

SUGAR-350-12W-840



Light Output Ratio:	100.0%	
Luminaire Power:	13.31 W	
SHR Nominal:	1.25	Calculated using the TM5
SHR Maximum:	1.30	fine grid method.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-04-15

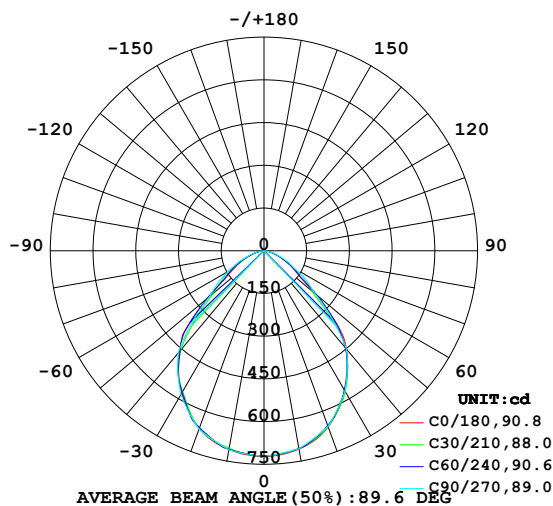
V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

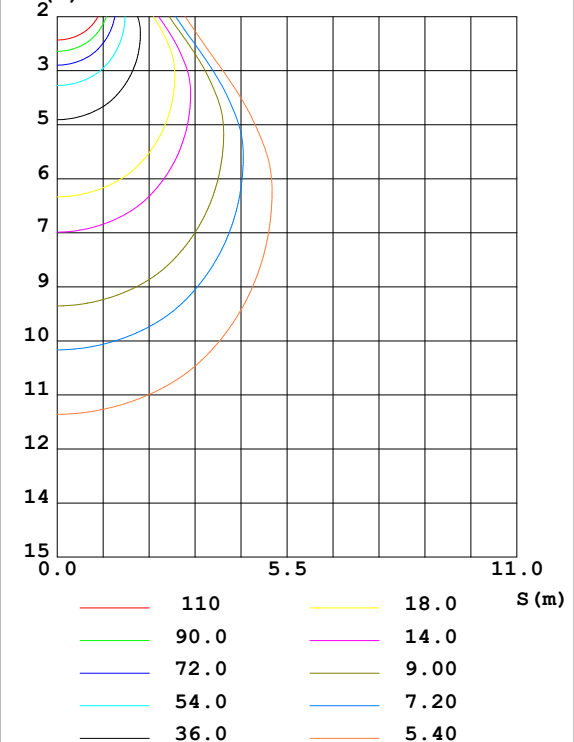
Test:U:220.9V I:0.0626A P:13.31W PF:0.9624 Freq:49.95Hz Lamp Flux:1432.18x1 lm		
NAME: SUGAR-350-12W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 107.60 lm/W			
MODEL	OSRAM-4000K	I _{max} (cd)	722.3	S/MH (C0/180)	1.19
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1432.2	η UP,DN (C0-180)	0.0,49.2
NOMINAL FLUX (lm)	1432.18	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.8
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Myles
 Test Date:2019-04-15

V(B) Range:-80 - 80DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:56%
 Test Distance:5.850m [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	707.2	704.6	705.8	702.5	708.7	706.0	709.7	706.9	0- 10	68.01	68.01	4.75,4.75
20	658.3	655.8	656.6	650.4	664.5	657.8	666.9	662.3	10- 20	193.5	261.5	18.3,18.3
30	567.7	566.4	568.8	566.2	577.4	577.2	583.6	576.4	20- 30	284.6	546.2	38.1,38.1
40	451.0	444.1	450.6	455.1	462.9	463.6	469.5	464.5	30- 40	322.9	869.1	60.7,60.7
50	230.4	226.3	231.6	264.1	257.6	247.8	247.7	266.8	40- 50	274.7	1144	79.9,79.9
60	112.5	111.6	122.4	123.4	118.3	135.4	145.6	126.6	50- 60	161.0	1305	91.1,91.1
70	49.74	52.62	56.94	54.79	56.18	54.53	63.66	58.80	60- 70	86.50	1391	97.2,97.2
80	10.60	12.50	13.14	13.23	14.83	16.96	17.67	15.13	70- 80	36.88	1428	99.7,99.7
90	0.1189	0	0	0	0.2327	0	0	0	80- 90	3.931	1432	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		

Conical surface Flux(90deg): 1021.3 lm

%lum = 71.3%

%lamp = 71.3%

Conical surface Flux(120deg): 1304.9 lm

%lum = 91.1%

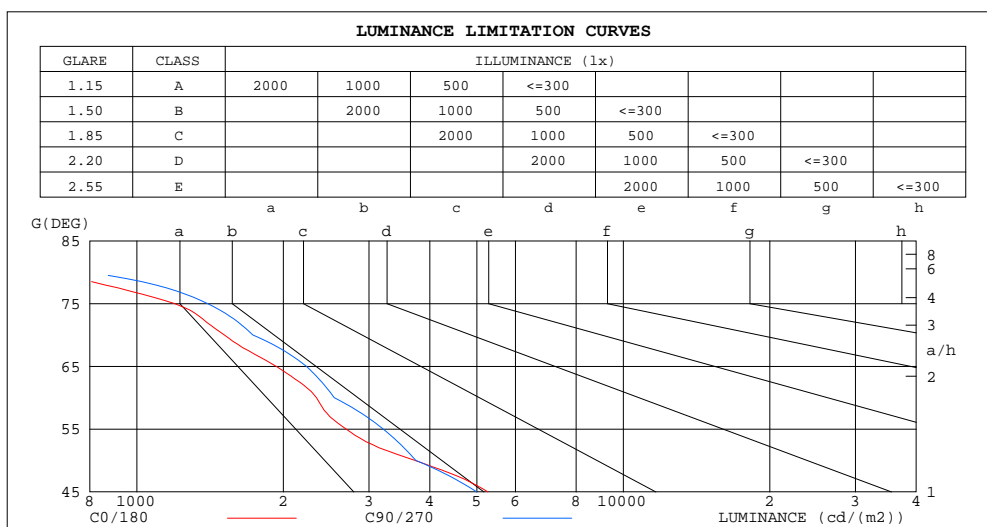
%lamp = 91.1%

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-04-15

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.9V I:0.0626A P:13.31W PF:0.9624 Freq:49.95Hz Lamp Flux:1432.18x1 lm		
NAME: SUGAR-350-12W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		



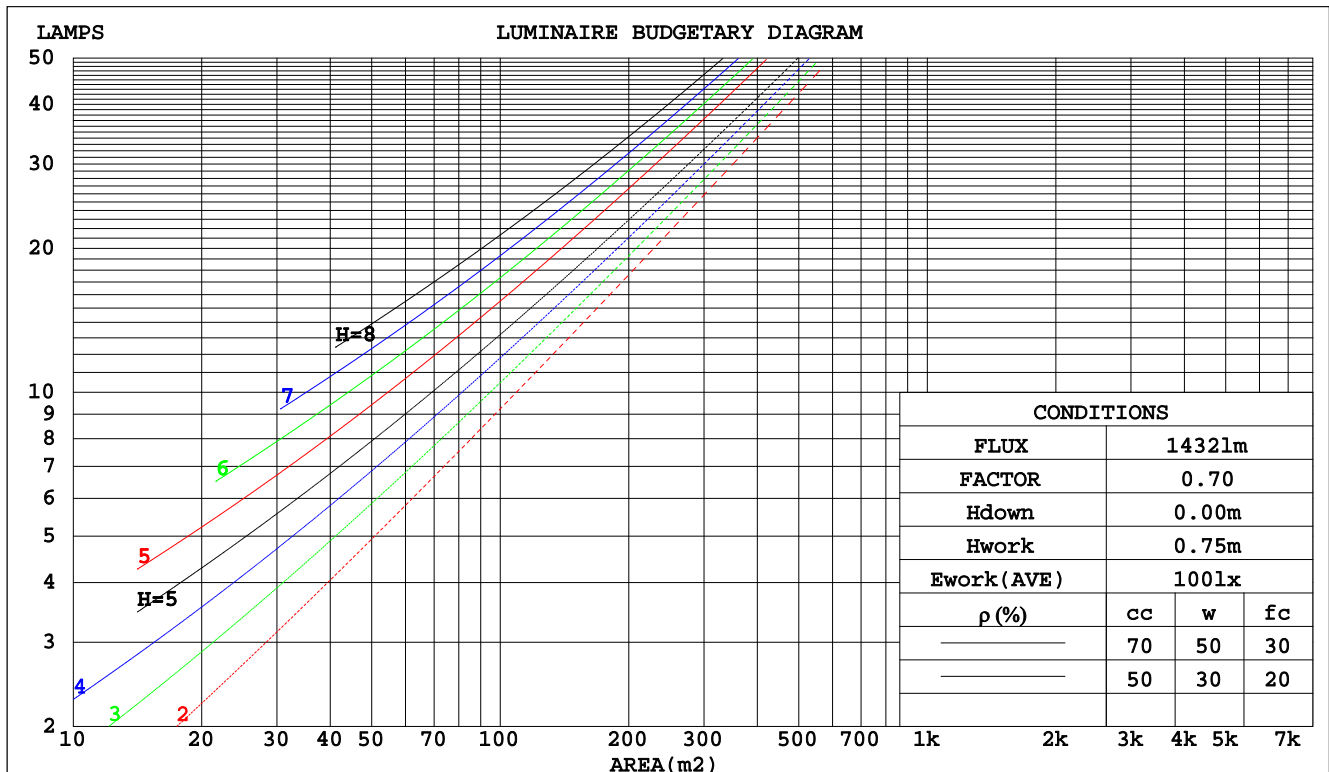
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Humidity:56%
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Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:4000K	DIM.: ϕ 350mm*H105mm	
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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	1.07	1.04	1.01	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.94	.92	.90	.88
2.0	.96	.90	.86	.94	.89	.85	.91	.87	.83	.88	.84	.81	.85	.82	.79	.77
3.0	.86	.79	.74	.85	.78	.73	.82	.76	.72	.79	.75	.71	.77	.73	.70	.68
4.0	.78	.70	.64	.77	.70	.64	.74	.68	.63	.72	.67	.62	.70	.65	.62	.60
5.0	.71	.63	.57	.69	.62	.57	.67	.61	.56	.66	.60	.55	.64	.59	.55	.53
6.0	.64	.56	.51	.63	.56	.50	.62	.55	.50	.60	.54	.50	.59	.53	.49	.47
7.0	.59	.51	.45	.58	.51	.45	.57	.50	.45	.55	.49	.45	.54	.49	.44	.43
8.0	.54	.46	.41	.53	.46	.41	.52	.45	.41	.51	.45	.40	.50	.44	.40	.39
9.0	.50	.42	.37	.49	.42	.37	.48	.42	.37	.47	.41	.37	.46	.41	.37	.35
10.0	.46	.39	.34	.46	.39	.34	.45	.38	.34	.44	.38	.34	.43	.38	.34	.32



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V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

WEC AND CCEC

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NAME: SUGAR-350-12W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		

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	.245	.139	.044	.238	.136	.043	.225	.129	.041	.213	.123	.039	.202	.117	.038		
2.0	.238	.130	.040	.232	.128	.039	.221	.123	.038	.210	.118	.037	.201	.114	.036		
3.0	.226	.120	.036	.221	.118	.036	.211	.114	.035	.202	.111	.034	.193	.107	.033		
4.0	.213	.111	.033	.208	.109	.032	.200	.106	.032	.192	.103	.031	.184	.100	.030		
5.0	.200	.102	.030	.196	.101	.029	.189	.098	.029	.181	.096	.028	.175	.093	.028		
6.0	.189	.095	.027	.185	.093	.027	.178	.091	.027	.172	.089	.026	.166	.087	.026		
7.0	.178	.088	.025	.175	.087	.025	.168	.085	.025	.163	.083	.024	.157	.082	.024		
8.0	.168	.082	.023	.165	.081	.023	.159	.080	.023	.154	.078	.023	.149	.077	.022		
9.0	.159	.077	.021	.156	.076	.021	.151	.075	.021	.147	.073	.021	.142	.072	.021		
10.0	.150	.072	.020	.148	.072	.020	.144	.070	.020	.139	.069	.020	.136	.068	.020		

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.176	.157	.140	.150	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.165	.132	.105	.141	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.156	.114	.081	.134	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.148	.100	.064	.127	.087	.055	.087	.060	.039	.050	.035	.023	.016	.012	.008	
5.0	.141	.089	.052	.121	.077	.045	.083	.054	.032	.048	.032	.019	.016	.010	.006	
6.0	.134	.081	.043	.115	.070	.037	.079	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.127	.074	.036	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.122	.068	.031	.105	.059	.027	.072	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.116	.063	.027	.100	.055	.024	.069	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.111	.059	.024	.096	.051	.021	.066	.036	.015	.039	.021	.009	.013	.007	.003	

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Myles
 Test Date:2019-04-15

$V(B)$ Range:-80 - 80DEG
 $V(B)$ Interval: 5.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:56%
 Test Distance:5.850m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.9V I:0.0626A P:13.31W PF:0.9624 Freq:49.95Hz Lamp Flux:1432.18x1 lm										
NAME: SUGAR-350-12W-840					TYPE:Ceiling light			SERIAL No.:		
SPEC.:4000K					DIM.: ϕ 350mm*H105mm					
MFR.: NEKO LIGHTING AG										
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	14.7	16.1	15.0	16.2	16.4	14.9	16.2	15.1	16.4	16.6
3H	15.2	16.4	15.5	16.6	16.8	15.4	16.6	15.6	16.8	17.0
4H	15.3	16.5	15.6	16.7	16.9	15.5	16.7	15.8	16.9	17.1
6H	15.3	16.4	15.6	16.6	16.9	15.5	16.6	15.9	16.9	17.1
8H	15.3	16.3	15.6	16.6	16.9	15.5	16.6	15.9	16.8	17.1
12H	15.2	16.2	15.6	16.5	16.8	15.5	16.5	15.8	16.7	17.0
4H 2H	14.9	16.1	15.2	16.3	16.5	15.0	16.1	15.3	16.4	16.6
3H	15.5	16.5	15.8	16.8	17.1	15.6	16.6	16.0	16.9	17.2
4H	15.7	16.6	16.1	16.9	17.2	15.9	16.8	16.2	17.1	17.4
6H	15.8	16.6	16.2	16.9	17.3	15.9	16.7	16.3	17.1	17.4
8H	15.7	16.5	16.1	16.8	17.2	15.9	16.6	16.3	17.0	17.4
12H	15.7	16.4	16.1	16.7	17.1	15.9	16.5	16.3	16.9	17.3
8H 4H	15.7	16.5	16.1	16.8	17.2	15.9	16.6	16.3	17.0	17.3
6H	15.8	16.4	16.3	16.8	17.3	16.0	16.6	16.4	17.0	17.4
8H	15.8	16.3	16.3	16.8	17.2	16.0	16.5	16.4	16.9	17.4
12H	15.8	16.2	16.3	16.7	17.1	15.9	16.4	16.4	16.8	17.3
12H 4H	15.7	16.4	16.1	16.7	17.1	15.8	16.5	16.3	16.9	17.3
6H	15.8	16.3	16.3	16.8	17.2	15.9	16.5	16.4	16.9	17.3
8H	15.8	16.2	16.3	16.7	17.2	15.9	16.4	16.4	16.8	17.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.9 / - 1.1					+ 0.8 / - 0.9				
1.5H	+ 0.7 / - 1.0					+ 0.7 / - 1.1				
2.0H	+ 2.3 / - 1.6					+ 2.1 / - 1.6				

CIE Pub.117, 1432 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 1.2$)

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
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V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.9V I:0.0626A P:13.31W PF:0.9624 Freq:49.95Hz Lamp Flux:1432.18x1 lm		
NAME: SUGAR-350-12W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: \varnothing 350mm*H105mm	
MFR.: NEKO LIGHTING AG		

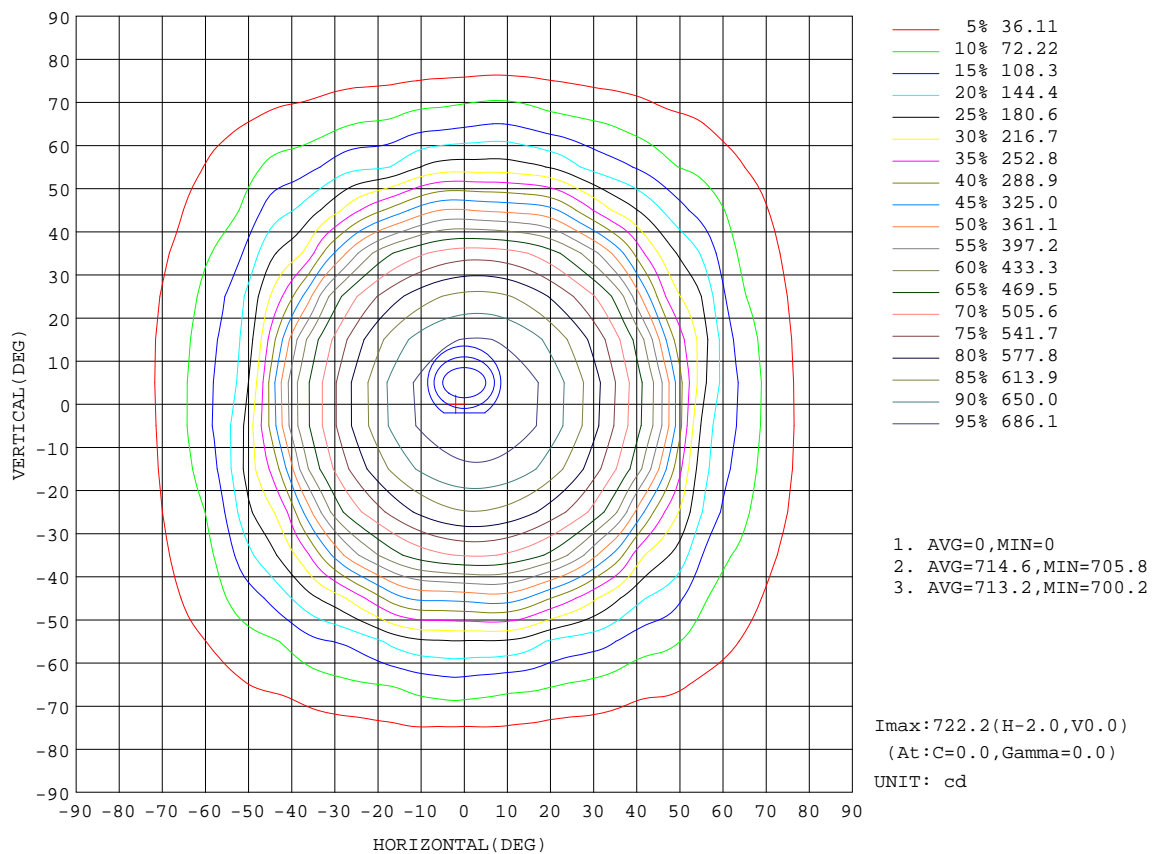
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	67	57	51	66	57	51	65	56	51	45
0.80	77	67	61	76	67	61	74	66	60	55
1.00	85	76	70	84	75	69	82	76	69	63
1.25	91	83	77	90	82	77	87	81	76	70
1.50	95	88	82	94	87	82	91	85	81	74
2.00	101	94	89	99	93	88	96	91	87	80
2.50	104	98	93	102	96	92	98	94	90	83
3.00	106	101	97	105	100	96	101	97	94	86
4.00	110	105	102	107	103	100	103	100	98	89
5.00	111	108	105	109	106	103	105	102	100	91
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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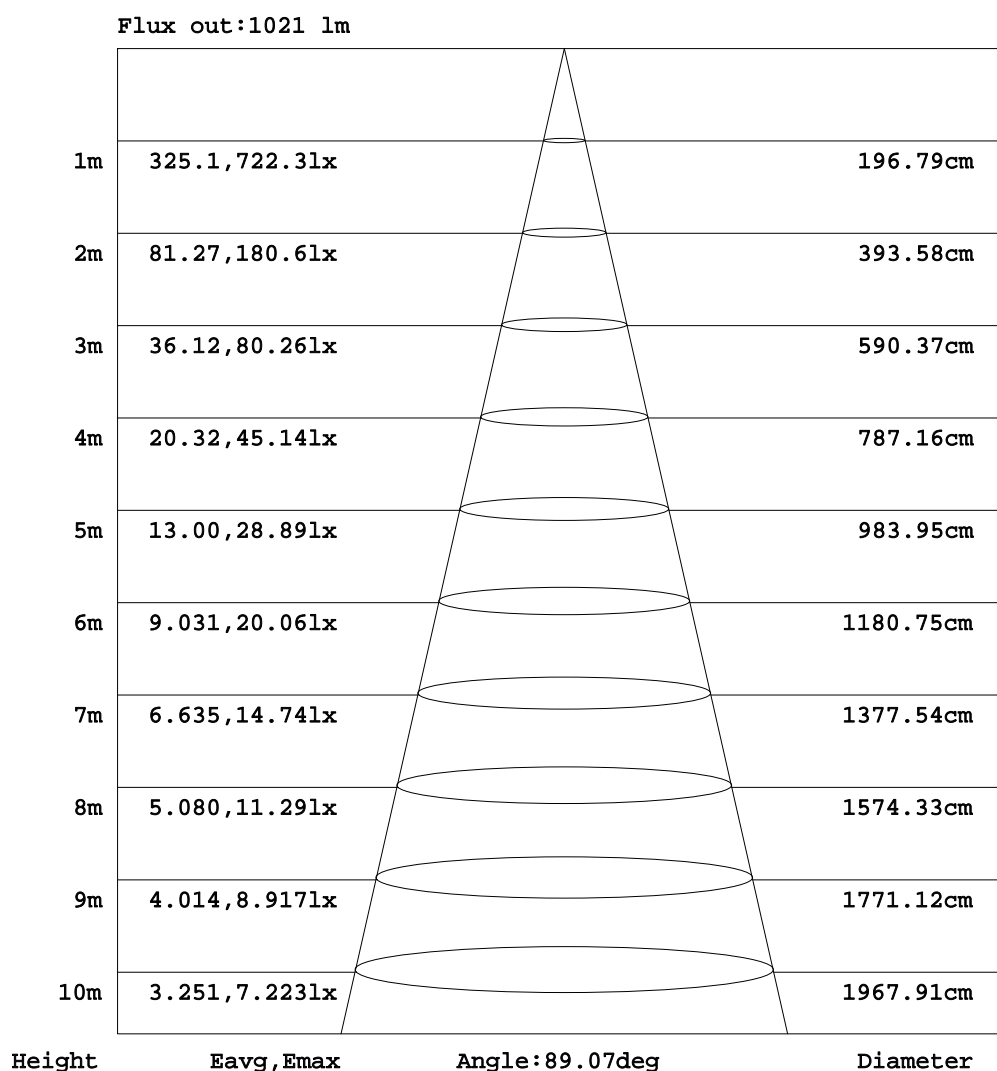


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AAI Figure

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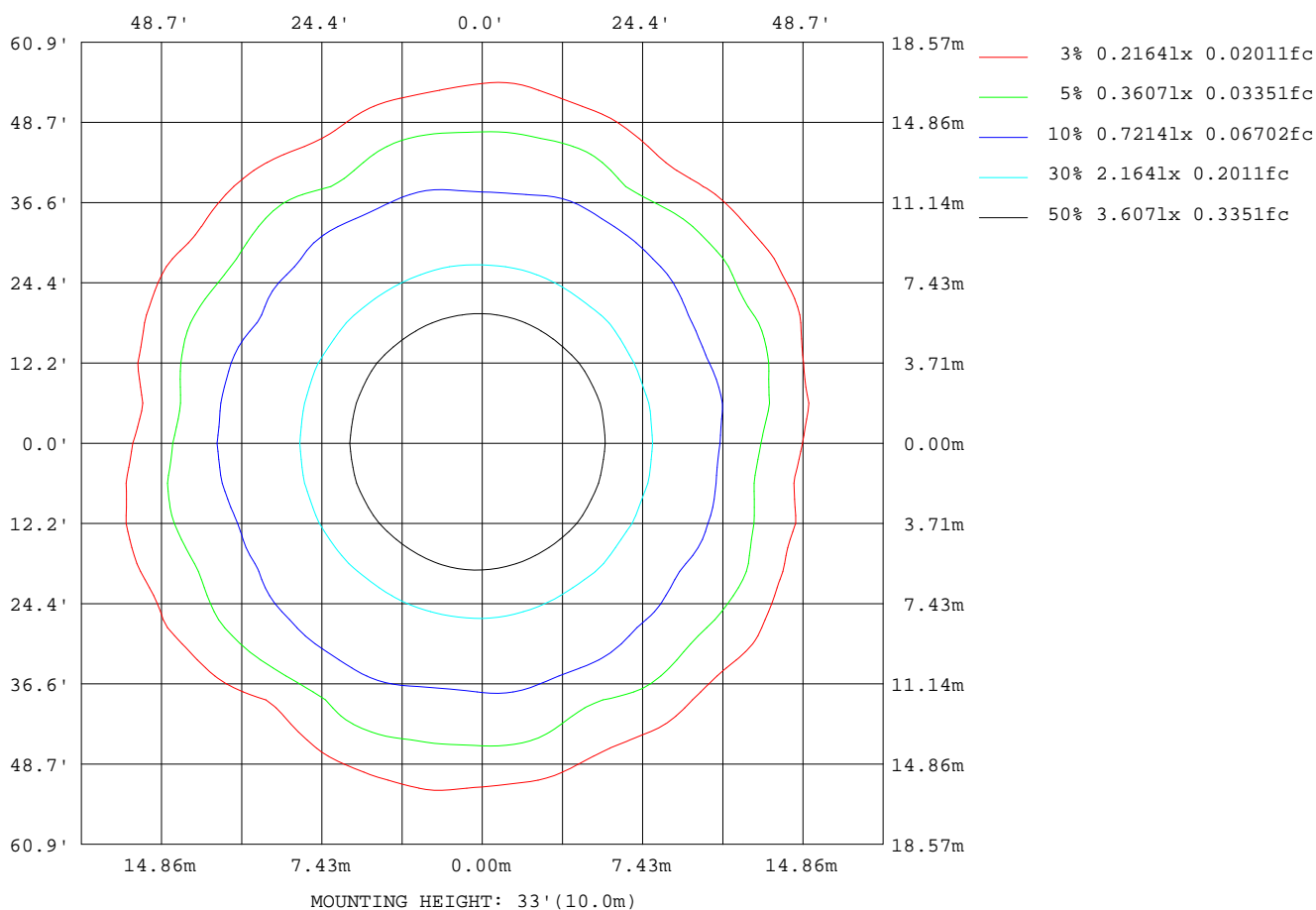
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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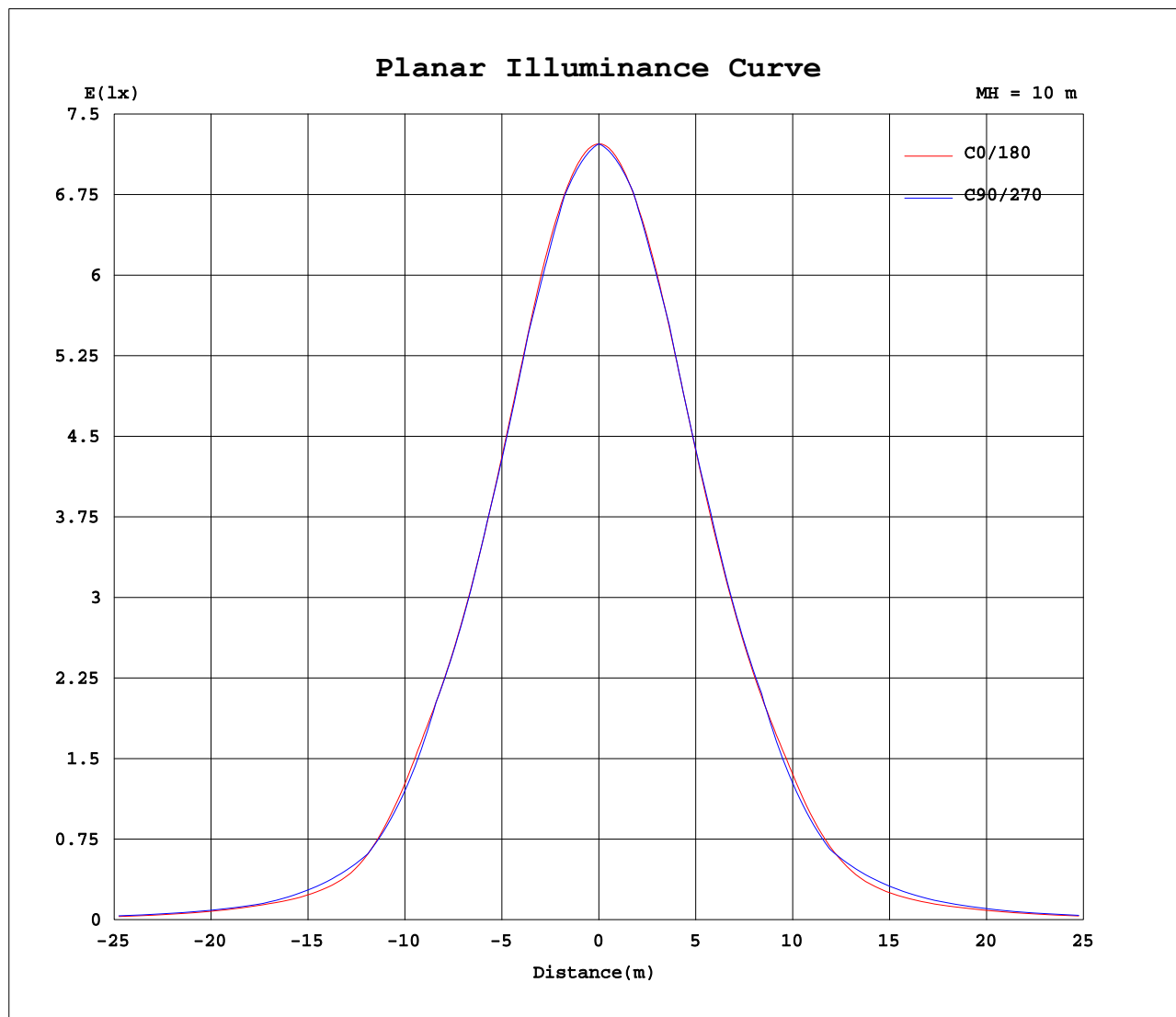
AvgL	cd/m2
L_0~180 (65) av	2055
L_0~180 (75) av	1305
L_0~180 (85) av	79
L_90~270 (65) av	2386
L_90~270 (75) av	1506
L_90~270 (85) av	0
L_45 (65) av	2069
L_45 (75) av	1321
L_45 (85) av	220

Standard: GB/T 29293-2012

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-04-15

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-04-15

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks: