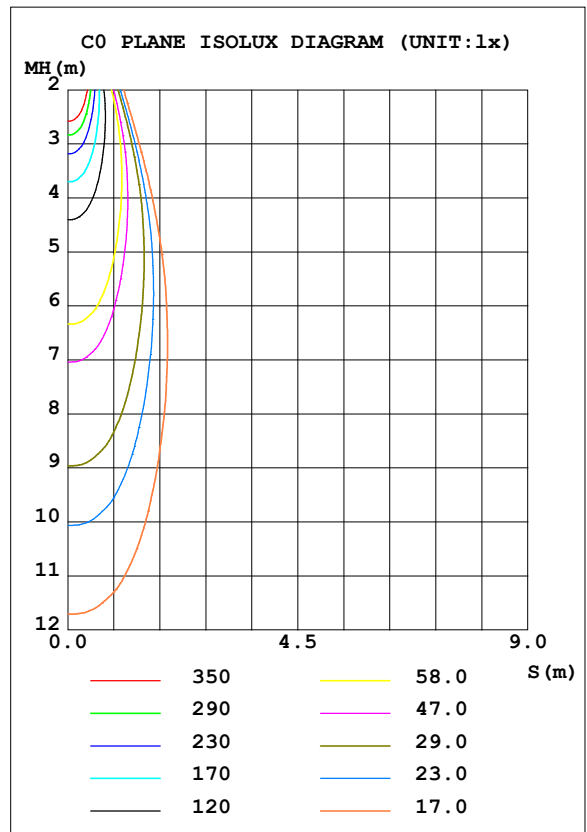
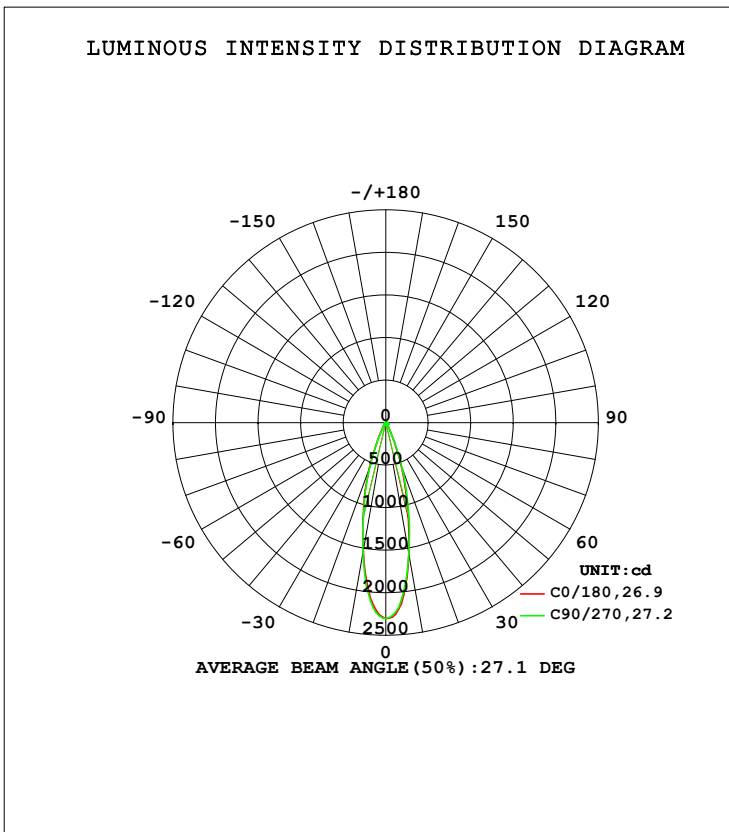


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm		
NAME: 2RSHWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 49.02 lm/W			
MODEL		I <sub>max</sub> (cd)	2304	S/MH (C0/180)	0.45
NOMINAL POWER (W)	15	LOR (%)	100.0	S/MH (C90/270)	0.45
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	663.79	<input type="checkbox"/> UP, DN (C0-180)	0.0, 50.2
NOMINAL FLUX (lm)	663.791	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.0, 49.8
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	120	<input type="checkbox"/> down (%)	100.0	CIBSE SHR MAX	1.00



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:

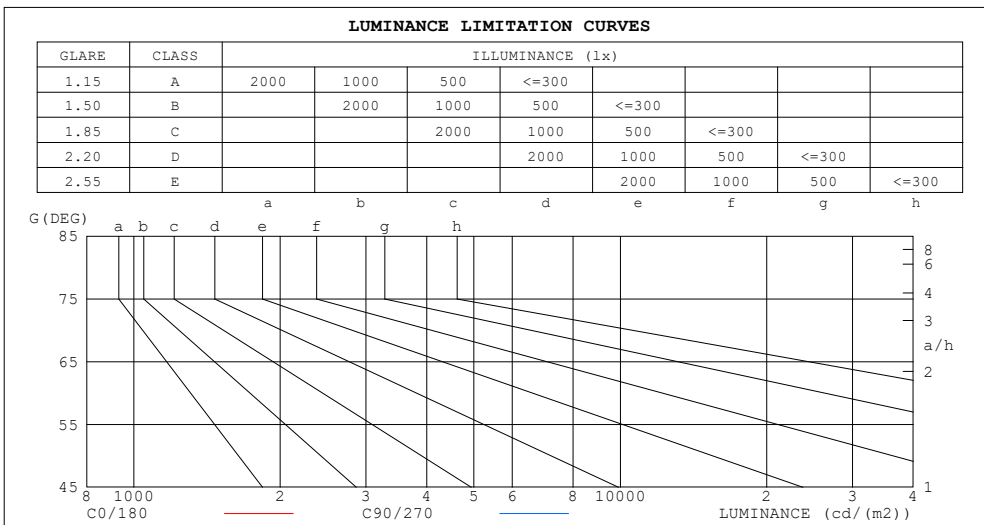
mm	C0	C45	C90	C135	C180	C225	C270	C315	mm	□ zone	□ total	%lum, lamp
10	1563	1595	1566	1612	1532	1597	1547	1597	0- 10	183.2	183.2	27.6,27.6
20	522.9	484.1	557.5	511.3	561.3	506.1	545.9	481.7	10- 20	274.1	457.3	68.9,68.9
30	83.76	78.85	81.96	85.03	85.98	85.91	86.84	84.85	20- 30	102.0	559.3	84.3,84.3
40	33.99	33.24	32.94	33.69	33.76	33.62	33.31	33.70	30- 40	31.34	590.6	89,89
50	26.90	26.83	25.96	26.20	26.34	26.73	26.50	27.36	40- 50	22.97	613.6	92.4,92.4
60	20.45	20.41	19.50	19.70	19.82	20.38	20.18	21.02	50- 60	20.92	634.5	95.6,95.6
70	13.49	13.63	12.77	13.15	13.04	13.75	13.44	14.24	60- 70	16.66	651.2	98.1,98.1
80	5.921	6.033	5.578	5.806	5.709	6.096	5.895	6.345	70- 80	10.32	661.5	99.7,99.7
90	0.0290	0.0252	0.0287	0.0249	0.0459	0.0458	0.0458	0.0404	80- 90	2.284	663.8	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: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:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm		
NAME: 2RSHWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	21	188
80	310	289
75	347	324
70	359	336
65	367	344
60	372	350
55	377	356
50	381	363
45	382	369

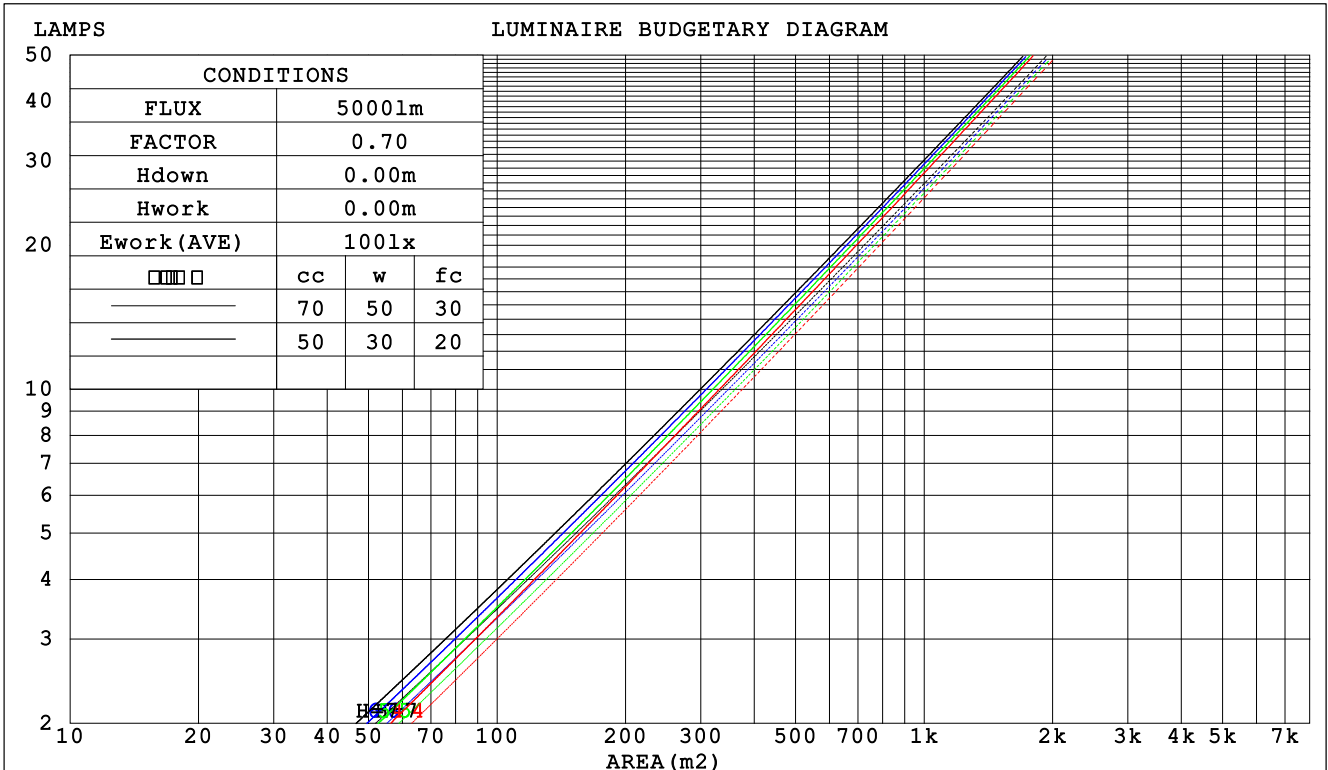
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

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:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm		
NAME: 2RSHWH	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	.00	.99	.98	.97	.96	.94
2.0	1.04	1.01	.98	1.03	.99	.96	.00	.97	.94	.97	.94	.92	.94	.92	.90	.89
3.0	.99	.94	.91	.97	.93	.90	.95	.91	.88	.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	.86	.81	.77	.85	.80	.77	.83	.79	.76	.82	.78	.76	.81	.78	.75	.74
7.0	.82	.77	.74	.82	.77	.73	.80	.76	.73	.79	.76	.73	.78	.75	.72	.71
8.0	.79	.74	.71	.79	.74	.71	.78	.73	.70	.77	.73	.70	.76	.72	.70	.69
9.0	.76	.72	.68	.76	.71	.68	.75	.71	.68	.74	.70	.68	.74	.70	.68	.66
10.0	.74	.69	.66	.73	.69	.66	.73	.69	.66	.72	.68	.66	.71	.68	.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:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm		
NAME: 2RSHWH	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	.170 .096 .031	.163 .093 .029	.150 .086 .028	.139 .080 .026	.128 .074 .024	
2.0	.158 .086 .027	.152 .084 .026	.142 .079 .024	.132 .074 .023	.123 .070 .022	
3.0	.146 .078 .023	.142 .076 .023	.133 .072 .022	.125 .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	.111 .057 .017	.106 .055 .016	.101 .053 .016	
7.0	.113 .056 .016	.110 .055 .016	.106 .053 .015	.101 .052 .015	.097 .050 .015	
8.0	.107 .052 .015	.105 .052 .015	.100 .050 .014	.096 .049 .014	.093 .048 .014	
9.0	.102 .049 .014	.100 .049 .014	.096 .047 .013	.092 .046 .013	.089 .045 .013	
10.0	.097 .046 .013	.095 .046 .013	.092 .045 .013	.088 .044 .012	.085 .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 .145	.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 .086 .062	.102 .075 .054	.070 .052 .038	.041 .031 .023	.013 .010 .008	
6.0	.110 .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 .017	.011 .008 .005	
8.0	.097 .062 .039	.083 .054 .034	.057 .038 .024	.033 .022 .014	.011 .007 .005	
9.0	.091 .057 .034	.078 .049 .029	.054 .035 .021	.032 .020 .012	.010 .007 .004	
10.0	.086 .052 .030	.074 .045 .026	.051 .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:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm										
NAME: 2RSHWH					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	5.6	6.4	5.8	6.6	6.7	5.3	6.1	5.5	6.3	6.4
3H	7.3	8.1	7.6	8.3	8.5	7.0	7.7	7.2	7.9	8.1
4H	8.1	8.8	8.3	9.0	9.2	7.7	8.4	7.9	8.6	8.8
6H	8.6	9.3	8.9	9.5	9.7	8.2	8.9	8.5	9.1	9.3
8H	8.7	9.4	9.0	9.6	9.9	8.3	9.0	8.6	9.2	9.5
12H	8.7	9.3	9.0	9.6	9.8	8.4	9.0	8.7	9.3	9.5
4H 2H	6.3	7.0	6.6	7.2	7.5	6.1	6.8	6.4	7.0	7.2
3H	8.2	8.9	8.5	9.1	9.4	7.9	8.6	8.2	8.8	9.1
4H	9.1	9.7	9.4	10.0	10.3	8.7	9.3	9.1	9.6	9.9
6H	9.7	10.2	10.1	10.6	10.9	9.3	9.9	9.7	10.2	10.5
8H	9.9	10.3	10.3	10.7	11.1	9.5	10.0	9.9	10.3	10.7
12H	9.8	10.3	10.2	10.6	11.0	9.6	10.0	10.0	10.4	10.8
8H 4H	9.4	9.9	9.8	10.2	10.6	9.1	9.6	9.5	9.9	10.3
6H	10.2	10.6	10.6	10.9	11.4	9.8	10.2	10.2	10.6	11.0
8H	10.4	10.7	10.8	11.1	11.6	10.0	10.4	10.5	10.8	11.3
12H	10.4	10.7	10.8	11.1	11.6	10.2	10.5	10.6	10.9	11.4
12H 4H	9.4	9.8	9.8	10.2	10.6	9.1	9.5	9.5	9.9	10.3
6H	10.2	10.5	10.6	11.0	11.4	9.9	10.2	10.3	10.6	11.1
8H	10.4	10.7	10.9	11.2	11.7	10.1	10.4	10.6	10.9	11.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 663.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.4)  
 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:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm		
NAME: 2RSHWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:

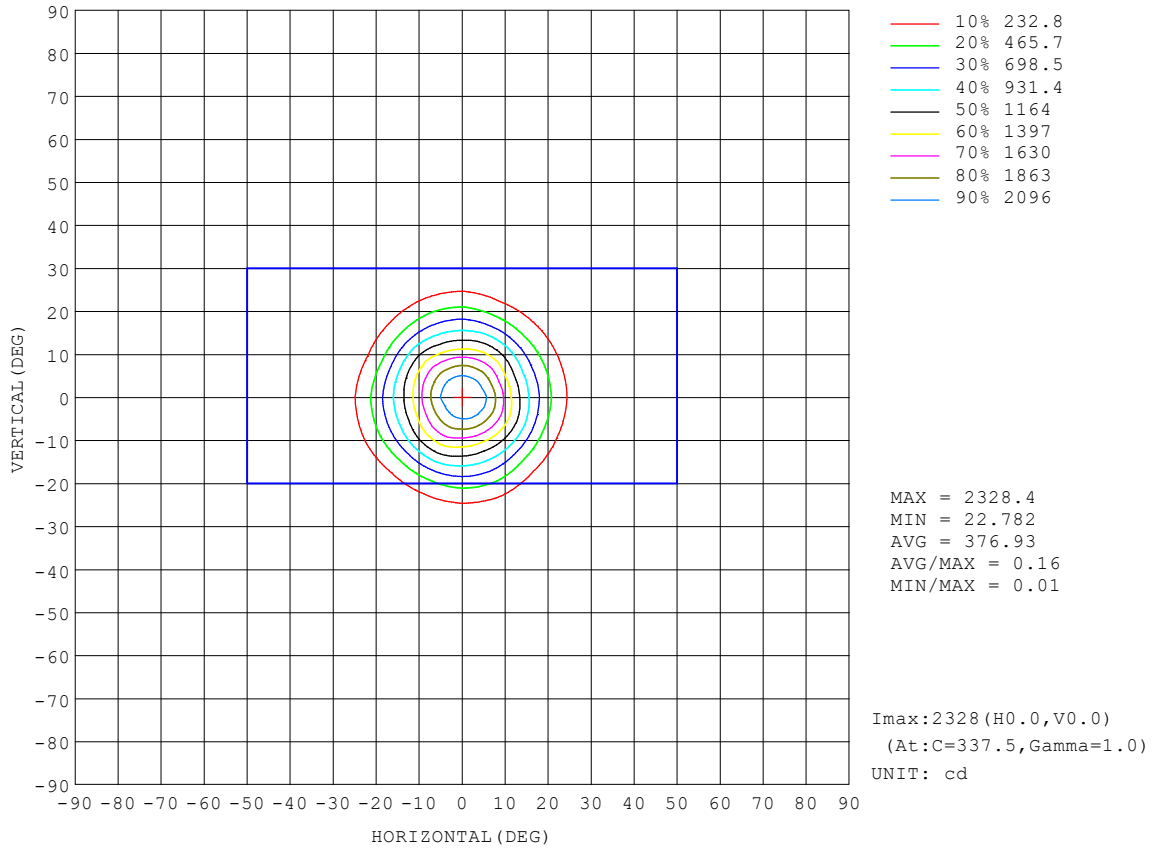
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	85	78	74	84	78	74	84	77	74	70
0.80	92	86	82	92	86	82	90	85	81	77
1.00	97	91	87	96	90	86	94	90	86	82
1.25	101	95	91	100	95	91	98	94	90	86
1.50	104	99	95	103	98	94	100	96	93	89
2.00	107	102	99	105	101	98	103	99	96	91
2.50	109	105	101	107	103	100	104	101	99	92
3.00	111	107	104	109	105	103	105	103	101	94
4.00	113	110	107	111	108	106	107	105	103	96
5.00	114	112	110	112	110	108	108	107	105	97
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:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm		
NAME: 2RSHWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:



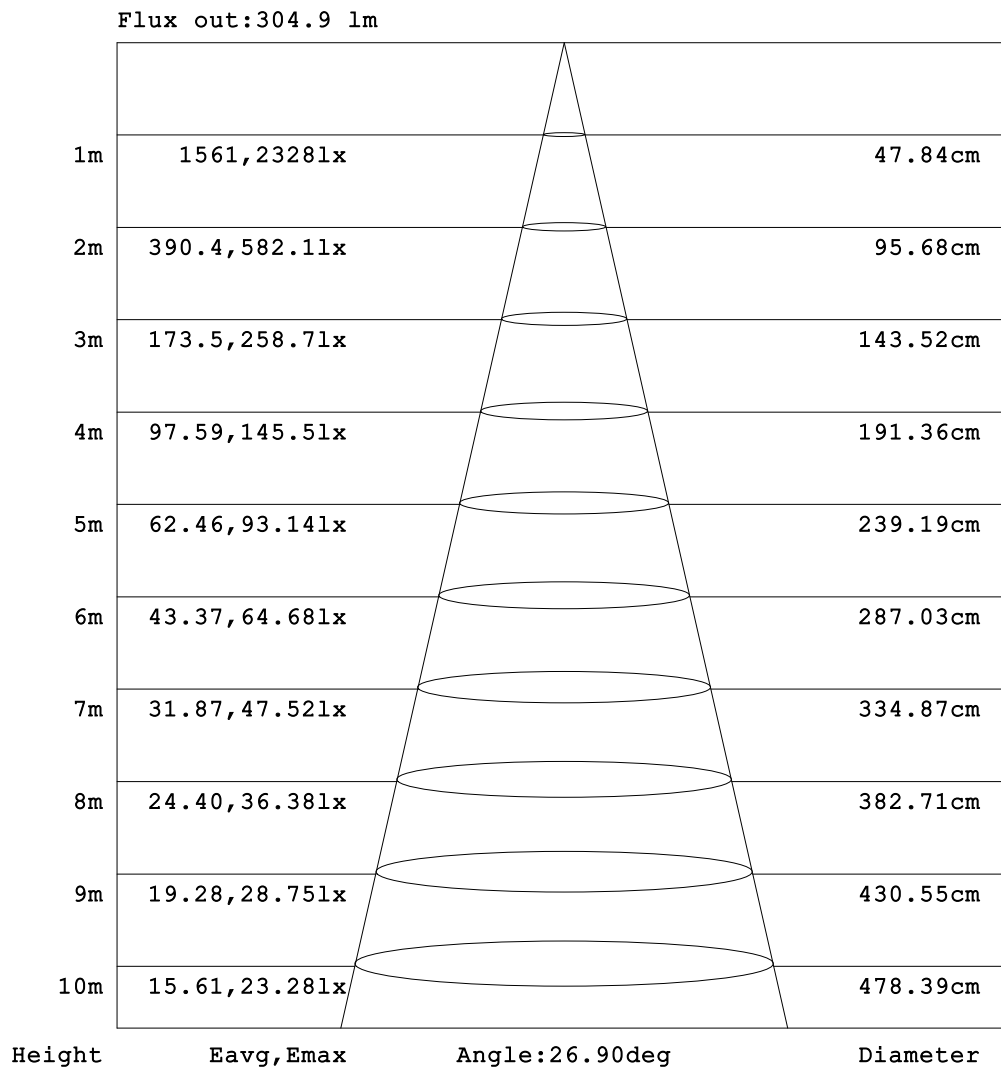
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021-06-22

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:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm		
NAME: 2RSHWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:



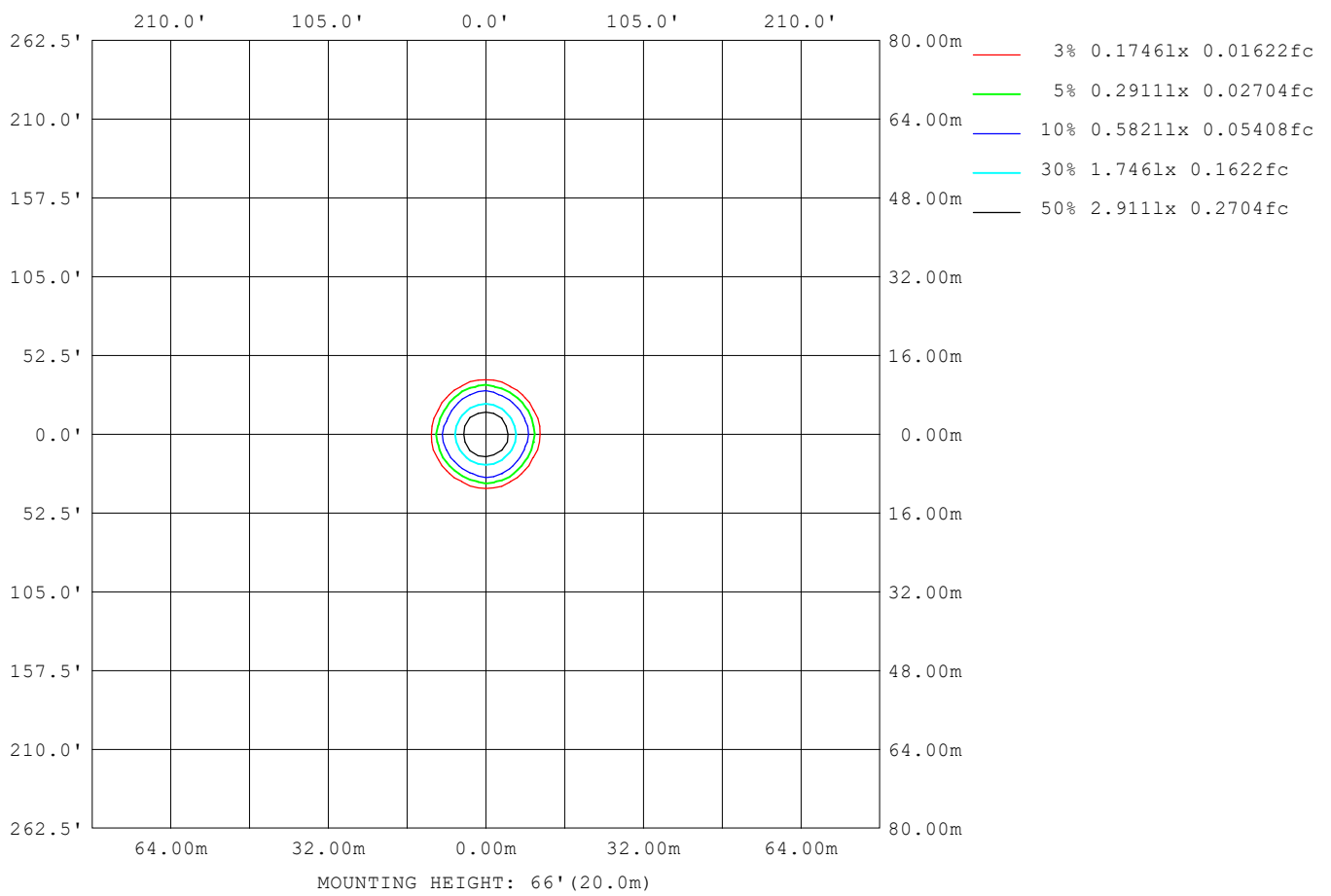
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm		
NAME: 2RSHWH	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:119.96V I:0.1143A P:13.540W PF:0.9523 Freq:59.98Hz Lamp Flux:663.791x1 lm		
NAME: 2RSHWH	TYPE:	WEIGHT:
SPEC.:3000K 90	DIM.:	SERIAL No.:2
MFR.:	SUR.:	Shielding Angle:

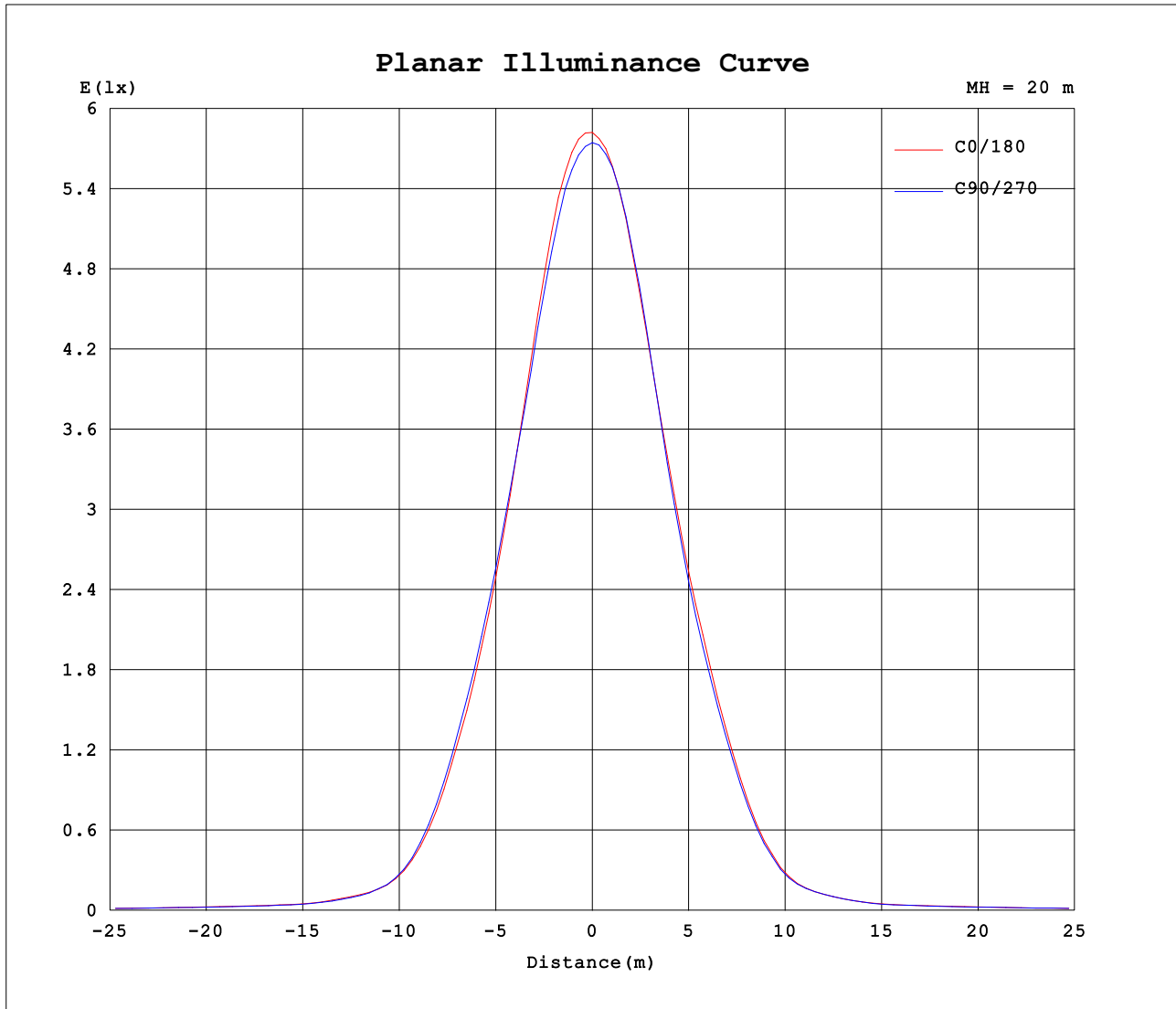
AvgL	cd/m2
L_0~180 (65) av	357
L_0~180 (75) av	337
L_0~180 (85) av	26
L_90~270 (65) av	352
L_90~270 (75) av	333
L_90~270 (85) av	191
L_45 (65) av	364
L_45 (75) av	351
L_45 (85) av	223

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:

