

SUGAR-900-65W-840



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

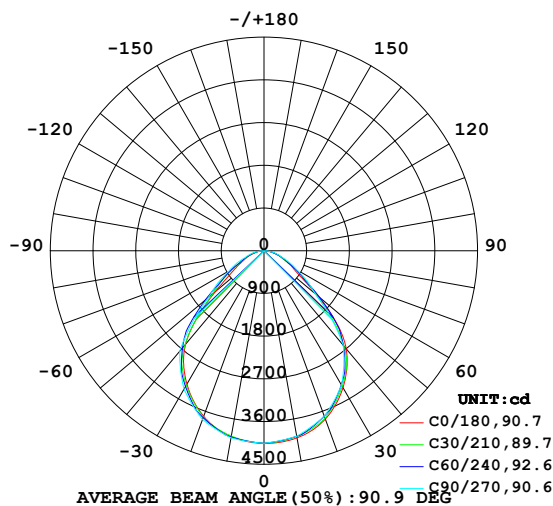
V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

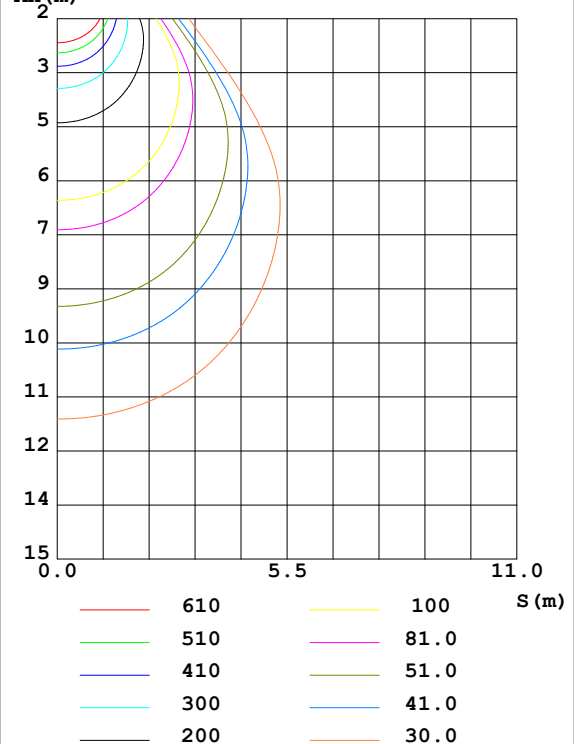
Test:U:220.9V I:0.3106A P:67.61W PF:0.9853 Freq:49.94Hz Lamp Flux:8355.22x1 lm		
NAME: SUGAR-900-65W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 123.58 lm/W			
MODEL	OSRAM-4000K	I _{max} (cd)	4058	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)	8355.2	η UP, DN (C0-180)	0.0, 49.2
NOMINAL FLUX (lm)	8355.22	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	4002	3969	3969	3951	3976	3972	4003	3996	0- 10	382.8	382.8	4.58,4.58
20	3776	3718	3713	3674	3713	3725	3786	3773	10- 20	1093	1476	17.7,17.7
30	3329	3286	3269	3216	3248	3303	3368	3349	20- 30	1625	3101	37.1,37.1
40	2695	2656	2599	2528	2572	2662	2761	2729	30- 40	1866	4968	59.5,59.5
50	1456	1428	1396	1344	1331	1431	1514	1536	40- 50	1582	6549	78.4,78.4
60	686.6	793.1	789.9	662.1	642.9	798.5	848.3	730.3	50- 60	934.2	7484	89.6,89.6
70	374.1	389.8	397.2	365.2	361.3	401.9	425.7	384.7	60- 70	527.2	8011	95.9,95.9
80	153.7	167.9	182.2	152.1	146.3	176.9	192.4	168.3	70- 80	285.3	8296	99.3,99.3
90	0.7981	0	0	0	1.234	0	0	0	80- 90	59.13	8355	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): 5841.7 lm

%lum = 69.9%

%lamp = 69.9%

Conical surface Flux(120deg): 7483.7 lm

%lum = 89.6%

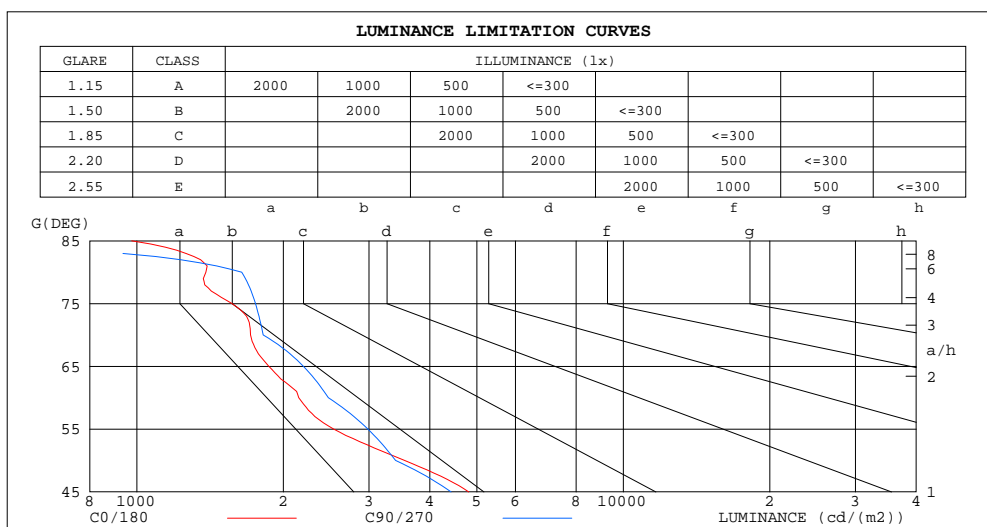
%lamp = 89.6%

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:0.3106A P:67.61W PF:0.9853 Freq:49.94Hz Lamp Flux:8355.22x1 lm		
NAME: SUGAR-900-65W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	976	0
80	1386	1643
75	1569	1753
70	1713	1819
65	1868	2200
60	2151	2474
55	2537	2985
50	3548	3402
45	4811	4425

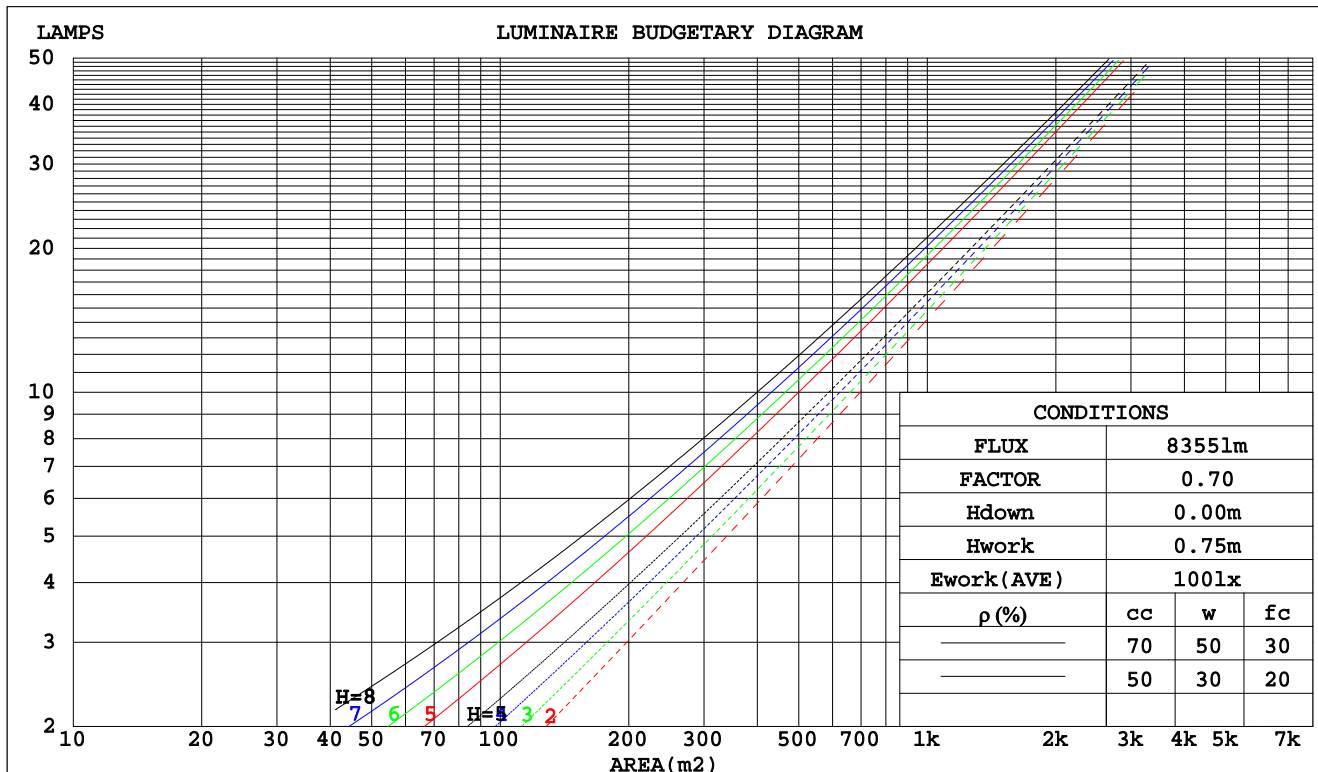
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Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:4000K	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	.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	.63	.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	.40	.36	.46	.40	.36	.34
10.0	.46	.38	.33	.45	.38	.33	.44	.38	.33	.43	.37	.33	.42	.37	.33	.31



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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:

WEC AND CCEC

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NAME: SUGAR-900-65W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: \varnothing 900mm*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	.255	.145	.046	.248	.141	.045	.235	.135	.043	.223	.129	.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	.181	.093	.027	.174	.090	.027	.168	.088	.026		
7.0	.180	.089	.025	.177	.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		

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	.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:0.3106A P:67.61W PF:0.9853 Freq:49.94Hz Lamp Flux:8355.22x1 lm										
NAME: SUGAR-900-65W-840					TYPE:Ceiling light			SERIAL No.:		
SPEC.:4000K					DIM.: ϕ 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	9.0	10.2	10.4
3H	9.0	10.2	9.3	10.4	10.6	9.3	10.6	9.6	10.8	11.0
4H	9.2	10.4	9.5	10.6	10.9	9.6	10.8	9.9	11.0	11.3
6H	9.4	10.5	9.7	10.7	11.0	9.8	10.9	10.2	11.2	11.5
8H	9.4	10.5	9.8	10.8	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	10.1	9.2	10.3	10.6
3H	9.4	10.5	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	11.4	10.1	11.0	10.5	11.3	11.6
6H	10.1	10.9	10.5	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	10.2	10.8	10.6	11.2	11.6	10.5	11.2	10.9	11.5	11.9
8H 4H	10.0	10.7	10.4	11.1	11.5	10.2	11.0	10.6	11.3	11.7
6H	10.4	11.0	10.8	11.4	11.8	10.7	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	10.8	11.2	11.2	11.7	12.1
12H 4H	10.0	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	11.4	11.8	10.7	11.2	11.1	11.7	12.1
8H	10.5	11.0	11.0	11.5	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 / - 0.5				
1.5H	+ 0.5 / - 0.5					+ 0.4 / - 0.5				
2.0H	+ 1.7 / - 1.1					+ 1.4 / - 1.1				

CIE Pub.117, 8355 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 7.4$)

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:

UTILIZATION FACTORS TABLE

Test:U:220.9V I:0.3106A P:67.61W PF:0.9853 Freq:49.94Hz Lamp Flux:8355.22x1 lm		
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SPEC.:4000K	DIM.: $\varnothing 900\text{mm} \times H105\text{mm}$	
MFR.: NEKO LIGHTING AG		

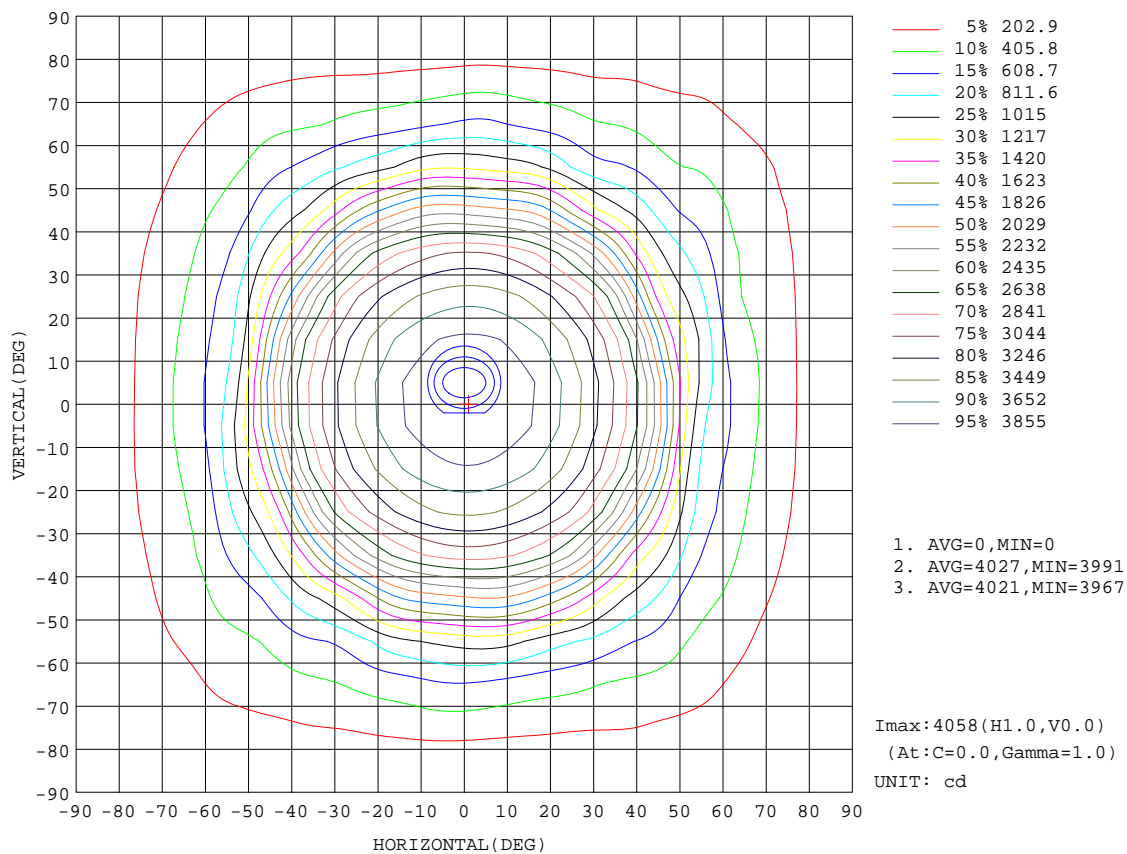
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	66	56	50	65	56	50	64	55	50	44
0.80	76	66	60	75	66	60	74	65	59	53
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		

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ISOCANDELA DIAGRAM

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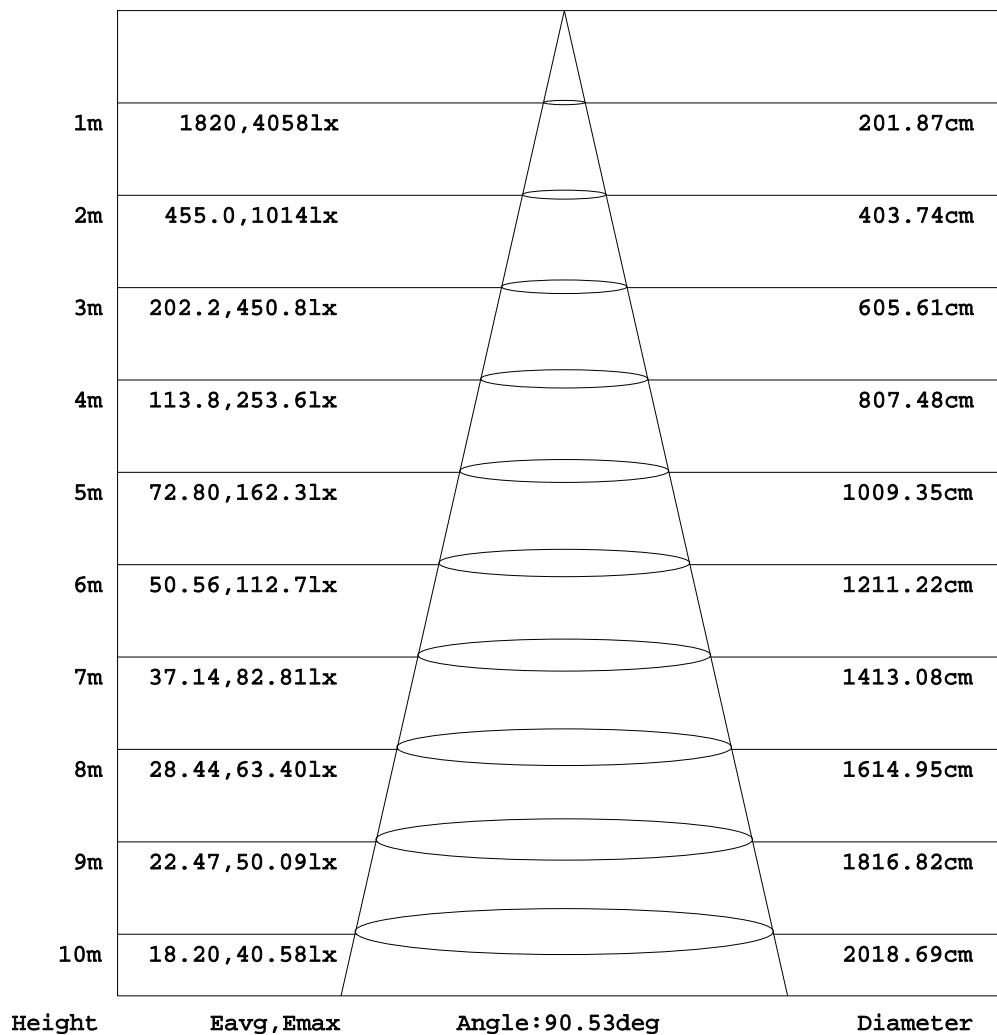
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AAI Figure

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NAME: SUGAR-900-65W-840	TYPE:Ceiling light	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

Flux out:5921 lm



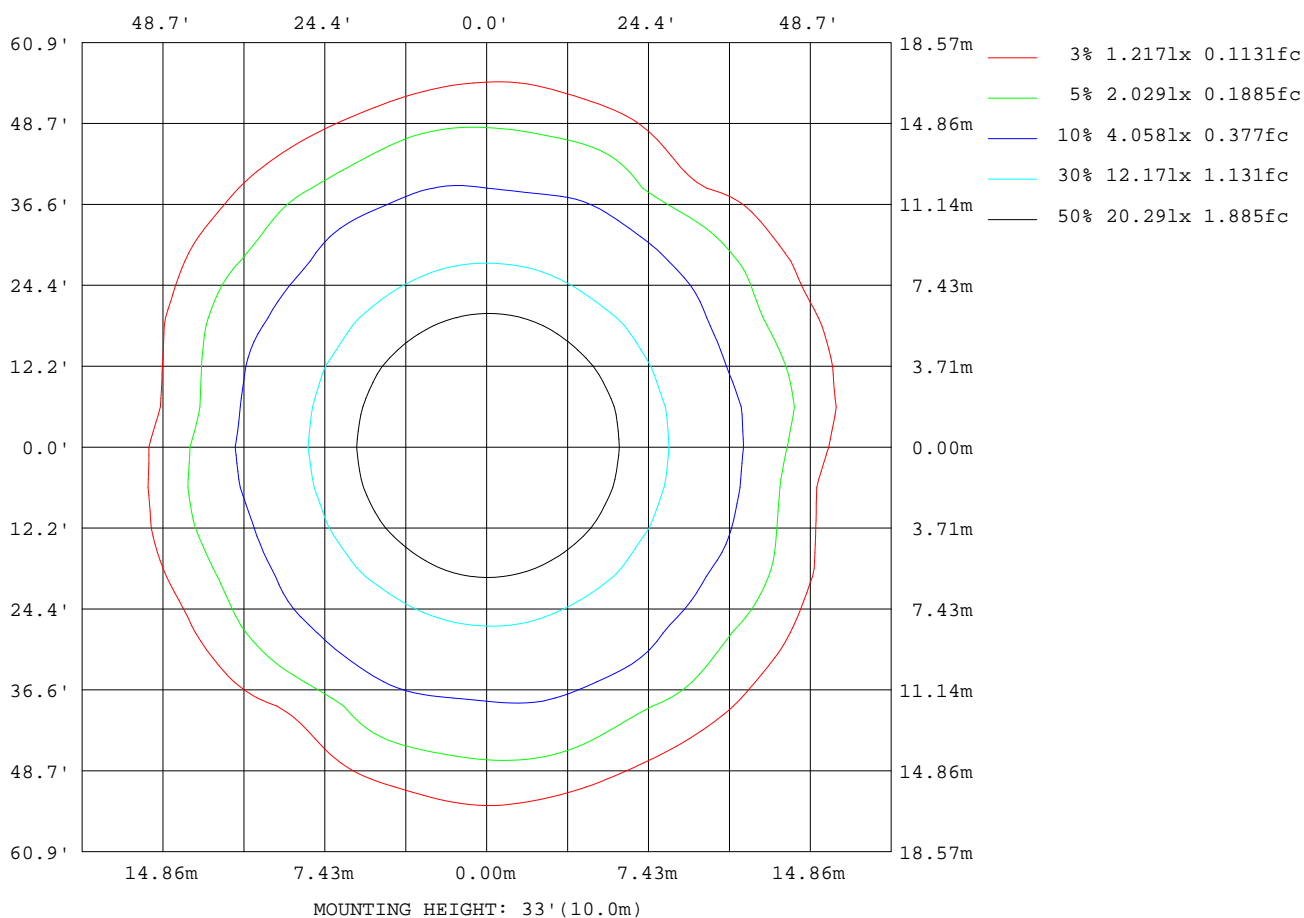
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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SPEC.:4000K	DIM.: ϕ 900mm*H105mm	
MFR.: NEKO LIGHTING AG		

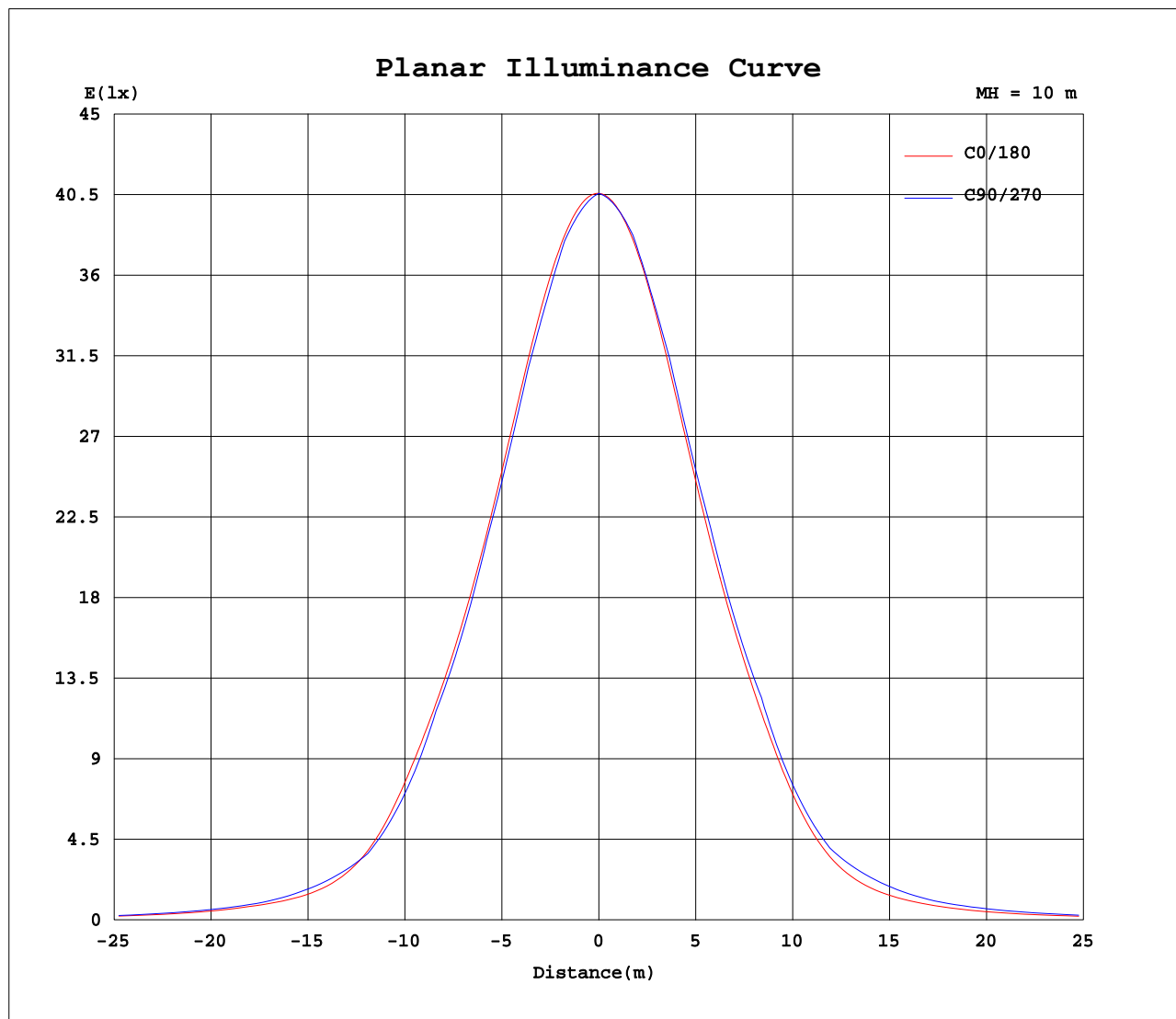
AvgL	cd/m2
L_0~180 (65) av	1808
L_0~180 (75) av	1501
L_0~180 (85) av	875
L_90~270 (65) av	2280
L_90~270 (75) av	1812
L_90~270 (85) av	0
L_45 (65) av	1989
L_45 (75) av	1625
L_45 (85) av	802

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:

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Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks: