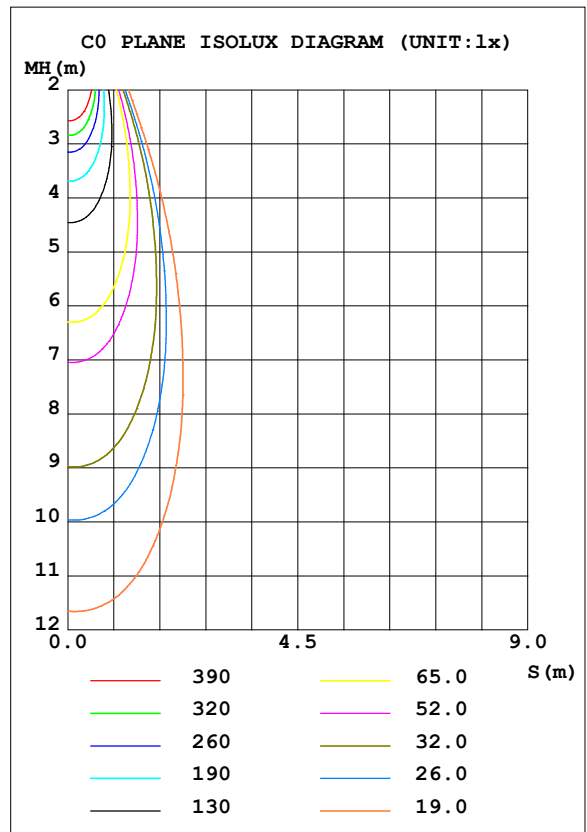
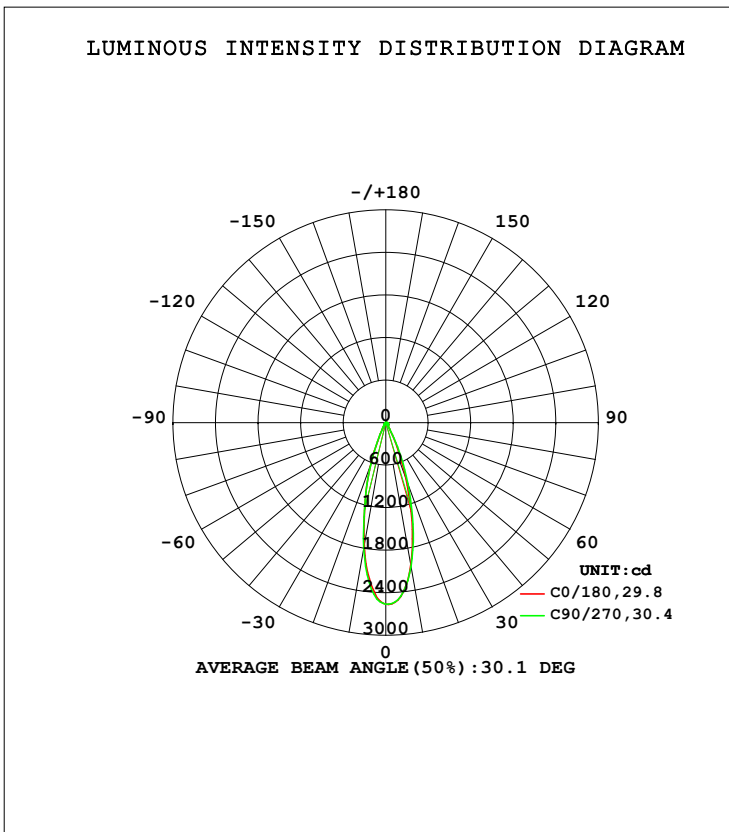


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm		
NAME: 2RSAWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 62.72 lm/W			
MODEL		I <sub>max</sub> (cd)	2568	S/MH (C0/180)	0.46
NOMINAL POWER (W)	15	LOR (%)	100.0	S/MH (C90/270)	0.46
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	843.23	<input type="checkbox"/> UP, DN (C0-180)	0.0,55.7
NOMINAL FLUX (lm)	843.228	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.0,44.3
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	120	<input type="checkbox"/> down (%)	100.0	CIBSE SHR MAX	0.50



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**ZONAL FLUX DIAGRAM**

ZONAL FLUX DIAGRAM:

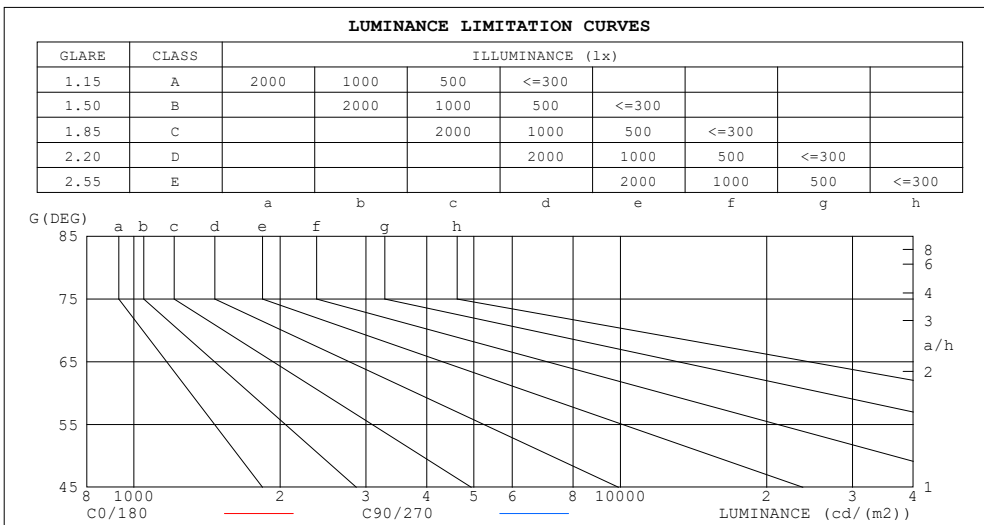
mm	C0	C45	C90	C135	C180	C225	C270	C315	mm	□ zone	□ total	%lum, lamp
10	2037	2112	2059	1860	1764	1765	1799	1871	0- 10	212.9	212.9	25.3,25.3
20	820.2	1026	915.4	677.5	614.0	594.3	617.3	632.3	10- 20	350.7	563.6	66.8,66.8
30	135.0	197.8	161.2	96.21	85.78	87.29	90.91	100.1	20- 30	158.2	721.8	85.6,85.6
40	45.69	47.89	45.44	39.29	34.93	33.41	34.43	38.94	30- 40	40.04	761.8	90.3,90.3
50	33.40	35.53	32.50	28.87	25.12	23.28	24.99	29.49	40- 50	26.27	788.1	93.5,93.5
60	25.80	25.77	24.43	21.64	17.79	15.52	17.72	22.52	50- 60	22.43	810.5	96.1,96.1
70	18.41	18.11	17.11	15.13	11.45	9.051	11.35	15.99	60- 70	17.75	828.3	98.2,98.2
80	9.747	9.852	8.998	7.711	5.750	4.119	5.725	8.317	70- 80	11.78	840.1	99.6,99.6
90	0.0341	0.0236	0.0331	0.0365	0.0696	0.0689	0.0689	0.0530	80- 90	3.178	843.2	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:25.3DEG  
 Operators:  
 Test Date:2021-06-22

□ Range: 0 - 90DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm		
NAME: 2RSAWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	49	319
80	509	466
75	506	463
70	488	449
65	475	441
60	468	439
55	466	442
50	471	454
45	503	486

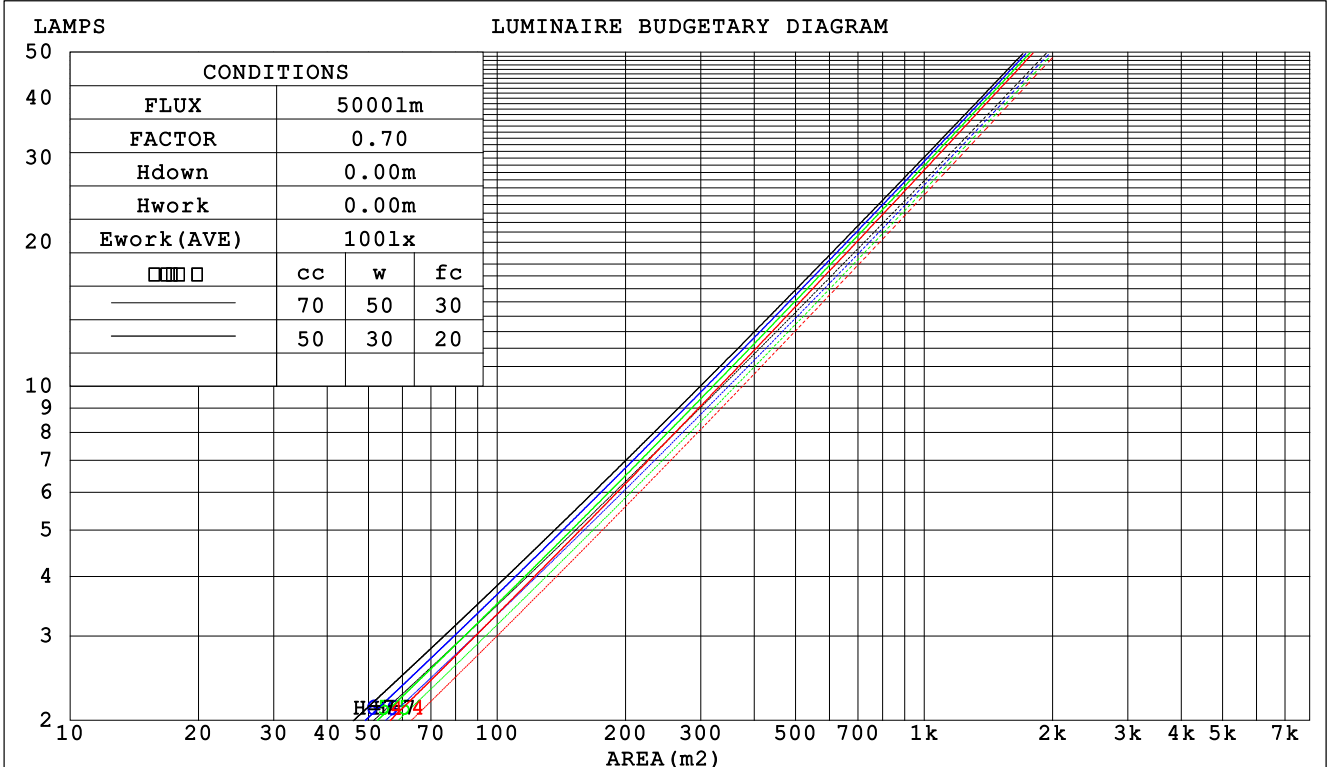
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm		
NAME: 2RSAWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	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	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.98	1.03	.99	.97	.90	.97	.94	.97	.94	.92	.94	.92	.91	.89
3.0	.99	.94	.91	.97	.93	.90	.95	.91	.89	.92	.90	.87	.90	.88	.86	.84
4.0	.94	.89	.85	.93	.88	.85	.91	.87	.84	.89	.85	.83	.87	.84	.82	.80
5.0	.89	.84	.81	.88	.84	.80	.87	.83	.80	.85	.82	.79	.84	.81	.78	.77
6.0	.85	.80	.77	.85	.80	.76	.83	.79	.76	.82	.78	.76	.81	.78	.75	.74
7.0	.82	.77	.73	.81	.77	.73	.80	.76	.73	.79	.75	.72	.78	.75	.72	.71
8.0	.79	.74	.70	.78	.74	.70	.77	.73	.70	.76	.73	.70	.75	.72	.69	.68
9.0	.76	.71	.68	.75	.71	.68	.75	.70	.67	.74	.70	.67	.73	.70	.67	.66
10.0	.73	.69	.65	.73	.68	.65	.72	.68	.65	.71	.68	.65	.71	.67	.65	.64



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

□ Range: 0 - 90DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm		
NAME: 2RSAWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	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	.169 .096 .030	.162 .093 .029	.150 .086 .027	.138 .080 .026	.128 .074 .024	
2.0	.157 .086 .026	.151 .083 .026	.141 .078 .024	.131 .074 .023	.122 .069 .022	
3.0	.146 .078 .023	.141 .076 .023	.132 .072 .022	.124 .068 .021	.117 .065 .020	
4.0	.136 .071 .021	.132 .069 .020	.125 .066 .020	.118 .063 .019	.111 .060 .018	
5.0	.128 .065 .019	.124 .064 .019	.118 .061 .018	.112 .059 .018	.106 .057 .017	
6.0	.120 .060 .017	.117 .059 .017	.112 .057 .017	.106 .055 .016	.101 .053 .016	
7.0	.114 .056 .016	.111 .055 .016	.106 .054 .015	.102 .052 .015	.097 .051 .015	
8.0	.108 .053 .015	.106 .052 .015	.101 .051 .014	.097 .049 .014	.093 .048 .014	
9.0	.103 .050 .014	.101 .049 .014	.097 .048 .014	.093 .047 .013	.090 .046 .013	
10.0	.098 .047 .013	.096 .046 .013	.093 .045 .013	.090 .044 .013	.086 .043 .012	

<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 .146	.146 .135 .125	.100 .093 .087	.057 .054 .050	.018 .017 .016	
2.0	.154 .133 .114	.132 .114 .099	.091 .079 .069	.052 .046 .040	.017 .015 .013	
3.0	.141 .113 .092	.121 .098 .080	.083 .068 .056	.048 .040 .033	.015 .013 .011	
4.0	.129 .098 .075	.111 .085 .065	.076 .059 .046	.044 .035 .027	.014 .011 .009	
5.0	.119 .087 .062	.102 .075 .054	.070 .052 .038	.041 .031 .023	.013 .010 .007	
6.0	.111 .077 .053	.095 .067 .046	.066 .047 .032	.038 .027 .019	.012 .009 .006	
7.0	.103 .069 .045	.089 .060 .039	.061 .042 .028	.036 .025 .016	.012 .008 .005	
8.0	.097 .062 .039	.083 .054 .034	.058 .038 .024	.034 .022 .014	.011 .007 .005	
9.0	.091 .057 .034	.079 .049 .029	.054 .035 .021	.032 .020 .012	.010 .007 .004	
10.0	.086 .052 .030	.074 .045 .026	.052 .032 .018	.030 .019 .011	.010 .006 .004	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm										
NAME: 2RSAWH					TYPE:			WEIGHT:		
SPEC.:3000K 90					DIM.:			SERIAL No.:2		
MFR.:					SUR.:			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	5.8	6.6	6.0	6.8	6.9	5.6	6.4	5.8	6.6	6.7
3H	7.6	8.3	7.8	8.5	8.7	7.3	8.0	7.5	8.2	8.4
4H	8.4	9.1	8.7	9.3	9.6	8.1	8.8	8.3	9.0	9.2
6H	9.2	9.8	9.5	10.1	10.3	8.7	9.4	9.0	9.7	9.9
8H	9.3	10.0	9.6	10.2	10.5	9.0	9.6	9.3	9.9	10.2
12H	9.3	9.9	9.6	10.2	10.4	9.1	9.7	9.4	10.0	10.3
4H 2H	6.5	7.2	6.7	7.4	7.6	6.3	7.0	6.6	7.2	7.5
3H	8.5	9.1	8.8	9.3	9.6	8.2	8.8	8.5	9.1	9.4
4H	9.5	10.0	9.8	10.3	10.6	9.1	9.7	9.5	10.0	10.3
6H	10.4	10.9	10.7	11.2	11.5	10.0	10.5	10.3	10.8	11.2
8H	10.5	11.0	10.9	11.4	11.7	10.3	10.8	10.7	11.1	11.5
12H	10.5	11.0	10.9	11.3	11.7	10.4	10.9	10.8	11.2	11.6
8H 4H	9.8	10.3	10.2	10.6	11.0	9.6	10.0	9.9	10.4	10.7
6H	10.9	11.3	11.3	11.7	12.1	10.6	11.0	11.0	11.4	11.8
8H	11.2	11.6	11.6	12.0	12.4	11.0	11.3	11.4	11.7	12.2
12H	11.3	11.6	11.8	12.0	12.5	11.2	11.5	11.7	11.9	12.4
12H 4H	9.9	10.3	10.3	10.7	11.0	9.6	10.0	10.0	10.4	10.8
6H	11.0	11.3	11.4	11.8	12.2	10.7	11.0	11.1	11.4	11.9
8H	11.3	11.6	11.8	12.1	12.6	11.1	11.4	11.6	11.9	12.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
2.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 843.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.6)  
 Area: 0.111111 m2

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm		
NAME: 2RSAWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:

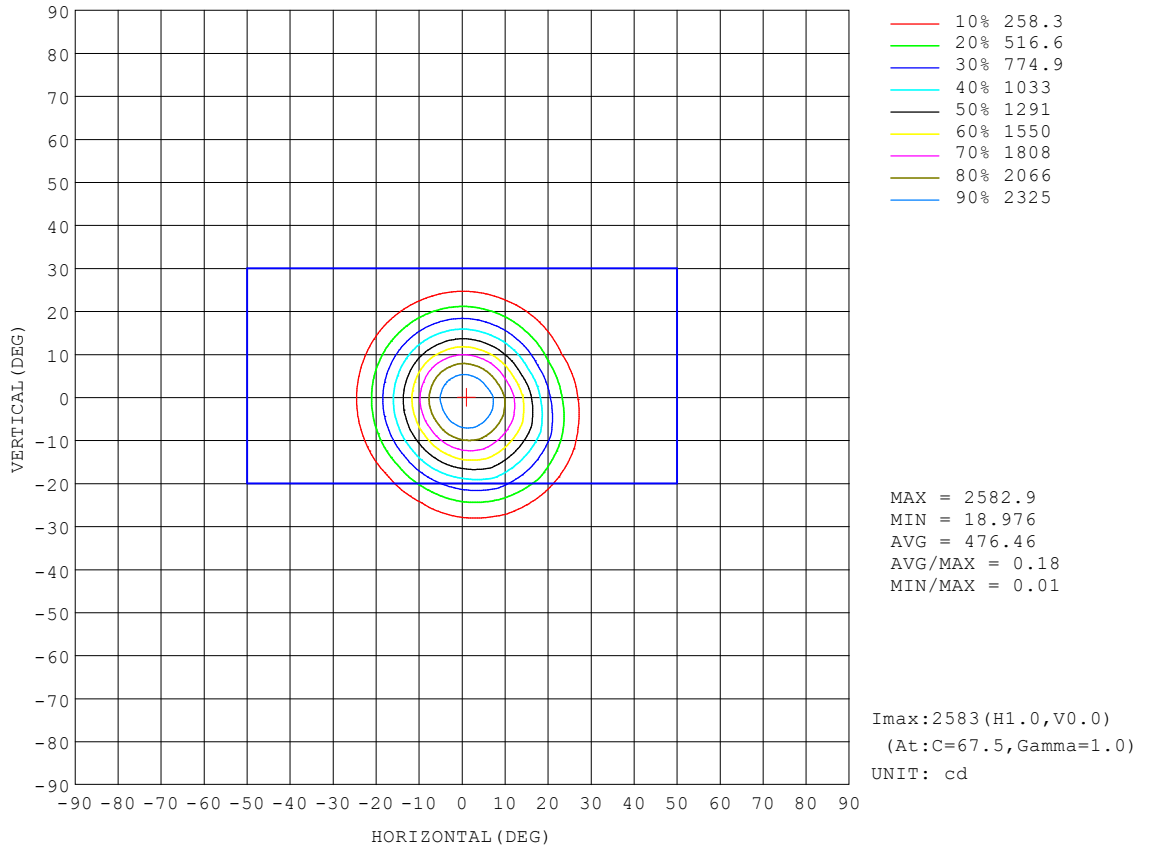
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	86	79	75	85	79	75	84	78	75	71
0.80	93	87	83	92	86	83	91	86	82	79
1.00	98	92	88	97	91	87	95	91	87	83
1.25	102	96	92	101	95	92	99	94	91	87
1.50	104	99	96	103	99	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	108	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: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm		
NAME: 2RSAWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:



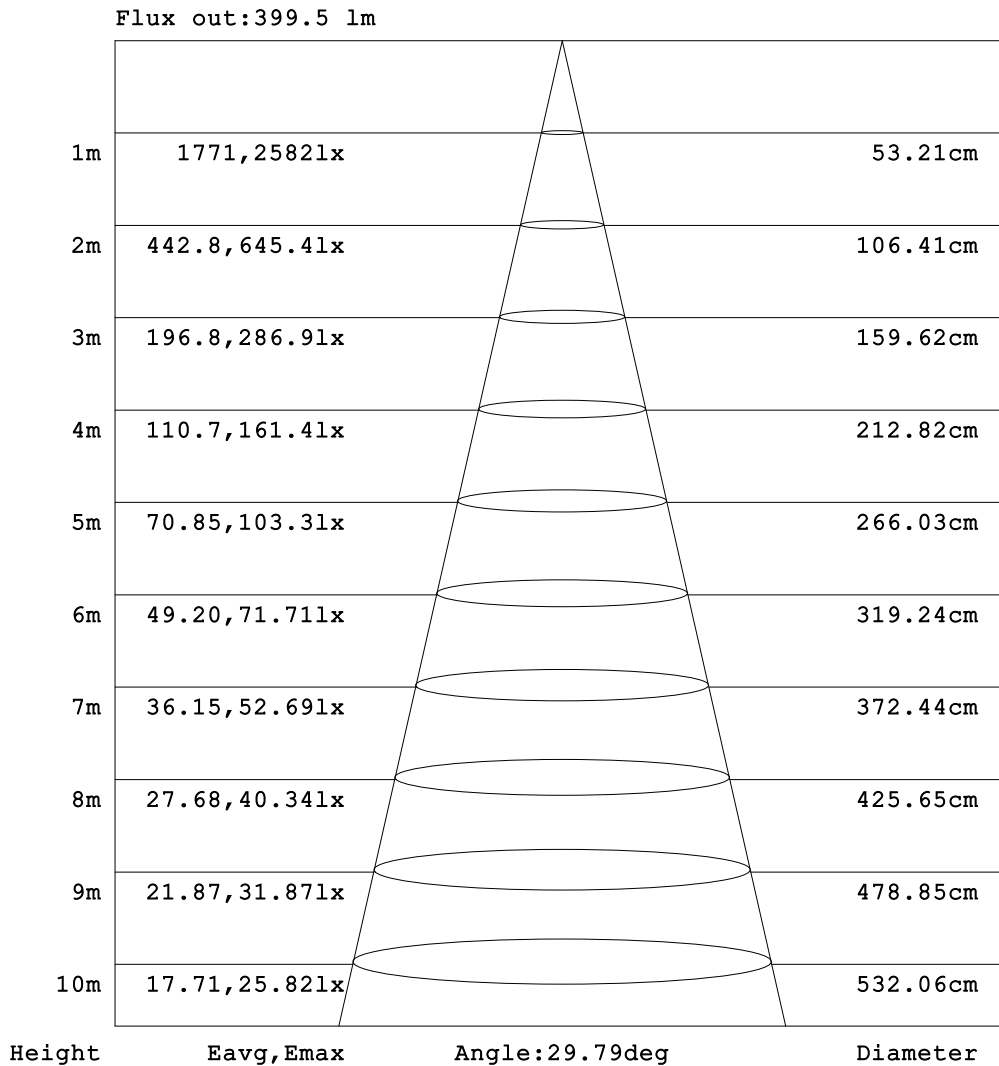
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:



**AAI Figure**

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm		
NAME: 2RSAWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:



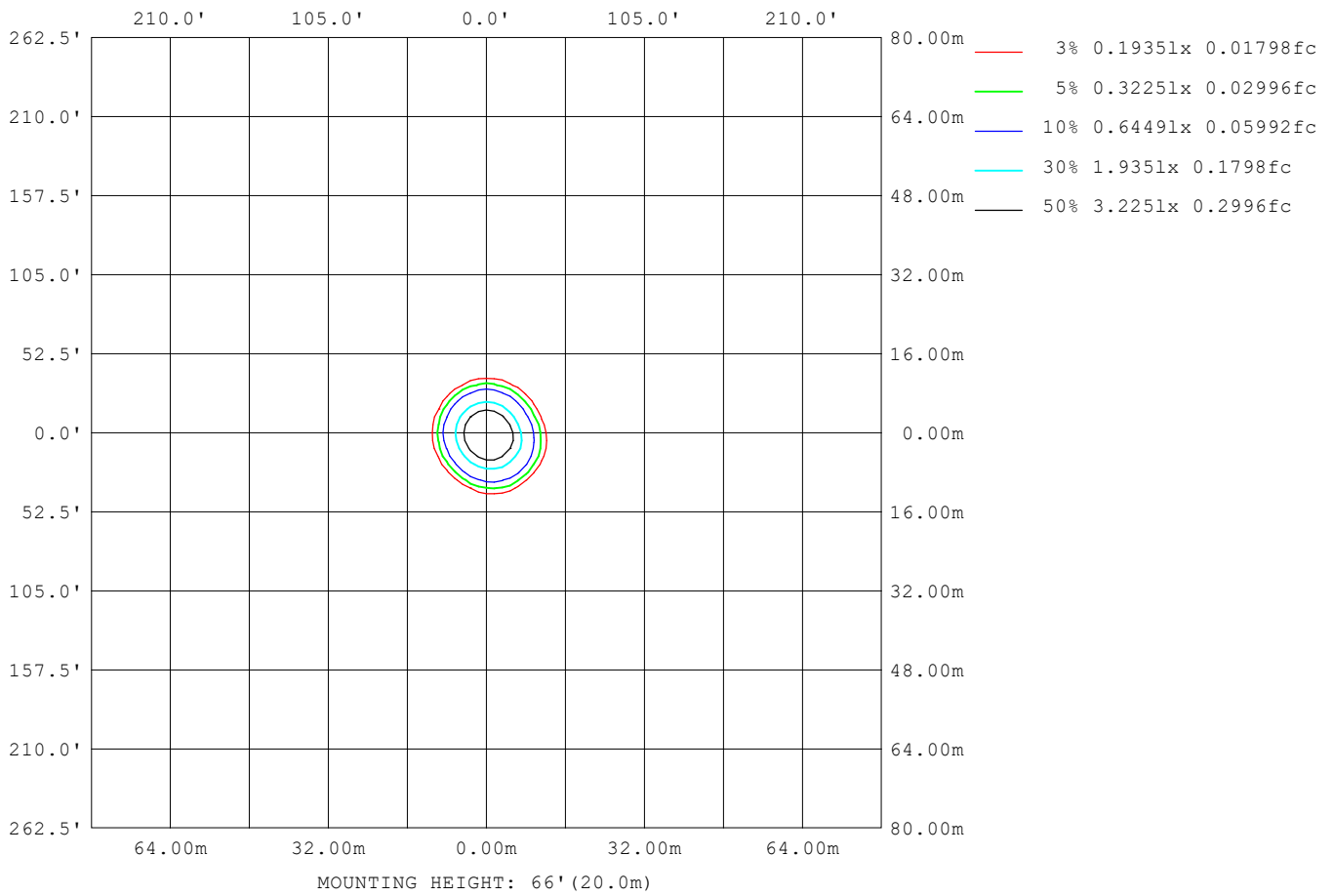
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**ISOLUX DIAGRAM**

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm		
NAME: 2RSAWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**LED Avg.L Report**

Test:U:120.05V I:0.1134A P:13.445W PF:0.9531 Freq:59.98Hz Lamp Flux:843.228x1 lm		
NAME: 2RSAWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:

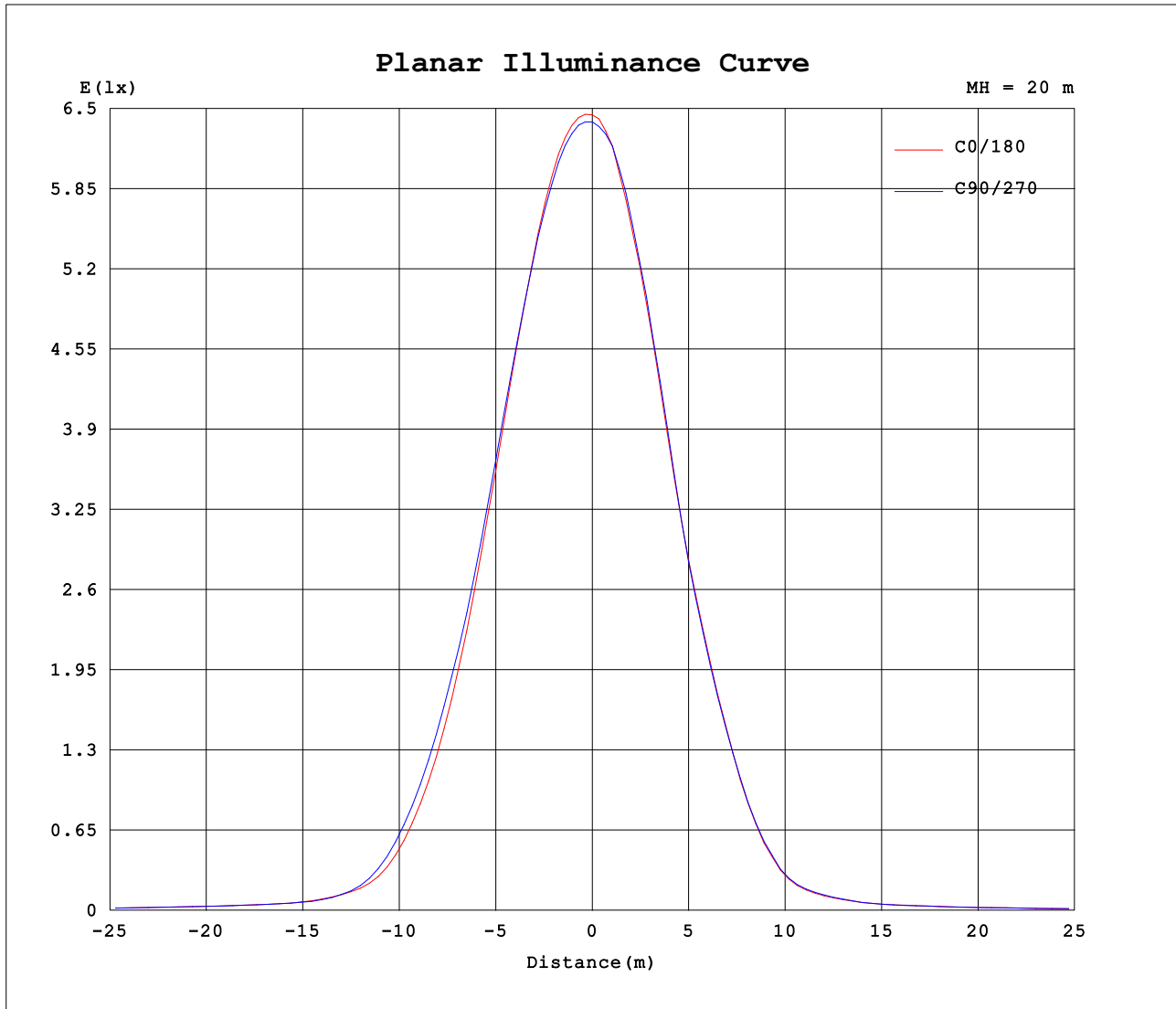
AvgL	cd/m2
L_0~180 (65) av	390
L_0~180 (75) av	401
L_0~180 (85) av	45
L_90~270 (65) av	374
L_90~270 (75) av	380
L_90~270 (85) av	284
L_45 (65) av	381
L_45 (75) av	390
L_45 (85) av	318

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity:65.0%  
 Test Distance:3.080m [K=1.0000]  
 Remarks:

**Planar Illuminance Curve**



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2021-06-22

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-SPEX500\_V1 SYSTEM V2.00.421  
 Humidity: 65.0%  
 Test Distance: 3.080m [K=1.0000]  
 Remarks:

