

Luminaire Photograph



Light Output Ratio:	77.8%	
Luminaire Power:	3.275 W	
SHR Nominal:	0.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: zoe
Test Date: 2019-04-30

g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402
Humidity: 65.0%
Test Distance: 3.160m [K=1.0000]
Remarks: LAMP: WCSRM2.CM-M3M5-XX37-1-700-R18
Ra: 91.9 R9: 57
DRIVER: LES4W700P UNI 700mA
REFLECTOR: PS-1092-120-226 15R
30minutes warm-up

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

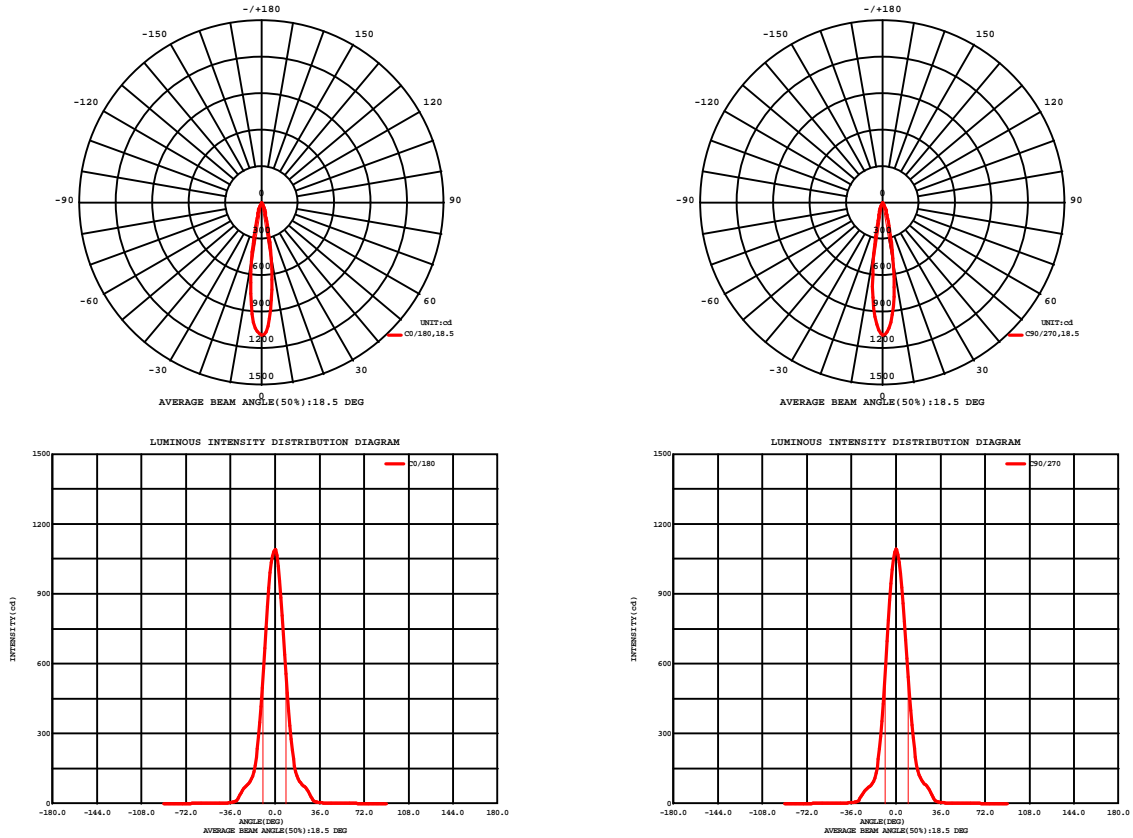


Fig. C0/C180

Fig. C90/C270

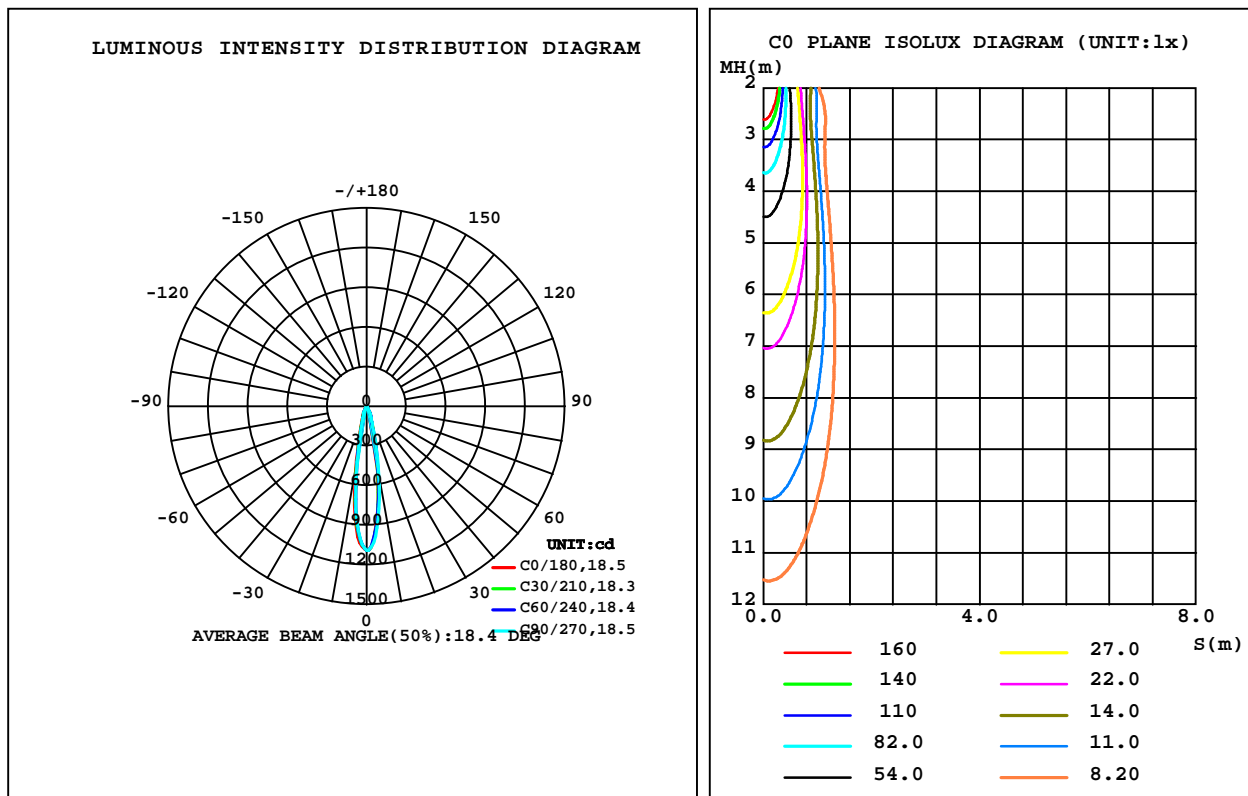
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Temperature: 25.3DEG
Operators: zoe
Test Date: 2019-04-30

Range: 0 - 90DEG
Interval: 1.0DEG
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DRIVER: LES4W700P UNI 700mA
REFLECTOR: PS-1092-120-226 15R
30minutes warm-up

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.15V I:0.0445A P:3.2751W PF:0.6049 Freq:59.98Hz Lamp Flux:211.645x1 lm		
NAME: 1814-400-1-AM-15R	TYPE:	WEIGHT:
SPEC.:3064K	DIM.:	SERIAL No.:1904300897
MFR.: RISE	SUR.:0.002304m2	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 50.26 lm/W			
MODEL	OSRAM	I _{max} (cd)	1094	S/MH(C0/180)	0.32
NOMINAL POWER(W)	2.2	LOR(%)	77.8	S/MH(C90/270)	0.30
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	164.60	h UP,DN(C0-180)	0.0,41.9
NOMINAL FLUX(lm)	211.645	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,35.9
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	120	h down(%)	77.8	CIBSE SHR MAX	1.00



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Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks: LAMP:WCSRM2.CM-M3M5-XX37-1-700-R18
Ra:91.9 R9:57
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30minutes warm-up

ZONAL FLUX DIAGRAM

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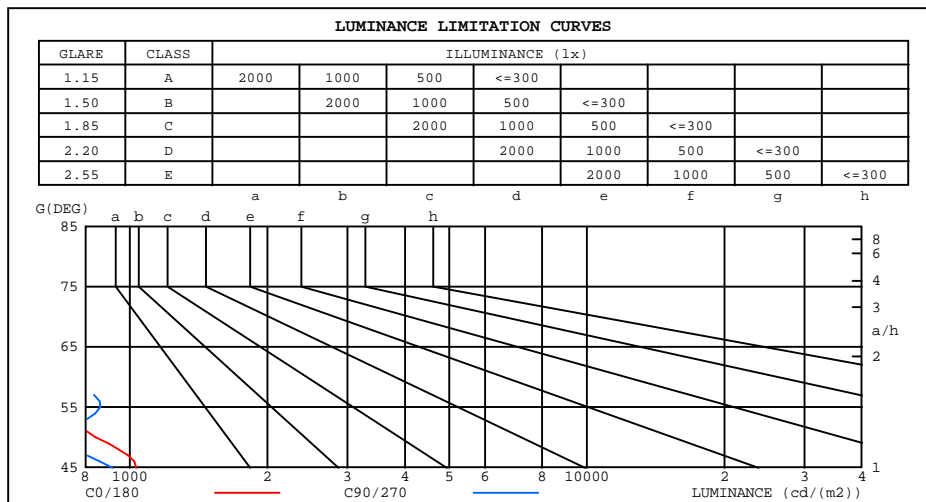
g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	475.2	509.5	542.4	535.7	494.8	446.4	427.9	450.3	0- 10	72.03	72.03	43.8,34
20	96.07	107.2	110.2	108.4	94.74	82.67	79.52	86.40	10- 20	58.90	130.9	79.5,61.9
30	21.20	26.76	27.47	25.51	20.39	13.86	13.42	16.97	20- 30	27.27	158.2	96.1,74.7
40	2.291	2.782	2.711	2.655	2.163	2.323	2.088	2.298	30- 40	4.095	162.3	98.6,76.7
50	1.245	1.579	1.106	1.158	0.7261	0.8198	0.7430	1.353	40- 50	1.246	163.5	99.3,77.3
60	0.3877	0.5065	0.7780	0.5932	0.5580	0.5799	0.7948	0.5658	50- 60	0.7790	164.3	99.8,77.6
70	0	0.0002	0	0.0006	0	0	0	0	60- 70	0.2928	164.6	100,77.8
80	0	0	0	0	0	0	0	0	70- 80	0.0000	164.6	100,77.8
90	0	0	0	0	0	0	0	0	80- 90	0	164.6	100,77.8
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		

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 30minutes warm-up

LUMINANCE LIMITATION CURVES

Test:U:120.15V I:0.0445A P:3.2751W PF:0.6049 Freq:59.98Hz Lamp Flux:211.645x1 lm		
NAME: 1814-400-1-AM-15R	TYPE:	WEIGHT:
SPEC.:3064K	DIM.:	SERIAL No.:1904300897
MFR.: RISE	SUR.:0.002304m2	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	0	0
80	0	0
75	0	0
70	0	0
65	143	356
60	337	675
55	625	862
50	841	747
45	1033	918

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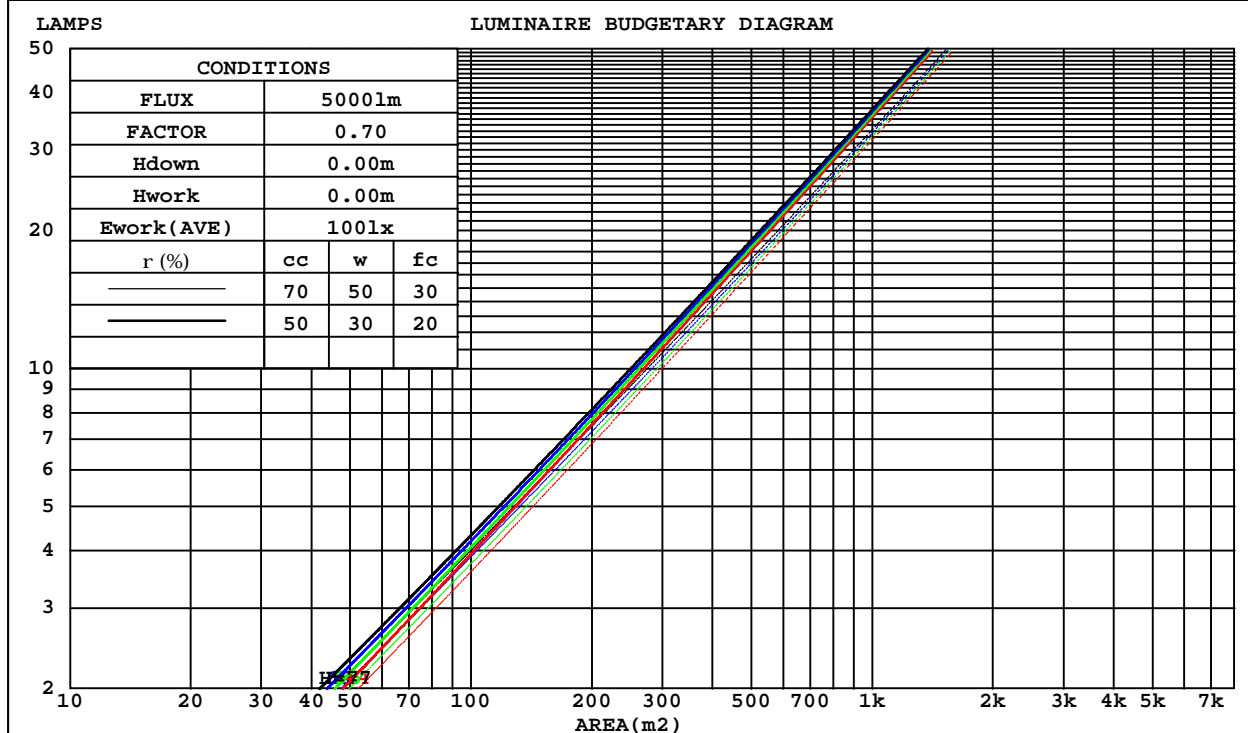


RISE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:3064K	DIM.:	SERIAL No.:1904300897
MFR.: RISE	SUR.:0.002304m2	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



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WEC AND CCEC

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SPEC.:3064K	DIM.:	SERIAL No.:1904300897
MFR.: RISE	SUR.:0.002304m2	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Wall Exitance Coefficients(WEC)												
0.0																
1.0	.103	.058	.018	.097	.056	.018	.088	.050	.016	.079	.046	.015	.071	.041	.013	
2.0	.095	.052	.016	.091	.050	.015	.083	.046	.014	.075	.042	.013	.069	.039	.012	
3.0	.088	.047	.014	.085	.045	.014	.078	.042	.013	.072	.039	.012	.066	.037	.011	
4.0	.082	.043	.013	.079	.042	.012	.074	.039	.012	.069	.037	.011	.064	.035	.011	
5.0	.077	.039	.011	.075	.038	.011	.070	.037	.011	.066	.035	.010	.062	.033	.010	
6.0	.073	.037	.010	.071	.036	.010	.067	.034	.010	.063	.033	.010	.060	.031	.009	
7.0	.069	.034	.010	.067	.034	.010	.064	.032	.009	.061	.031	.009	.058	.030	.009	
8.0	.066	.032	.009	.064	.032	.009	.061	.031	.009	.058	.030	.009	.056	.029	.008	
9.0	.063	.030	.008	.061	.030	.008	.059	.029	.008	.056	.028	.008	.054	.027	.008	
10.0	.060	.029	.008	.059	.028	.008	.056	.028	.008	.054	.027	.008	.052	.026	.008	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Ceiling Cavity Exitance Coefficients(CCEC)												
0.0	.148	.148	.148	.127	.127	.127	.086	.086	.086	.050	.050	.050	.016	.016	.016	
1.0	.131	.123	.115	.112	.105	.099	.076	.072	.069	.044	.042	.040	.014	.013	.013	
2.0	.116	.103	.092	.100	.089	.080	.068	.061	.056	.039	.036	.033	.013	.012	.011	
3.0	.104	.088	.075	.090	.076	.065	.061	.053	.046	.036	.031	.027	.011	.010	.009	
4.0	.095	.076	.062	.081	.066	.054	.056	.046	.038	.032	.027	.022	.010	.009	.007	
5.0	.086	.066	.052	.074	.057	.045	.051	.040	.032	.030	.024	.019	.010	.008	.006	
6.0	.079	.059	.044	.068	.051	.038	.047	.036	.027	.027	.021	.016	.009	.007	.005	
7.0	.073	.052	.037	.063	.045	.033	.043	.032	.023	.025	.019	.014	.008	.006	.005	
8.0	.068	.047	.032	.058	.041	.028	.040	.029	.020	.024	.017	.012	.008	.006	.004	
9.0	.063	.042	.028	.055	.037	.025	.038	.026	.017	.022	.015	.010	.007	.005	.003	
10.0	.060	.039	.025	.051	.034	.022	.036	.024	.015	.021	.014	.009	.007	.005	.003	

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g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks: LAMP:WCSRM2.CM-M3M5-XX37-1-700-R18
Ra:91.9 R9:57
DRIVER:LES4W700P UNI 700mA
REFLECTOR:PS-1092-120-226 15R
30minutes warm-up

RISE GONIOPHOTOMETERS SYSTEM TEST REPORT

UGR(Unified Glare Rating) Table

Test:U:120.15V I:0.0445A P:3.2751W PF:0.6049 Freq:59.98Hz Lamp Flux:211.645x1 lm											
NAME: 1814-400-1-AM-15R					TYPE:			WEIGHT:			
SPEC.:3064K					DIM.:			SERIAL No.:1904300897			
MFR.: RISE					SUR.:0.002304m2			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	1.7	2.3	1.9	2.5	2.6	3.0	3.6	3.2	3.8	3.9	
	3H	1.6	2.1	1.8	2.3	2.5	2.9	3.5	3.2	3.7	
	4H	1.5	2.0	1.7	2.2	2.4	2.8	3.4	3.1	3.6	
	6H	1.4	1.9	1.7	2.2	2.4	2.8	3.3	3.0	3.5	
	8H	1.4	1.9	1.7	2.1	2.4	2.7	3.2	3.0	3.5	
	12H	1.3	1.8	1.6	2.1	2.3	2.7	3.2	3.0	3.4	
4H	2H	1.7	2.2	1.9	2.4	2.6	2.9	3.5	3.2	3.7	
	3H	1.5	2.0	1.8	2.3	2.5	2.8	3.3	3.1	3.5	
	4H	1.4	1.9	1.8	2.2	2.5	2.7	3.1	3.0	3.4	
	6H	1.3	1.7	1.7	2.0	2.4	2.6	3.0	3.0	3.3	
	8H	1.3	1.6	1.6	2.0	2.3	2.5	2.9	2.9	3.3	
	12H	1.2	1.5	1.6	1.9	2.3	2.5	2.8	2.9	3.2	
8H	4H	1.3	1.6	1.6	2.0	2.3	2.5	2.9	2.9	3.3	
	6H	1.1	1.5	1.6	1.8	2.3	2.4	2.7	2.8	3.1	
	8H	1.1	1.4	1.5	1.8	2.2	2.4	2.6	2.8	3.1	
	12H	1.0	1.3	1.5	1.7	2.2	2.3	2.5	2.8	3.0	
12H	4H	1.2	1.5	1.6	1.9	2.3	2.5	2.8	2.9	3.2	
	6H	1.1	1.4	1.5	1.8	2.2	2.4	2.6	2.8	3.1	
	8H	1.0	1.3	1.5	1.7	2.2	2.3	2.5	2.8	3.0	
Variations with the observer position at spacings:											
S = 1.0H	+ 1.7 / - 3.2					+ 2.0 / - 2.2					
1.5H	+ 1.3 / - 1.3					+ 2.9 / - 2.5					
2.0H	+ 2.7 / - 5.1					+ 1.8 / - 4.1					

CIE Pub.117, 211.6 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = -5.4$)

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30minutes warm-up

RISE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:120.15V I:0.0445A P:3.2751W PF:0.6049 Freq:59.98Hz Lamp Flux:211.645x1 lm		
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MFR.: RISE	SUR.:0.002304m2	Shielding Angle:

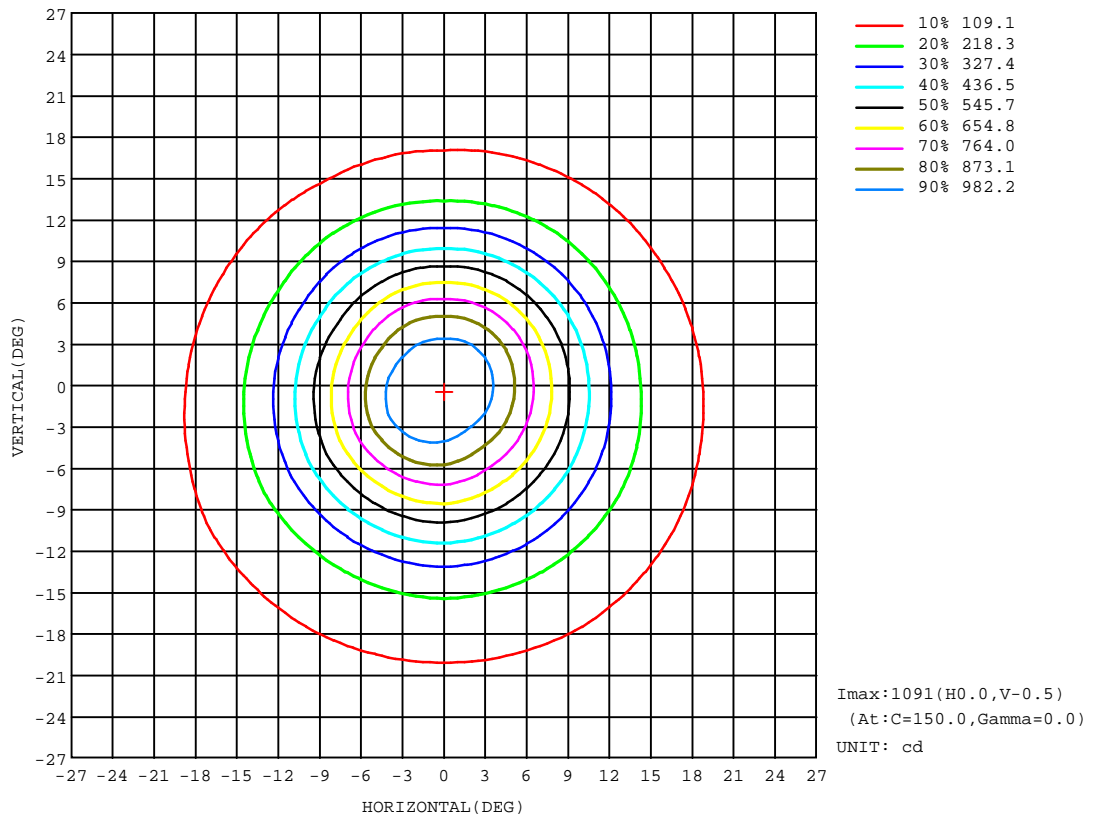
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	71	66	63	70	66	63	70	66	63	61
0.80	76	72	69	75	72	69	75	71	69	66
1.00	79	75	72	78	75	72	77	74	72	69
1.25	82	78	76	81	78	75	79	77	75	72
1.50	84	80	78	83	80	78	81	79	77	73
2.00	85	82	80	84	82	80	82	80	78	74
2.50	86	84	82	85	83	81	83	81	80	75
3.00	88	85	83	86	84	82	84	82	81	76
4.00	89	87	86	87	86	84	85	83	82	77
5.00	90	88	87	88	87	86	85	84	83	78
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

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ISOCANDELA DIAGRAM

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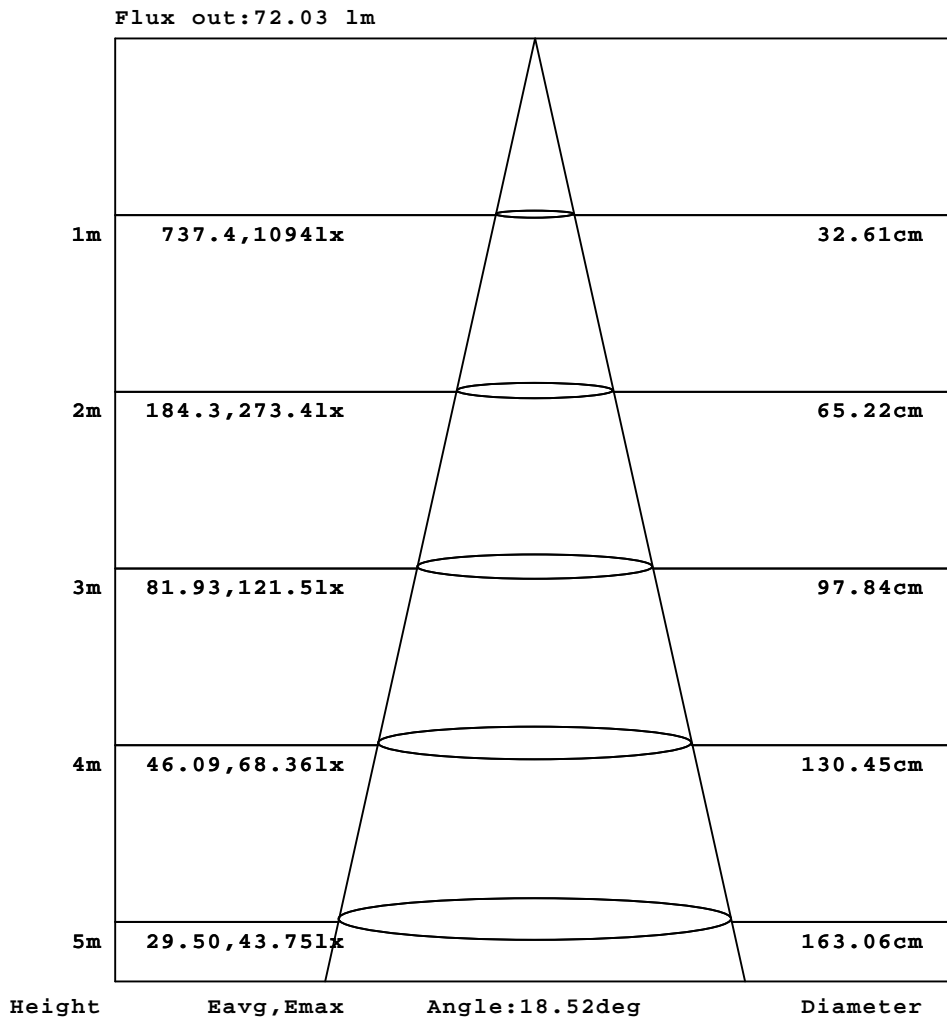


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AAI Figure

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

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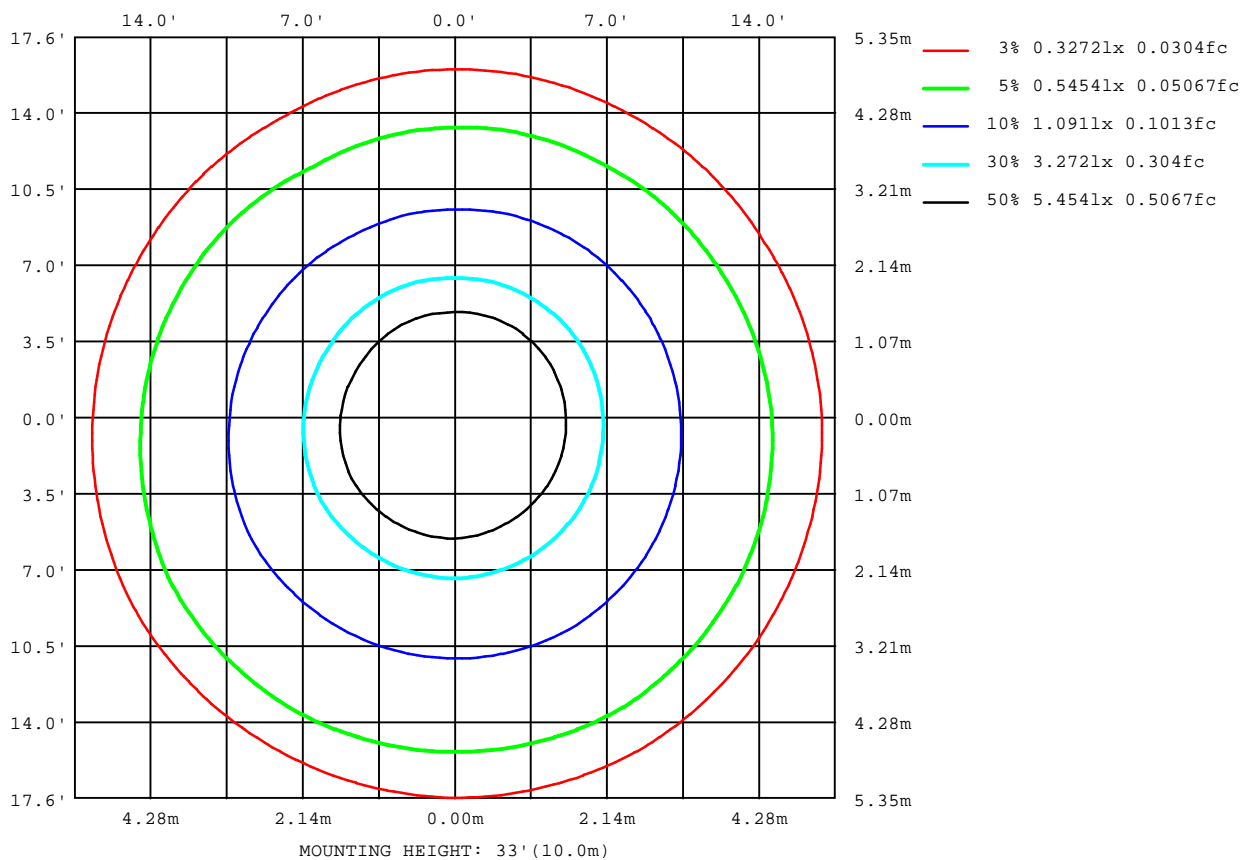
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RISE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

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Operators:zoe
Test Date:2019-04-30

g Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks: LAMP:WCSRM2.CM-M3M5-XX37-1-700-R18
Ra:91.9 R9:57
DRIVER:LES4W700P UNI 700mA
REFLECTOR:PS-1092-120-226 15R
30minutes warm-up



RISE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:120.15V I:0.0445A P:3.2751W PF:0.6049 Freq:59.98Hz Lamp Flux:211.645x1 lm		
NAME: 1814-400-1-AM-15R	TYPE:	WEIGHT:
SPEC.:3064K	DIM.:	SERIAL No.:1904300897
MFR.: RISE	SUR.:0.002304m2	Shielding Angle:

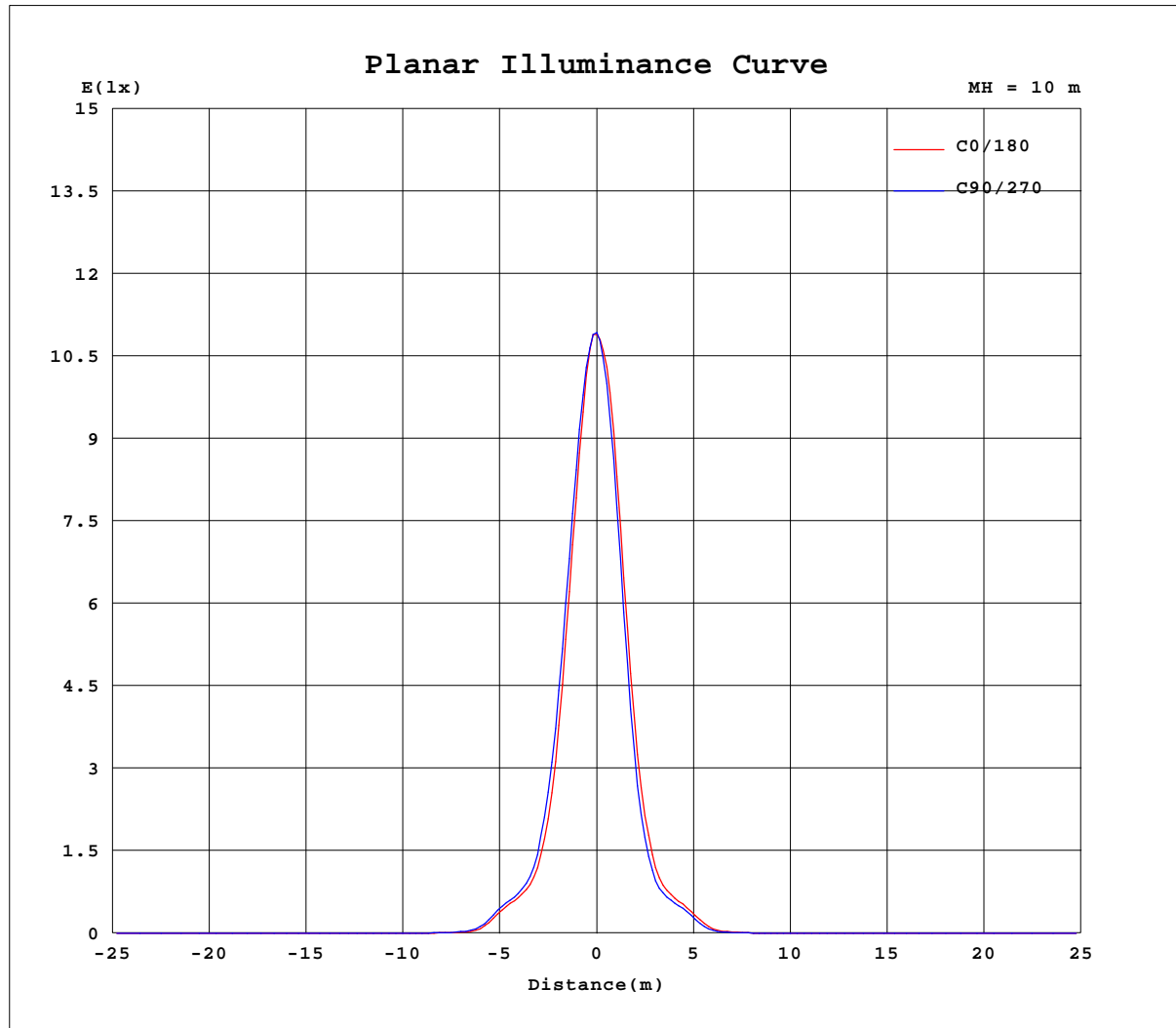
AvgL	cd/m2
L_0~180(65)av	255
L_0~180(75)av	0
L_0~180(85)av	0
L_90~270(65)av	441
L_90~270(75)av	0
L_90~270(85)av	0
L_45(65)av	323
L_45(75)av	0
L_45(85)av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:zoe
Test Date:2019-04-30

g Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.160m [K=1.0000]
Remarks: LAMP:WCSSRM2.CM-M3M5-XX37-1-700-R18
Ra:91.9 R9:57
DRIVER:LES4W700P UNI 700mA
REFLECTOR:PS-1092-120-226 15R
30minutes warm-up

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: zoe
 Test Date: 2019-04-30

g Range: 0 - 90DEG
 g Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402
 Humidity: 65.0%
 Test Distance: 3.160m [K=1.0000]
 Remarks: LAMP: WCSRM2.CM-M3M5-XX37-1-700-R18
 Ra: 91.9 R9: 57
 DRIVER: LES4W700P UNI 700mA
 REFLECTOR: PS-1092-120-226 15R
 30minutes warm-up

