

SUGAR-900-65W-830



Light Output Ratio:	100.0%	
Luminaire Power:	67.61 W	
SHR Nominal:	1.25	Calculated using the TM5
SHR Maximum:	1.30	fine grid method.

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

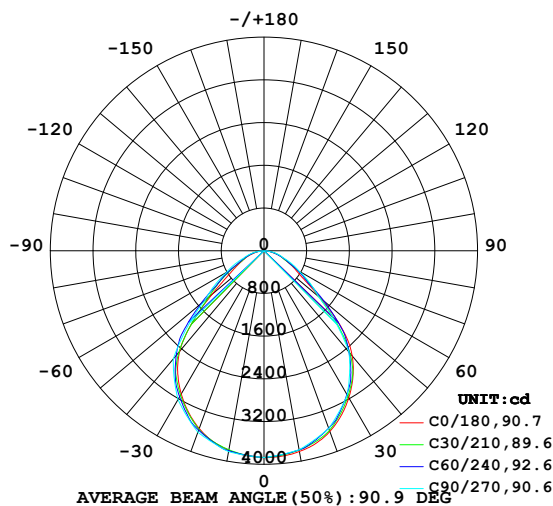
V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:56%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**LUMINAIRE PHOTOMETRIC TEST REPORT**

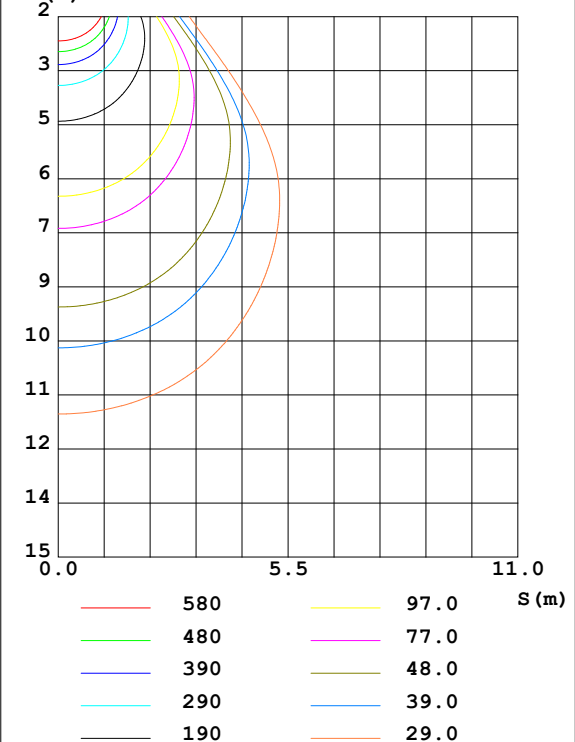
Test:U:220.9V I:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm		
NAME: SUGAR-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\varnothing$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 117.93 lm/W			
MODEL	OSRAM-3000K	I <sub>max</sub> (cd)	3874	S/MH (C0/180)	1.20
NOMINAL POWER (W)	65	LOR (%)	100.0	S/MH (C90/270)	1.23
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	7973.2	$\eta$ UP,DN (C0-180)	0.0,49.2
NOMINAL FLUX (lm)	7973.17	CIE CLASS	DIRECT	$\eta$ UP,DN (C180-360)	0.0,50.8
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	$\eta$ down (%)	100.0	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



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:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	3818	3786	3786	3769	3796	3791	3821	3815	0- 10	365.3	365.3	4.58,4.58
20	3603	3546	3541	3506	3545	3558	3617	3602	10- 20	1043	1409	17.7,17.7
30	3177	3133	3117	3067	3099	3156	3218	3198	20- 30	1551	2960	37.1,37.1
40	2573	2532	2477	2411	2455	2545	2642	2609	30- 40	1782	4741	59.5,59.5
50	1387	1358	1326	1278	1270	1363	1446	1470	40- 50	1510	6251	78.4,78.4
60	655.6	754.0	752.1	630.2	613.7	764.3	812.6	698.9	50- 60	890.7	7142	89.6,89.6
70	356.6	370.4	378.6	347.8	344.9	384.2	407.6	367.7	60- 70	502.8	7645	95.9,95.9
80	146.5	159.2	173.8	144.7	139.6	169.3	184.7	161.3	70- 80	272.3	7917	99.3,99.3
90	0.7674	0	0	0	1.175	0	0	0	80- 90	56.37	7973	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): 5575.9 lm

%lum = 69.9%

%lamp = 69.9%

Conical surface Flux(120deg): 7141.7 lm

%lum = 89.6%

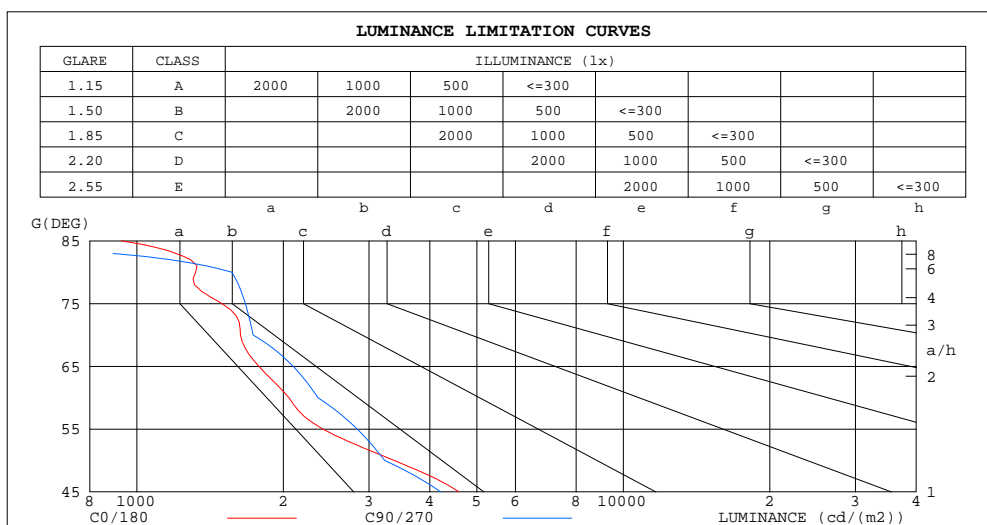
%lamp = 89.6%

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:

### LUMINANCE LIMITATION CURVES

Test:U:220.9V I:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm		
NAME: SUGAR-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	929	0
80	1321	1568
75	1495	1671
70	1633	1734
65	1782	2095
60	2053	2356
55	2411	2837
50	3379	3231
45	4595	4212

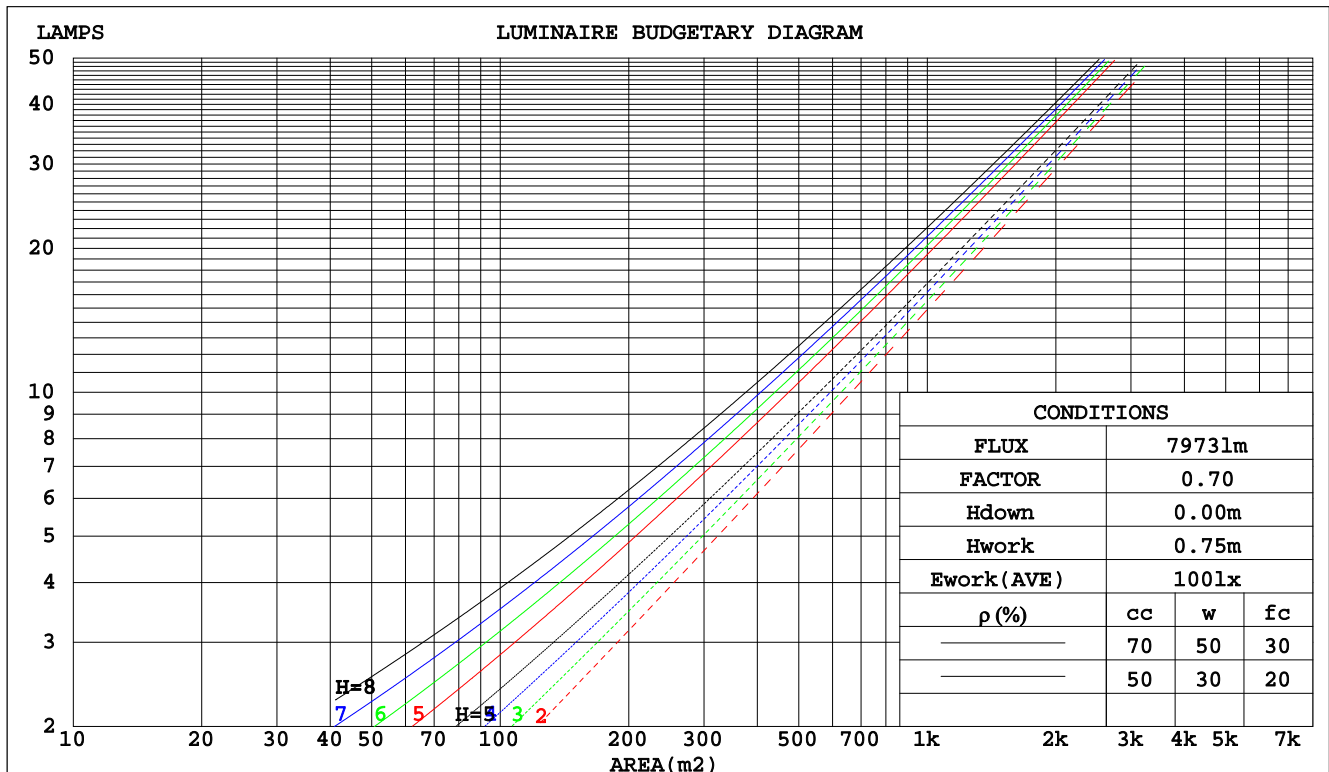
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-04-15

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:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:220.9V I:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm		
NAME: SUGAR-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\varnothing$ 900mm*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	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	1.03	1.00	1.05	1.01	.98	1.00	.98	.95	.97	.94	.92	.93	.91	.90	.88
2.0	.95	.90	.85	.94	.88	.84	.90	.86	.82	.87	.83	.80	.84	.81	.78	.76
3.0	.85	.78	.73	.84	.77	.72	.81	.76	.71	.78	.74	.70	.76	.72	.69	.67
4.0	.77	.69	.63	.76	.69	.63	.73	.67	.62	.71	.66	.61	.69	.64	.61	.59
5.0	.70	.62	.56	.69	.61	.56	.67	.60	.55	.65	.59	.54	.63	.58	.54	.52
6.0	.64	.55	.50	.63	.55	.49	.61	.54	.49	.59	.53	.49	.58	.52	.48	.46
7.0	.58	.50	.45	.57	.50	.44	.56	.49	.44	.54	.48	.44	.53	.48	.44	.42
8.0	.53	.46	.40	.53	.45	.40	.51	.45	.40	.50	.44	.40	.49	.44	.39	.38
9.0	.49	.42	.37	.49	.41	.36	.48	.41	.36	.47	.41	.36	.46	.40	.36	.34
10.0	.46	.38	.33	.45	.38	.33	.44	.38	.33	.43	.37	.33	.42	.37	.33	.31



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:

## WEC AND CCEC

Test:U:220.9V I:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm		
NAME: SUGAR-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\varnothing$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

$\rho_{cc}$	80%			70%			50%			30%			10%			0	
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
$\rho_{fc}$	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.255	.145	.046	.248	.141	.045	.235	.135	.043	.223	.128	.041	.212	.123	.040		
2.0	.245	.134	.041	.239	.132	.041	.228	.127	.039	.217	.122	.038	.208	.117	.037		
3.0	.231	.123	.037	.226	.121	.036	.216	.117	.036	.207	.113	.035	.198	.110	.034		
4.0	.217	.113	.033	.212	.111	.033	.203	.108	.032	.195	.105	.032	.188	.102	.031		
5.0	.203	.104	.030	.199	.102	.030	.192	.100	.029	.184	.097	.029	.178	.095	.029		
6.0	.191	.096	.027	.187	.095	.027	.180	.093	.027	.174	.090	.027	.168	.088	.026		
7.0	.180	.089	.025	.176	.088	.025	.170	.086	.025	.165	.084	.025	.159	.083	.024		
8.0	.169	.083	.023	.167	.082	.023	.161	.080	.023	.156	.079	.023	.151	.078	.023		
9.0	.160	.077	.022	.158	.077	.022	.153	.075	.021	.148	.074	.021	.144	.073	.021		
10.0	.152	.073	.020	.149	.072	.020	.145	.071	.020	.141	.070	.020	.137	.069	.020		

$\rho_{cc}$	80%			70%			50%			30%			10%			0
$\rho_w$	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
$\rho_{fc}$	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	.139	.151	.134	.119	.103	.092	.083	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.157	.114	.080	.135	.098	.069	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.039	.051	.035	.023	.016	.012	.008	
5.0	.141	.090	.051	.121	.077	.045	.084	.054	.031	.048	.032	.019	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.128	.074	.036	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.122	.068	.031	.105	.059	.027	.073	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.038	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.096	.051	.021	.067	.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:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm										
NAME: SUGAR-900-65W-830					TYPE:Ceiling light			SERIAL No.:		
SPEC.:3000K					DIM.: $\phi$ 900mm*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	8.4	9.7	8.7	9.9	10.1	8.7	10.0	8.9	10.2	10.4
3H	9.0	10.2	9.2	10.4	10.6	9.3	10.5	9.6	10.8	11.0
4H	9.2	10.4	9.5	10.6	10.9	9.6	10.7	9.9	11.0	11.2
6H	9.4	10.5	9.7	10.7	11.0	9.8	10.9	10.1	11.2	11.4
8H	9.4	10.5	9.7	10.7	11.0	9.9	10.9	10.2	11.2	11.5
12H	9.4	10.4	9.8	10.7	11.0	9.8	10.8	10.2	11.1	11.4
4H 2H	8.7	9.8	9.0	10.1	10.3	8.9	10.0	9.2	10.3	10.5
3H	9.4	10.4	9.8	10.7	11.0	9.7	10.7	10.0	11.0	11.3
4H	9.8	10.7	10.2	11.0	11.3	10.1	11.0	10.4	11.3	11.6
6H	10.0	10.9	10.4	11.2	11.6	10.4	11.2	10.8	11.6	11.9
8H	10.1	10.9	10.5	11.2	11.6	10.5	11.2	10.9	11.6	12.0
12H	10.1	10.8	10.6	11.2	11.6	10.5	11.1	10.9	11.5	11.9
8H 4H	9.9	10.7	10.4	11.1	11.4	10.2	11.0	10.6	11.3	11.7
6H	10.3	10.9	10.8	11.3	11.8	10.6	11.3	11.1	11.7	12.1
8H	10.5	11.0	10.9	11.4	11.9	10.8	11.3	11.2	11.7	12.2
12H	10.5	11.0	11.0	11.4	11.9	10.7	11.2	11.2	11.7	12.1
12H 4H	9.9	10.6	10.4	11.0	11.4	10.2	10.9	10.6	11.3	11.7
6H	10.4	10.9	10.8	11.3	11.8	10.7	11.2	11.1	11.6	12.1
8H	10.5	11.0	11.0	11.4	11.9	10.8	11.3	11.3	11.7	12.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 0.7					+ 0.5 / - 0.6				
1.5H	+ 0.5 / - 0.5					+ 0.4 / - 0.6				
2.0H	+ 1.7 / - 1.1					+ 1.4 / - 1.1				

CIE Pub.117, 7973 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = 7.2$ )

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:

### UTILIZATION FACTORS TABLE

Test:U:220.9V I:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm		
NAME: SUGAR-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\varnothing 900\text{mm} \times H105\text{mm}$	
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) $k(RI) \times RCR = 5$									
$k = 0.60$	66	56	50	65	56	50	64	55	50	44
0.80	76	66	60	75	66	60	74	65	59	54
1.00	84	75	69	83	74	68	81	75	68	62
1.25	90	82	76	89	81	75	87	80	75	69
1.50	95	87	81	93	86	81	90	84	79	73
2.00	100	93	88	99	92	87	95	90	86	79
2.50	103	97	92	101	96	91	98	93	89	82
3.00	106	100	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	99	103	100	97	89
5.00	111	107	104	109	105	102	104	102	99	91
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

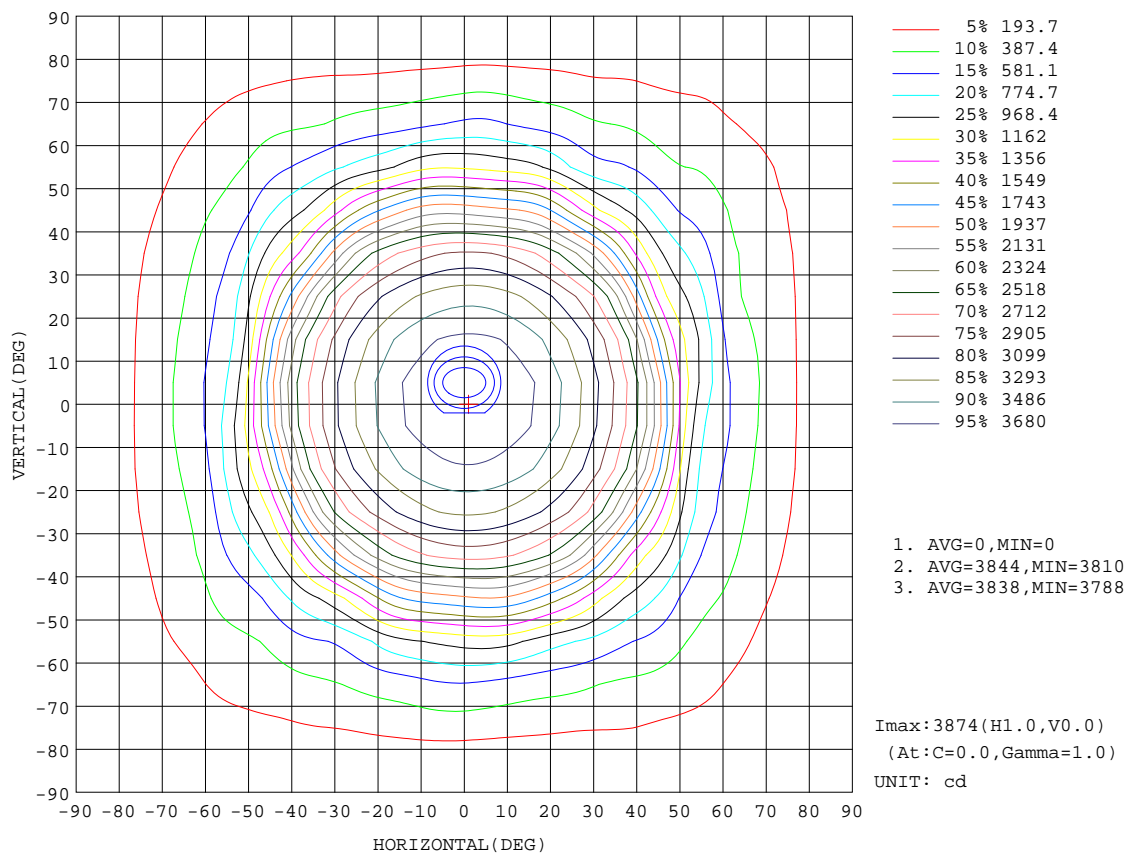
$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:Myles  
 Test Date:2019-04-15

$V(B)$  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:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm		
NAME: SUGAR-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		



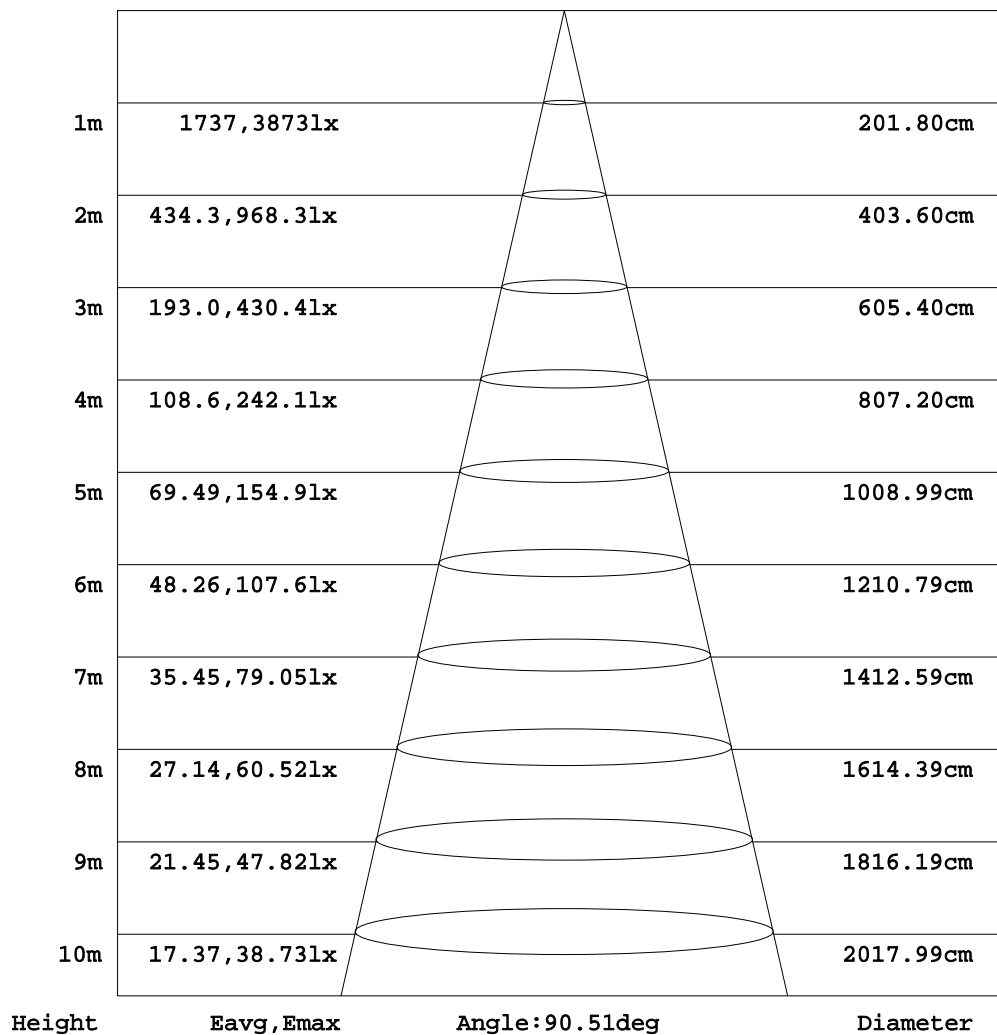
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Myles  
Test Date:2019-04-15

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:

**AAI Figure**

Test:U:220.9V I:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm		
NAME: SUGAR-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

Flux out:5652 lm



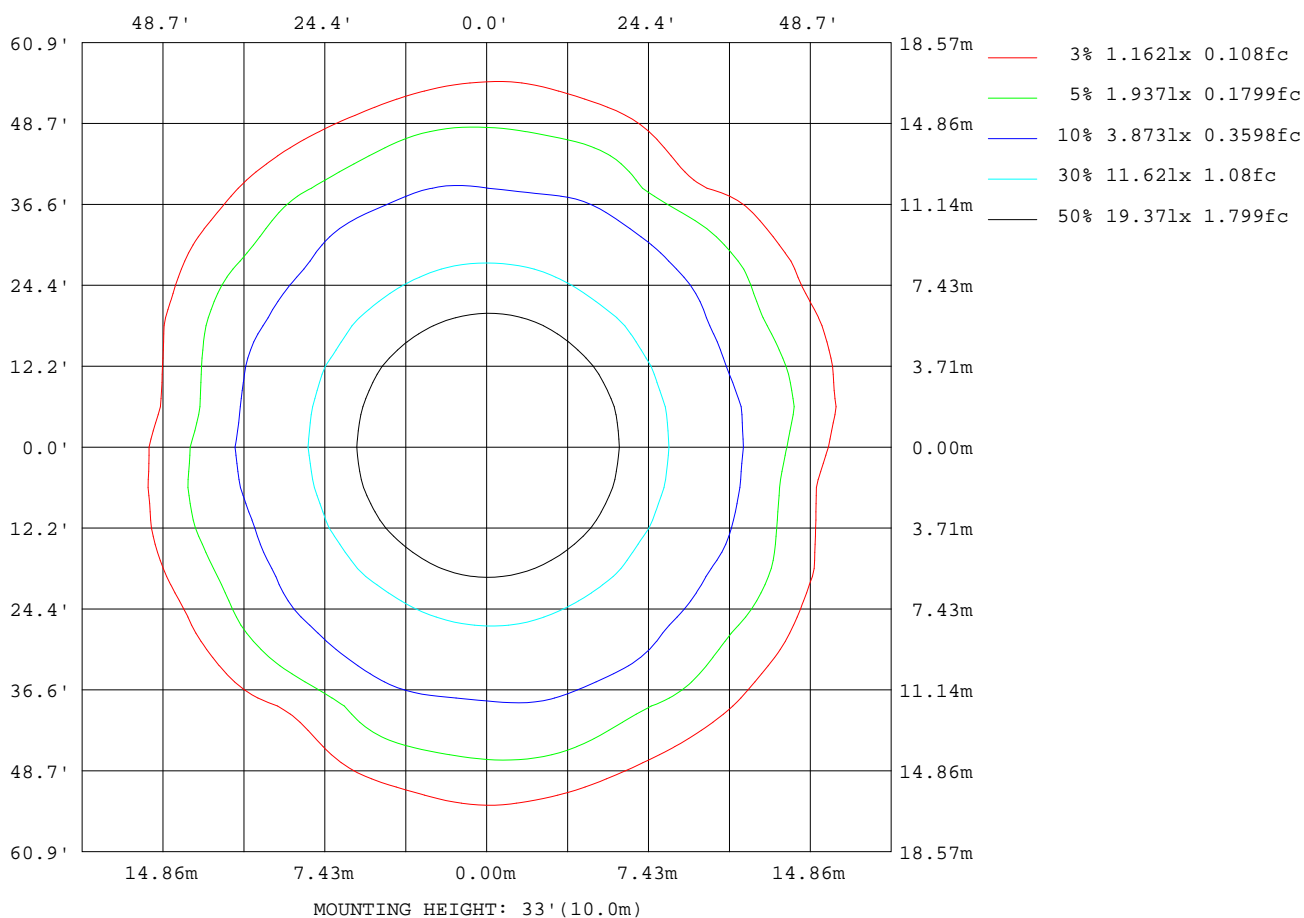
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:

**ISOLUX DIAGRAM**

Test:U:220.9V I:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm		
NAME: SUGAR-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		



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:

### LED Avg.L Report

Test:U:220.9V I:0.3107A P:67.61W PF:0.9853 Freq:49.89Hz Lamp Flux:7973.17x1 lm		
NAME: SUGAR-900-65W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: $\phi$ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

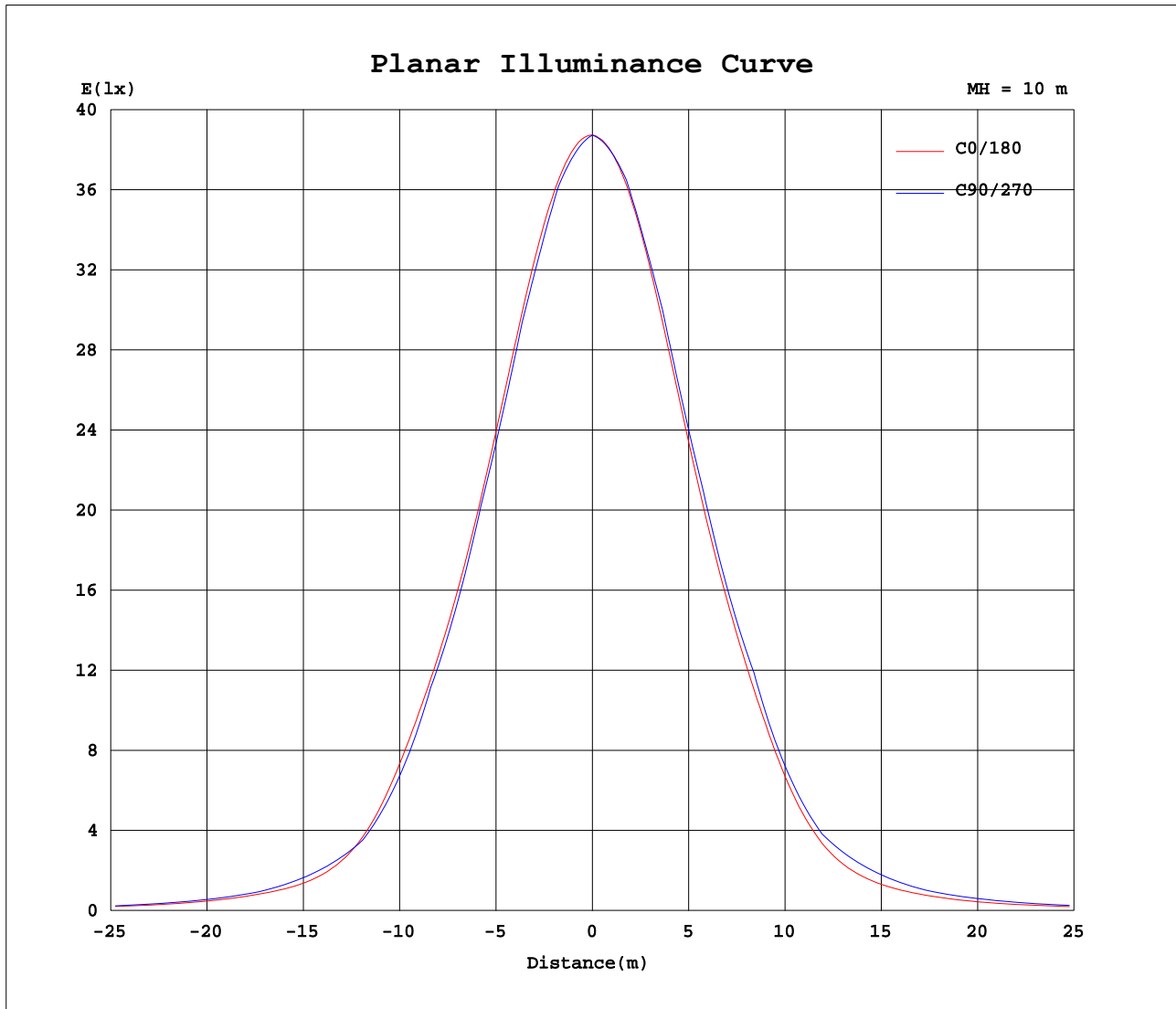
AvgL	cd/m2
L_0~180 (65) av	1725
L_0~180 (75) av	1431
L_0~180 (85) av	834
L_90~270 (65) av	2178
L_90~270 (75) av	1732
L_90~270 (85) av	0
L_45 (65) av	1896
L_45 (75) av	1549
L_45 (85) av	766

Standard: GB/T 29293-2012

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:

### Planar Illuminance Curve



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:

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: