

SUGAR-350-18W-830



Light Output Ratio:	100.0%	
Luminaire Power:	19.1 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

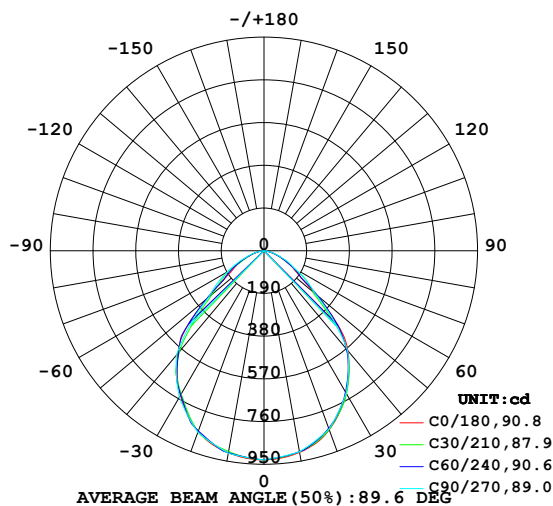
V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

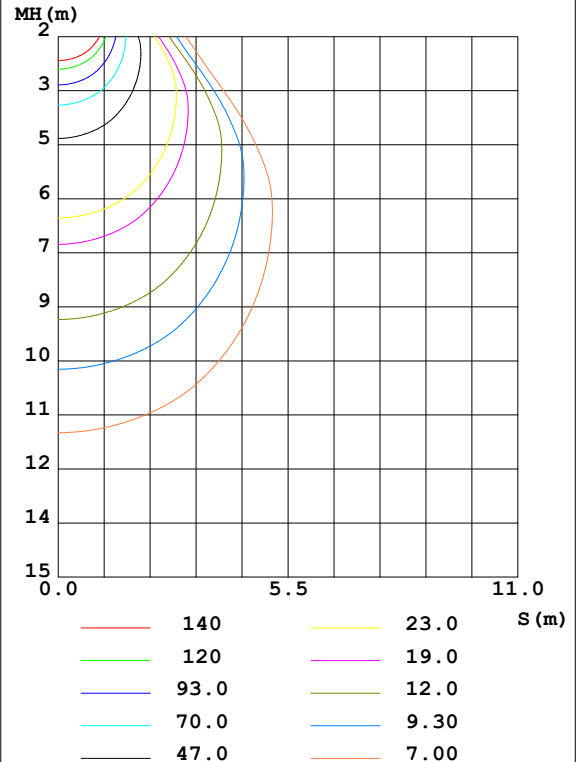
Test:U:220.9V I:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm		
NAME: SUGAR-350-18W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 96.58 lm/W			
MODEL	OSRAM-3000K	I _{max} (cd)	930.1	S/MH (C0/180)	1.19
NOMINAL POWER (W)	18	LOR (%)	100.0	S/MH (C90/270)	1.20
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	1844.3	η UP,DN (C0-180)	0.0,49.1
NOMINAL FLUX (lm)	1844.33	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.9
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	910.7	907.0	908.2	904.2	912.6	909.5	914.5	910.7	0- 10	87.58	87.58	4.75,4.75
20	847.7	843.8	844.5	836.8	855.6	847.7	859.9	853.6	10- 20	249.2	336.8	18.3,18.3
30	731.1	728.4	731.1	728.2	743.4	744.1	753.0	743.2	20- 30	366.5	703.3	38.1,38.1
40	580.7	570.9	578.9	584.9	595.8	597.9	606.1	599.3	30- 40	415.9	1119	60.7,60.7
50	296.8	290.9	297.2	339.0	331.3	319.7	319.7	344.2	40- 50	353.7	1473	79.9,79.9
60	144.9	144.0	156.9	158.3	152.9	174.8	187.9	164.2	50- 60	207.3	1680	91.1,91.1
70	64.37	67.92	73.07	70.26	72.24	70.57	82.49	76.26	60- 70	111.5	1792	97.1,97.1
80	13.69	16.22	16.90	16.88	19.10	21.92	22.91	19.56	70- 80	47.58	1839	99.7,99.7
90	0.1495	0	0	0	0.3154	0	0	0	80- 90	5.077	1844	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): 1315.2 lm

%lum = 71.3%

%lamp = 71.3%

Conical surface Flux(120deg): 1680.2 lm

%lum = 91.1%

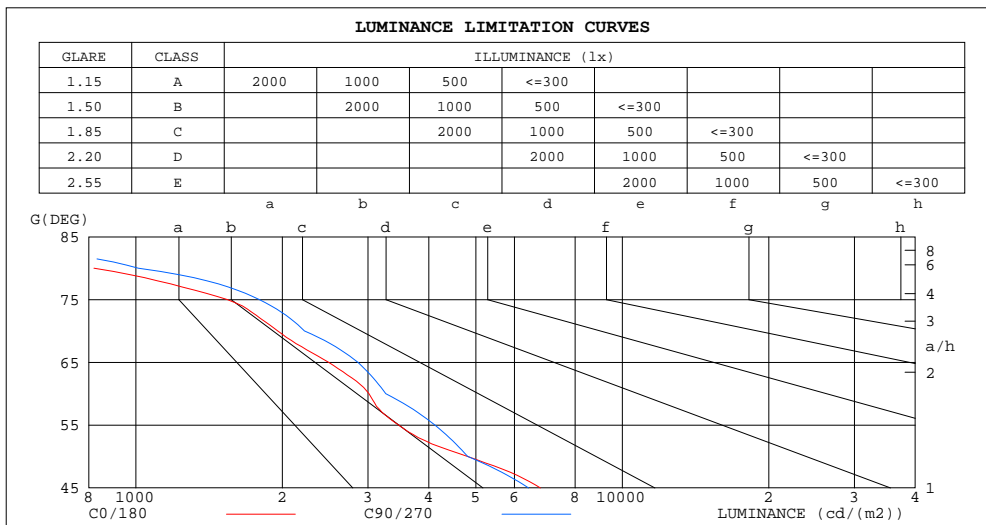
%lamp = 91.1%

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:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm		
NAME: SUGAR-350-18W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		



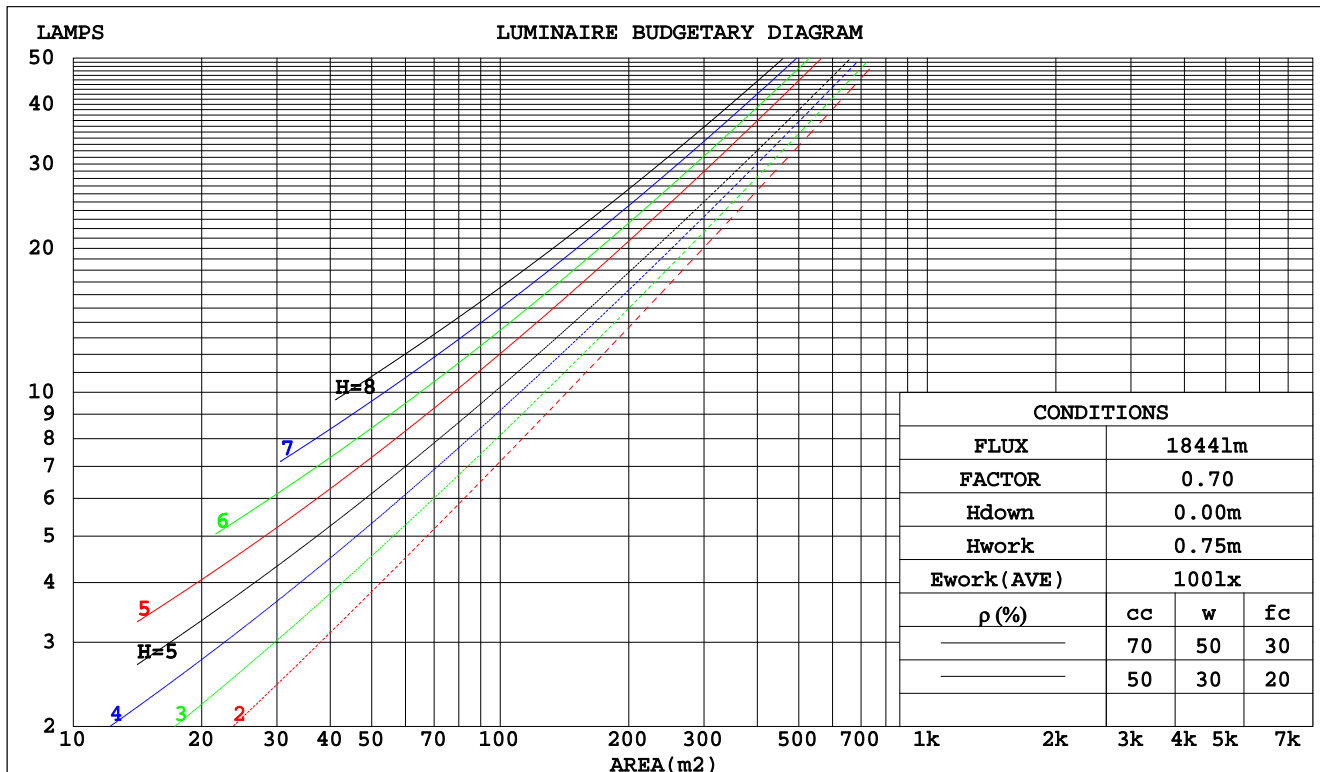
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-04-15

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.9V I:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm		
NAME: SUGAR-350-18W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		

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	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	.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	.69	.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



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:

WEC AND CCEC

Test:U:220.9V I:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm		
NAME: SUGAR-350-18W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	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:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm										
NAME: SUGAR-350-18W-830					TYPE:Ceiling light			SERIAL No.:		
SPEC.:3000K					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	16.0	15.0	16.2	16.4	14.8	16.2	15.1	16.3	16.5
3H	15.2	16.4	15.5	16.6	16.8	15.3	16.6	15.6	16.8	17.0
4H	15.3	16.4	15.6	16.7	16.9	15.5	16.6	15.8	16.9	17.1
6H	15.3	16.4	15.6	16.6	16.9	15.5	16.6	15.8	16.9	17.1
8H	15.3	16.3	15.6	16.6	16.9	15.5	16.5	15.8	16.8	17.1
12H	15.2	16.2	15.6	16.5	16.8	15.5	16.4	15.8	16.7	17.0
4H 2H	14.9	16.0	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	15.8	16.7	16.2	17.0	17.4
6H	15.8	16.6	16.2	16.9	17.3	15.9	16.7	16.3	17.0	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	15.8	16.6	16.3	16.9	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	15.9	16.5	16.4	16.9	17.3
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	16.2	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, 1844 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 2.1$)

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

$V(\beta)$ Range:-80 - 80DEG
 $V(\beta)$ 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:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm		
NAME: SUGAR-350-18W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: \varnothing 350mm*H105mm	
MFR.: NEKO LIGHTING AG		

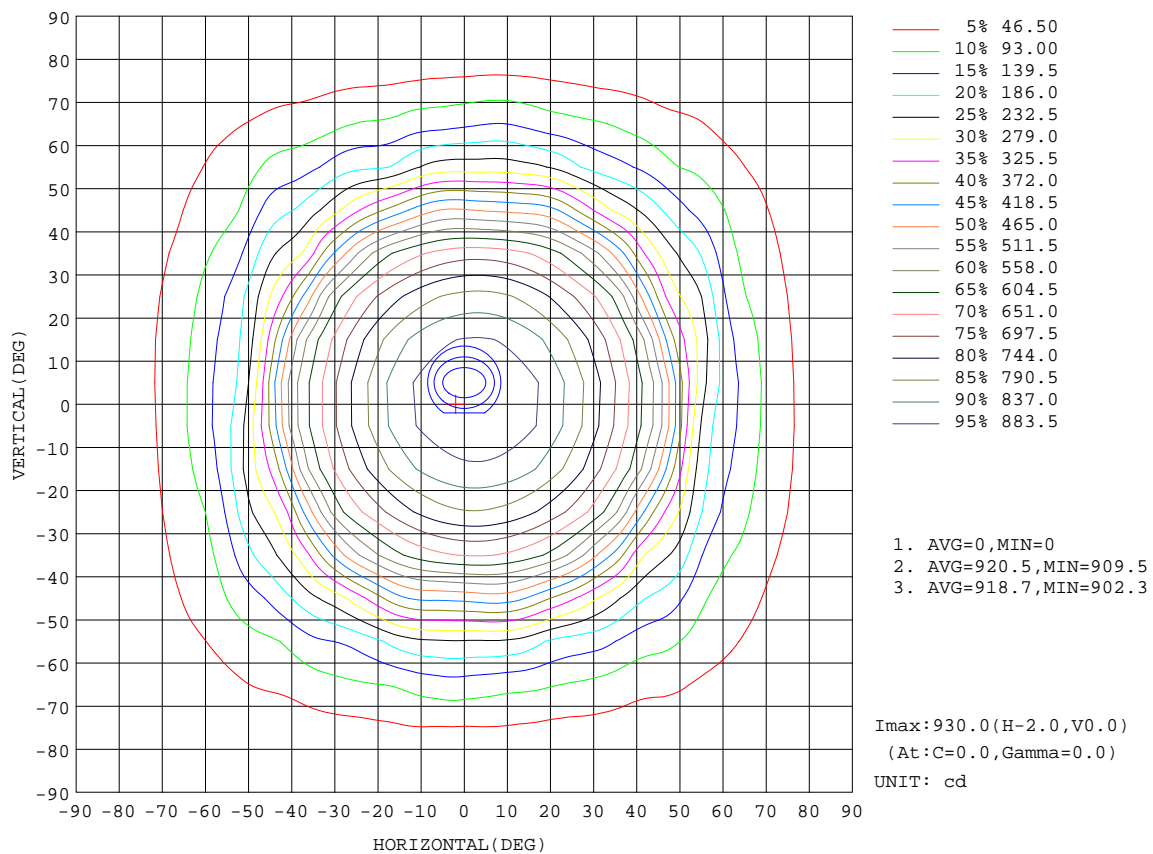
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	67	57	51	66	57	51	65	56	51	45
0.80	77	67	61	76	67	61	74	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	104	100	96	101	97	94	86
4.00	110	105	102	107	103	100	103	100	97	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		

$H(\beta)$ 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:

ISOCANDELA DIAGRAM

Test:U:220.9V I:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm		
NAME: SUGAR-350-18W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		



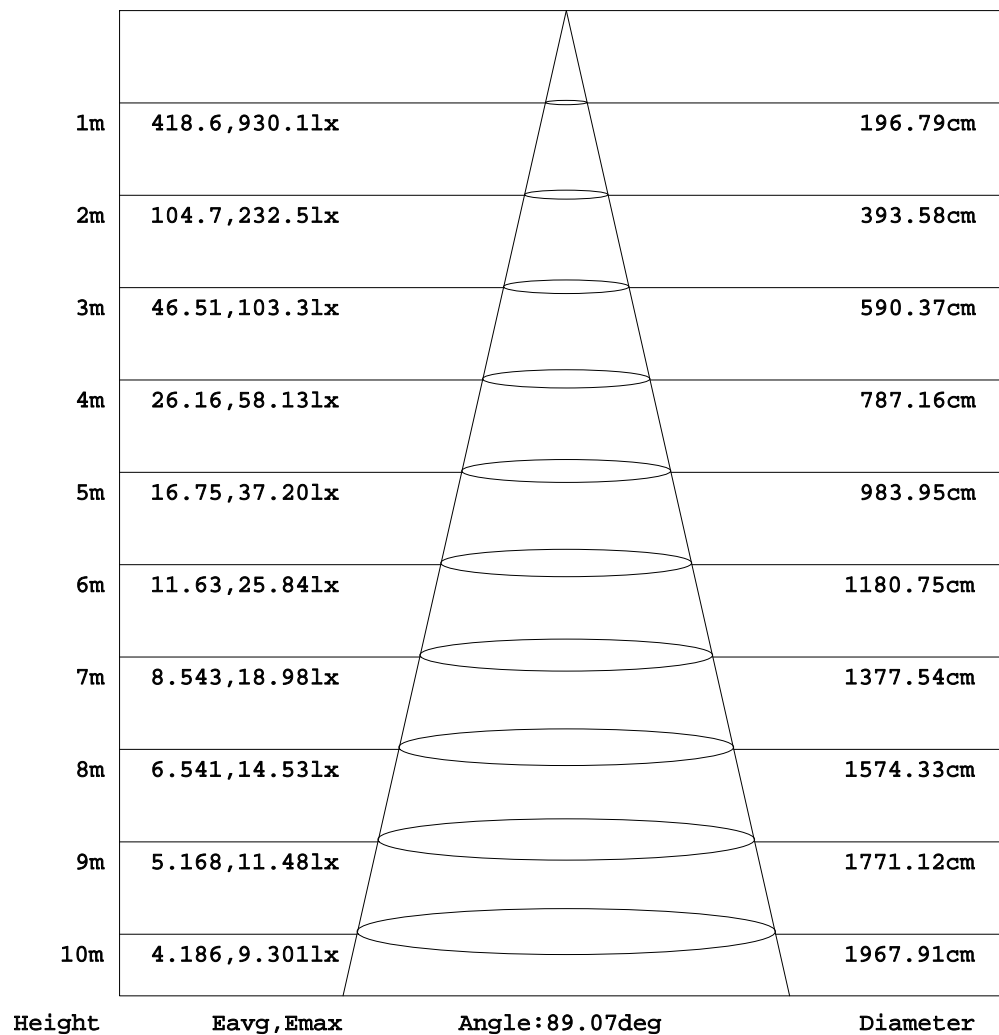
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-04-15

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:

AAI Figure

Test:U:220.9V I:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm		
NAME: SUGAR-350-18W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		

Flux out:1315 lm



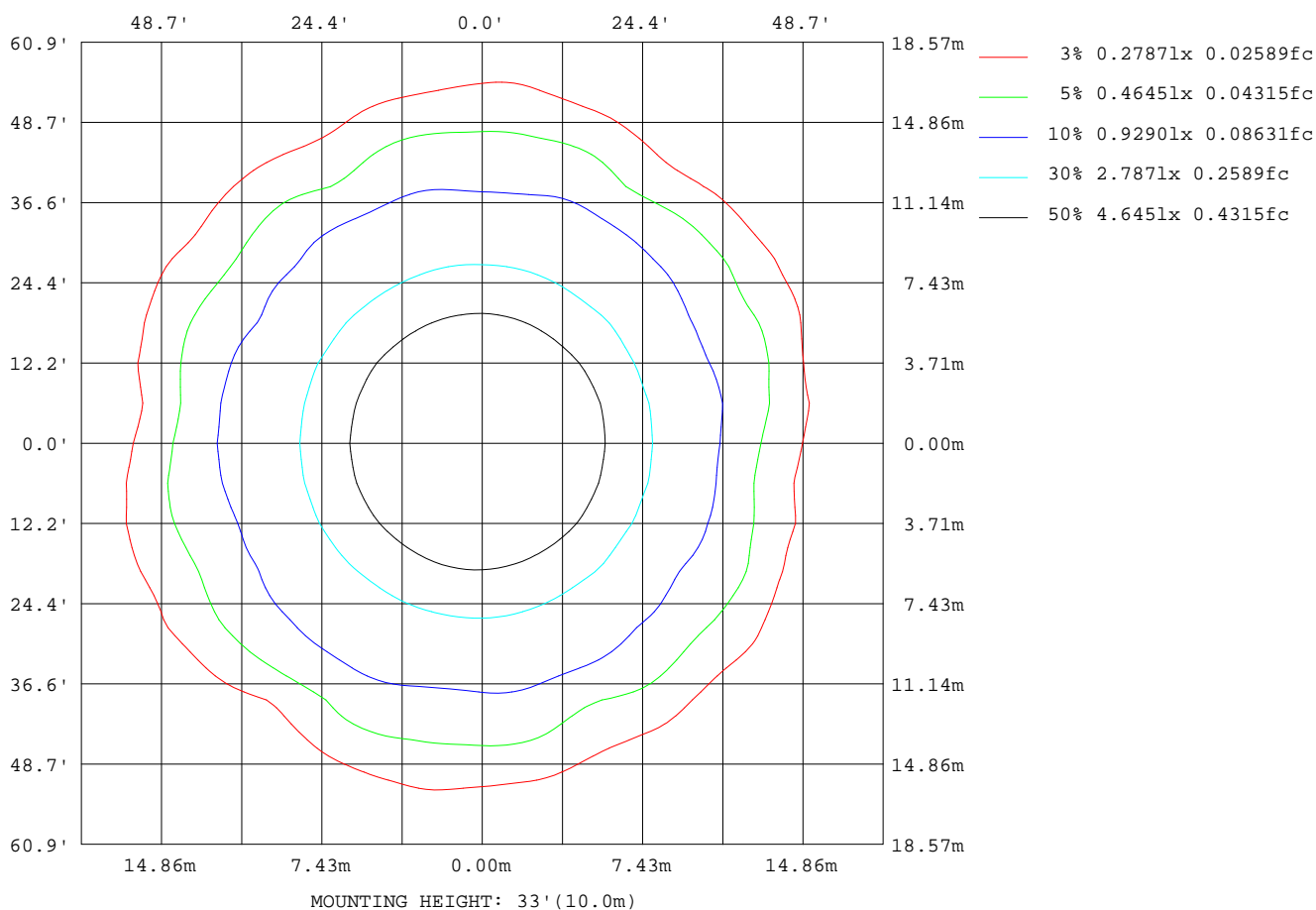
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:

ISOLUX DIAGRAM

Test:U:220.9V I:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm		
NAME: SUGAR-350-18W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		



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:

LED Avg.L Report

Test:U:220.9V I:0.0921A P:19.10W PF:0.9390 Freq:49.90Hz Lamp Flux:1844.33x1 lm		
NAME: SUGAR-350-18W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 350mm*H105mm	
MFR.: NEKO LIGHTING AG		

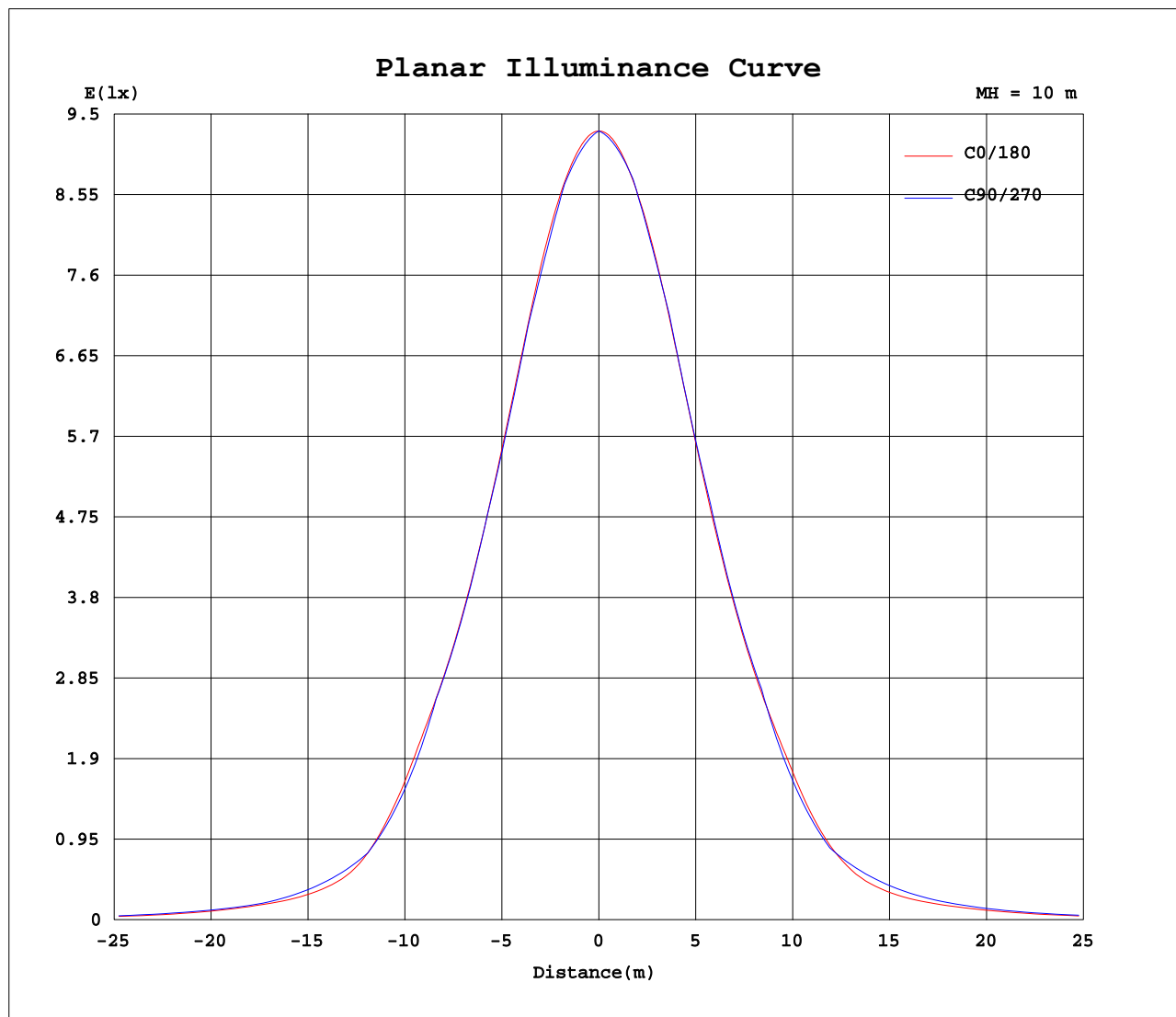
AvgL	cd/m2
L_0~180 (65) av	2645
L_0~180 (75) av	1681
L_0~180 (85) av	100
L_90~270 (65) av	3072
L_90~270 (75) av	1944
L_90~270 (85) av	0
L_45 (65) av	2669
L_45 (75) av	1704
L_45 (85) av	284

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: