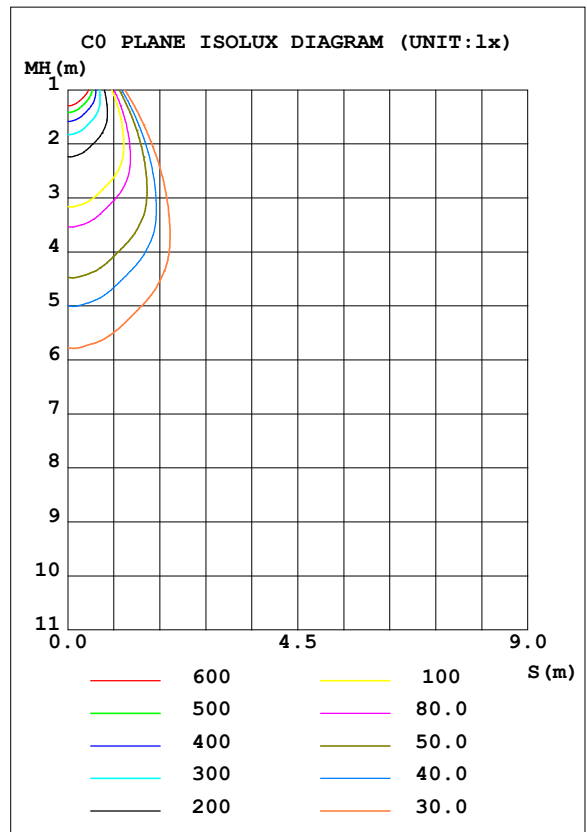
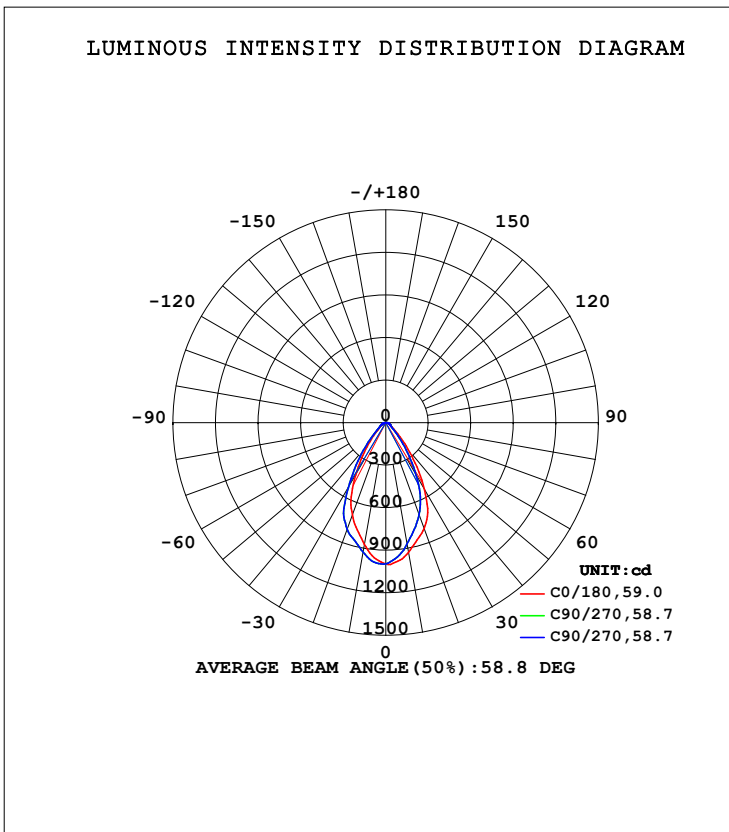


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DM13W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.50 lm/W			
MODEL	DM13W-60DEG 3000K	I _{max} (cd)	1001	S/MH (C0/180)	0.84
NOMINAL POWER (W)	13	LOR (%)	100.0	S/MH (C90/270)	0.93
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	1020.1	<input type="checkbox"/> UP, DN (C0-180)	0.0, 50.3
NOMINAL FLUX (lm)	1020.1	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.0, 49.7
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	230	<input type="checkbox"/> down (%)	100.0	CIBSE SHR MAX	0.95



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022-07-04

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:

°	C0	C90	C180	C270				°	□ zone	□ total	%lum, lamp
10	928.4	869.8	870.5	926.8				0- 10	90.24	90.24	8.85,8.85
20	793.9	688.9	691.8	798.2				10- 20	230.3	320.6	31.4,31.4
30	547.4	430.8	428.2	532.3				20- 30	287.8	608.4	59.6,59.6
40	244.6	177.4	175.2	227.9				30- 40	207.5	815.9	80,80
50	82.09	63.38	63.21	77.57				40- 50	96.79	912.7	89.5,89.5
60	41.06	36.40	37.05	41.94				50- 60	46.10	958.8	94,94
70	27.69	24.34	24.17	27.73				60- 70	31.95	990.8	97.1,97.1
80	17.38	14.07	13.60	16.98				70- 80	21.92	1013	99.3,99.3
90	0.1822	0.1528	0.2125	0.1223				80- 90	7.392	1020	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:875.07 %lum: 85.8%

0 - 60 DEG Zonal Flux:958.84 %lum: 94.0%

All measured values may vary less than 35 %

from the average measured value in the 0 to 130 deg. zone: 9.1%

All measured values in the 0 to 130 deg. zone

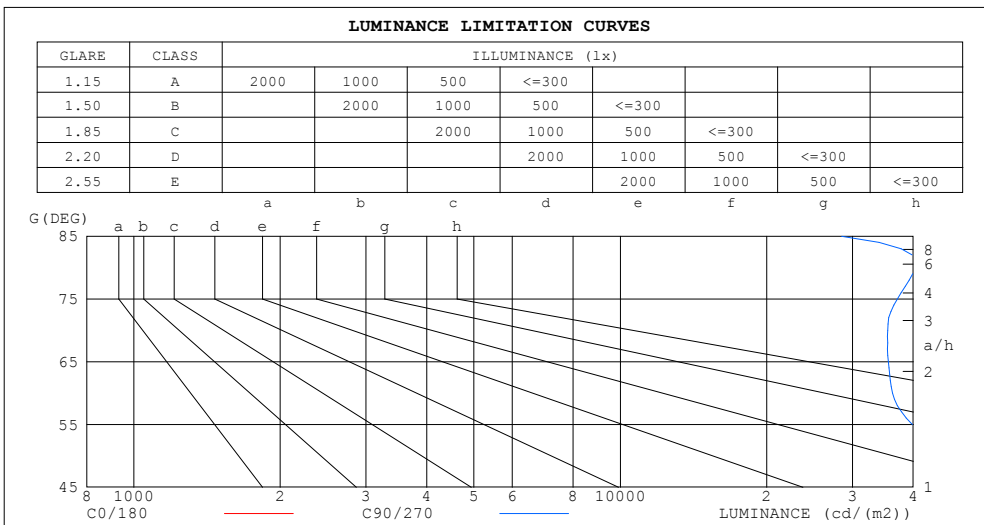
may vary less than 50% from the average value of itself: 13.7%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-04

□ 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:

LUMINANCE LIMITATION CURVES

Test:U:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DM13W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	51784	28522
80	50217	40384
75	43085	37083
70	40608	35467
65	40135	35569
60	41197	36282
55	47162	39831
50	64071	49133
45	102789	72716

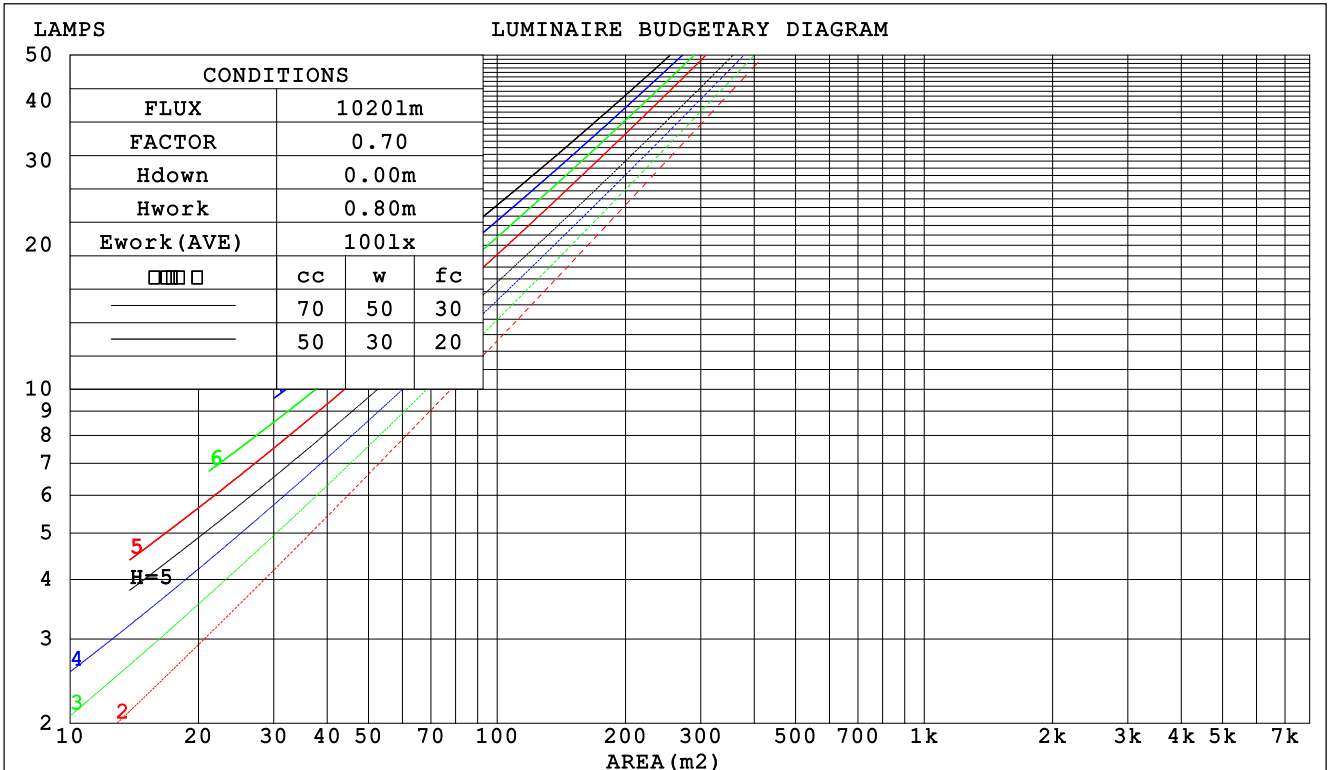
C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-04

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:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DMI3W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	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	1.09	1.06	1.03	1.07	1.04	1.02	1.03	1.00	.98	.99	.97	.95	.95	.94	.93	.91
2.0	.00	.95	.91	.98	.94	.90	.95	.91	.88	.92	.89	.86	.89	.86	.84	.82
3.0	.92	.86	.81	.90	.85	.81	.87	.83	.79	.85	.81	.78	.83	.79	.77	.75
4.0	.85	.78	.73	.83	.78	.73	.81	.76	.72	.79	.75	.71	.77	.73	.70	.69
5.0	.78	.72	.67	.77	.71	.67	.76	.70	.66	.74	.69	.65	.72	.68	.65	.63
6.0	.73	.66	.61	.72	.66	.61	.71	.65	.61	.69	.64	.60	.68	.63	.60	.58
7.0	.68	.61	.57	.67	.61	.57	.66	.60	.56	.65	.60	.56	.64	.59	.56	.54
8.0	.64	.57	.53	.63	.57	.52	.62	.56	.52	.61	.56	.52	.60	.55	.52	.50
9.0	.60	.53	.49	.59	.53	.49	.58	.53	.49	.57	.52	.49	.57	.52	.48	.47
10.0	.56	.50	.46	.56	.50	.46	.55	.49	.46	.54	.49	.45	.53	.49	.45	.44



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-04

□ 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:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DML3W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	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	.215 .122 .039	.208 .119 .038	.195 .112 .036	.183 .106 .034	.172 .100 .032	
2.0	.203 .111 .034	.197 .109 .033	.186 .104 .032	.176 .099 .031	.167 .095 .030	
3.0	.191 .102 .030	.186 .100 .030	.177 .096 .029	.168 .092 .028	.160 .089 .027	
4.0	.180 .093 .027	.176 .092 .027	.167 .089 .027	.160 .086 .026	.153 .083 .025	
5.0	.170 .086 .025	.166 .085 .025	.159 .083 .024	.152 .080 .024	.146 .078 .023	
6.0	.160 .080 .023	.157 .079 .023	.151 .077 .022	.145 .075 .022	.139 .073 .022	
7.0	.152 .075 .021	.149 .074 .021	.143 .072 .021	.138 .071 .021	.133 .069 .020	
8.0	.144 .070 .020	.142 .070 .020	.137 .068 .019	.132 .067 .019	.127 .065 .019	
9.0	.137 .066 .019	.135 .066 .018	.130 .064 .018	.126 .063 .018	.122 .062 .018	
10.0	.131 .063 .017	.129 .062 .017	.125 .061 .017	.121 .060 .017	.117 .059 .017	

<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	.174 .157 .142	.149 .135 .122	.102 .093 .084	.059 .054 .049	.019 .017 .016	
2.0	.160 .132 .109	.137 .114 .094	.094 .079 .066	.054 .046 .038	.017 .015 .013	
3.0	.149 .114 .085	.128 .098 .074	.088 .068 .052	.051 .040 .031	.016 .013 .010	
4.0	.140 .099 .069	.120 .086 .060	.082 .060 .042	.048 .035 .025	.015 .011 .008	
5.0	.131 .088 .056	.113 .076 .049	.078 .053 .035	.045 .031 .020	.015 .010 .007	
6.0	.124 .079 .047	.107 .069 .041	.074 .048 .029	.043 .028 .017	.014 .009 .006	
7.0	.118 .072 .040	.101 .062 .035	.070 .044 .024	.041 .026 .015	.013 .008 .005	
8.0	.112 .066 .034	.096 .057 .030	.067 .040 .021	.039 .024 .013	.013 .008 .004	
9.0	.107 .061 .030	.092 .053 .026	.064 .037 .018	.037 .022 .011	.012 .007 .004	
10.0	.102 .056 .026	.088 .049 .023	.061 .034 .016	.035 .020 .010	.012 .007 .003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-04

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:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DMI3W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	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	24.9	26.0	25.1	26.2	26.4	23.9	25.0	24.1	25.2	25.4
3H	25.5	26.5	25.8	26.7	26.9	24.6	25.6	24.8	25.8	26.0
4H	25.9	26.8	26.2	27.1	27.3	25.0	25.9	25.3	26.2	26.4
6H	26.4	27.3	26.7	27.5	27.8	25.4	26.3	25.7	26.6	26.8
8H	26.6	27.5	26.9	27.7	28.0	25.6	26.5	25.9	26.7	27.0
12H	26.8	27.6	27.1	27.9	28.2	25.7	26.5	26.0	26.8	27.1
4H 2H	25.0	25.9	25.2	26.1	26.4	24.1	25.0	24.4	25.3	25.5
3H	25.8	26.6	26.1	26.9	27.2	25.0	25.8	25.3	26.1	26.4
4H	26.4	27.1	26.7	27.4	27.7	25.6	26.3	25.9	26.6	27.0
6H	27.0	27.7	27.4	28.1	28.4	26.2	26.9	26.6	27.2	27.6
8H	27.4	28.0	27.8	28.4	28.8	26.5	27.1	26.9	27.5	27.8
12H	27.7	28.2	28.1	28.6	29.0	26.6	27.2	27.0	27.6	28.0
8H 4H	26.6	27.2	27.0	27.5	27.9	25.8	26.5	26.2	26.8	27.2
6H	27.4	28.0	27.9	28.3	28.8	26.7	27.2	27.1	27.6	28.0
8H	27.9	28.4	28.4	28.8	29.2	27.1	27.5	27.5	28.0	28.4
12H	28.3	28.7	28.8	29.1	29.6	27.3	27.7	27.8	28.1	28.6
12H 4H	26.6	27.1	27.0	27.5	27.9	25.9	26.5	26.3	26.8	27.2
6H	27.5	28.0	28.0	28.4	28.8	26.8	27.3	27.3	27.7	28.1
8H	28.0	28.4	28.5	28.9	29.3	27.2	27.6	27.7	28.1	28.5
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.9 / - 0.9					+ 0.7 / - 0.8				
1.5H	+ 1.8 / - 0.8					+ 1.2 / - 0.8				
2.0H	+ 1.5 / - 0.5					+ 0.9 / - 0.5				

CIE Pub.117, 1020 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 0.1)
Area: 0.002 m2

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2022-07-04

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:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DM13W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

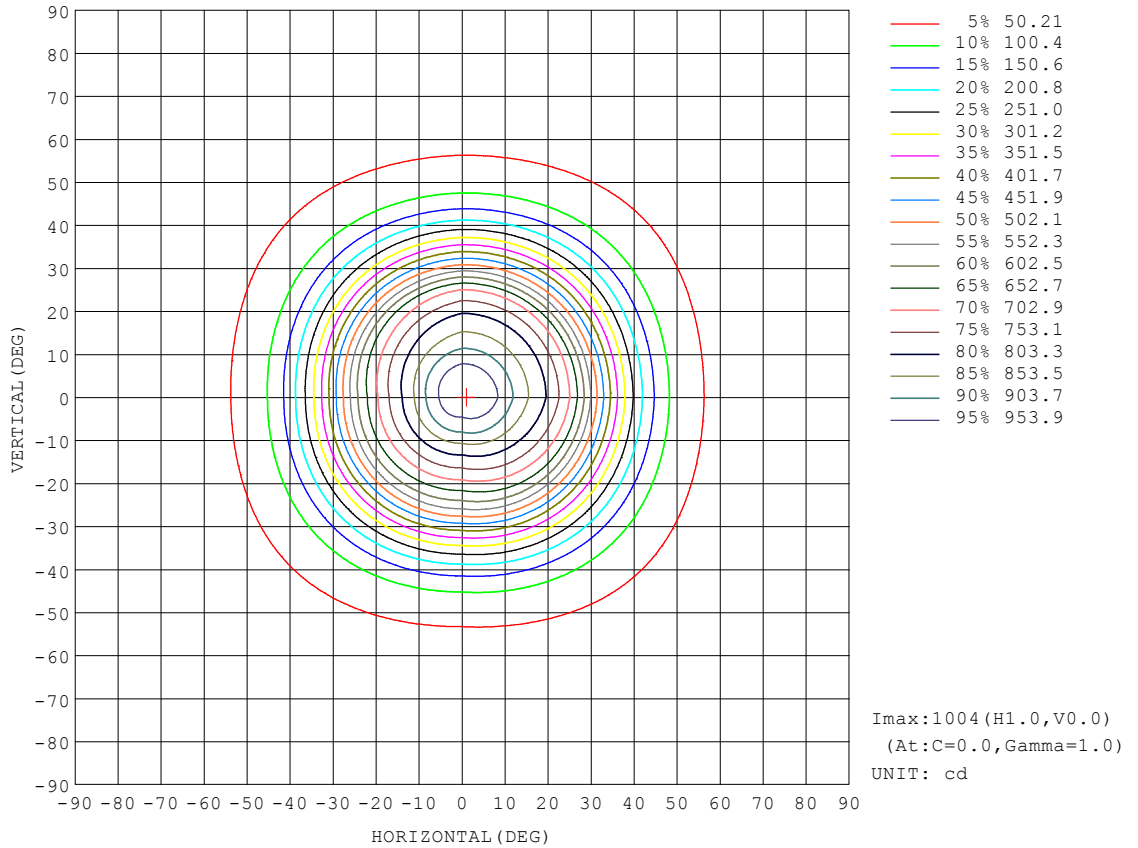
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	79	71	67	79	71	67	78	71	67	62
0.80	87	80	75	87	80	75	85	79	75	70
1.00	93	86	81	92	85	81	90	86	81	76
1.25	98	91	87	97	91	86	95	89	86	81
1.50	101	95	91	100	94	90	97	93	89	84
2.00	105	100	96	103	99	95	100	96	93	87
2.50	107	102	99	105	101	98	102	99	96	89
3.00	109	105	101	107	103	100	104	101	98	91
4.00	112	108	105	110	106	104	106	103	101	94
5.00	113	110	108	111	108	106	107	105	103	95
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:2022-07-04

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:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DM13W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

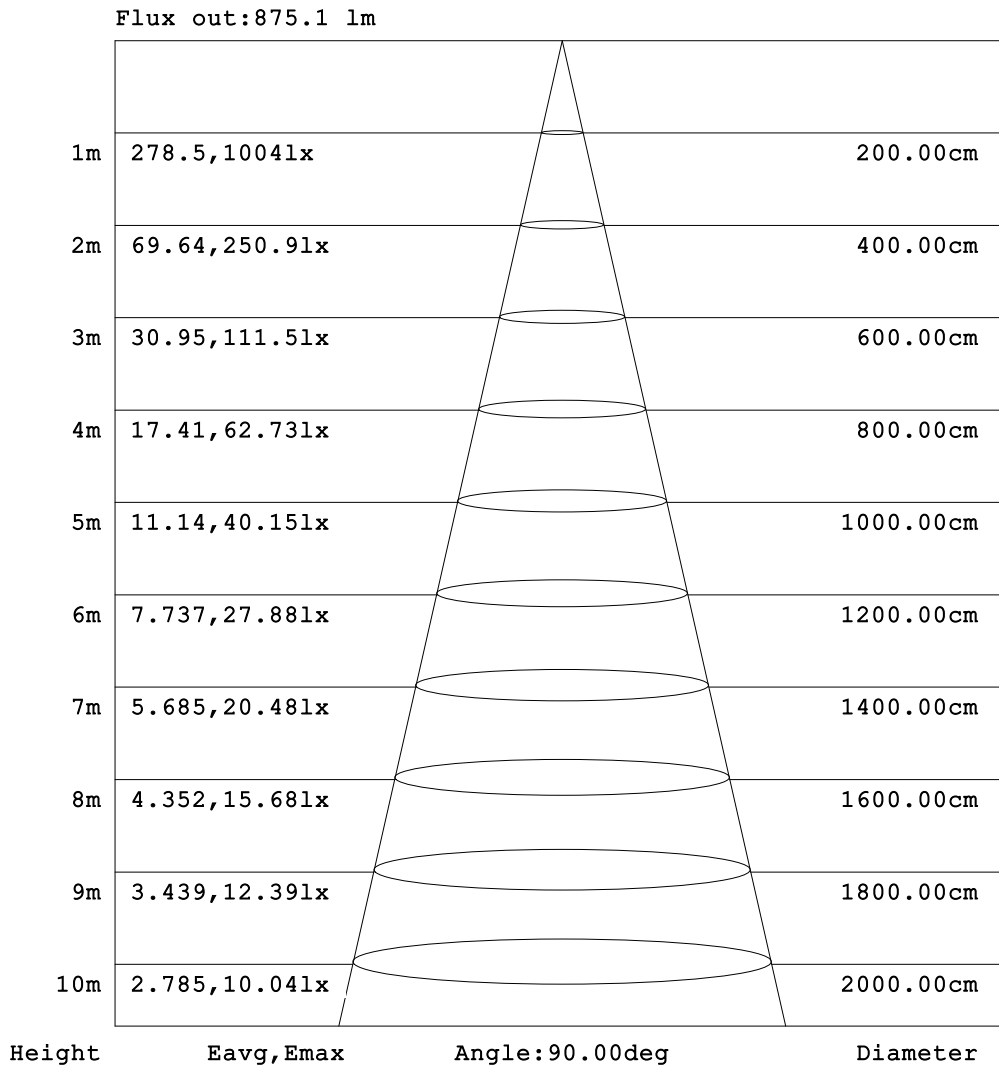


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-04

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:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DM13W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:



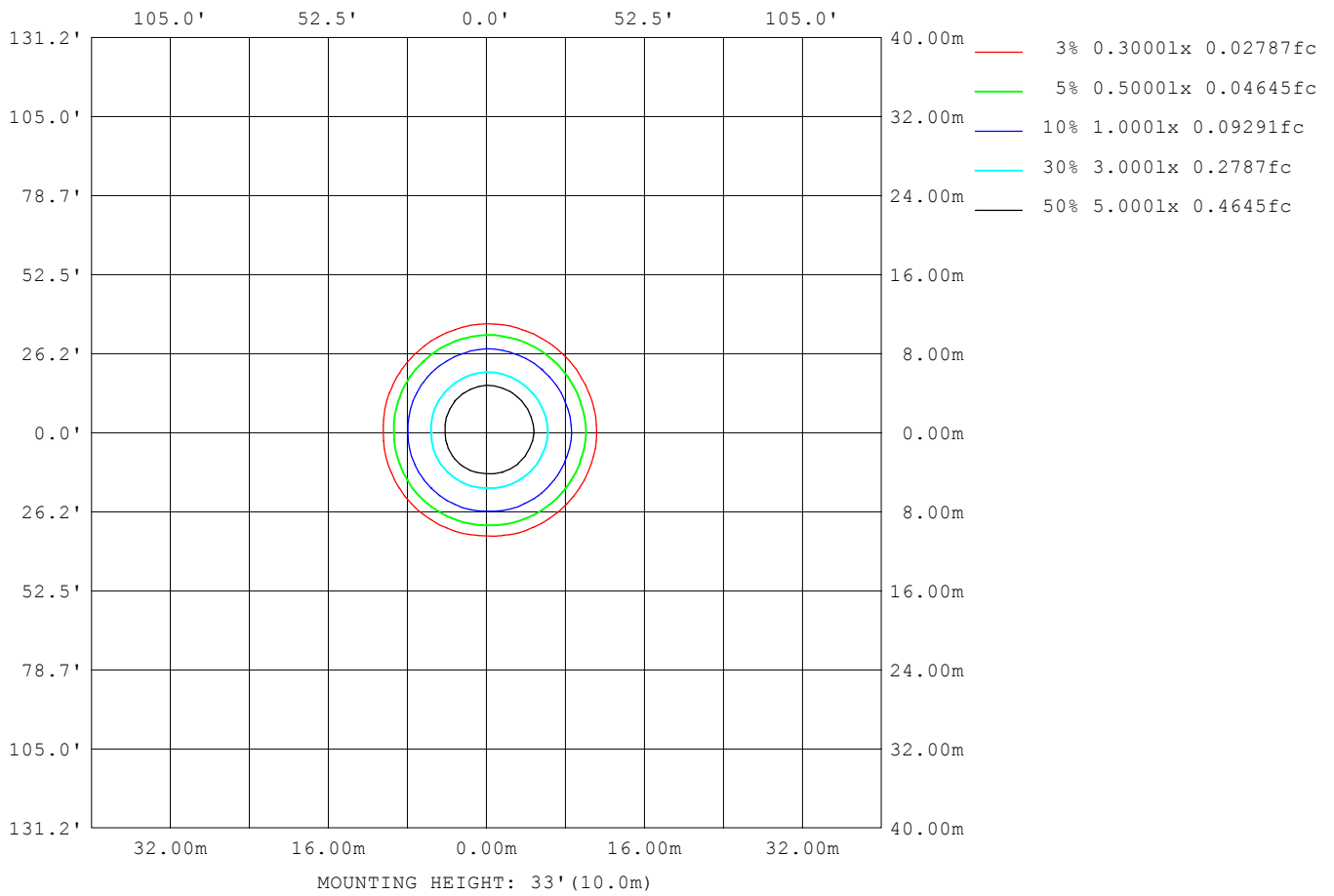
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-04

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:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DM13W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	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:2022-07-04

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:230.19V I:0.0580A P:12.831W PF:0.9619 Freq:60.00Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:1020.1x1 lm		
NAME: DM13W-60DEG 3000K	TYPE: 13W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.002	Shielding Angle:

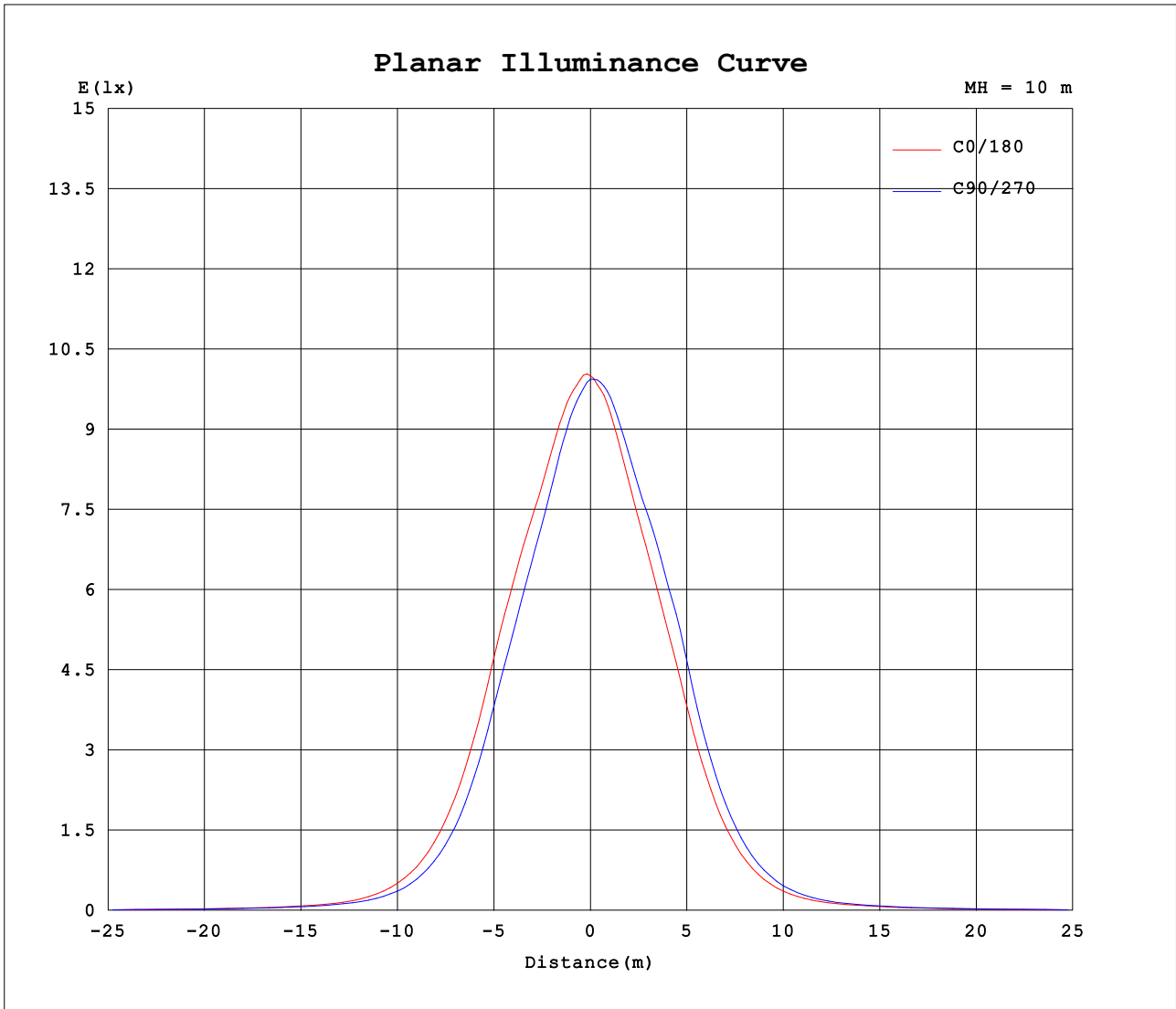
AvgL	cd/m2
L_0~180 (65) av	37929
L_0~180 (75) av	40088
L_0~180 (85) av	36842
L_90~270 (65) av	38161
L_90~270 (75) av	40143
L_90~270 (85) av	35275
L_45 (65) av	37945
L_45 (75) av	39945
L_45 (85) av	34945

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2022-07-04

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: 2022-07-04

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:

