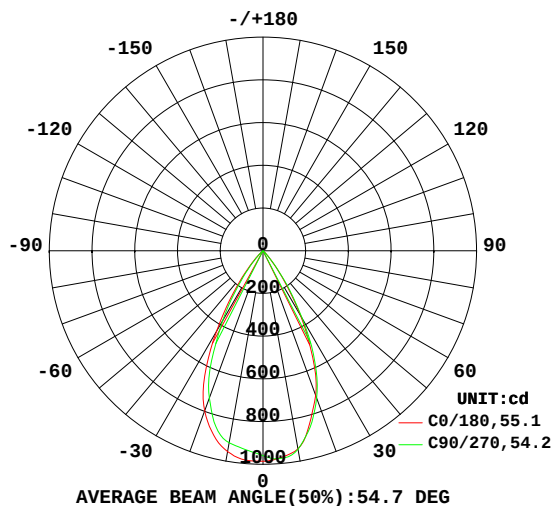


LUMINAIRE PHOTOMETRIC TEST REPORT

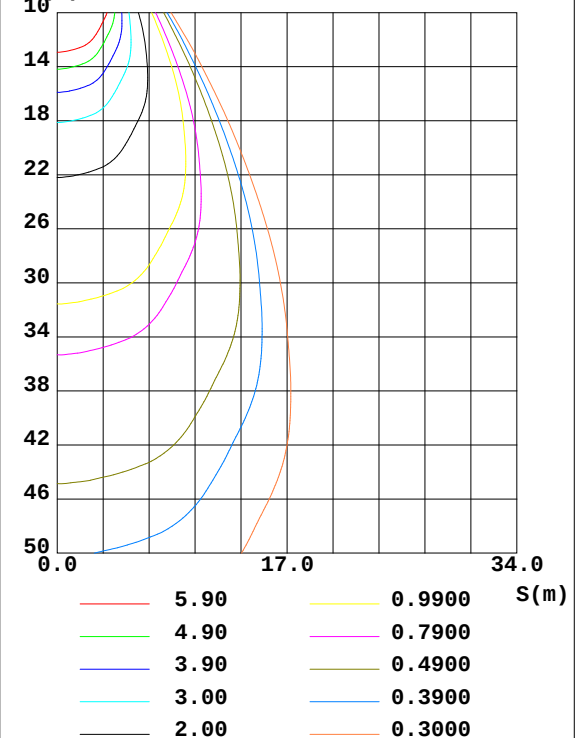
Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm		
NAME: DL9416-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 60mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 78.42 lm/W			
MODEL	2835 16 3000K	I _{max} (cd)	985.7	S/MH(C0/180)	0.85
NOMINAL POWER(W)	9	LOR(%)	100.0	S/MH(C90/270)	0.82
RATED VOLTAGE(V)	220-240	TOTAL FLUX(lm)	746.80	η UP, DN(C0-180)	0.0, 49.6
NOMINAL FLUX(lm)	746.8	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 50.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	0.85

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-01-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

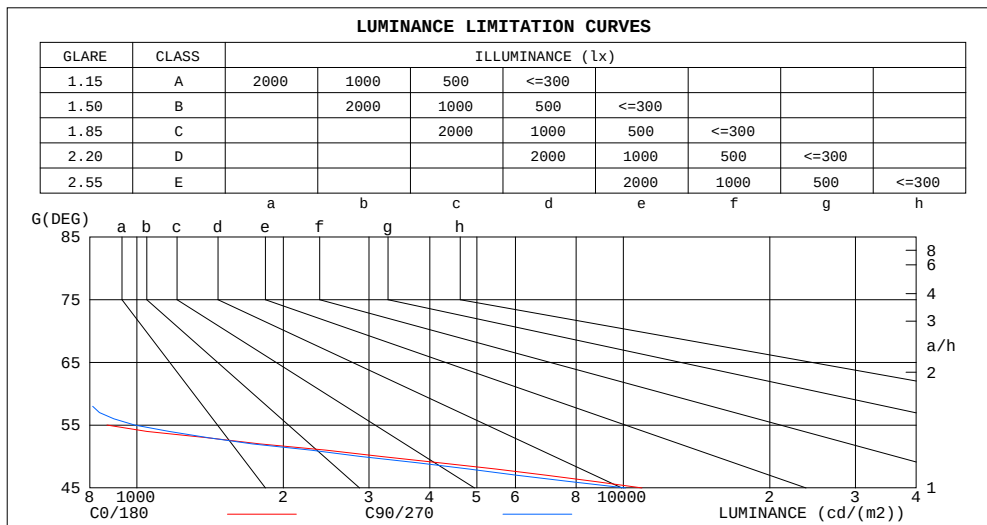
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	941.7	942.7	944.2	929.0	954.6	918.4	913.4	896.7	0- 10	90.53	90.53	12.1,12.1
20	721.1	741.6	733.9	757.6	798.7	739.2	733.7	692.3	10- 20	236.9	327.4	43.8,43.8
30	356.0	344.9	372.1	403.6	435.8	420.1	378.1	353.2	20- 30	259.3	586.7	78.6,78.6
40	68.62	71.31	71.35	84.10	112.8	103.9	92.60	78.24	30- 40	131.5	718.2	96.2,96.2
50	5.762	5.152	5.230	6.732	9.464	10.11	8.938	6.854	40- 50	25.07	743.3	99.5,99.5
60	0.8576	0.8846	1.070	1.290	1.269	1.073	0.9143	0.8334	50- 60	2.252	745.5	99.8,99.8
70	0.4866	0.4675	0.5795	0.7224	0.7331	0.6327	0.5516	0.4938	60- 70	0.7764	746.3	99.9,99.9
80	0.1855	0.1510	0.2127	0.3054	0.3277	0.2930	0.2468	0.1966	70- 80	0.4344	746.7	100,100
90	0	0	0	0	0	0	0	0	80- 90	0.0702	746.8	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		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-01-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm		
NAME: DL9416-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 60mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	0	0
80	378	433
75	464	538
70	503	599
65	533	665
60	606	756
55	868	989
50	3167	2875
45	10917	10100

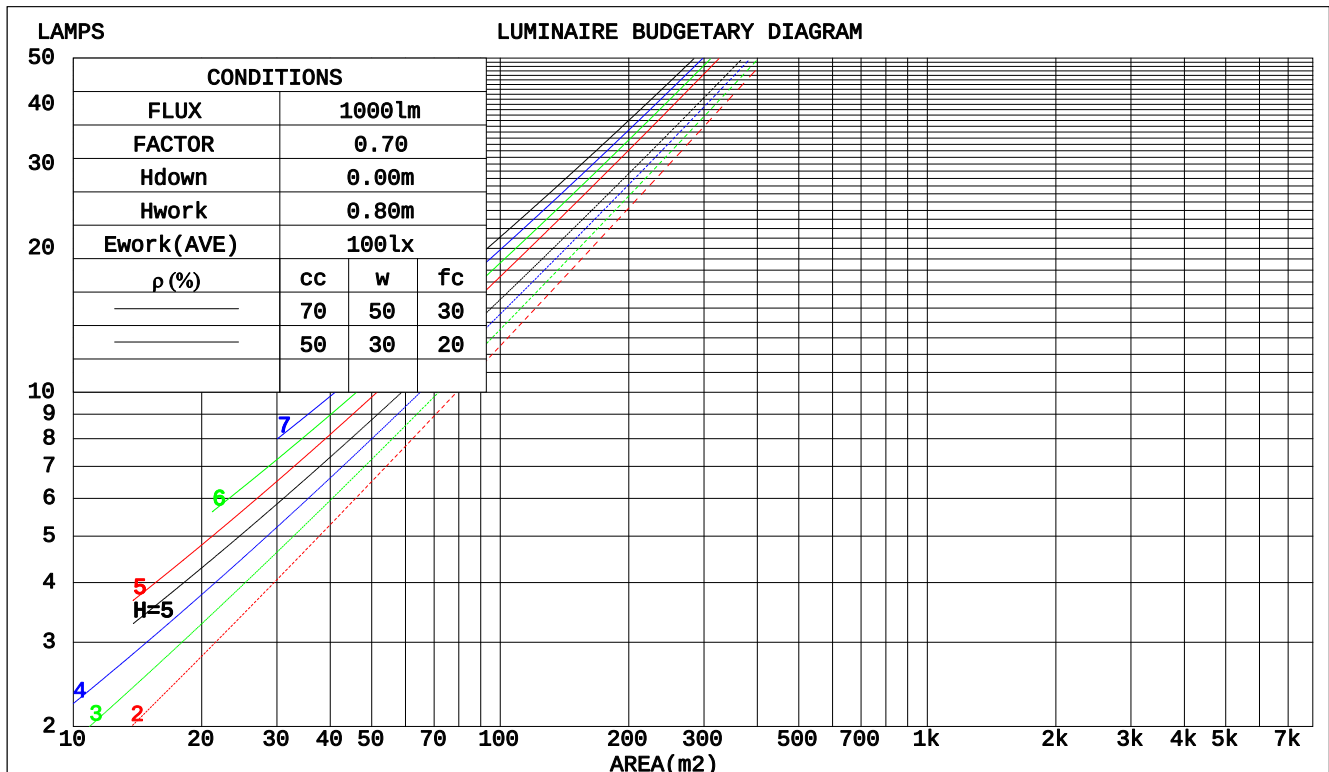
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-01-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm		
NAME: DL9416-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 60mm	Shielding Angle:

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{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	.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.99	.99	.98	.97	.96	.94
2.0	1.04	1.00	.97	1.02	.99	.96	.99	.96	.94	.96	.94	.92	.93	.92	.90	.88
3.0	.98	.93	.89	.96	.92	.88	.94	.90	.87	.91	.88	.86	.89	.86	.84	.83
4.0	.92	.86	.82	.90	.86	.82	.88	.84	.81	.86	.83	.80	.85	.82	.79	.78
5.0	.86	.81	.77	.85	.80	.76	.84	.79	.76	.82	.78	.75	.80	.77	.74	.73
6.0	.81	.76	.72	.81	.75	.71	.79	.74	.71	.78	.74	.70	.76	.73	.70	.69
7.0	.77	.71	.67	.76	.71	.67	.75	.70	.67	.74	.70	.66	.73	.69	.66	.65
8.0	.73	.67	.63	.72	.67	.63	.71	.66	.63	.70	.66	.63	.69	.65	.62	.61
9.0	.69	.63	.60	.68	.63	.60	.68	.63	.59	.67	.62	.59	.66	.62	.59	.58
10.0	.66	.60	.56	.65	.60	.56	.64	.59	.56	.64	.59	.56	.63	.59	.56	.55



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25DEG
Operators:
Test Date: 2024-01-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity: 65.0%
Test Distance: 7.450m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm					
NAME: DL9416-WHTC10C02			TYPE:		WEIGHT:
SPEC.: white RA80 3000K+5700K			DIM.:		SERIAL No.:
MFR.:			SUR.: 60mm		Shielding Angle:

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.169	.096	.031	.163	.093	.029	.150	.086	.028	.139	.080	.026	.128	.074	.024	
2.0	.162	.089	.027	.156	.086	.026	.145	.081	.025	.136	.076	.024	.127	.072	.023	
3.0	.154	.082	.025	.149	.080	.024	.140	.076	.023	.132	.072	.022	.124	.069	.021	
4.0	.146	.076	.022	.142	.075	.022	.135	.071	.021	.128	.068	.021	.121	.066	.020	
5.0	.140	.071	.021	.136	.070	.020	.130	.067	.020	.123	.065	.019	.117	.063	.019	
6.0	.134	.067	.019	.130	.066	.019	.125	.064	.019	.119	.062	.018	.114	.060	.018	
7.0	.128	.063	.018	.125	.062	.018	.120	.061	.017	.115	.059	.017	.111	.057	.017	
8.0	.123	.060	.017	.120	.059	.017	.116	.058	.016	.111	.056	.016	.107	.055	.016	
9.0	.118	.057	.016	.116	.056	.016	.111	.055	.016	.107	.054	.015	.104	.053	.015	
10.0	.113	.054	.015	.111	.054	.015	.107	.053	.015	.104	.052	.015	.101	.051	.015	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.155	.133	.114	.133	.114	.098	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.142	.114	.091	.122	.098	.079	.084	.068	.055	.048	.040	.033	.016	.013	.011	
4.0	.132	.099	.074	.113	.085	.064	.078	.059	.045	.045	.035	.027	.014	.011	.009	
5.0	.123	.087	.061	.105	.075	.053	.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	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.089	.055	.032	.061	.039	.023	.036	.023	.014	.012	.008	.004	
9.0	.098	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-01-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm										
NAME: DL9416-WHTC10C02					TYPE:			WEIGHT:		
SPEC.: white RA80 3000K+5700K					DIM.:			SERIAL No.:		
MFR.:					SUR.: 60mm			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	18.4	19.3	18.6	19.4	19.6	18.7	19.6	18.9	19.8	19.9
3H	18.2	19.0	18.5	19.2	19.4	18.5	19.4	18.8	19.6	19.8
4H	18.1	18.9	18.4	19.1	19.4	18.5	19.2	18.7	19.4	19.7
6H	18.0	18.8	18.3	19.0	19.3	18.4	19.1	18.7	19.3	19.6
8H	18.0	18.7	18.3	19.0	19.2	18.3	19.0	18.6	19.3	19.5
12H	18.0	18.6	18.3	18.9	19.2	18.3	18.9	18.6	19.2	19.5
4H 2H	18.1	18.9	18.4	19.1	19.3	18.4	19.2	18.7	19.4	19.7
3H	18.0	18.6	18.3	18.9	19.2	18.3	18.9	18.6	19.2	19.5
4H	17.9	18.5	18.2	18.8	19.1	18.2	18.8	18.5	19.1	19.4
6H	17.8	18.3	18.1	18.6	19.0	18.1	18.6	18.5	19.0	19.3
8H	17.7	18.2	18.1	18.6	18.9	18.0	18.5	18.4	18.9	19.2
12H	17.7	18.1	18.1	18.5	18.9	18.0	18.4	18.4	18.8	19.2
8H 4H	17.7	18.2	18.1	18.6	18.9	18.0	18.5	18.4	18.9	19.2
6H	17.6	18.0	18.0	18.4	18.8	17.9	18.3	18.4	18.7	19.1
8H	17.6	17.9	18.0	18.3	18.8	17.9	18.2	18.3	18.7	19.1
12H	17.5	17.8	18.0	18.3	18.7	17.8	18.1	18.3	18.6	19.0
12H 4H	17.7	18.1	18.1	18.5	18.9	18.0	18.4	18.4	18.8	19.2
6H	17.6	17.9	18.0	18.3	18.8	17.9	18.2	18.3	18.7	19.1
8H	17.5	17.8	18.0	18.3	18.7	17.8	18.1	18.3	18.6	19.0
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 3.9 / -17.7					+ 4.0 / -17.3				
1.5H	+ 6.5 / -16.7					+ 6.6 / -16.7				
2.0H	+ 8.0 / - 8.5					+ 7.8 / - 7.5				

CIE Pub.117, 746.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.0)
Area: 0.00283 m2

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm		
NAME: DL9416-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 60mm	Shielding Angle:

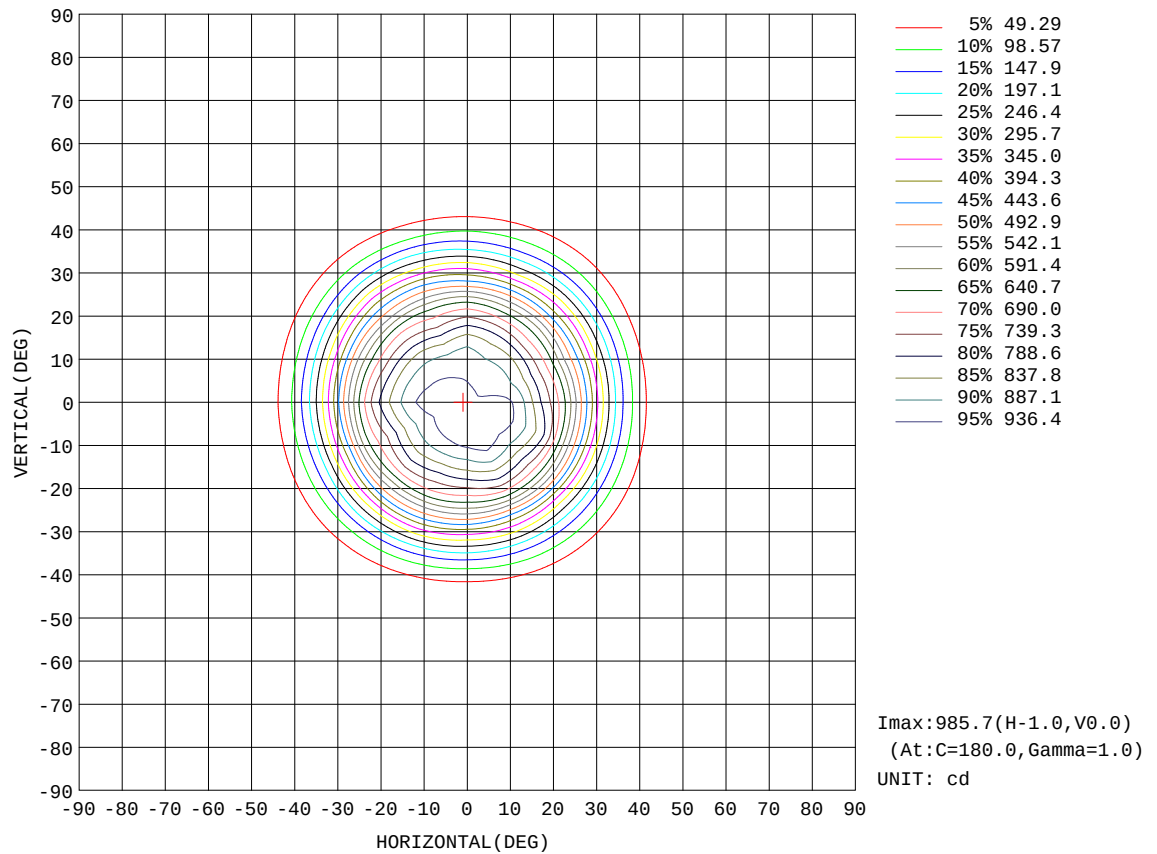
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	89	83	80	89	83	79	88	83	79	76
0.80	96	91	87	96	91	87	95	90	87	83
1.00	101	95	92	100	95	92	98	95	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	104	100	98	93
2.00	109	105	102	108	104	102	105	102	100	95
2.50	111	107	104	109	106	104	106	104	102	96
3.00	112	109	107	111	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	105	98
5.00	115	113	112	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:
 Test Date:2024-01-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity:65.0%
 Test Distance:7.450m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm		
NAME: DL9416-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 60mm	Shielding Angle:

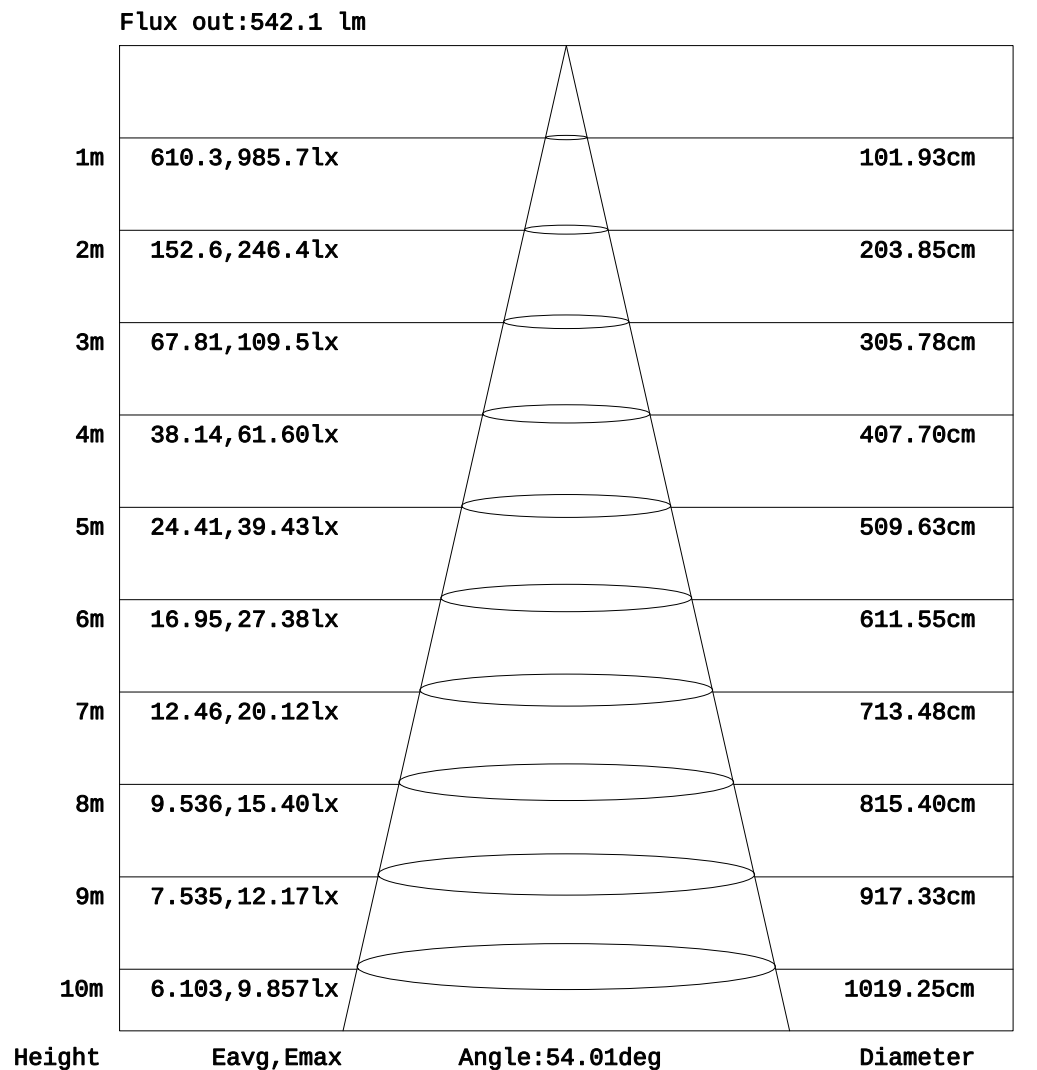


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm		
NAME: DL9416-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 60mm	Shielding Angle:



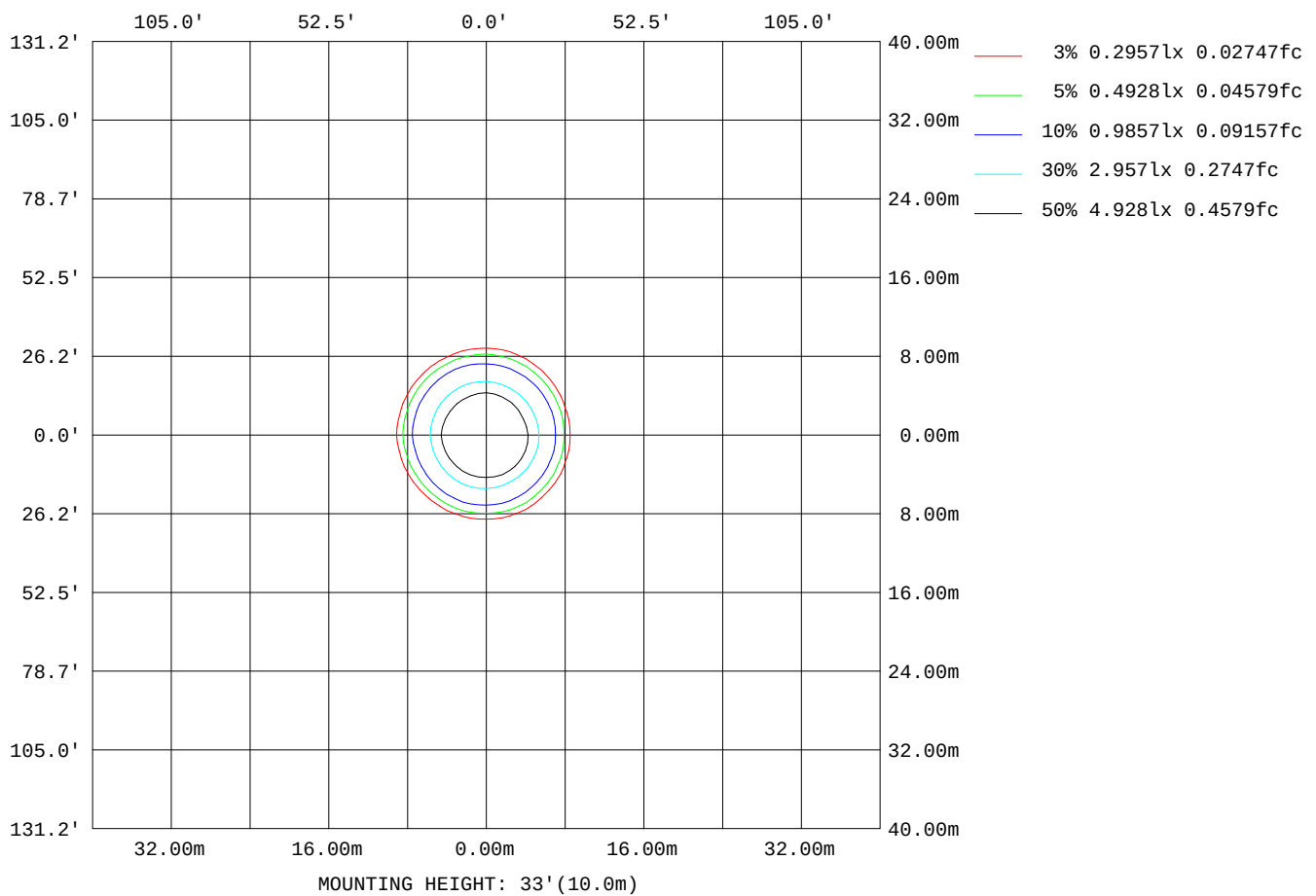
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm		
NAME: DL9416-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 60mm	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:220.64V I:0.0469A P:9.5229W PF:0.9200 Freq:50.01Hz Lamp Flux:746.8x1 lm		
NAME: DL9416-WHTC10C02	TYPE:	WEIGHT:
SPEC.: white RA80 3000K+5700K	DIM.:	SERIAL No.:
MFR.:	SUR.: 60mm	Shielding Angle:

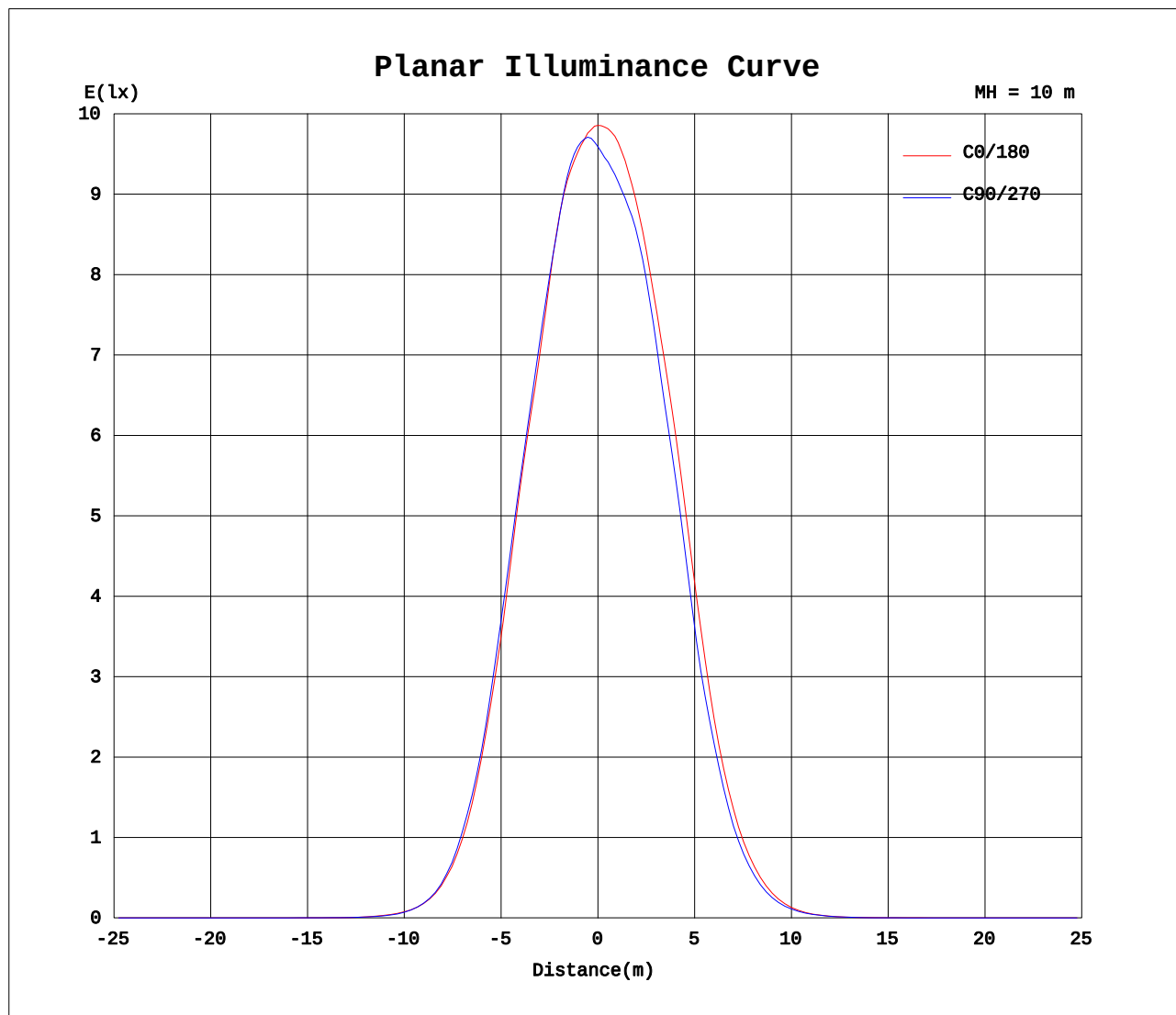
AvgL	cd/m2
L_0~180(65)av	676
L_0~180(75)av	609
L_0~180(85)av	0
L_90~270(65)av	631
L_90~270(75)av	551
L_90~270(85)av	0
L_45(65)av	648
L_45(75)av	569
L_45(85)av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25DEG
Operators:
Test Date:2024-01-24

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators:
 Test Date: 2024-01-24

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000B_V1 SYSTEM V2.00.428
 Humidity: 65.0%
 Test Distance: 7.450m [K=1.0000]
 Remarks:

```

Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.428
Humidity:65.0%
Test Distance:7.450m [K=1.0000]
Remarks:

```