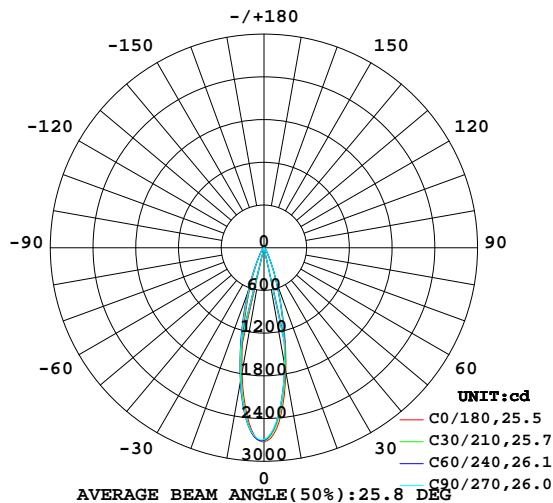


LUMINAIRE PHOTOMETRIC TEST REPORT

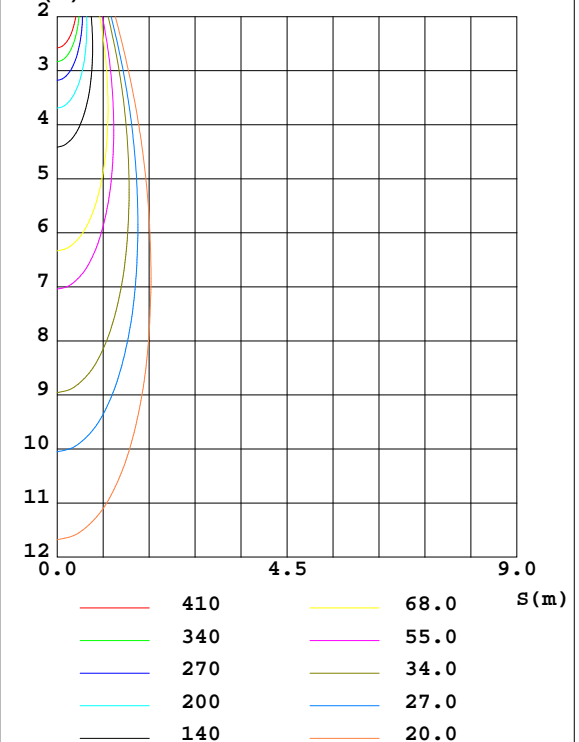
Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm					
NAME: 40005-10W-3000K		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.:		SUR.:88		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 71.54 lm/W			
MODEL	40005	I _{max} (cd)	2727	S/MH(C0/180)	0.43
NOMINAL POWER(W)	9.9W	LOR(%)	100.0	S/MH(C90/270)	0.47
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	710.40	η UP,DN(C0-180)	0.0,47.8
NOMINAL FLUX(lm)	710.403	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,52.2
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	220.0	η down(%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:1
Test Date:2022-06-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:3.106m [K=1.0000]
Remarks: 3197-60°

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

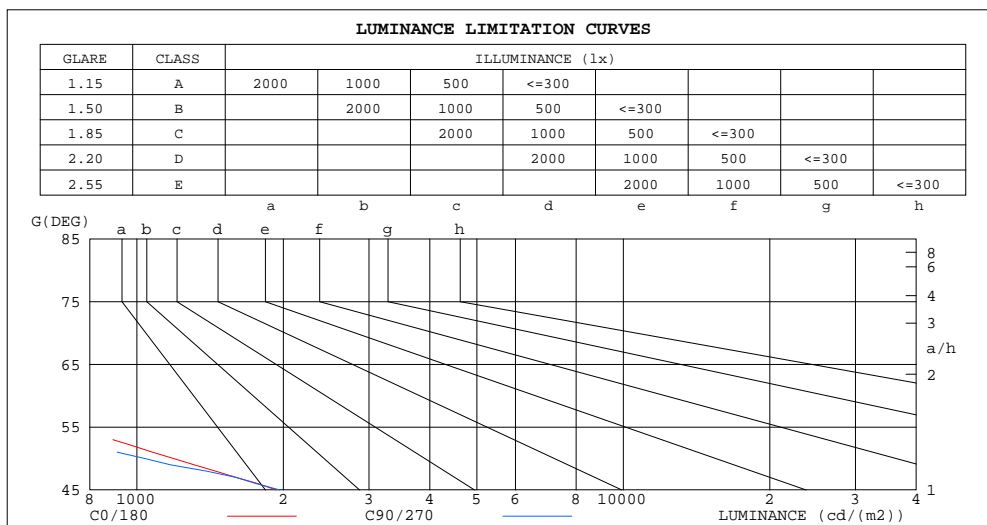
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
10	1772	1693	1669	1698	1784	1880	1895	1805	0- 10	210.5	210.5	29.6,29.6
20	522.8	505.6	507.0	516.2	544.8	628.0	630.6	532.8	10- 20	292.8	503.3	70.9,70.9
30	116.4	118.5	116.4	124.3	129.0	142.6	134.0	112.6	20- 30	124.4	627.7	88.4,88.4
40	47.18	47.46	52.85	51.35	55.93	54.62	51.77	43.58	30- 40	48.36	676.1	95.2,95.2
50	18.32	13.88	15.99	13.79	21.19	18.70	21.29	15.00	40- 50	24.88	701.0	98.7,98.7
60	4.089	3.015	2.776	2.807	3.903	3.695	3.878	3.553	50- 60	7.467	708.4	99.7,99.7
70	0.4776	0.1894	0.1116	0.1921	0.7265	0.9726	1.041	0.7771	60- 70	1.745	710.2	100,100
80	0.0314	0.0233	0.0087	0.0113	0.0983	0.1174	0.0973	0.1390	70- 80	0.1811	710.4	100,100
90	0.0138	0.0049	0.0011	0	0.0310	0.0326	0.0266	0.0313	80- 90	0.0415	710.4	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: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:1
Test Date:2022-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:3.106m [K=1.0000]
Remarks: 3197-60°

LUMINANCE LIMITATION CURVES

Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm		
NAME: 40005-10W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:88	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	9	1
80	8	2
75	8	4
70	58	14
65	184	127
60	341	231
55	681	581
50	1187	1036
45	1933	1967

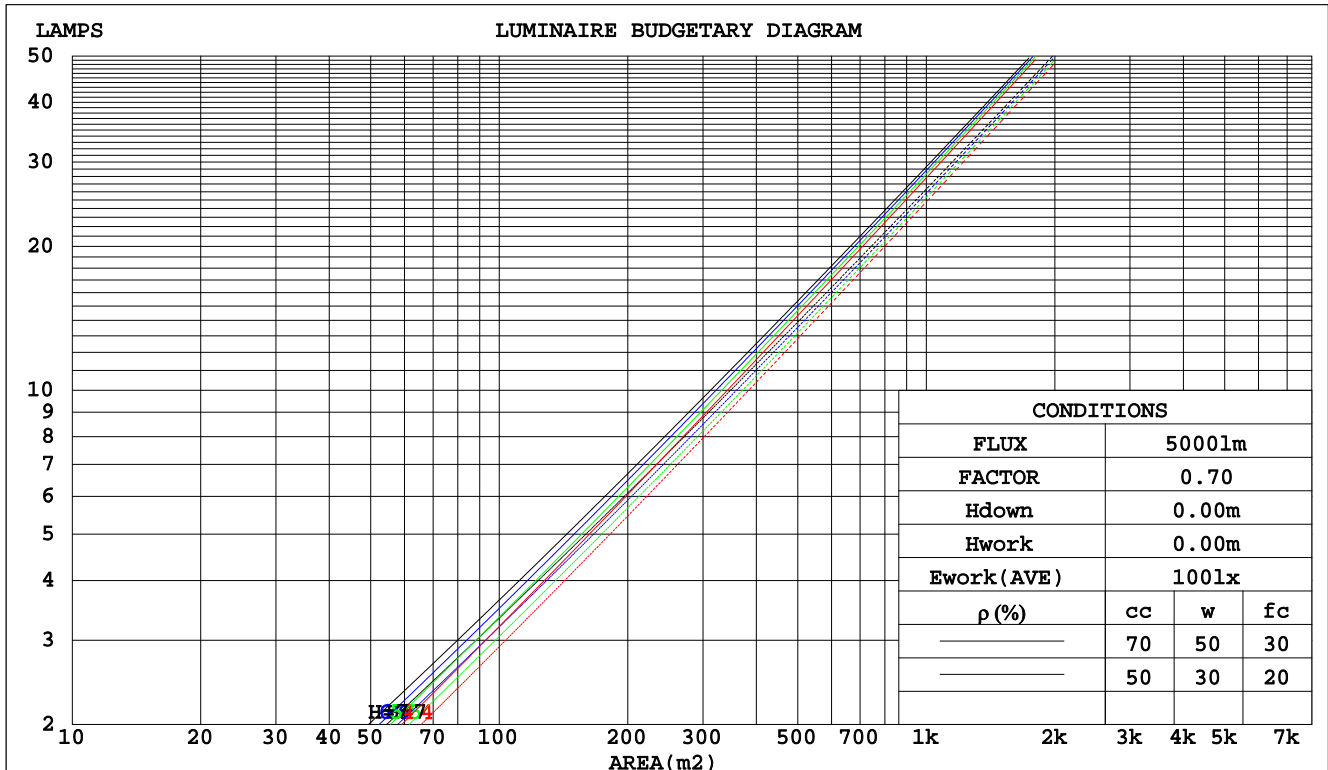
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:1
Test Date:2022-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:3.106m [K=1.0000]
Remarks: 3197-60°

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm		
NAME: 40005-10W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:88	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	1.12	1.10	1.08	1.10	1.08	1.07	1.06	1.05	1.03	1.03	1.01	1.00	.99	.98	.98	.96
2.0	1.06	1.03	1.00	1.05	1.02	.99	1.02	.99	.97	.99	.97	.95	.96	.95	.93	.92
3.0	1.01	.97	.94	.90	.96	.93	.97	.94	.92	.95	.93	.90	.93	.91	.89	.88
4.0	.97	.92	.89	.96	.91	.88	.93	.90	.87	.92	.89	.86	.90	.87	.85	.84
5.0	.92	.88	.85	.92	.87	.84	.90	.86	.83	.88	.85	.83	.87	.84	.82	.81
6.0	.89	.84	.81	.88	.84	.80	.87	.83	.80	.85	.82	.79	.84	.81	.79	.78
7.0	.85	.81	.77	.85	.80	.77	.84	.80	.77	.82	.79	.76	.81	.78	.76	.75
8.0	.82	.78	.74	.82	.77	.74	.81	.77	.74	.80	.76	.74	.79	.76	.73	.72
9.0	.79	.75	.72	.79	.75	.72	.78	.74	.71	.77	.74	.71	.77	.73	.71	.70
10.0	.77	.72	.69	.76	.72	.69	.76	.72	.69	.75	.71	.69	.74	.71	.69	.68



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:1
 Test Date:2022-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
 Humidity:65.0%
 Test Distance:3.106m [K=1.0000]
 Remarks: 3197-60°

WEC AND CCEC

Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm		
NAME: 40005-10W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:88	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.148	.084	.027	.141	.080	.026	.128	.074	.024	.117	.068	.022	.106	.062	.020		
2.0	.138	.076	.023	.133	.073	.023	.123	.068	.021	.113	.063	.020	.104	.059	.019		
3.0	.130	.069	.021	.125	.067	.020	.117	.063	.019	.109	.060	.018	.101	.056	.017		
4.0	.123	.064	.019	.119	.062	.018	.111	.059	.018	.104	.056	.017	.098	.053	.016		
5.0	.116	.059	.017	.112	.058	.017	.106	.055	.016	.100	.053	.016	.095	.051	.015		
6.0	.110	.055	.016	.107	.054	.016	.102	.052	.015	.096	.050	.015	.092	.048	.014		
7.0	.104	.052	.015	.102	.051	.014	.097	.049	.014	.093	.048	.014	.089	.046	.014		
8.0	.100	.049	.014	.097	.048	.014	.093	.047	.013	.089	.045	.013	.086	.044	.013		
9.0	.095	.046	.013	.093	.045	.013	.090	.044	.013	.086	.043	.012	.083	.042	.012		
10.0	.091	.044	.012	.089	.043	.012	.086	.042	.012	.083	.041	.012	.080	.040	.012		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	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	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.117	.130	.114	.101	.089	.079	.070	.051	.046	.041	.016	.015	.013	
3.0	.138	.113	.094	.118	.098	.082	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.126	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.116	.086	.064	.099	.074	.056	.068	.052	.039	.040	.031	.023	.013	.010	.008	
6.0	.107	.076	.054	.092	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.100	.068	.046	.086	.059	.040	.059	.041	.028	.034	.024	.017	.011	.008	.006	
8.0	.093	.062	.040	.080	.053	.035	.056	.038	.025	.032	.022	.015	.010	.007	.005	
9.0	.088	.056	.034	.076	.049	.030	.052	.034	.021	.031	.020	.013	.010	.007	.004	
10.0	.083	.051	.030	.072	.045	.026	.050	.031	.019	.029	.019	.011	.009	.006	.004	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:1
Test Date:2022-06-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:3.106m [K=1.0000]
Remarks: 3197-60°

UGR(Unified Glare Rating) Table

Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm											
NAME: 40005-10W-3000K					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.:					SUR.:88			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		7.1	7.9	7.3	8.0	8.2	7.1	7.8	7.3	8.0	8.1
3H		7.0	7.7	7.2	7.9	8.1	6.9	7.6	7.2	7.8	8.0
4H		6.9	7.6	7.2	7.8	8.0	6.9	7.5	7.1	7.7	7.9
6H		6.8	7.4	7.1	7.7	7.9	6.8	7.4	7.1	7.6	7.9
8H		6.8	7.4	7.1	7.6	7.9	6.7	7.3	7.0	7.6	7.8
12H		6.7	7.3	7.1	7.6	7.8	6.7	7.3	7.0	7.5	7.8
4H 2H		6.9	7.6	7.2	7.8	8.0	6.9	7.5	7.2	7.8	8.0
3H		6.8	7.3	7.1	7.6	7.9	6.7	7.3	7.0	7.6	7.8
4H		6.7	7.2	7.0	7.5	7.8	6.6	7.2	7.0	7.4	7.7
6H		6.6	7.0	7.0	7.4	7.7	6.5	7.0	6.9	7.3	7.7
8H		6.5	7.0	6.9	7.3	7.7	6.5	6.9	6.9	7.3	7.6
12H		6.5	6.9	6.9	7.2	7.6	6.4	6.8	6.8	7.2	7.6
8H 4H		6.5	7.0	6.9	7.3	7.7	6.5	6.9	6.9	7.3	7.6
6H		6.4	6.8	6.8	7.2	7.6	6.4	6.7	6.8	7.1	7.5
8H		6.4	6.7	6.8	7.1	7.5	6.3	6.6	6.8	7.0	7.5
12H		6.3	6.6	6.8	7.0	7.5	6.3	6.5	6.7	7.0	7.4
12H 4H		6.5	6.9	6.9	7.2	7.6	6.4	6.8	6.8	7.2	7.6
6H		6.4	6.7	6.8	7.1	7.5	6.3	6.6	6.8	7.0	7.5
8H		6.3	6.6	6.8	7.0	7.5	6.3	6.5	6.7	7.0	7.4
Variations with the observer position at spacings:											
S = 1.0H		+ 2.2 / - 7.2					+ 2.4 / - 8.9				
1.5H		+ 3.0 / - 6.9					+ 3.4 / - 6.9				
2.0H		+ 5.7 / - 8.6					+ 6.4 / - 8.6				

CIE Pub.117, 710.4 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -1.2$)
Area: 0.024 m²

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:1
Test Date:2022-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:3.106m [K=1.0000]
Remarks: 3197-60°

UTILIZATION FACTORS TABLE

Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm		
NAME: 40005-10W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:88	Shielding Angle:

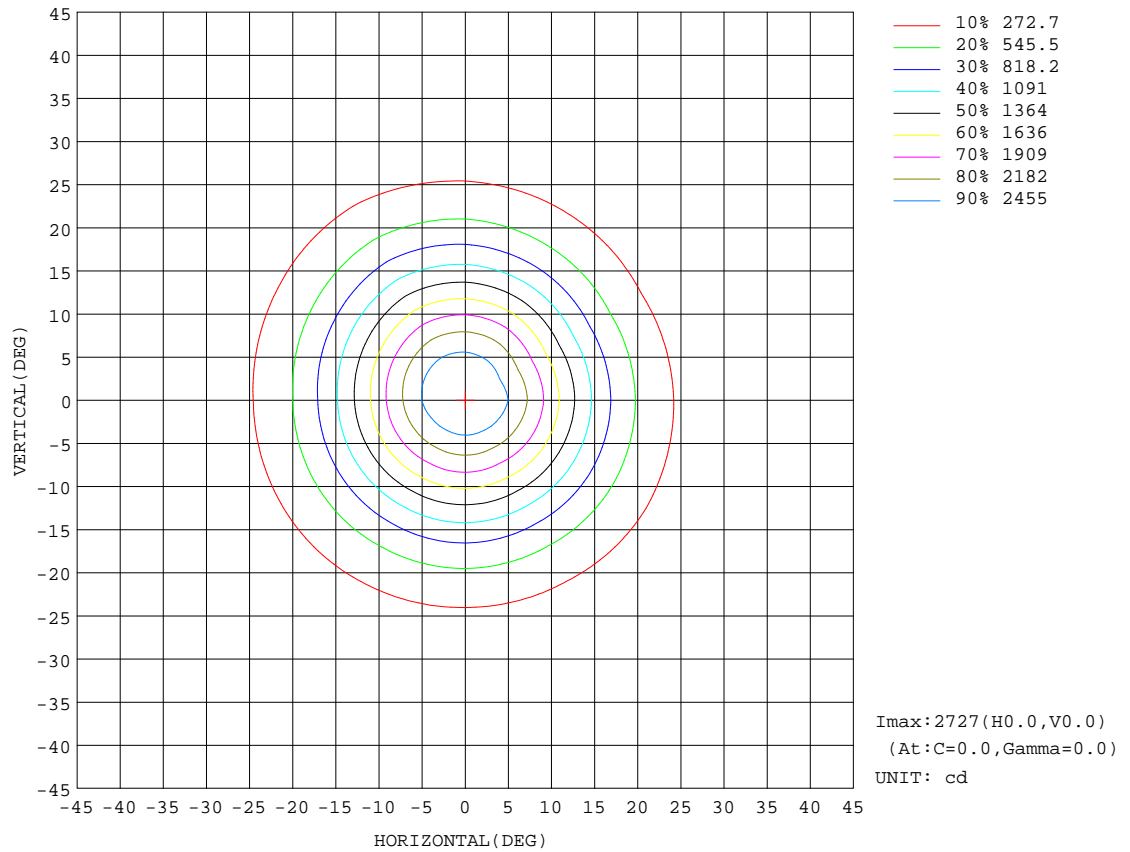
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	79	88	82	79	87	82	78	75
0.80	96	90	87	95	90	86	94	89	86	83
1.00	100	95	91	99	94	91	98	94	90	87
1.25	104	99	96	103	98	95	101	97	94	90
1.50	107	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	103	101	96
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	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: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:1
Test Date:2022-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:3.106m [K=1.0000]
Remarks: 3197-60°

ISOCANDELA DIAGRAM

Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm		
NAME: 40005-10W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:88	Shielding Angle:

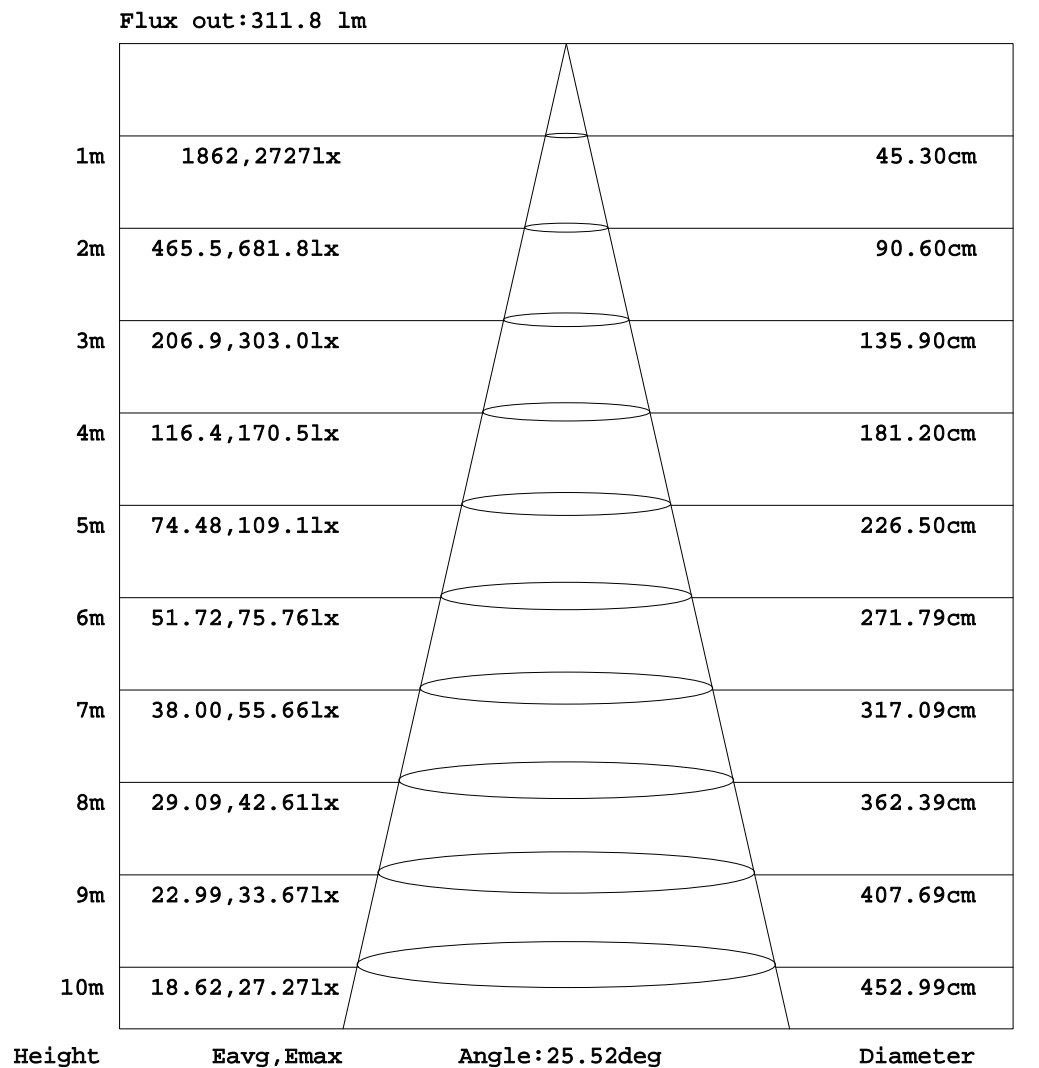


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 1
Test Date: 2022-06-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity: 65.0%
Test Distance: 3.106m [K=1.0000]
Remarks: 3197-60°

AAI Figure

Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm		
NAME: 40005-10W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:88	Shielding Angle:



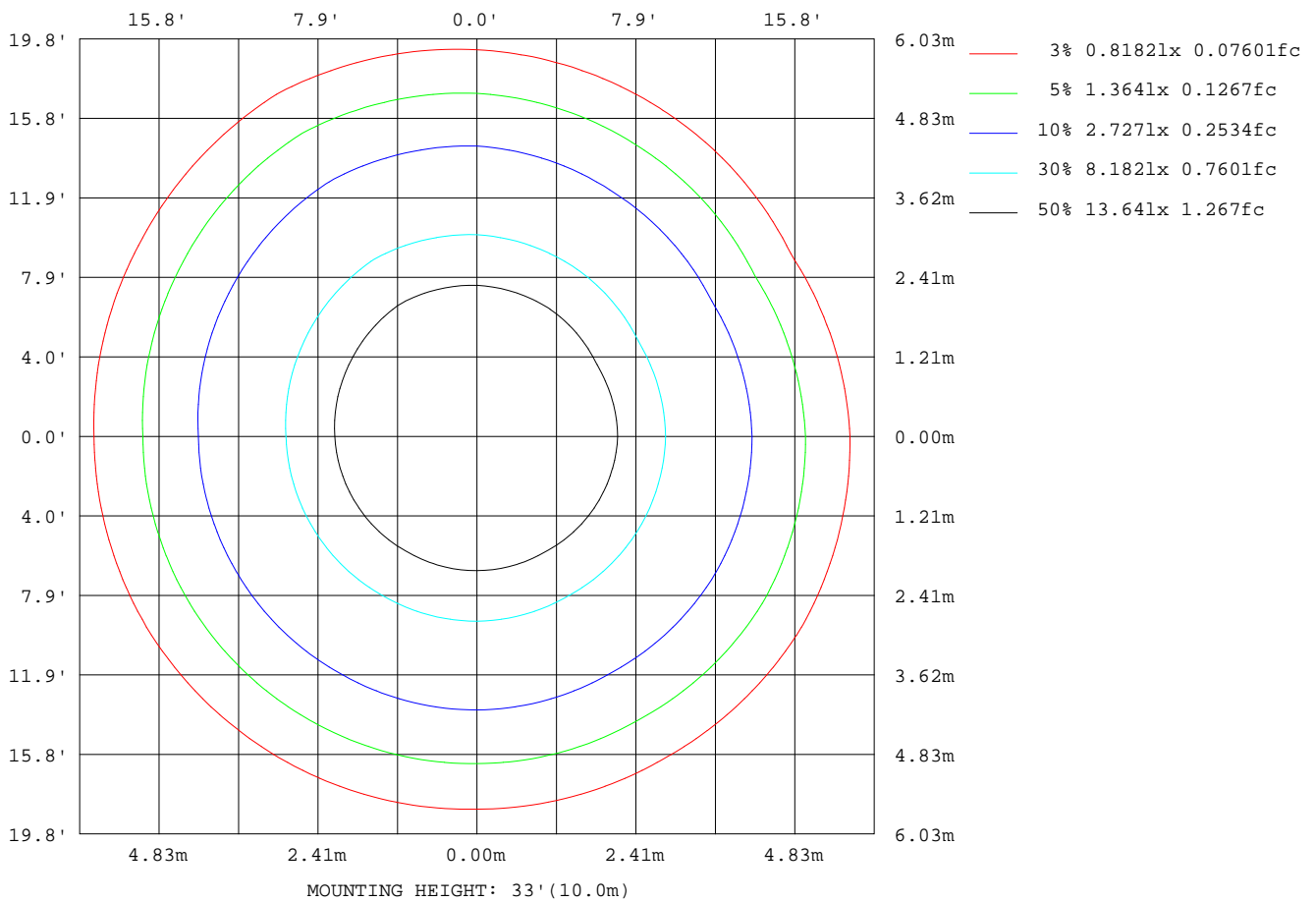
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 1
 Test Date: 2022-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
 Humidity: 65.0%
 Test Distance: 3.106m [K=1.0000]
 Remarks: 3197-60°

ISOLUX DIAGRAM

Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm		
NAME: 40005-10W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:88	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:1
Test Date:2022-06-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:3.106m [K=1.0000]
Remarks: 3197-60°

LED Avg.L Report

Test:U:47.997V I:0.2069A P:9.9306W PF:1.0000 Freq:49.99Hz Lamp Flux:710.403x1 lm		
NAME: 40005-10W-3000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:88	Shielding Angle:

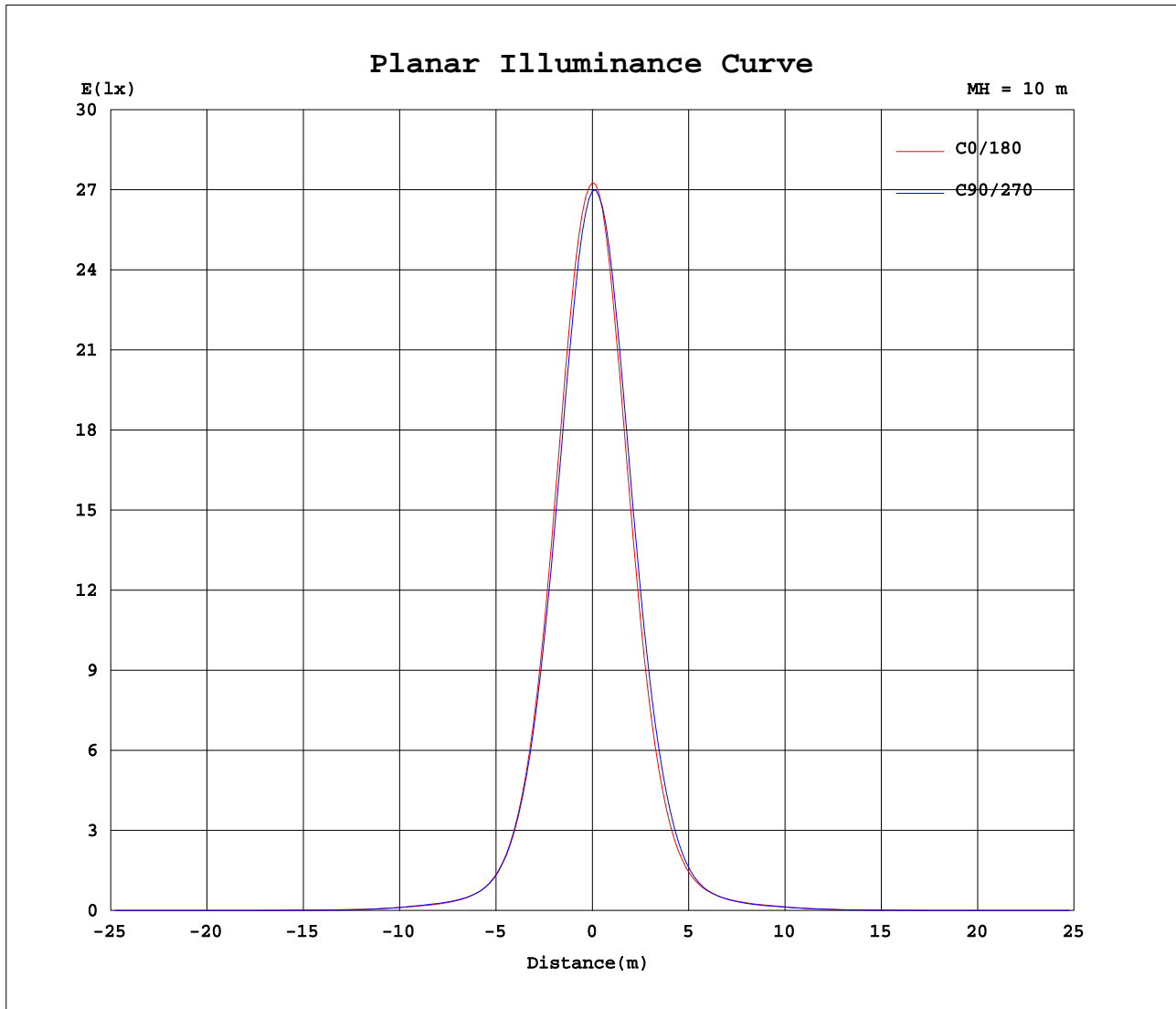
AvgL	cd/m2
L_0~180(65)av	185
L_0~180(75)av	18
L_0~180(85)av	19
L_90~270(65)av	164
L_90~270(75)av	15
L_90~270(85)av	15
L_45(65)av	161
L_45(75)av	20
L_45(85)av	18

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:1
Test Date:2022-06-28

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:3.106m [K=1.0000]
Remarks: 3197-60°

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 1
 Test Date: 2022-06-28

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
 Humidity: 65.0%
 Test Distance: 3.106m [K=1.0000]
 Remarks: 3197-60°

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.416
Humidity:65.0%
Test Distance:3.106m [K=1.0000]
Remarks: 3197-60°

```