	.017	.013	.010	
6.0	.143	.104	.077	.123	.090	.067	.085	.063	.047	.049	.037	.028	.016	.012	.009	
7.0	.137	.097	.069	.118	.084	.060	.081	.059	.043	.047	.035	.025	.015	.011	.008	
8.0	.131	.091	.063	.113	.079	.055	.078	.055	.039	.045	.033	.023	.015	.011	.008	
9.0	.126	.086	.058	.109	.074	.051	.075	.052	.036	.044	.031	.021	.014	.010	.007	
10.0	.122	.081	.054	.105	.071	.047	.073	.050	.034	.042	.029	.020	.014	.010	.007	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:JYH
 Test Date:2024-05-14

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	22.0	22.9	22.3	23.1	23.4	22.9	23.8	23.1	24.0	24.2
3H	21.9	22.7	22.2	22.9	23.2	22.7	23.5	23.0	23.8	24.1
4H	21.8	22.5	22.1	22.8	23.1	22.6	23.4	22.9	23.7	24.0
6H	21.7	22.4	22.0	22.7	23.0	22.5	23.3	22.9	23.6	23.9
8H	21.6	22.3	22.0	22.6	23.0	22.5	23.2	22.8	23.5	23.8
12H	21.6	22.2	21.9	22.6	22.9	22.4	23.1	22.8	23.4	23.8
4H 2H	21.8	22.6	22.1	22.9	23.1	22.6	23.4	23.0	23.7	24.0
3H	21.6	22.3	22.0	22.6	23.0	22.5	23.1	22.8	23.5	23.8
4H	21.5	22.1	21.9	22.5	22.9	22.4	23.0	22.8	23.3	23.7
6H	21.4	22.0	21.9	22.4	22.8	22.3	22.8	22.7	23.2	23.6
8H	21.4	21.9	21.8	22.3	22.7	22.2	22.7	22.7	23.1	23.6
12H	21.3	21.8	21.8	22.2	22.7	22.2	22.6	22.6	23.0	23.5
8H 4H	21.4	21.9	21.8	22.3	22.7	22.2	22.7	22.7	23.1	23.6
6H	21.3	21.7	21.7	22.1	22.6	22.1	22.5	22.6	23.0	23.4
8H	21.2	21.6	21.7	22.0	22.5	22.0	22.4	22.5	22.9	23.4
12H	21.1	21.4	21.7	21.9	22.5	22.0	22.3	22.5	22.8	23.3
12H 4H	21.3	21.8	21.8	22.2	22.7	22.2	22.6	22.6	23.0	23.5
6H	21.2	21.6	21.7	22.0	22.5	22.0	22.4	22.5	22.9	23.4
8H	21.1	21.4	21.7	21.9	22.5	22.0	22.3	22.5	22.8	23.3
Variations with the observer position at spacings:										
S = 1.0H		+ 2.5 / - 7.6					+ 3.1 / - 7.8			
1.5H		+ 4.3 / - 5.1					+ 5.0 / - 5.7			
2.0H		+ 4.4 / - 5.0					+ 5.0 / - 5.4			

CIE Pub.117, 985.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.1)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-05-14

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:

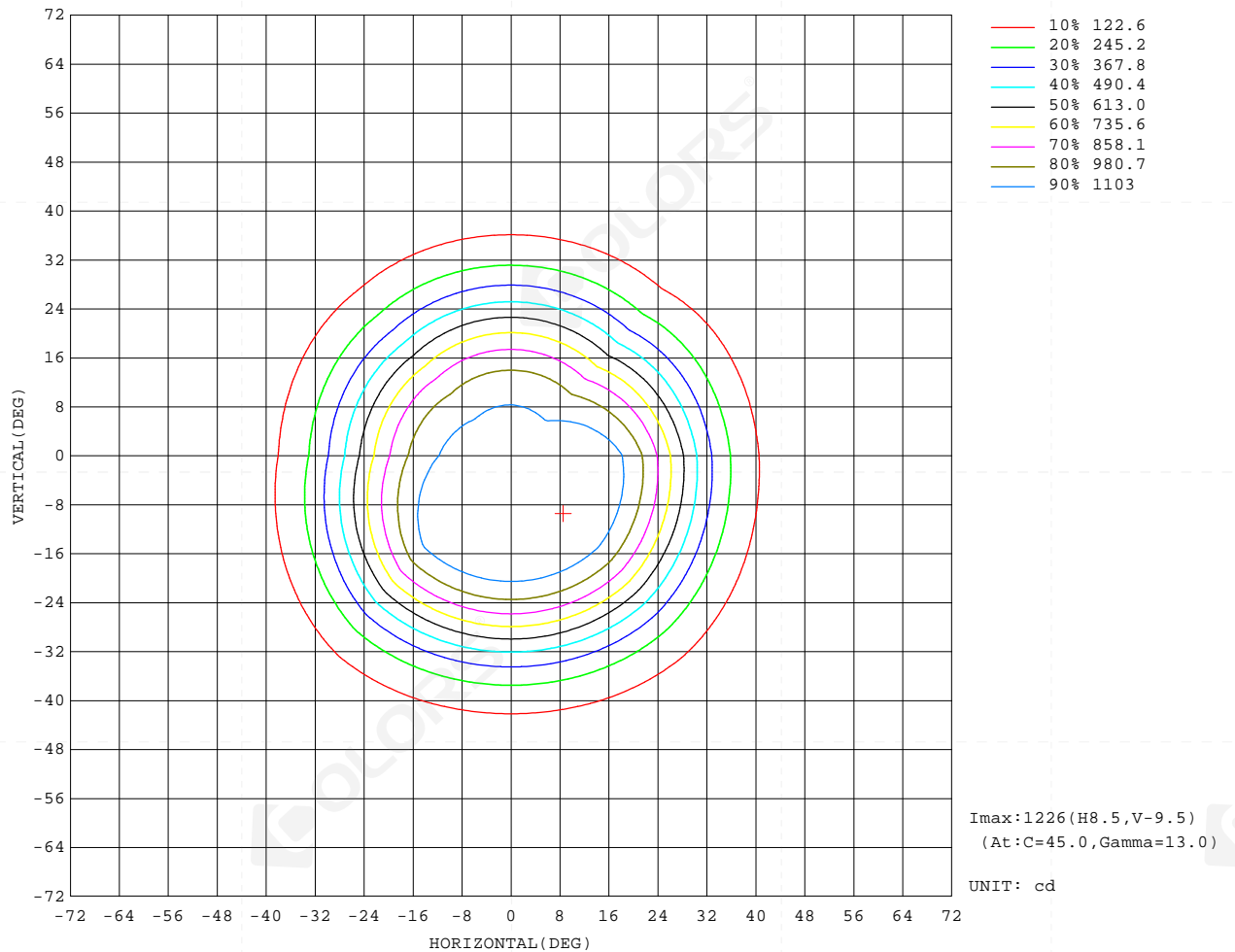
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	85	78	75	84	78	74	83	78	74	70
0.80	93	87	83	92	86	83	90	85	82	78
1.00	97	92	88	96	91	87	94	90	87	82
1.25	101	96	93	100	95	92	98	94	91	86
1.50	104	99	96	103	98	95	100	97	94	89
2.00	107	103	100	105	102	99	102	99	97	91
2.50	109	105	102	107	103	101	103	101	98	92
3.00	111	107	104	108	105	103	105	102	100	93
4.00	113	110	107	110	108	106	106	104	103	94
5.00	114	112	110	111	109	108	107	105	104	95
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:2024-05-14

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:

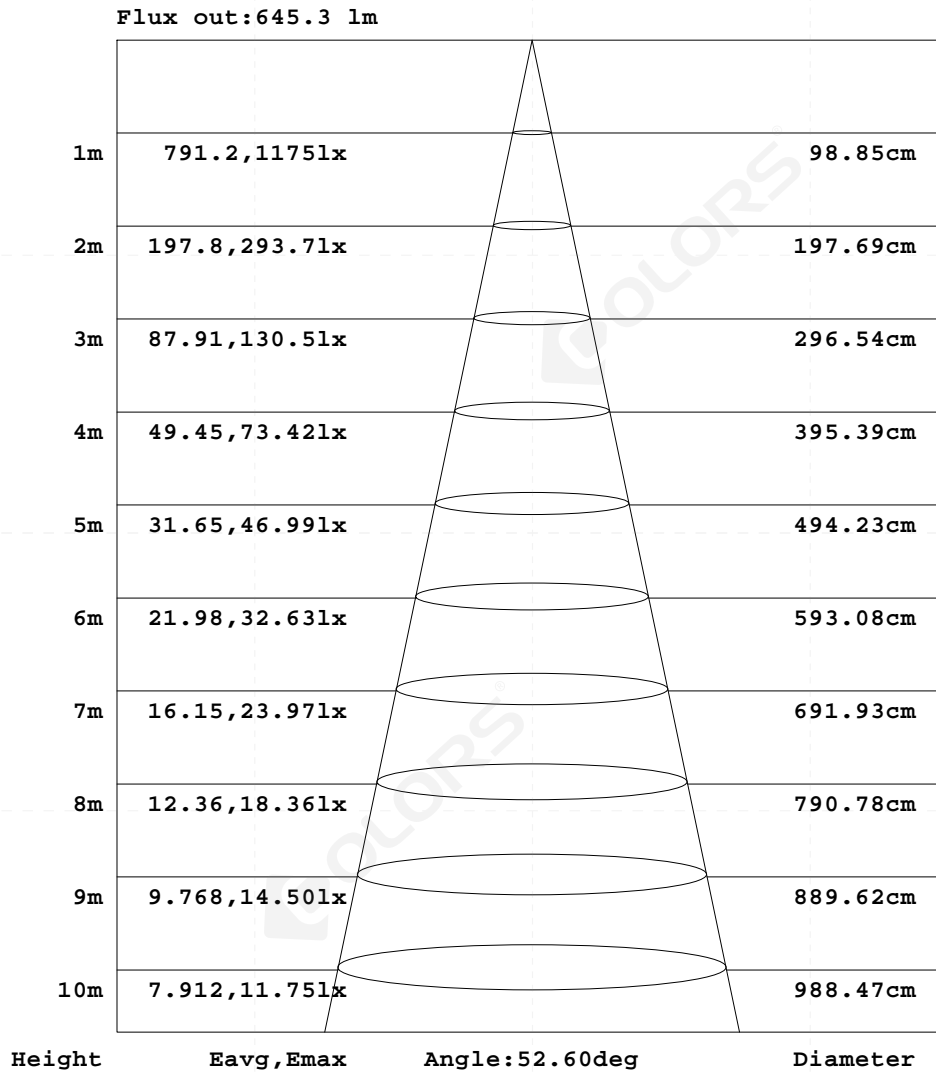
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2024-05-14

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

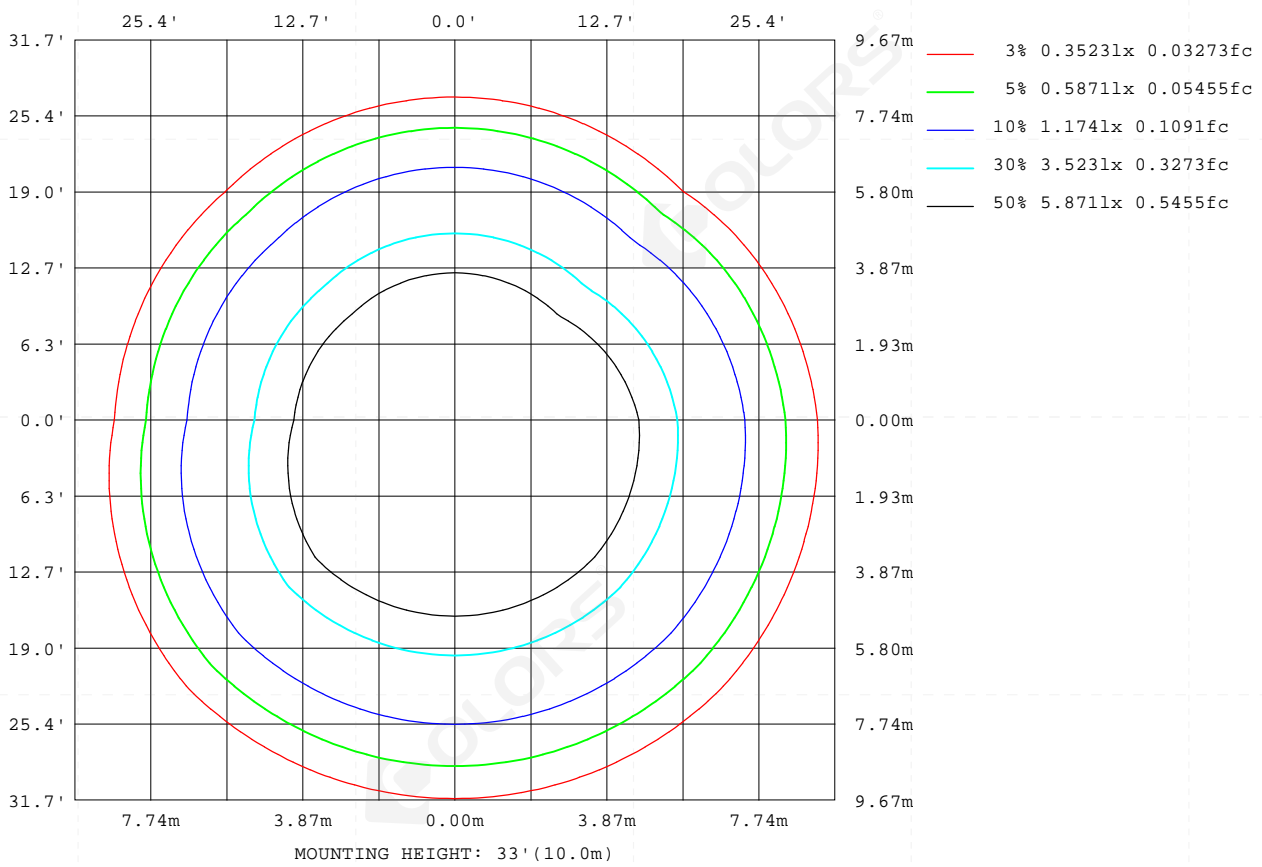


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-05-14

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:

ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2024-05-14

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:

LED Avg.L Report

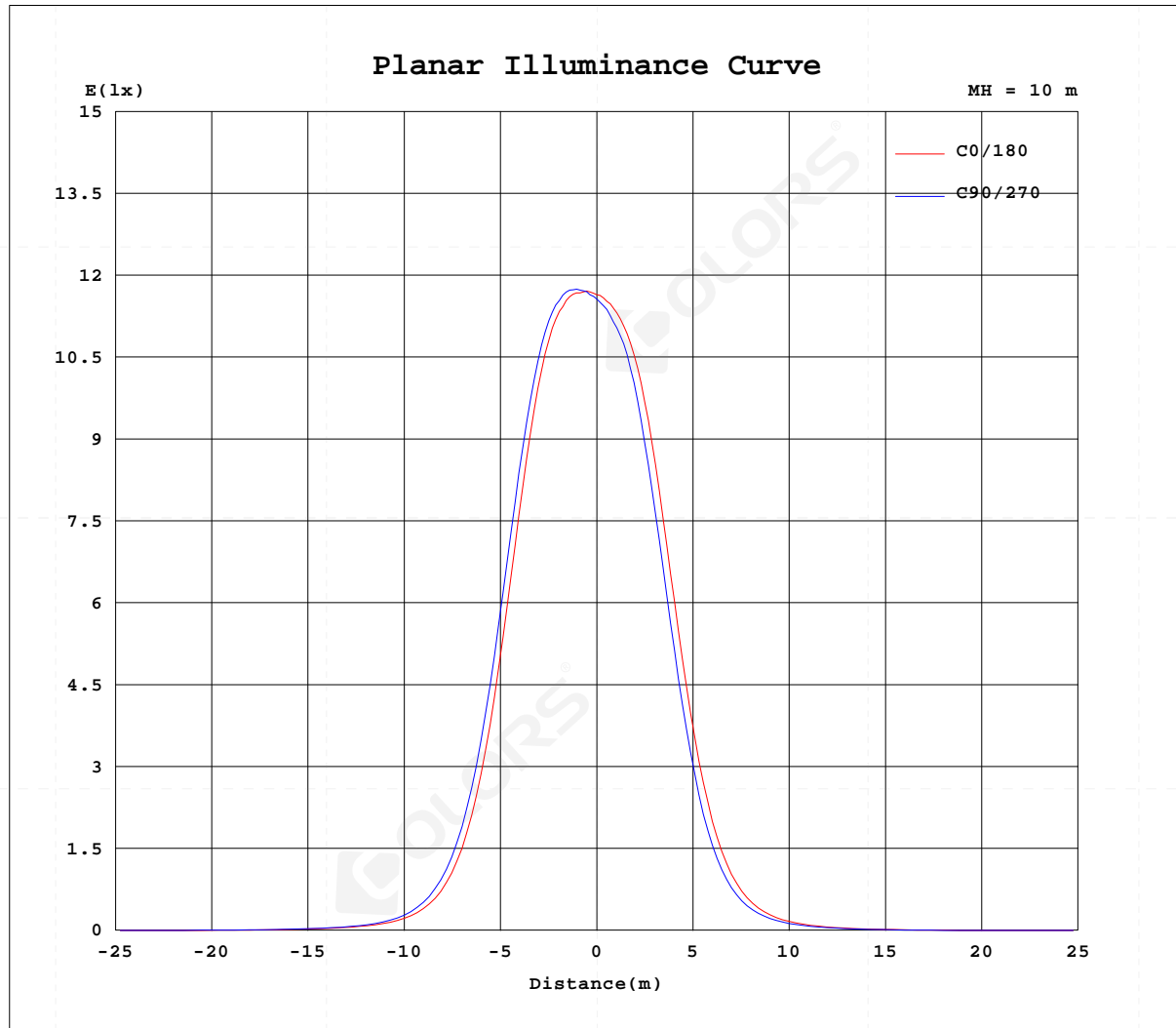
Test:U:48.00V I:0.2400A P:11.52W PF:1.000 Freq:0Hz Lamp Flux:984.966x1 lm		
NAME: FD-HM40SH52(T)-N950B12	TYPE:	WEIGHT:
SPEC.:	DIM.: 50mm	SERIAL No.:
MFR.: COLORS	SUR.:50mm	Shielding Angle:

AvgL	cd/m2
L_0~180(65)av	4726
L_0~180(75)av	539
L_0~180(85)av	1566
L_90~270(65)av	4763
L_90~270(75)av	569
L_90~270(85)av	1514
L_45(65)av	4791
L_45(75)av	550
L_45(85)av	1514

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:2024-05-14	Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2024-05-14

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	1165	1157	1156	1153	1165	1157	1156	1153										
5	1182	1185	1186	1182	1153	1130	1128	1129										
10	1197	1218	1219	1216	1126	1079	1077	1075										
15	1172	1215	1216	1214	1037	952	946	948										
20	1042	1122	1123	1121	851	744	740	740										
25	795	905	905	905	601	499	496	497										
30	508	610	612	611	362	286	282	284										
35	274	347	346	348	188	145	143	143										
40	132	169	172	169	92.5	71.1	70.2	70.3										
45	63.6	79.7	80.1	80.0	47.0	37.2	37.0	36.8										
50	33.8	40.7	40.6	40.5	25.7	21.1	20.9	20.9										
55	19.1	22.5	22.6	22.5	14.4	11.6	11.5	11.5										
60	10.4	12.4	12.4	12.3	7.25	5.69	5.64	5.63										
65	5.15	6.44	6.42	6.43	2.84	1.67	1.63	1.66										
70	1.44	2.37	2.41	2.38	0.44	0.29	0.28	0.31										
75	0.27	0.29	0.31	0.28	0.29	0.29	0.28	0.28										
80	0.25	0.22	0.23	0.22	0.29	0.29	0.30	0.28										
85	0.25	0.23	0.23	0.25	0.29	0.29	0.30	0.28										
90	0.28	0.29	0.28	0.28	0.32	0.29	0.34	0.28										
95	0.31	0.33	0.28	0.34	0.37	0.33	0.38	0.37										
100	0.42	0.42	0.37	0.41	0.43	0.39	0.46	0.42										
105	0.55	0.53	0.46	0.52	0.54	0.54	0.59	0.55										
110	0.77	0.72	0.67	0.72	0.74	0.79	0.85	0.77										
115	1.22	1.07	1.05	1.07	1.15	1.28	1.33	1.29										
120	2.03	1.70	1.63	1.68	1.87	2.17	2.22	2.17										
125	3.27	2.75	2.69	2.74	3.04	3.51	3.56	3.53										
130	5.03	4.26	4.18	4.23	4.64	5.29	5.32	5.29										
135	7.12	6.20	6.11	6.16	6.69	7.52	7.54	7.52										
140	9.48	8.46	8.38	8.42	9.18	10.1	10.1	10.1										
145	12.0	10.9	10.8	10.8	11.9	12.7	12.8	12.7										
150	14.6	13.4	13.4	13.4	14.5	15.2	15.2	15.2										
155	17.0	16.0	15.9	16.0	16.9	17.2	17.2	17.2										
160	19.3	18.4	18.3	18.3	18.8	18.8	18.8	18.8										
165	21.3	20.4	20.3	20.4	20.6	20.3	20.3	20.2										
170	23.0	22.2	22.0	22.1	22.2	21.8	21.8	21.7										
175	24.1	23.4	23.3	23.3	23.7	23.1	23.1	23.1										
180	24.5	24.0	23.9	23.9	24.6	24.0	23.9	23.9										

C Range: 0 - 360DEGC Interval: 45.0DEGTest Speed: HIGHTemperature:25.3DEGOperators:JYHTest Date:2024-05-14

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: