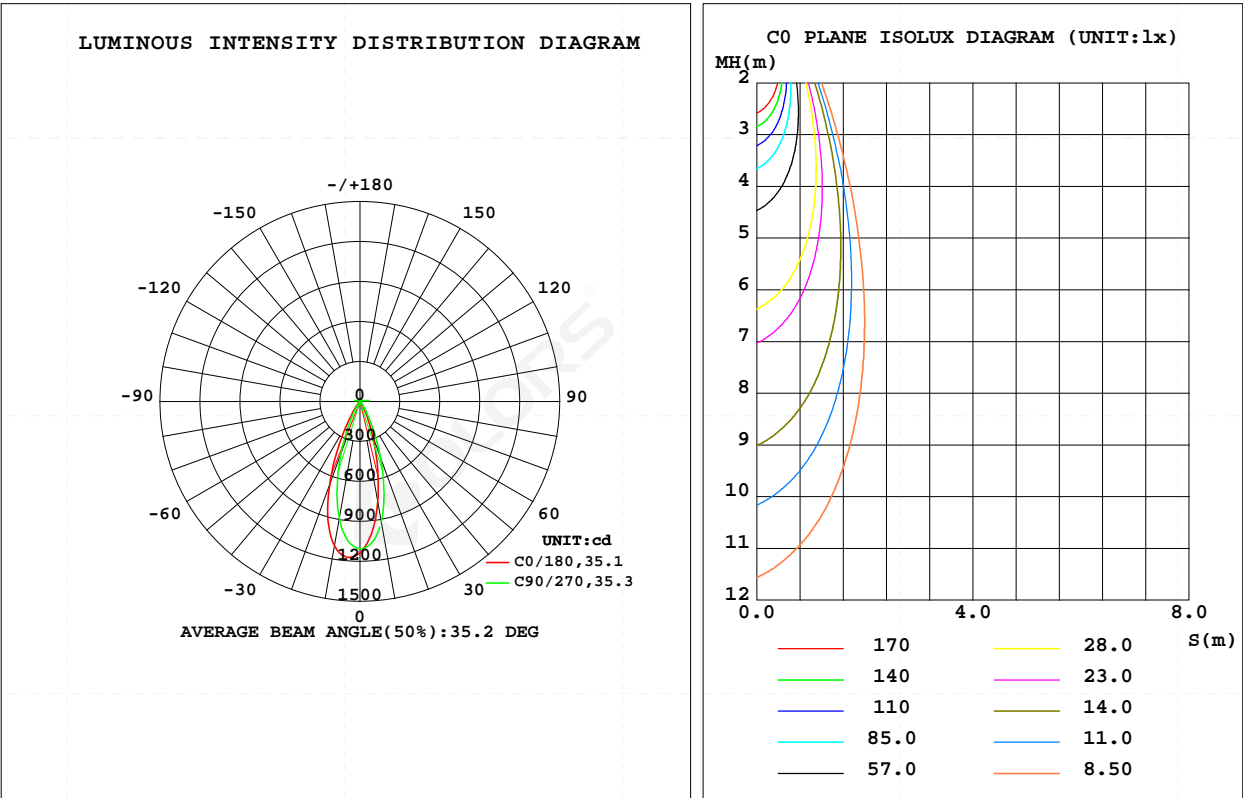


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:48.00V I:0.1310A P:6.280W PF:1.000 Freq:0Hz Lamp Flux:476.007x1 lm		
NAME: FD-HM40S3642(T)-N950B06	TYPE:	WEIGHT:
SPEC.:	DIM.: 40mm	SERIAL No.:
MFR.: COLORS	SUR.:40mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 75.80 lm/W
MODEL		I _{max} (cd)	1173	S/MH(C0/180)		0.47
NOMINAL POWER(W)	6	LOR(%)	100.0	S/MH(C90/270)		0.56
RATED VOLTAGE(V)	48	TOTAL FLUX(lm)	476.01	h UP,DN(C0-180)		1.8,45.4
NOMINAL FLUX(lm)	476.007	CIE CLASS	DIRECT	h UP,DN(C180-360)		1.4,51.3
LAMPS INSIDE	1	h up(%)	3.3	CIBSE SHR NOM		0.50
TEST VOLTAGE(V)	48	h down(%)	96.7	CIBSE SHR MAX		0.60



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-22

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

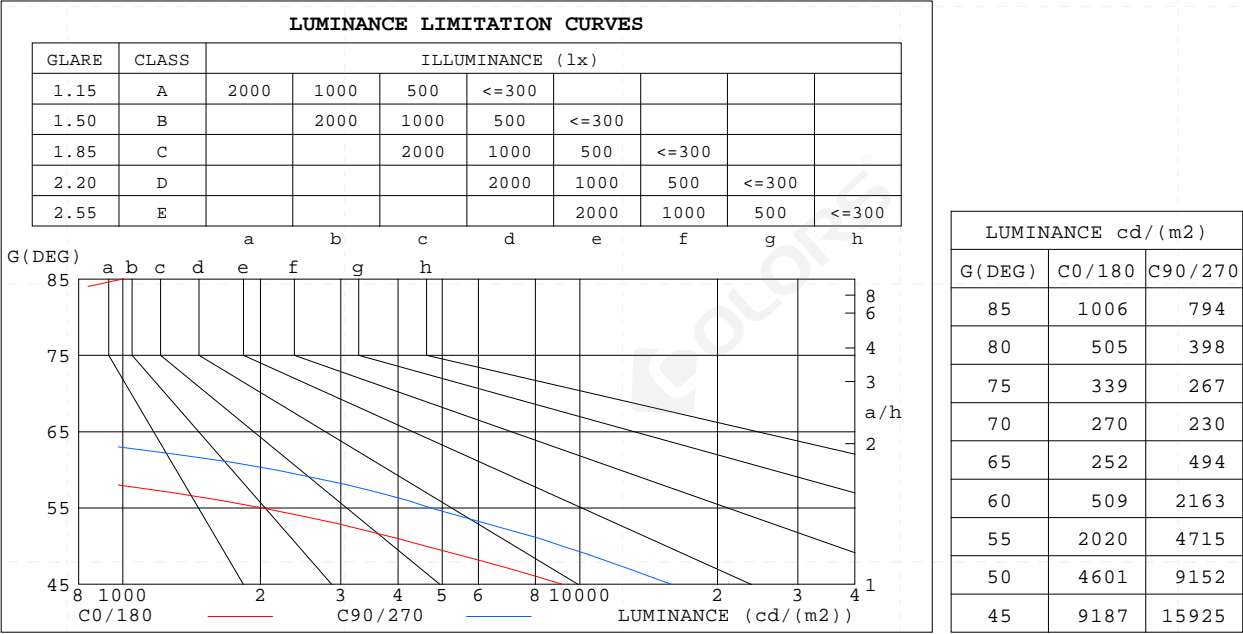
ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	770.5	795.6	919.2	1060	1101	1049	894.0	752.8	0- 10	96.87	96.87	20.4,20.4
20	284.9	315.4	457.5	639.0	673.4	617.7	422.1	278.5	10- 20	190.6	287.4	60.4,60.4
30	62.09	74.14	119.5	188.9	195.0	175.7	99.18	59.54	20- 30	119.4	406.8	85.5,85.5
40	16.01	18.62	27.47	38.25	38.54	35.83	23.79	15.87	30- 40	37.41	444.2	93.3,93.3
50	3.845	4.658	7.648	11.50	11.99	11.13	7.475	4.194	40- 50	11.70	455.9	95.8,95.8
60	0.3311	0.3717	1.406	3.051	3.452	2.796	1.326	0.4090	50- 60	3.701	459.6	96.6,96.6
70	0.1201	0.0959	0.1021	0.1609	0.2513	0.1927	0.1259	0.1259	60- 70	0.6473	460.2	96.7,96.7
80	0.1139	0.1080	0.0899	0.0961	0.1319	0.1319	0.1259	0.1259	70- 80	0.1238	460.4	96.7,96.7
90	0.1139	0.1439	0.0899	0.1139	0.1379	0.1199	0.1319	0.1259	80- 90	0.1284	460.5	96.7,96.7
100	0.1739	0.2159	0.1739	0.1619	0.1620	0.1199	0.1739	0.1739	90-100	0.1565	460.7	96.8,96.8
110	0.3473	0.3659	0.2818	0.2579	0.2218	0.1740	0.2578	0.2636	100-110	0.2230	460.9	96.8,96.8
120	0.8754	0.8577	0.6649	0.4919	0.3959	0.3477	0.5161	0.5872	110-120	0.3835	461.3	96.9,96.9
130	2.848	2.641	1.934	1.355	0.9539	0.9947	1.416	1.880	120-130	0.9500	462.2	97.1,97.1
140	6.217	5.903	4.869	3.787	2.629	2.775	3.625	4.526	130-140	2.232	464.4	97.6,97.6
150	9.318	9.158	8.330	7.302	5.715	5.861	6.889	7.720	140-150	3.676	468.1	98.3,98.3
160	10.24	10.40	10.36	10.07	9.003	8.972	9.500	9.684	150-160	4.045	472.2	99.2,99.2
170	9.846	10.13	10.48	10.55	10.50	10.36	10.21	9.816	160-170	2.858	475.0	99.8,99.8
180	10.47	10.72	10.55	10.46	10.55	10.72	10.55	10.45	170-180	0.9861	476.0	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:2024-04-22

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

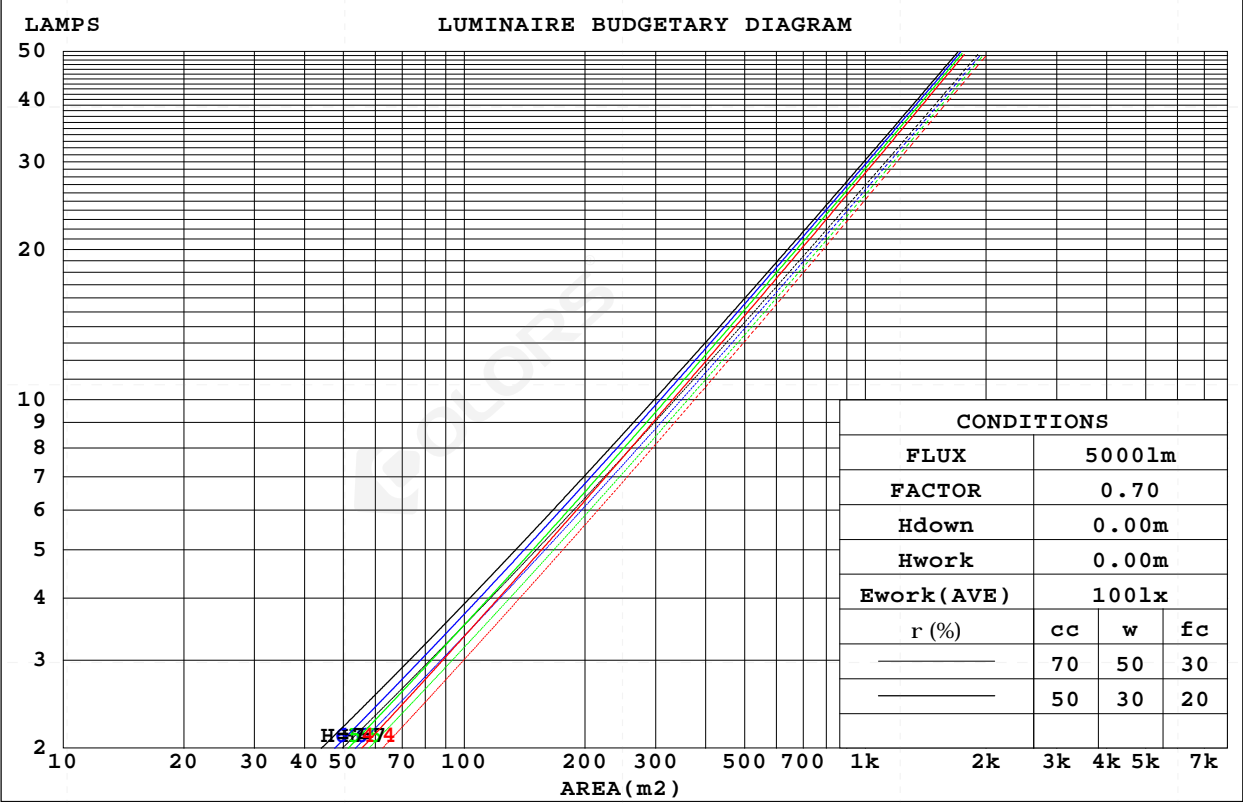


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-22

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	1.11	1.09	1.07	1.09	1.07	1.05	1.04	1.02	1.01	.00	.99	.97	.96	.95	.94	.92
2.0	1.05	1.01	.98	1.03	.99	.97	.99	.96	.94	.96	.94	.92	.92	.91	.89	.88
3.0	.99	.95	.91	.97	.93	.90	.94	.91	.88	.91	.89	.87	.89	.87	.85	.83
4.0	.94	.89	.85	.92	.88	.85	.90	.86	.83	.88	.85	.82	.86	.83	.81	.79
5.0	.89	.84	.81	.88	.84	.80	.86	.82	.79	.84	.81	.78	.82	.79	.77	.76
6.0	.85	.80	.76	.84	.79	.76	.82	.78	.75	.81	.77	.74	.79	.76	.74	.72
7.0	.81	.76	.73	.80	.76	.72	.79	.75	.72	.78	.74	.71	.76	.73	.71	.69
8.0	.78	.73	.69	.77	.72	.69	.76	.72	.69	.75	.71	.68	.73	.70	.68	.66
9.0	.75	.70	.66	.74	.69	.66	.73	.69	.66	.72	.68	.65	.71	.67	.65	.64
10.0	.72	.67	.63	.71	.66	.63	.70	.66	.63	.69	.65	.63	.68	.65	.62	.61



C Range: 0 - 360DEG

C Interval: 45.0DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:JYH

Test Date:2024-04-22

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	.158	.090	.028	.150	.086	.027	.136	.078	.025	.123	.071	.023	.111	.064	.021	
2.0	.149	.081	.025	.142	.078	.024	.130	.072	.022	.119	.067	.021	.108	.061	.019	
3.0	.140	.074	.022	.134	.072	.022	.124	.067	.020	.114	.063	.019	.106	.058	.018	
4.0	.132	.069	.020	.127	.067	.020	.119	.063	.019	.110	.059	.018	.102	.056	.017	
5.0	.125	.064	.019	.121	.062	.018	.113	.059	.017	.106	.056	.017	.099	.053	.016	
6.0	.119	.060	.017	.116	.058	.017	.109	.056	.016	.102	.053	.016	.096	.051	.015	
7.0	.114	.056	.016	.110	.055	.016	.104	.053	.015	.098	.050	.015	.093	.048	.014	
8.0	.109	.053	.015	.106	.052	.015	.100	.050	.014	.095	.048	.014	.090	.046	.013	
9.0	.104	.050	.014	.101	.049	.014	.096	.048	.014	.092	.046	.013	.087	.044	.013	
10.0	.100	.048	.013	.097	.047	.013	.093	.046	.013	.089	.044	.013	.085	.043	.012	

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	.215	.215	.215	.184	.184	.184	.126	.126	.126	.072	.072	.072	.023	.023	.023	
1.0	.195	.183	.171	.167	.157	.148	.114	.108	.102	.066	.062	.059	.021	.020	.019	
2.0	.178	.158	.141	.153	.136	.121	.105	.094	.085	.060	.055	.050	.019	.018	.016	
3.0	.165	.139	.118	.141	.120	.102	.097	.083	.072	.056	.049	.042	.018	.016	.014	
4.0	.153	.124	.101	.132	.107	.088	.091	.075	.062	.052	.044	.037	.017	.014	.012	
5.0	.144	.112	.088	.124	.097	.077	.085	.068	.054	.049	.040	.032	.016	.013	.011	
6.0	.136	.102	.078	.117	.089	.068	.081	.062	.048	.047	.037	.029	.015	.012	.009	
7.0	.129	.095	.070	.111	.082	.061	.077	.057	.044	.045	.034	.026	.014	.011	.009	
8.0	.123	.088	.064	.106	.076	.056	.073	.054	.040	.043	.032	.024	.014	.010	.008	
9.0	.118	.083	.059	.101	.072	.052	.070	.050	.037	.041	.030	.022	.013	.010	.007	
10.0	.113	.078	.055	.097	.068	.048	.068	.048	.034	.039	.028	.020	.013	.009	.007	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-22

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	13.3	14.1	13.6	14.3	14.5	16.0	16.8	16.3	17.0	17.2
3H	13.1	13.8	13.4	14.1	14.3	15.8	16.6	16.1	16.8	17.1
4H	13.0	13.7	13.4	14.0	14.3	15.8	16.4	16.1	16.7	17.0
6H	12.9	13.6	13.3	13.9	14.2	15.7	16.3	16.0	16.6	16.9
8H	12.9	13.5	13.3	13.8	14.1	15.6	16.2	16.0	16.5	16.8
12H	12.9	13.4	13.2	13.8	14.1	15.6	16.2	15.9	16.5	16.8
4H 2H	13.1	13.7	13.4	14.0	14.3	15.8	16.4	16.1	16.7	17.0
3H	12.9	13.4	13.2	13.8	14.1	15.6	16.2	15.9	16.5	16.8
4H	12.8	13.3	13.2	13.6	14.0	15.5	16.0	15.9	16.3	16.7
6H	12.7	13.1	13.1	13.5	13.9	15.4	15.8	15.8	16.2	16.6
8H	12.6	13.1	13.1	13.5	13.9	15.3	15.7	15.8	16.1	16.6
12H	12.6	13.0	13.0	13.4	13.9	15.3	15.7	15.7	16.1	16.5
8H 4H	12.6	13.0	13.0	13.4	13.9	15.3	15.7	15.7	16.1	16.6
6H	12.5	12.9	13.0	13.3	13.8	15.2	15.6	15.7	16.0	16.5
8H	12.5	12.8	13.0	13.2	13.8	15.1	15.5	15.6	15.9	16.4
12H	12.4	12.7	13.0	13.2	13.7	15.1	15.4	15.6	15.9	16.4
12H 4H	12.5	12.9	13.0	13.4	13.8	15.2	15.6	15.7	16.1	16.5
6H	12.4	12.8	12.9	13.2	13.7	15.1	15.4	15.6	15.9	16.4
8H	12.4	12.7	12.9	13.2	13.7	15.1	15.3	15.6	15.8	16.4
Variations with the observer position at spacings:										
S = 1.0H		+ 2.6 / -10.8					+ 3.9 / - 9.6			
1.5H		+ 4.2 / - 7.6					+ 5.5 / - 8.2			
2.0H		+ 5.8 / - 9.6					+ 6.5 / -12.6			

CIE Pub.117, 476.0 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -2.6$)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: JYH
 Test Date: 2024-04-22

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:

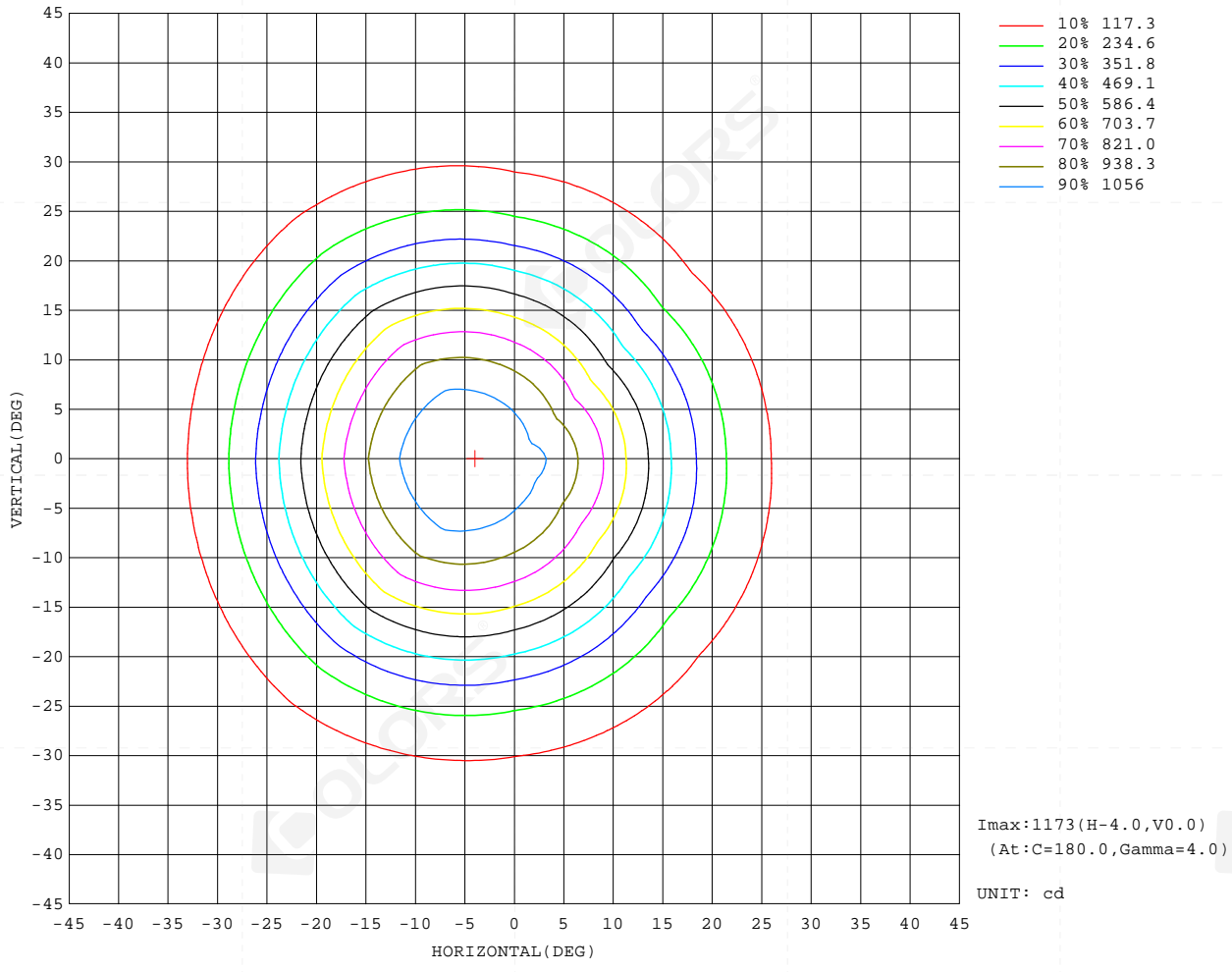
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	78	87	81	77	86	80	77	74
0.80	95	89	85	94	89	85	92	88	85	81
1.00	99	93	90	98	93	90	96	92	89	85
1.25	103	98	94	101	97	94	99	95	93	88
1.50	105	101	98	104	100	97	101	98	95	91
2.00	108	104	101	106	103	100	103	100	98	92
2.50	110	106	103	108	104	102	104	102	99	93
3.00	111	108	105	109	106	104	105	103	101	94
4.00	113	110	108	111	108	107	107	105	103	95
5.00	114	112	110	112	110	108	107	106	105	96
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:2024-04-22

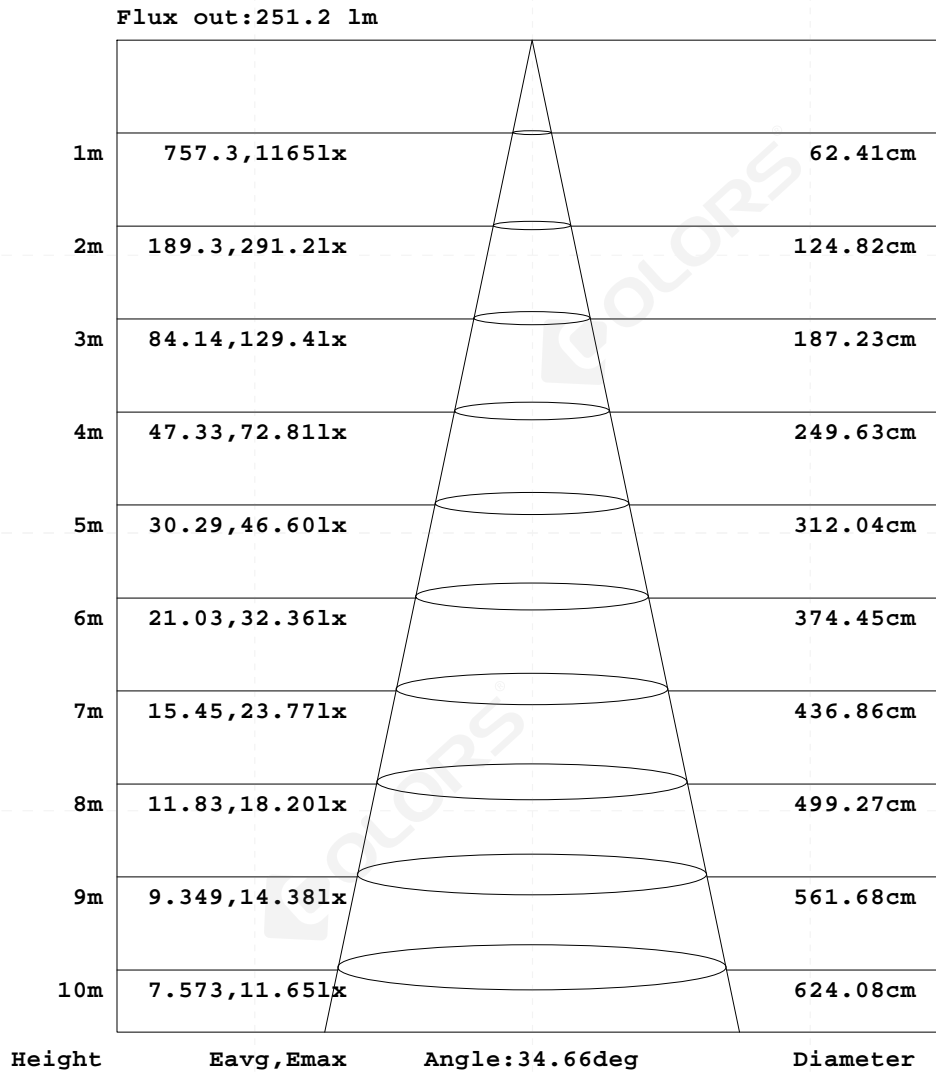
g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.375m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM



C Range: 0 - 360DEG	deg Range: 0 - 180DEG
C Interval: 45.0DEG	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:2024-04-22	Remarks:

AAI Figure

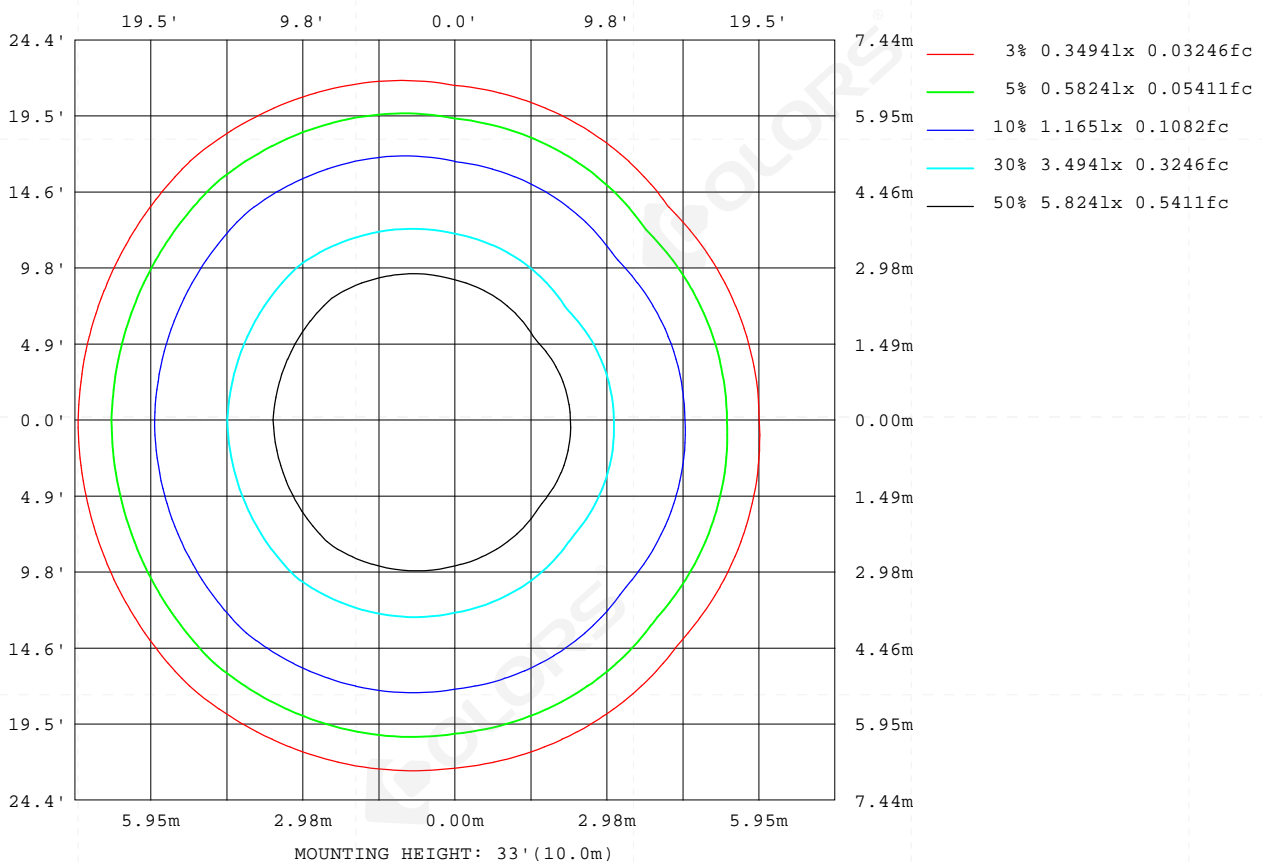


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: JYH
Test Date: 2024-04-22

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: 2024-04-22

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:0.1310A P:6.280W PF:1.000 Freq:0Hz Lamp Flux:476.007x1 lm		
NAME: TLS-MT20S42(T)-06905036-NBB	TYPE:	WEIGHT:
SPEC.:	DIM.: 40mm	SERIAL No.:
MFR.: COLORS	SUR.:40mm	Shielding Angle:

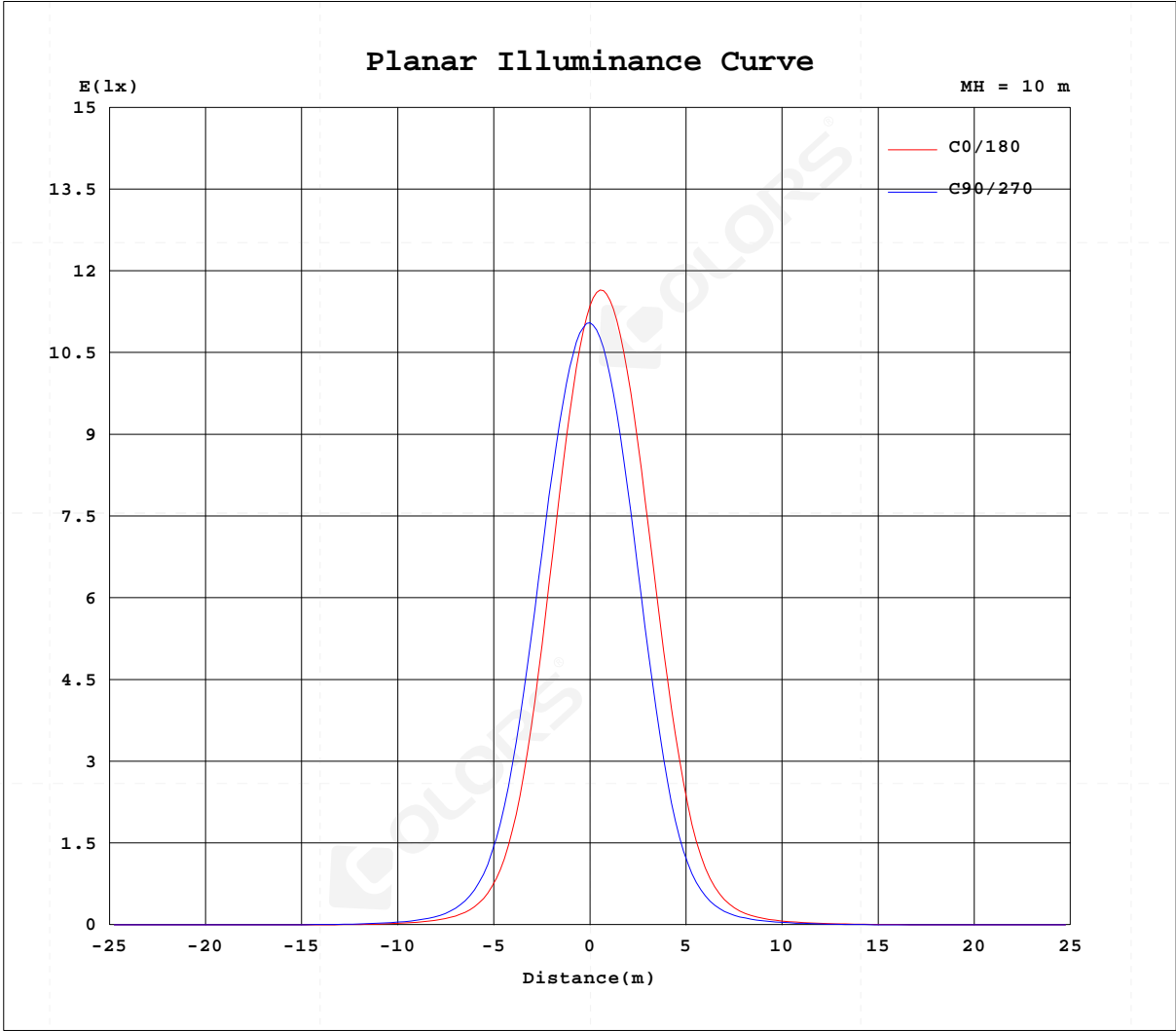
AvgL	cd/m2
L_0~180(65)av	1322
L_0~180(75)av	374
L_0~180(85)av	1085
L_90~270(65)av	416
L_90~270(75)av	321
L_90~270(85)av	953
L_45(65)av	1111
L_45(75)av	334
L_45(85)av	1045

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-22

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:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JYH
Test Date:2024-04-22

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1UNIT: cd

C(DEG) g (DEG)	0	45	90	135	180	225	270	315										
0	1137	1116	1105	1102	1137	1116	1105	1102										
5	995	1000	1060	1132	1171	1132	1049	969										
10	771	796	919	1060	1101	1049	894	753										
15	512	546	701	885	927	868	666	501										
20	285	315	457	639	673	618	422	278										
25	136	158	250	387	408	365	217	132										
30	62.1	74.1	119	189	195	176	99.2	59.5										
35	30.1	35.8	55.2	83.2	84.3	76.1	45.7	29.2										
40	16.0	18.6	27.5	38.2	38.5	35.8	23.8	15.9										
45	8.44	9.77	14.6	20.2	20.7	19.4	13.6	8.64										
50	3.84	4.66	7.65	11.5	12.0	11.1	7.48	4.19										
55	1.51	1.82	3.52	6.19	6.80	5.92	3.67	1.81										
60	0.33	0.37	1.41	3.05	3.45	2.80	1.33	0.41										
65	0.14	0.10	0.27	1.20	1.31	1.00	0.19	0.14										
70	0.12	0.10	0.10	0.16	0.25	0.19	0.13	0.13										
75	0.11	0.10	0.09	0.09	0.14	0.13	0.13	0.13										
80	0.11	0.11	0.09	0.10	0.13	0.13	0.13	0.13										
85	0.11	0.12	0.09	0.11	0.13	0.12	0.13	0.13										
90	0.11	0.14	0.09	0.11	0.14	0.12	0.13	0.13										
95	0.16	0.19	0.11	0.13	0.15	0.12	0.14	0.13										
100	0.17	0.22	0.17	0.16	0.16	0.12	0.17	0.17										
105	0.26	0.28	0.19	0.21	0.18	0.13	0.20	0.18										
110	0.35	0.37	0.28	0.26	0.22	0.17	0.26	0.26										
115	0.52	0.53	0.36	0.34	0.28	0.26	0.34	0.35										
120	0.88	0.86	0.66	0.49	0.40	0.35	0.52	0.59										
125	1.63	1.53	1.09	0.77	0.59	0.57	0.85	1.09										
130	2.85	2.64	1.93	1.36	0.95	0.99	1.42	1.88										
135	4.46	4.17	3.24	2.38	1.60	1.69	2.36	3.05										
140	6.22	5.90	4.87	3.79	2.63	2.77	3.62	4.53										
145	7.98	7.67	6.61	5.51	4.03	4.20	5.21	6.15										
150	9.32	9.16	8.33	7.30	5.71	5.86	6.89	7.72										
155	10.1	10.1	9.62	8.93	7.48	7.53	8.43	8.95										
160	10.2	10.4	10.4	10.1	9.00	8.97	9.50	9.68										
165	10.1	10.2	10.5	10.6	10.0	9.92	10.0	9.86										
170	9.85	10.1	10.5	10.6	10.5	10.4	10.2	9.82										
175	9.97	10.4	10.4	10.6	10.6	10.6	10.3	10.1										
180	10.5	10.7	10.5	10.5	10.6	10.7	10.6	10.5										

C Range: 0 - 360DEGC Interval: 45.0DEGTest Speed: HIGHTemperature:25.3DEGOperators:JYHTest Date:2024-04-22

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: