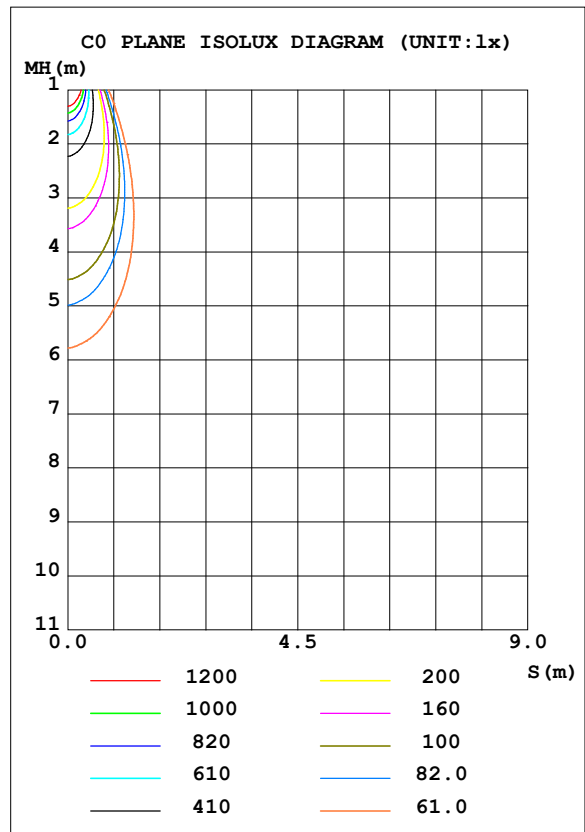
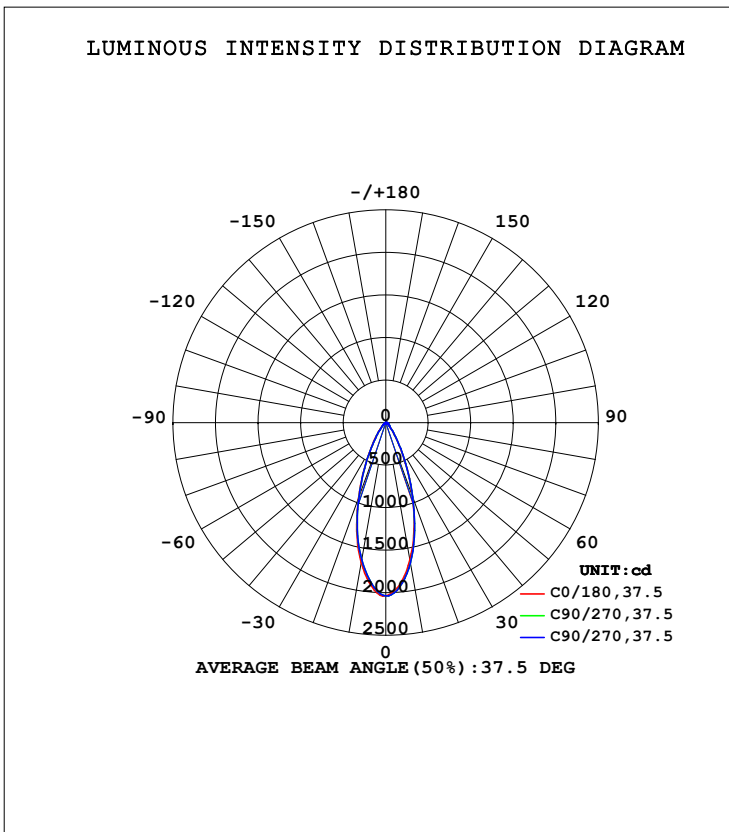


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DM13W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 78.86 lm/W			
MODEL	DM13W-36DEG 5000K	I _{max} (cd)	2039	S/MH (C0/180)	0.62
NOMINAL POWER (W)	13	LOR (%)	100.0	S/MH (C90/270)	0.61
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1044.5	<input type="checkbox"/> UP, DN (C0-180)	0.0, 50.0
NOMINAL FLUX (lm)	1044.54	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.0, 50.0
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	230	<input type="checkbox"/> down (%)	100.0	CIBSE SHR MAX	0.65



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 8.690m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

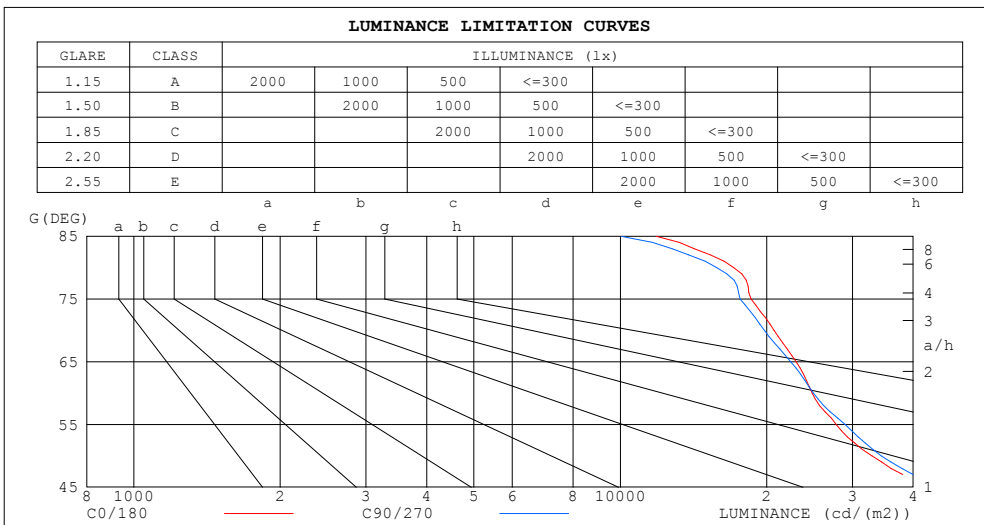
mm	C0	C90	C180	C270					mm	□ zone	□ total	%lum, lamp
10	1638	1673	1669	1637					0- 10	174.7	174.7	16.7,16.7
20	917.8	929.1	940.9	922.6					10- 20	357.7	532.3	51,51
30	341.5	353.7	360.7	341.6					20- 30	273.8	806.1	77.2,77.2
40	106.4	111.1	111.1	103.4					30- 40	127.1	933.3	89.3,89.3
50	42.31	44.28	42.30	40.36					40- 50	51.08	984.3	94.2,94.2
60	24.77	24.98	24.50	23.95					50- 60	28.81	1013	97,97
70	14.15	13.54	13.65	13.83					60- 70	18.85	1032	98.8,98.8
80	5.940	5.488	5.728	5.860					70- 80	10.09	1042	99.8,99.8
90	0.1461	0.0854	0.0974	0.0976					80- 90	2.452	1045	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

0 - 45 DEG Zonal Flux:963.69 %lum: 92.3%
 0 - 60 DEG Zonal Flux:1013.1 %lum: 97.0%
 All measured values may vary less than 35 %
 from the average measured value in the 0 to 130 deg. zone: 7.7%
 All measured values in the 0 to 130 deg. zone
 may vary less than 50% from the average value of itself: 11.0%

C Range: 0 - 360DEG	□ Range: 0 - 90DEG
C Interval: 90.0DEG	□ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Temperature:25.3DEG	Humidity:65.0%
Operators:	Test Distance:8.690m [K=1.0000]
Test Date:2022-06-28	Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DM13W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	11865	10041
80	17118	15789
75	18568	17643
70	20703	19780
65	22974	22390
60	24788	24957
55	27786	28994
50	32937	34412
45	43787	46107

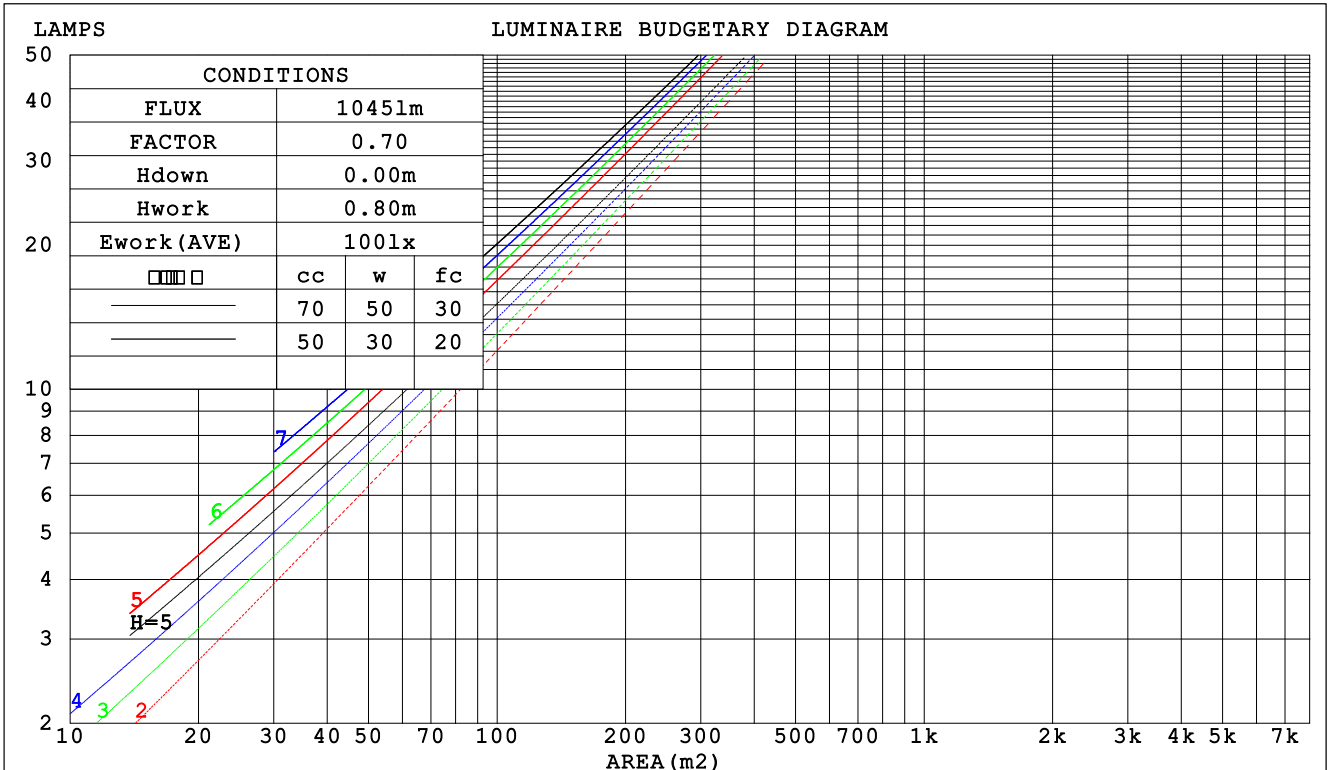
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DMI3W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

□cc	80%			70%			50%			30%			10%			0
□w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
□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	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.11	1.08	1.06	1.09	1.06	1.04	1.04	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.93	.95	.93	.91	.93	.91	.89	.87
3.0	.97	.92	.88	.95	.91	.87	.93	.89	.86	.90	.87	.84	.88	.85	.83	.82
4.0	.91	.85	.81	.90	.85	.81	.88	.83	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.86	.80	.76	.85	.80	.76	.83	.78	.75	.81	.77	.74	.80	.76	.74	.72
6.0	.81	.75	.71	.80	.75	.71	.79	.74	.71	.77	.73	.70	.76	.72	.70	.68
7.0	.77	.71	.67	.76	.71	.67	.75	.70	.67	.74	.70	.66	.73	.69	.66	.65
8.0	.73	.68	.64	.73	.67	.64	.72	.67	.63	.71	.66	.63	.70	.66	.63	.61
9.0	.70	.64	.60	.69	.64	.60	.68	.64	.60	.67	.63	.60	.67	.63	.60	.59
10.0	.67	.61	.58	.66	.61	.58	.65	.61	.57	.65	.60	.57	.64	.60	.57	.56



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-28

□ Range: 0 - 90DEG
□ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DMI3W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio		Wall Exitance Coefficients (WEC)			
0.0						
1.0	.179 .102 .032	.172 .098 .031	.160 .092 .029	.148 .085 .027	.137 .080 .026	
2.0	.169 .093 .028	.164 .090 .028	.153 .085 .026	.143 .080 .025	.134 .076 .024	
3.0	.159 .085 .025	.155 .083 .025	.146 .079 .024	.137 .075 .023	.129 .072 .022	
4.0	.150 .078 .023	.146 .076 .023	.138 .073 .022	.131 .070 .021	.124 .068 .021	
5.0	.142 .072 .021	.138 .071 .021	.132 .069 .020	.125 .066 .020	.120 .064 .019	
6.0	.134 .067 .019	.131 .066 .019	.125 .064 .019	.120 .062 .018	.115 .060 .018	
7.0	.128 .063 .018	.125 .062 .018	.120 .061 .017	.115 .059 .017	.110 .057 .017	
8.0	.122 .059 .017	.119 .059 .017	.115 .057 .016	.110 .056 .016	.106 .055 .016	
9.0	.116 .056 .016	.114 .056 .016	.110 .054 .015	.106 .053 .015	.102 .052 .015	
10.0	.111 .053 .015	.109 .053 .015	.105 .052 .015	.102 .051 .014	.099 .050 .014	

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio		Ceiling Cavity Exitance Coefficients (CCEC)			
0.0	.190 .190 .190	.163 .163 .163	.111 .111 .111	.064 .064 .064	.020 .020 .020	
1.0	.171 .157 .145	.147 .135 .125	.100 .093 .086	.058 .054 .050	.018 .017 .016	
2.0	.156 .133 .113	.134 .114 .098	.092 .079 .068	.053 .046 .040	.017 .015 .013	
3.0	.143 .114 .090	.123 .098 .078	.084 .068 .055	.049 .040 .032	.016 .013 .011	
4.0	.132 .099 .073	.114 .085 .063	.078 .059 .045	.045 .035 .026	.015 .011 .009	
5.0	.123 .087 .060	.106 .075 .052	.073 .053 .037	.042 .031 .022	.014 .010 .007	
6.0	.115 .078 .051	.099 .067 .044	.068 .047 .031	.040 .028 .019	.013 .009 .006	
7.0	.109 .070 .043	.093 .061 .037	.065 .043 .026	.037 .025 .016	.012 .008 .005	
8.0	.103 .064 .037	.088 .055 .032	.061 .039 .023	.036 .023 .014	.011 .007 .004	
9.0	.097 .058 .032	.084 .051 .028	.058 .036 .020	.034 .021 .012	.011 .007 .004	
10.0	.092 .054 .028	.080 .047 .025	.055 .033 .017	.032 .019 .010	.010 .006 .003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DM13W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	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	20.6	21.5	20.8	21.7	21.9	20.8	21.7	21.0	21.8	22.0
3H	21.2	22.1	21.5	22.2	22.4	21.3	22.1	21.5	22.3	22.5
4H	21.5	22.3	21.7	22.5	22.7	21.5	22.3	21.8	22.5	22.8
6H	21.7	22.4	22.0	22.7	22.9	21.7	22.4	22.0	22.7	22.9
8H	21.7	22.5	22.0	22.7	23.0	21.7	22.5	22.0	22.7	23.0
12H	21.7	22.4	22.1	22.7	23.0	21.7	22.4	22.1	22.7	23.0
4H 2H	20.8	21.6	21.1	21.8	22.0	20.9	21.7	21.2	21.9	22.2
3H	21.6	22.3	21.9	22.5	22.8	21.6	22.3	21.9	22.6	22.9
4H	21.9	22.6	22.3	22.9	23.2	22.0	22.6	22.3	22.9	23.2
6H	22.2	22.8	22.6	23.1	23.5	22.2	22.8	22.6	23.1	23.5
8H	22.3	22.9	22.7	23.2	23.6	22.3	22.8	22.7	23.2	23.5
12H	22.4	22.8	22.8	23.2	23.6	22.3	22.8	22.7	23.2	23.6
8H 4H	22.0	22.5	22.4	22.9	23.3	22.0	22.6	22.4	22.9	23.3
6H	22.4	22.9	22.9	23.3	23.7	22.4	22.9	22.9	23.2	23.7
8H	22.6	23.0	23.0	23.4	23.8	22.5	22.9	23.0	23.3	23.8
12H	22.7	23.0	23.1	23.4	23.9	22.6	22.9	23.1	23.4	23.8
12H 4H	22.0	22.5	22.4	22.9	23.2	22.0	22.5	22.4	22.9	23.3
6H	22.5	22.8	22.9	23.2	23.7	22.4	22.8	22.9	23.2	23.7
8H	22.6	22.9	23.1	23.4	23.8	22.6	22.9	23.0	23.3	23.8
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.9 / - 1.0					+ 1.0 / - 1.1				
1.5H	+ 1.8 / - 0.8					+ 2.0 / - 0.8				
2.0H	+ 1.0 / - 0.6					+ 1.1 / - 0.6				

CIE Pub.117, 1045 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 0.2)
Area: 0.002 m2

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DM13W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

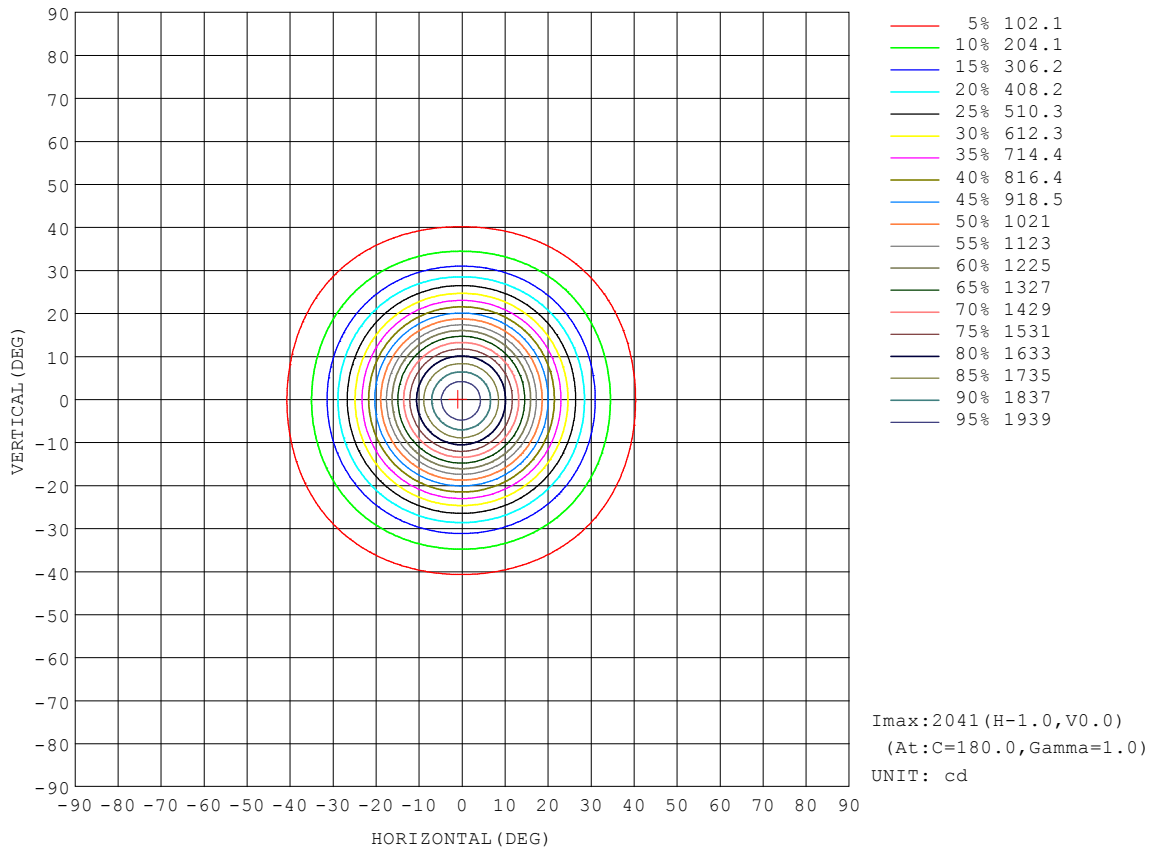
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	85	78	74	84	78	74	84	78	74	70
0.80	93	86	82	92	86	82	91	85	82	78
1.00	97	91	87	96	91	87	95	91	86	82
1.25	101	96	92	100	95	92	98	94	91	86
1.50	104	99	96	103	98	95	101	97	94	89
2.00	107	103	99	106	102	99	103	100	97	92
2.50	109	105	102	108	104	101	104	101	99	93
3.00	111	107	104	109	106	103	106	103	101	94
4.00	113	110	108	111	109	106	107	105	104	96
5.00	115	112	110	112	110	108	108	107	105	98
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DM13W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

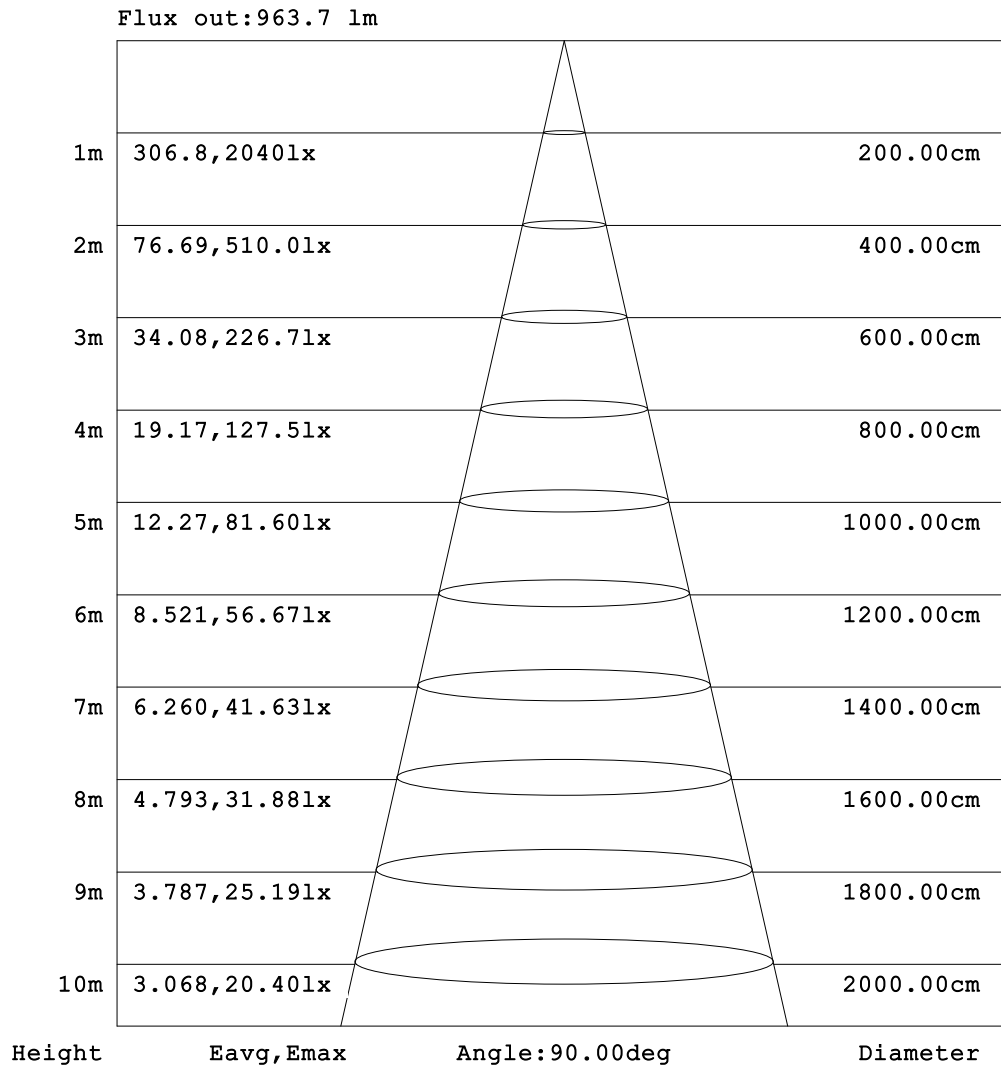


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

AAI Figure

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DM13W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:



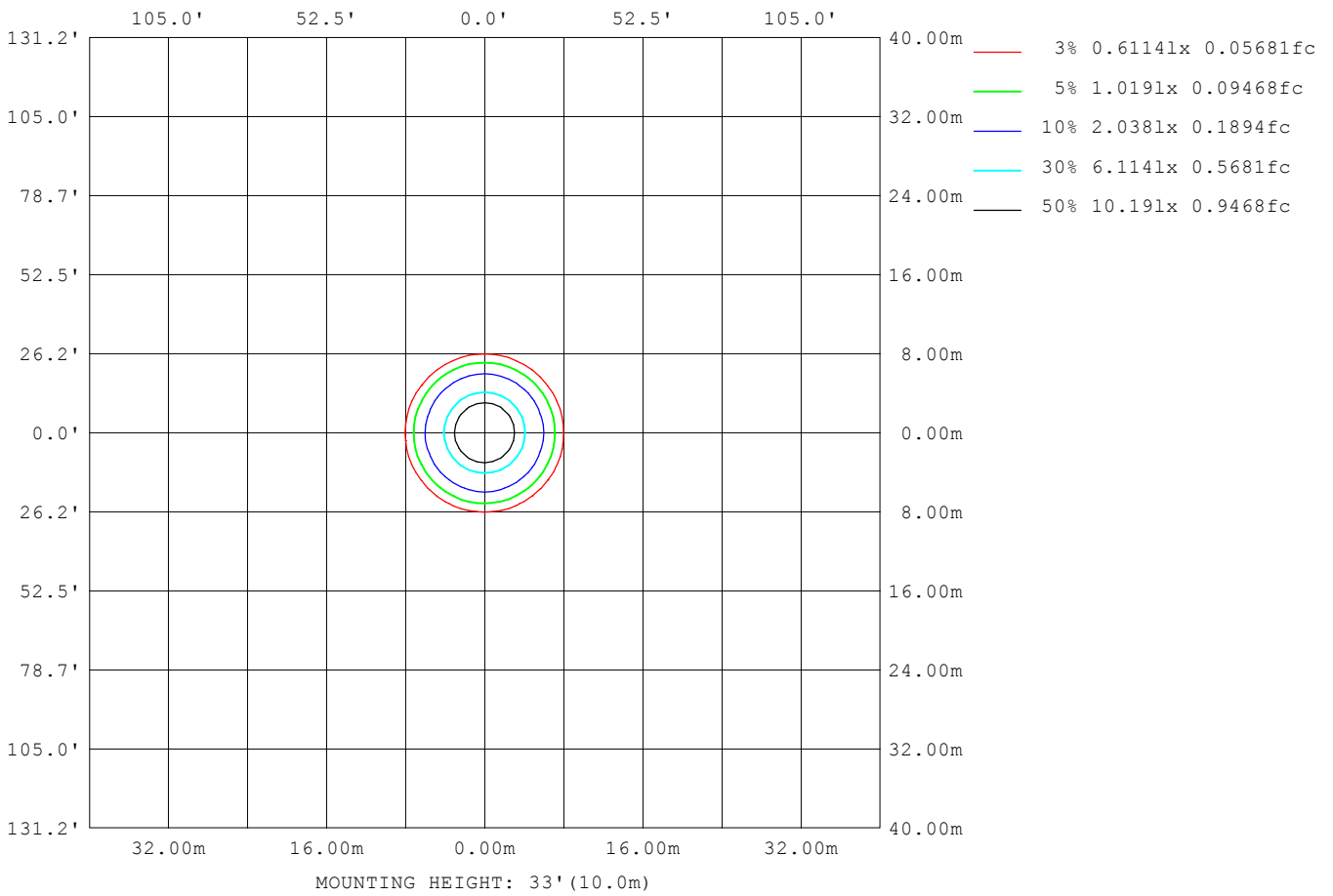
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 8.690m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DM13W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DM13W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

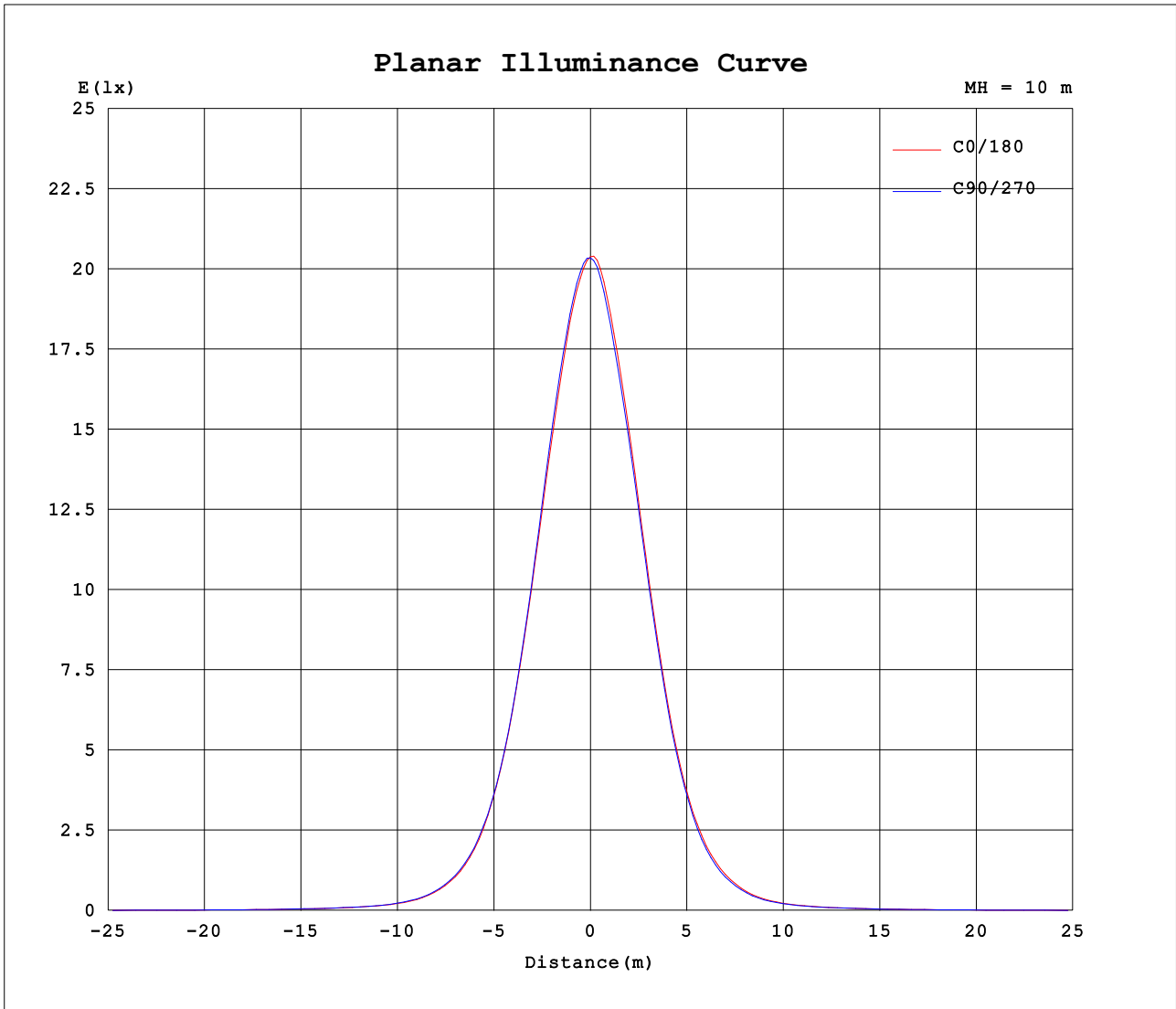
AvgL	cd/m2
L_0~180 (65) av	22679
L_0~180 (75) av	18233
L_0~180 (85) av	11550
L_90~270 (65) av	22387
L_90~270 (75) av	17848
L_90~270 (85) av	11062
L_45 (65) av	22480
L_45 (75) av	17972
L_45 (85) av	11226

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 8.690m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.81V I:0.0594A P:13.246W PF:0.9235 Freq:49.99Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1044.54x1 lm		
NAME: DM13W-36DEG 5000K	TYPE: 13W	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ φ (DEG)	0	90	180	270													
0	2036	2036	2036	2036													
5	1910	1935	1931	1901													
10	1638	1673	1669	1637													
15	1292	1314	1322	1302													
20	918	929	941	923													
25	589	595	605	590													
30	342	354	361	342													
35	192	201	204	190													
40	106	111	111	103													
45	61.9	65.3	63.9	60.3													
50	42.3	44.3	42.3	40.4													
55	31.8	33.3	31.8	30.5													
60	24.8	25.0	24.5	23.9													
65	19.4	18.9	18.9	18.9													
70	14.1	13.5	13.7	13.8													
75	9.60	9.14	9.27	9.34													
80	5.94	5.49	5.73	5.86													
85	2.07	1.75	1.96	2.10													
90	0.15	0.09	0.10	0.10													

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-06-28

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks: