

SUGAR-450-25W-830



Light Output Ratio:	100.0%	
Luminaire Power:	25.48 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:2019-01-05

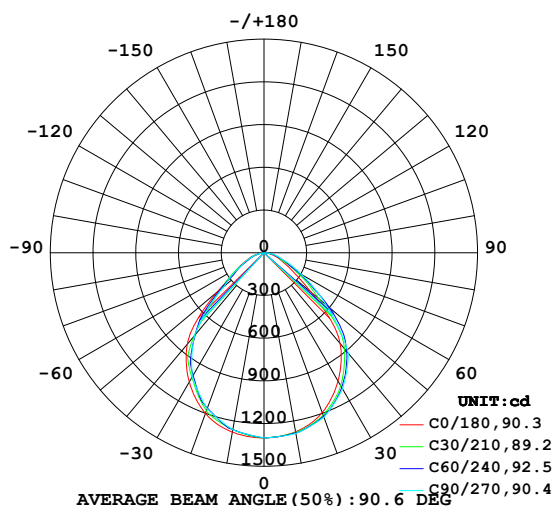
V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

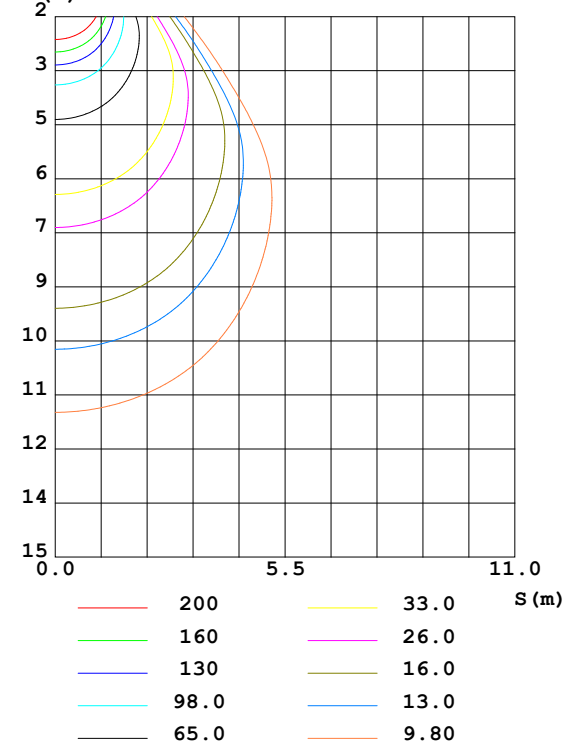
Test:U:220.9V I:0.1200A P:25.48W PF:0.9611 Freq:49.89Hz Lamp Flux:2605.75x1 lm		
NAME: SUGAR-450-25W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 450mm*H105mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 102.29 lm/W			
MODEL	OSRAM-3000K	I _{max} (cd)	1300	S/MH (C0/180)	1.20
NOMINAL POWER (W)	25	LOR (%)	100.0	S/MH (C90/270)	1.16
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2605.8	η UP,DN (C0-180)	0.0,53.4
NOMINAL FLUX (lm)	2605.75	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,46.6
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:2019-01-05

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	1276	1282	1289	1281	1279	1261	1263	1264	0- 10	122.6	122.6	4.7,4.7
20	1195	1218	1231	1208	1201	1161	1166	1171	10- 20	349.8	472.4	18.1,18.1
30	1040	1085	1104	1076	1049	1011	1006	1006	20- 30	518.0	990.4	38,38
40	831.5	897.6	922.8	883.2	838.4	783.0	759.1	773.4	30- 40	590.3	1581	60.7,60.7
50	433.1	511.7	564.4	527.2	426.5	392.2	361.9	353.7	40- 50	496.7	2077	79.7,79.7
60	199.8	278.0	297.4	238.4	203.1	194.6	185.1	180.8	50- 60	286.7	2364	90.7,90.7
70	104.8	132.8	131.8	119.3	105.3	95.18	92.48	90.18	60- 70	153.9	2518	96.6,96.6
80	34.31	60.48	60.19	50.47	34.97	23.41	17.40	22.86	70- 80	75.69	2594	99.5,99.5
90	0.2281	0	0	0	0.3787	0	0	0	80- 90	12.16	2606	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): 1855.8 lm

%lum = 71.2%

%lamp = 71.2%

Conical surface Flux(120deg): 2364 lm

%lum = 90.7%

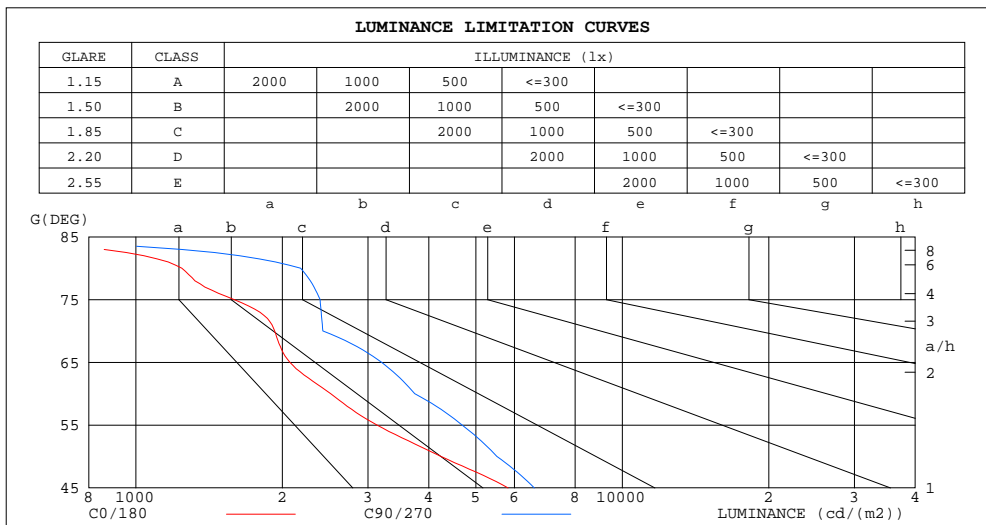
%lamp = 90.7%

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-01-05

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:0.1200A P:25.48W PF:0.9611 Freq:49.89Hz Lamp Flux:2605.75x1 lm		
NAME: SUGAR-450-25W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 450mm*H105mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	348	0
80	1243	2180
75	1591	2391
70	1928	2424
65	2072	3200
60	2514	3742
55	3130	4684
50	4238	5523
45	5823	6595

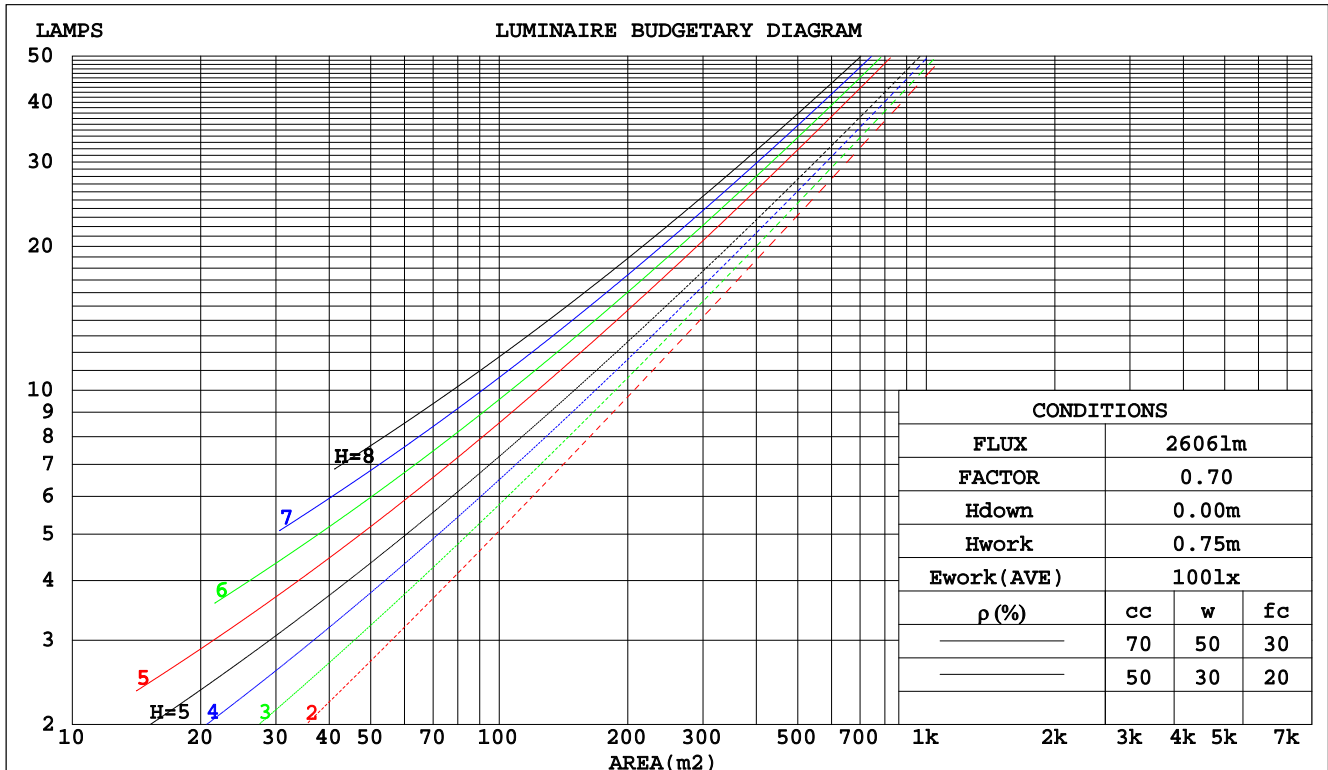
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Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-01-05

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:0.1200A P:25.48W PF:0.9611 Freq:49.89Hz Lamp Flux:2605.75x1 lm		
NAME: SUGAR-450-25W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 450mm*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	1.04	1.01	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88
2.0	.96	.90	.85	.94	.89	.84	.91	.86	.83	.87	.84	.81	.85	.82	.79	.77
3.0	.86	.79	.74	.85	.78	.73	.82	.76	.72	.79	.74	.71	.77	.73	.69	.67
4.0	.78	.70	.64	.76	.69	.64	.74	.68	.63	.72	.66	.62	.70	.65	.61	.59
5.0	.70	.63	.57	.69	.62	.56	.67	.61	.56	.65	.60	.55	.64	.59	.55	.53
6.0	.64	.56	.50	.63	.56	.50	.62	.55	.50	.60	.54	.49	.58	.53	.49	.47
7.0	.59	.51	.45	.58	.50	.45	.56	.50	.45	.55	.49	.45	.54	.48	.44	.42
8.0	.54	.46	.41	.53	.46	.41	.52	.45	.41	.51	.45	.40	.50	.44	.40	.38
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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Test Date:2019-01-05

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:0.1200A P:25.48W PF:0.9611 Freq:49.89Hz Lamp Flux:2605.75x1 lm		
NAME: SUGAR-450-25W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 450mm*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	.248	.141	.045	.241	.137	.044	.228	.131	.042	.216	.125	.040	.205	.119	.038		
2.0	.240	.131	.040	.234	.129	.040	.223	.124	.038	.212	.119	.037	.203	.115	.036		
3.0	.227	.121	.036	.222	.119	.036	.212	.115	.035	.203	.111	.034	.194	.108	.033		
4.0	.214	.111	.033	.209	.109	.032	.200	.106	.032	.192	.103	.031	.185	.100	.031		
5.0	.201	.102	.030	.197	.101	.029	.189	.098	.029	.182	.096	.029	.175	.094	.028		
6.0	.189	.095	.027	.185	.094	.027	.178	.091	.027	.172	.089	.026	.166	.087	.026		
7.0	.178	.088	.025	.175	.087	.025	.169	.085	.025	.163	.084	.024	.158	.082	.024		
8.0	.168	.082	.023	.165	.081	.023	.160	.080	.023	.155	.078	.023	.150	.077	.022		
9.0	.159	.077	.021	.156	.076	.021	.151	.075	.021	.147	.074	.021	.142	.072	.021		
10.0	.151	.072	.020	.148	.072	.020	.144	.070	.020	.140	.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	.139	.151	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.165	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.156	.114	.080	.134	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.148	.100	.064	.127	.087	.055	.087	.060	.039	.051	.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	.128	.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:2019-01-05

$V(B)$ 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:0.1200A P:25.48W PF:0.9611 Freq:49.89Hz Lamp Flux:2605.75x1 lm										
NAME: SUGAR-450-25W-830					TYPE:Ceiling light			SERIAL No.:		
SPEC.:3000K					DIM.: ϕ 450mm*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	13.6	14.9	13.9	15.1	15.3	14.8	16.1	15.1	16.3	16.5
3H	14.1	15.3	14.3	15.5	15.7	15.3	16.5	15.6	16.8	17.0
4H	14.2	15.4	14.5	15.6	15.9	15.5	16.7	15.8	16.9	17.2
6H	14.3	15.4	14.7	15.7	15.9	15.7	16.8	16.0	17.0	17.3
8H	14.3	15.4	14.7	15.6	15.9	15.7	16.8	16.1	17.0	17.3
12H	14.3	15.3	14.6	15.6	15.9	15.7	16.7	16.0	17.0	17.3
4H 2H	14.0	15.1	14.3	15.3	15.6	15.0	16.1	15.3	16.3	16.6
3H	14.6	15.6	14.9	15.9	16.2	15.6	16.6	16.0	16.9	17.2
4H	14.9	15.8	15.3	16.1	16.4	16.0	16.9	16.3	17.2	17.5
6H	15.1	15.9	15.5	16.2	16.6	16.3	17.1	16.7	17.4	17.8
8H	15.1	15.9	15.5	16.2	16.6	16.3	17.1	16.8	17.4	17.8
12H	15.1	15.8	15.5	16.2	16.6	16.3	17.0	16.7	17.4	17.8
8H 4H	15.1	15.8	15.5	16.2	16.5	16.1	16.8	16.5	17.2	17.5
6H	15.4	16.0	15.8	16.4	16.8	16.5	17.1	16.9	17.5	17.9
8H	15.5	16.0	15.9	16.4	16.9	16.6	17.1	17.1	17.6	18.0
12H	15.5	16.0	16.0	16.4	16.9	16.6	17.1	17.1	17.5	18.0
12H 4H	15.1	15.7	15.5	16.1	16.5	16.1	16.7	16.5	17.1	17.5
6H	15.4	16.0	15.9	16.4	16.8	16.5	17.1	17.0	17.5	17.9
8H	15.6	16.0	16.0	16.5	16.9	16.6	17.1	17.1	17.5	18.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.8 / - 0.8					+ 0.4 / - 0.4				
1.5H	+ 0.5 / - 0.8					+ 0.4 / - 0.4				
2.0H	+ 1.8 / - 1.5					+ 1.2 / - 1.5				

CIE Pub.117, 2606 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.3$)

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2019-01-05

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:0.1200A P:25.48W PF:0.9611 Freq:49.89Hz Lamp Flux:2605.75x1 lm		
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SPEC.:3000K	DIM.: ϕ 450mm*H105mm	
MFR.: NEKO LIGHTING AG		

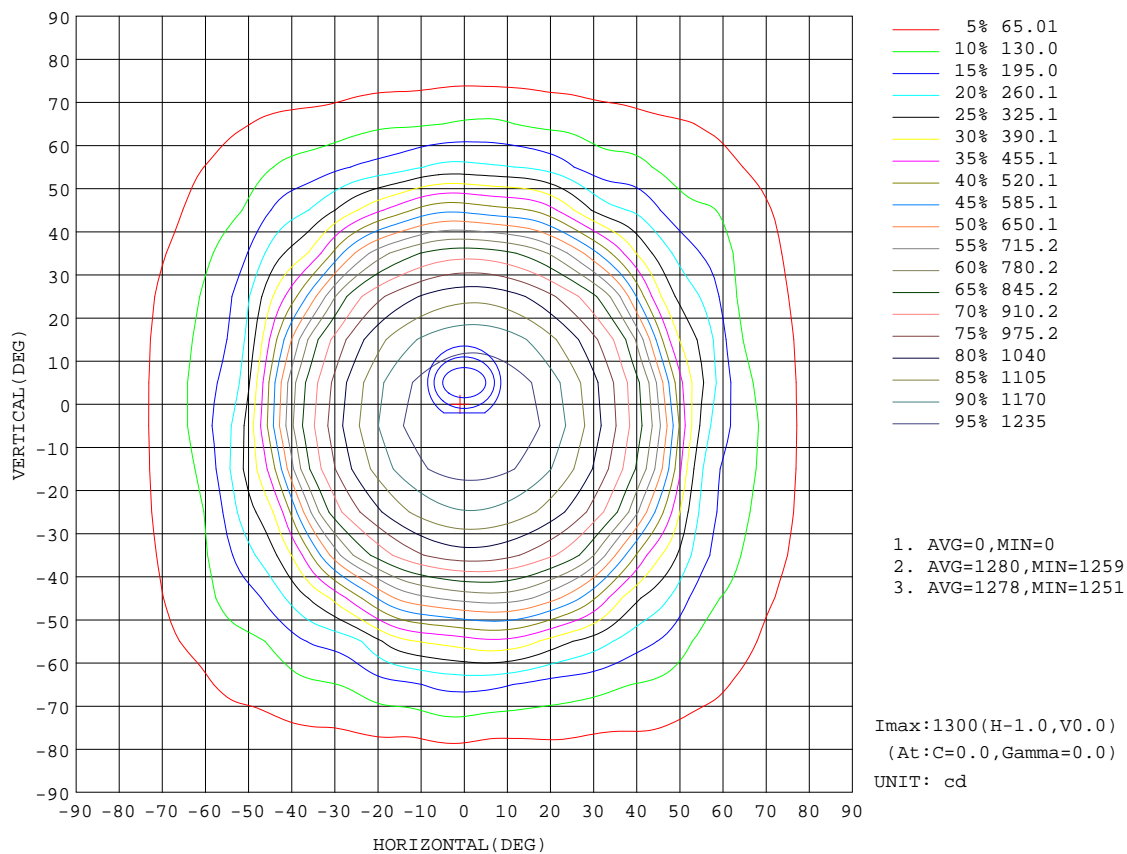
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	67	57	51	66	57	51	65	56	51	45
0.80	77	67	61	76	67	61	74	66	60	55
1.00	85	76	70	84	75	69	82	76	69	63
1.25	91	83	77	90	82	76	87	81	76	70
1.50	95	87	82	94	87	81	91	85	80	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	99	96	101	97	93	86
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	107	104	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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 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
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 Remarks:

ISOCANDELA DIAGRAM

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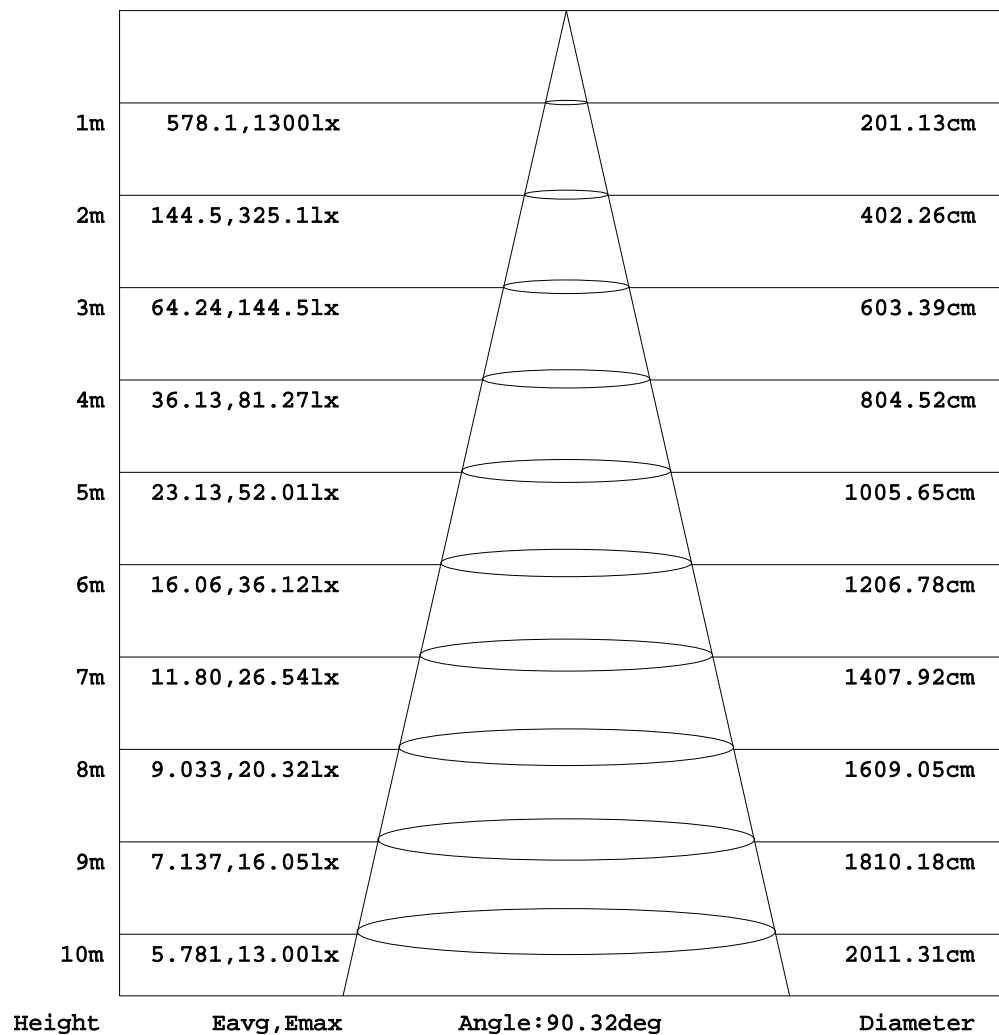
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AAI Figure

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NAME: SUGAR-450-25W-830	TYPE:Ceiling light	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 450mm*H105mm	
MFR.: NEKO LIGHTING AG		

Flux out:1881 lm



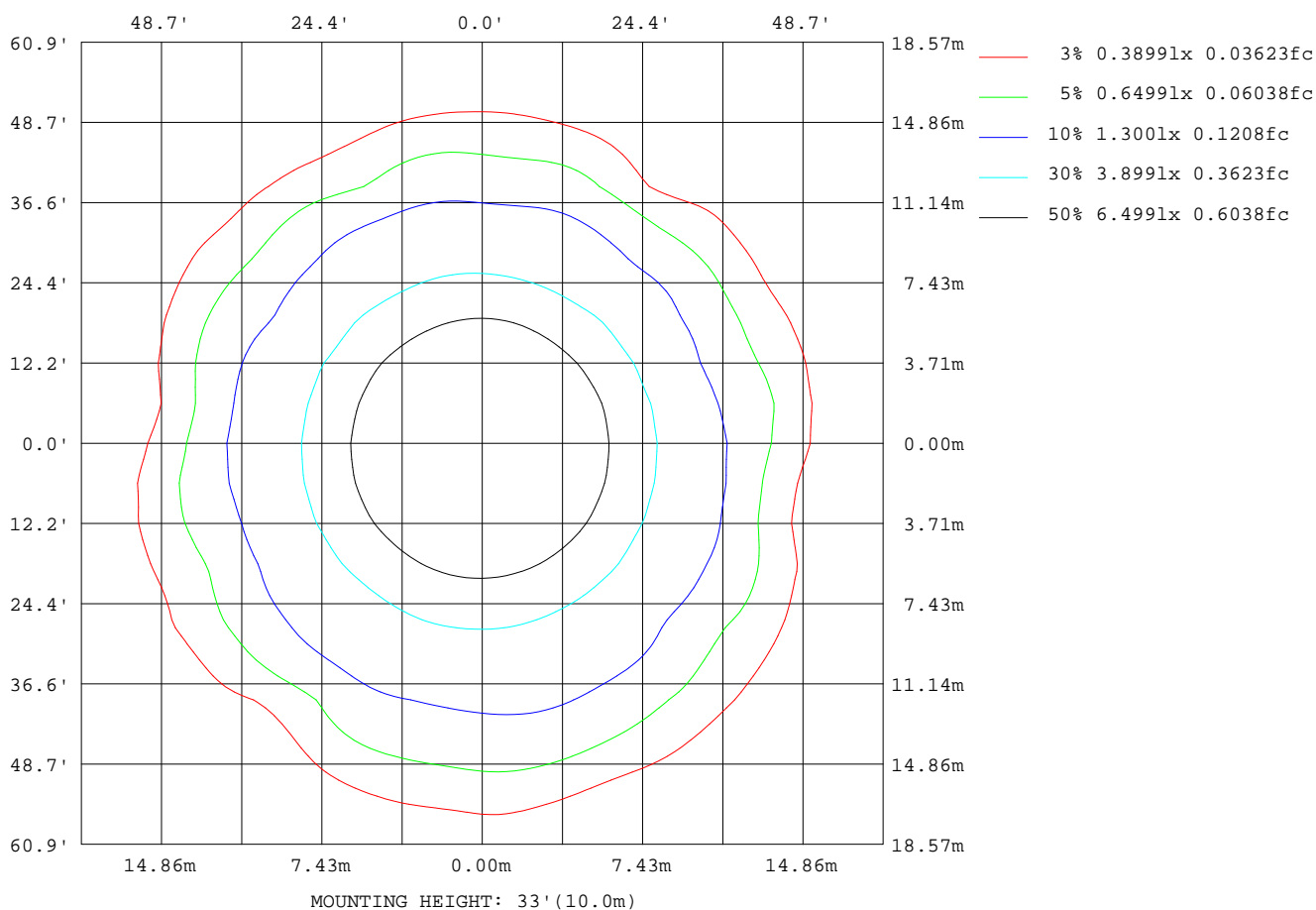
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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SPEC.:3000K	DIM.: ϕ 450mm*H105mm	
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LED Avg.L Report

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SPEC.:3000K	DIM.: ϕ 450mm*H105mm	
MFR.: NEKO LIGHTING AG		

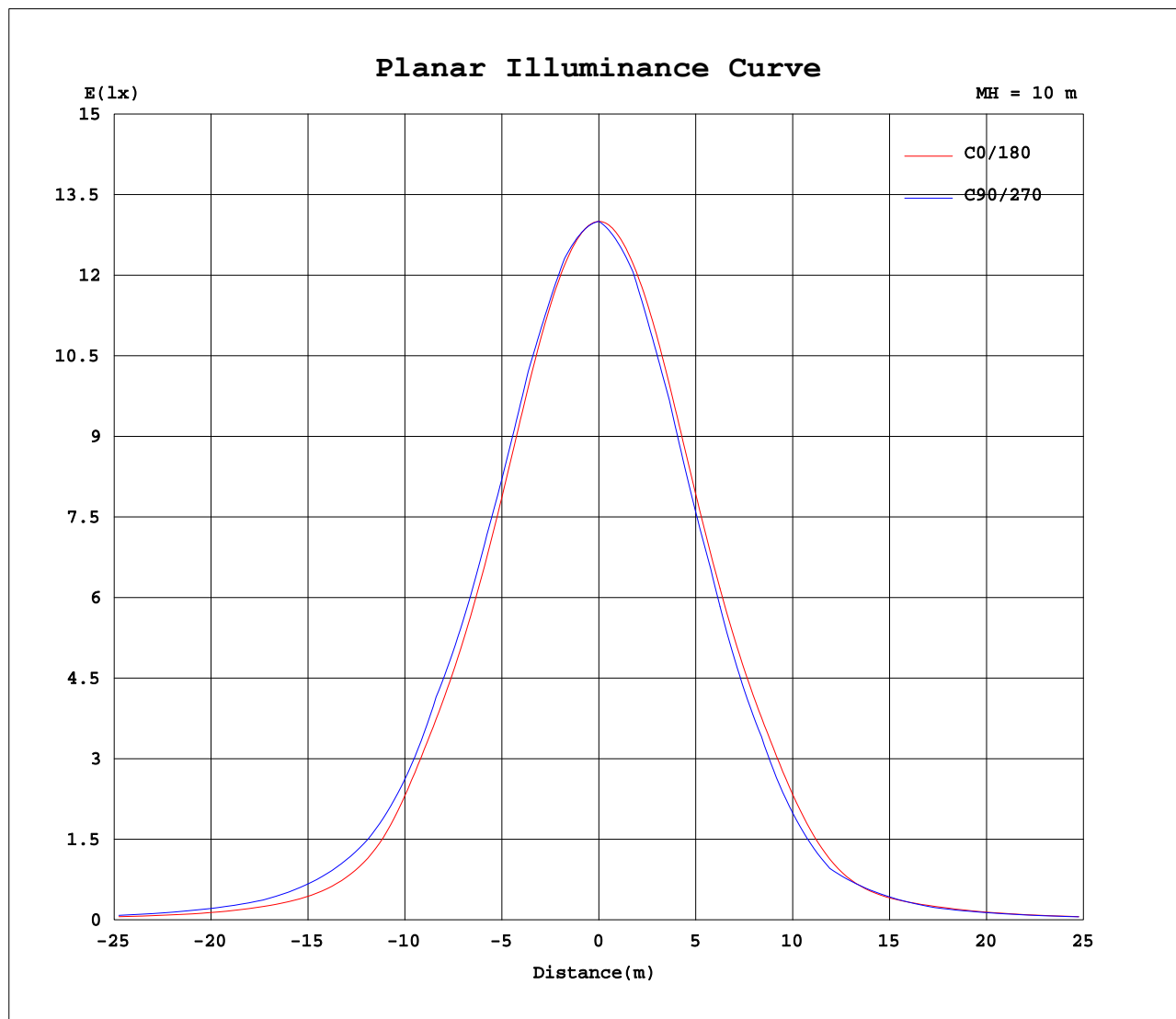
AvgL	cd/m2
L_0~180 (65) av	2122
L_0~180 (75) av	1611
L_0~180 (85) av	362
L_90~270 (65) av	2627
L_90~270 (75) av	1866
L_90~270 (85) av	0
L_45 (65) av	2350
L_45 (75) av	1771
L_45 (85) av	597

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:2019-01-05

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:2019-01-05

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:

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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:

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: