

CALIFORNIA 12-830



Light Output Ratio:	100.0%	
Luminaire Power:	12.96 W	
SHR Nominal:	1.00	Calculated using the TM5
SHR Maximum:	1.00	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2020-09-09

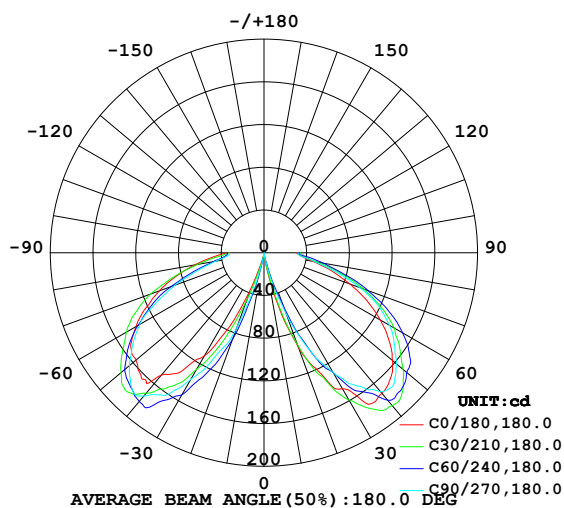
γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

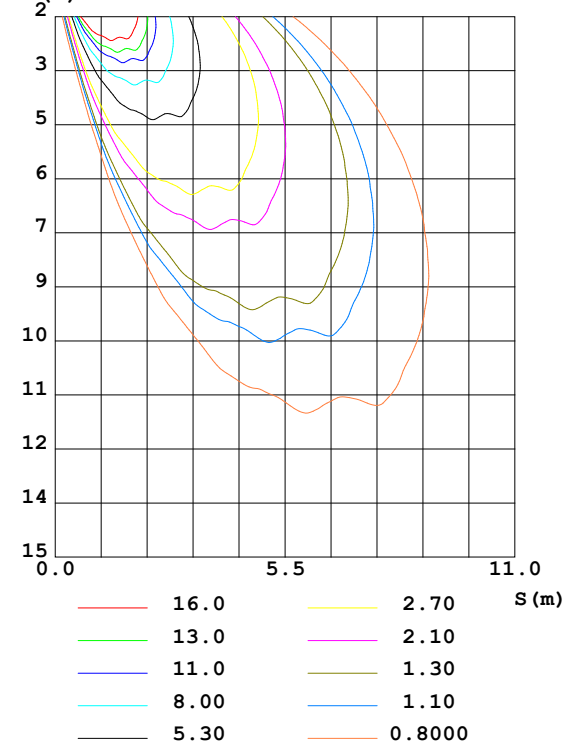
Test:U:221.1V I:0.0626A P:12.96W PF:0.9366 Freq:49.99Hz Lamp Flux:661.145x1 lm		
NAME: CALIFORNIA 12-830	TYPE:Garden Lamp	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 120mm*H800mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 51.03 lm/W			
MODEL	3000K	I _{max} (cd)	187.8	S/MH (C0/180)	10.06
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	9.03
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	661.15	η UP, DN (C0-180)	0.0, 49.8
NOMINAL FLUX (lm)	661.145	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.2
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



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ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	13.53	3.418	5.029	8.142	2.134	9.126	5.467	3.058	0- 10	0.2851	0.2851	0.04,0.04
20	93.68	49.84	60.71	77.22	34.13	86.27	75.07	55.00	10- 20	9.462	9.747	1.47,1.47
30	147.2	135.9	129.5	138.0	111.1	150.2	136.8	120.0	20- 30	49.05	58.79	8.89,8.89
40	171.9	181.5	169.8	164.0	149.6	177.0	175.1	168.9	30- 40	98.59	157.4	23.8,23.8
50	157.1	176.1	162.1	158.9	156.6	170.7	164.3	166.7	40- 50	131.5	288.8	43.7,43.7
60	125.5	145.8	135.7	130.7	138.4	139.4	134.2	131.9	50- 60	136.5	425.3	64.3,64.3
70	85.39	98.55	95.55	89.93	104.2	95.92	88.67	93.28	60- 70	115.7	541.0	81.8,81.8
80	46.26	50.24	47.91	47.22	65.96	48.80	46.08	51.58	70- 80	77.14	618.2	93.5,93.5
90	30.33	33.48	31.83	32.78	33.75	34.55	32.17	26.94	80- 90	42.96	661.1	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): 220.77 lm

%lum = 33.4%

%lamp = 33.4%

Conical surface Flux(120deg): 425.33 lm

%lum = 64.3%

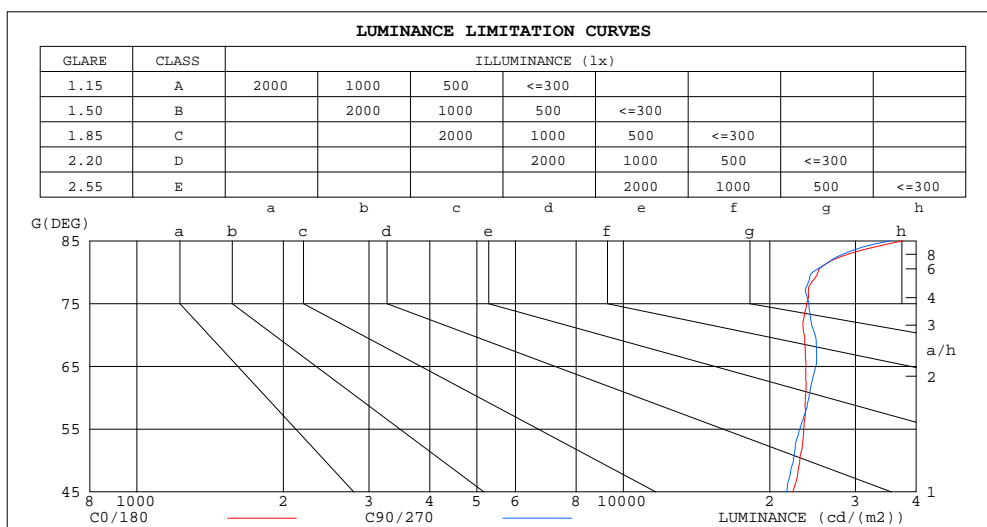
%lamp = 64.3%

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Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

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NAME: CALIFORNIA 12-830	TYPE:Garden Lamp	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 120mm*H800mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	37594	35409
80	25131	24486
75	23819	24073
70	23553	24791
65	23728	24887
60	23672	24078
55	23477	23052
50	23051	22375
45	22306	21650

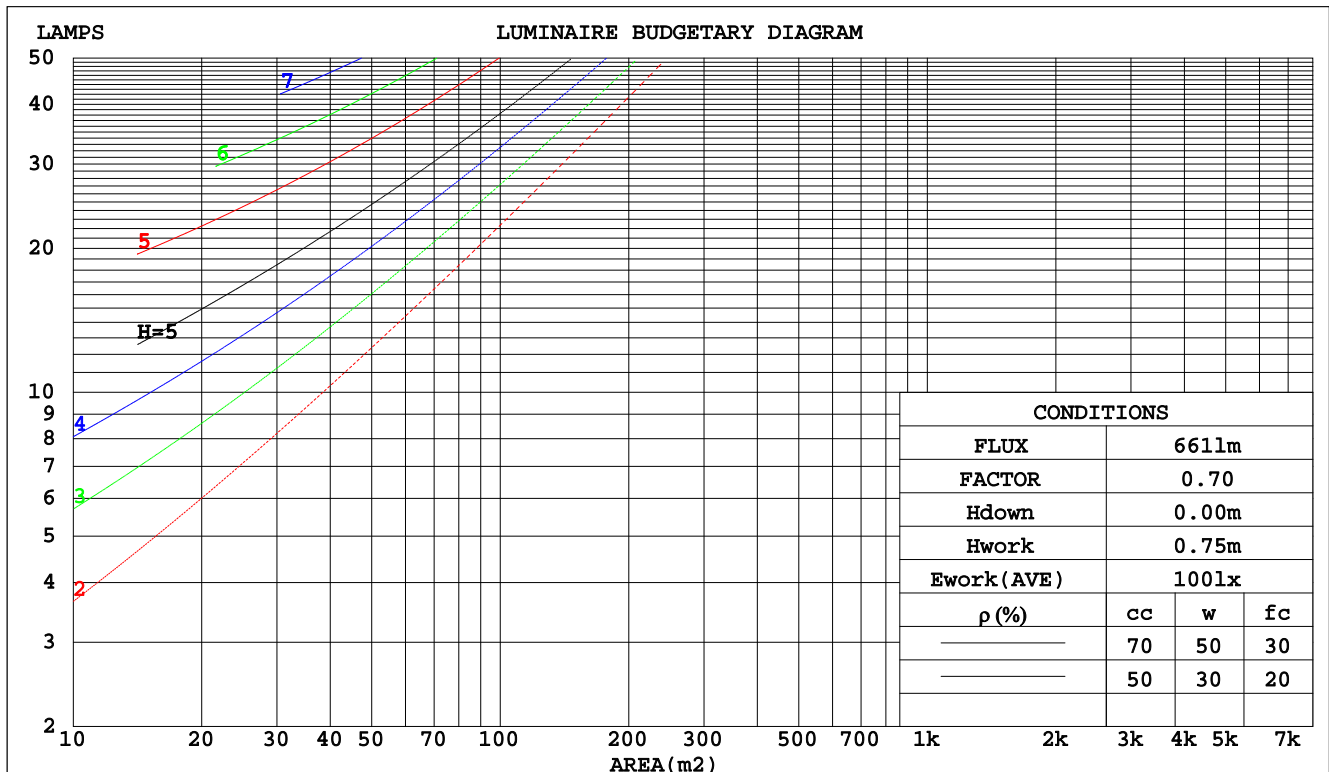
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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NAME: CALIFORNIA 12-830	TYPE:Garden Lamp	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 120mm*H800mm	
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	.99	.93	.88	.96	.91	.86	.92	.87	.83	.88	.84	.81	.84	.81	.78	.76
2.0	.83	.74	.67	.81	.73	.66	.77	.70	.64	.73	.68	.63	.70	.65	.61	.59
3.0	.70	.60	.52	.68	.59	.51	.65	.57	.50	.62	.55	.49	.59	.53	.48	.46
4.0	.60	.49	.41	.59	.49	.41	.56	.47	.40	.53	.46	.40	.51	.44	.39	.36
5.0	.52	.41	.33	.51	.41	.33	.48	.40	.33	.46	.38	.32	.44	.37	.32	.29
6.0	.46	.35	.28	.45	.35	.27	.43	.34	.27	.41	.33	.27	.39	.32	.26	.24
7.0	.40	.30	.23	.39	.30	.23	.38	.29	.23	.36	.28	.22	.35	.28	.22	.20
8.0	.36	.26	.19	.35	.26	.19	.34	.25	.19	.32	.25	.19	.31	.24	.19	.17
9.0	.32	.23	.17	.32	.23	.17	.30	.22	.16	.29	.22	.16	.28	.21	.16	.14
10.0	.29	.20	.14	.29	.20	.14	.28	.20	.14	.26	.19	.14	.26	.19	.14	.12



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WEC AND CCEC

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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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.411	.234	.074	.404	.230	.073	.390	.224	.071	.378	.218	.070	.366	.212	.068		
2.0	.367	.201	.062	.361	.199	.061	.348	.194	.060	.337	.189	.059	.326	.185	.058		
3.0	.330	.176	.053	.324	.174	.052	.313	.170	.052	.303	.166	.051	.294	.163	.050		
4.0	.299	.155	.046	.293	.154	.045	.284	.150	.045	.274	.147	.044	.266	.144	.044		
5.0	.272	.138	.040	.267	.137	.040	.258	.134	.040	.250	.132	.039	.242	.130	.039		
6.0	.249	.125	.036	.245	.124	.036	.237	.121	.035	.229	.119	.035	.223	.117	.035		
7.0	.229	.113	.032	.225	.112	.032	.218	.110	.032	.212	.109	.032	.205	.107	.031		
8.0	.212	.104	.029	.209	.103	.029	.202	.101	.029	.196	.099	.029	.191	.098	.029		
9.0	.197	.095	.027	.194	.095	.027	.188	.093	.026	.183	.092	.026	.178	.090	.026		
10.0	.184	.088	.024	.181	.087	.024	.176	.086	.024	.171	.085	.024	.167	.084	.024		

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.187	.155	.126	.160	.133	.109	.110	.092	.075	.063	.053	.044	.020	.017	.014	
2.0	.182	.132	.089	.156	.113	.077	.107	.078	.054	.062	.046	.031	.020	.015	.010	
3.0	.176	.115	.066	.151	.099	.057	.104	.069	.040	.060	.040	.024	.019	.013	.008	
4.0	.169	.102	.051	.145	.088	.044	.100	.061	.031	.058	.036	.018	.019	.012	.006	
5.0	.162	.092	.041	.139	.080	.036	.096	.056	.025	.055	.033	.015	.018	.011	.005	
6.0	.154	.084	.034	.132	.073	.030	.091	.051	.021	.053	.030	.012	.017	.010	.004	
7.0	.147	.078	.029	.126	.067	.025	.087	.047	.018	.051	.028	.011	.016	.009	.004	
8.0	.140	.072	.025	.120	.062	.022	.083	.044	.016	.048	.026	.009	.016	.008	.003	
9.0	.133	.067	.022	.115	.058	.020	.079	.041	.014	.046	.024	.008	.015	.008	.003	
10.0	.127	.063	.020	.109	.055	.018	.076	.038	.013	.044	.023	.007	.014	.007	.002	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-09-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:221.1V I:0.0626A P:12.96W PF:0.9366 Freq:49.99Hz Lamp Flux:661.145x1 lm										
NAME: CALIFORNIA 12-830					TYPE:Garden Lamp			SERIAL No.:		
SPEC.:3000K					DIM.: ϕ 120mm*H800mm					
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	26.1	27.9	26.4	28.1	28.3	26.3	28.1	26.6	28.3	28.5
3H	27.9	29.6	28.2	29.9	30.1	28.2	29.9	28.5	30.1	30.4
4H	28.7	30.4	29.1	30.6	30.9	28.9	30.6	29.3	30.8	31.1
6H	29.4	31.0	29.8	31.3	31.6	29.6	31.1	29.9	31.4	31.7
8H	29.8	31.2	30.1	31.5	31.8	29.9	31.4	30.3	31.7	32.0
12H	30.1	31.6	30.5	31.9	32.2	30.2	31.7	30.6	32.0	32.3
4H 2H	26.8	28.5	27.2	28.7	29.0	27.0	28.6	27.3	28.9	29.2
3H	28.9	30.3	29.3	30.6	30.9	29.1	30.5	29.5	30.8	31.2
4H	29.8	31.1	30.2	31.5	31.8	30.0	31.3	30.4	31.7	32.0
6H	30.7	31.9	31.1	32.2	32.6	30.8	32.0	31.2	32.4	32.7
8H	31.1	32.2	31.5	32.6	33.0	31.2	32.3	31.6	32.7	33.1
12H	31.6	32.6	32.0	33.0	33.4	31.6	32.7	32.1	33.1	33.5
8H 4H	30.2	31.3	30.6	31.7	32.1	30.4	31.5	30.8	31.9	32.3
6H	31.3	32.2	31.7	32.6	33.0	31.4	32.4	31.9	32.8	33.2
8H	31.8	32.6	32.3	33.1	33.5	32.0	32.8	32.4	33.2	33.7
12H	32.5	33.2	33.0	33.7	34.1	32.6	33.3	33.1	33.8	34.3
12H 4H	30.3	31.3	30.7	31.7	32.1	30.4	31.4	30.9	31.8	32.2
6H	31.4	32.2	31.9	32.7	33.1	31.5	32.4	32.0	32.8	33.3
8H	32.0	32.7	32.5	33.2	33.7	32.2	32.9	32.7	33.4	33.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.5				

CIE Pub.117, 661.1 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = -1.4$)

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Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

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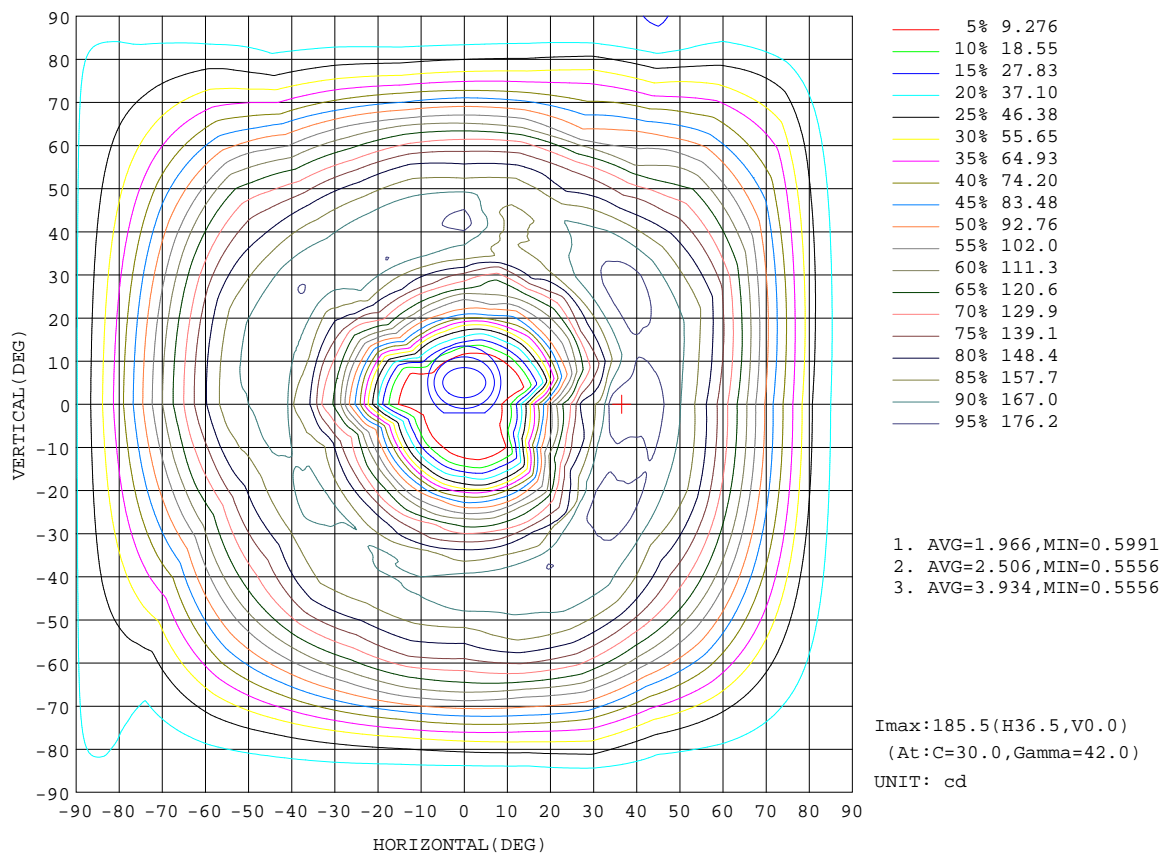
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	45	32	23	44	31	23	43	31	23	15
0.80	56	42	33	55	41	32	52	40	32	24
1.00	65	51	42	64	51	42	61	53	41	33
1.25	73	60	51	71	59	50	68	57	50	41
1.50	79	66	57	77	65	57	73	63	56	47
2.00	87	76	68	85	75	67	81	72	66	56
2.50	92	82	74	90	81	73	86	78	71	62
3.00	96	87	80	94	86	79	89	82	77	67
4.00	101	94	87	99	92	86	94	88	83	73
5.00	104	98	92	102	96	91	97	92	88	77
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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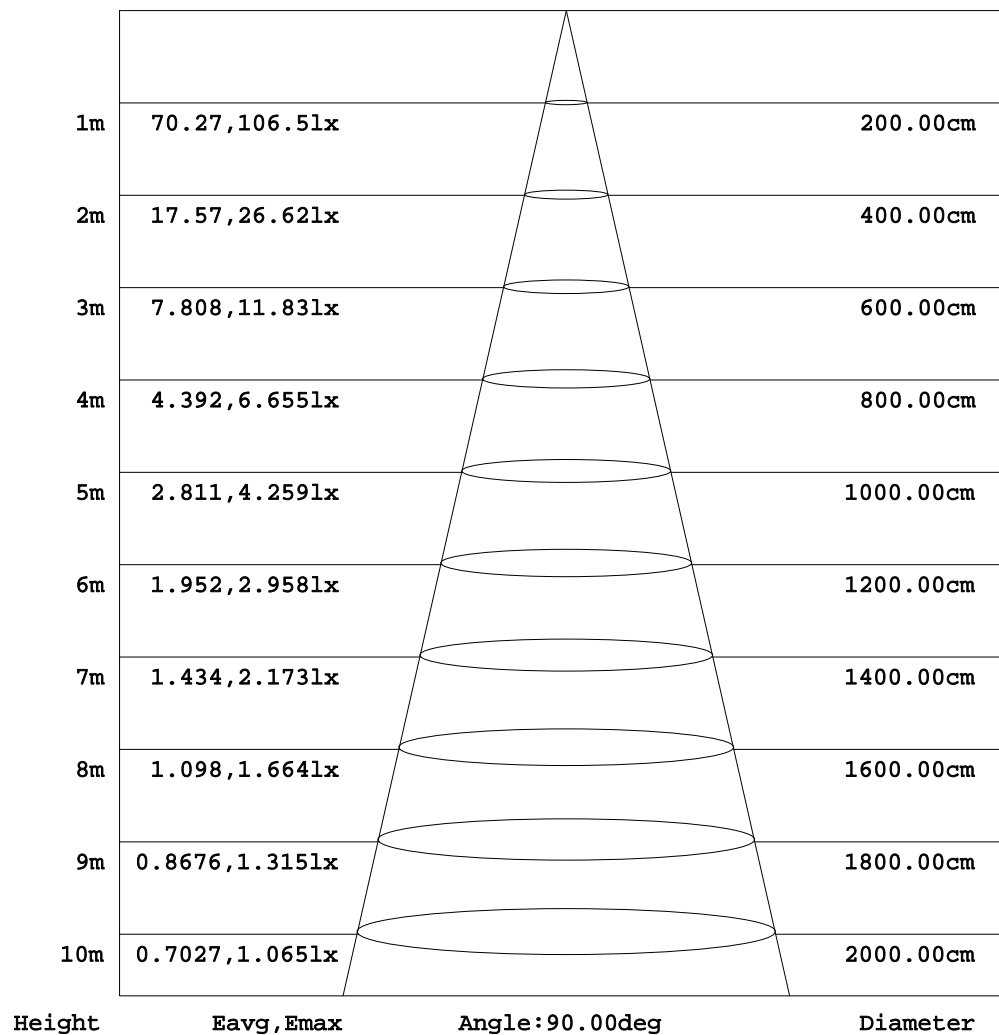
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AAI Figure

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MFR.: NEKO LIGHTING AG		

Flux out:220.8 lm



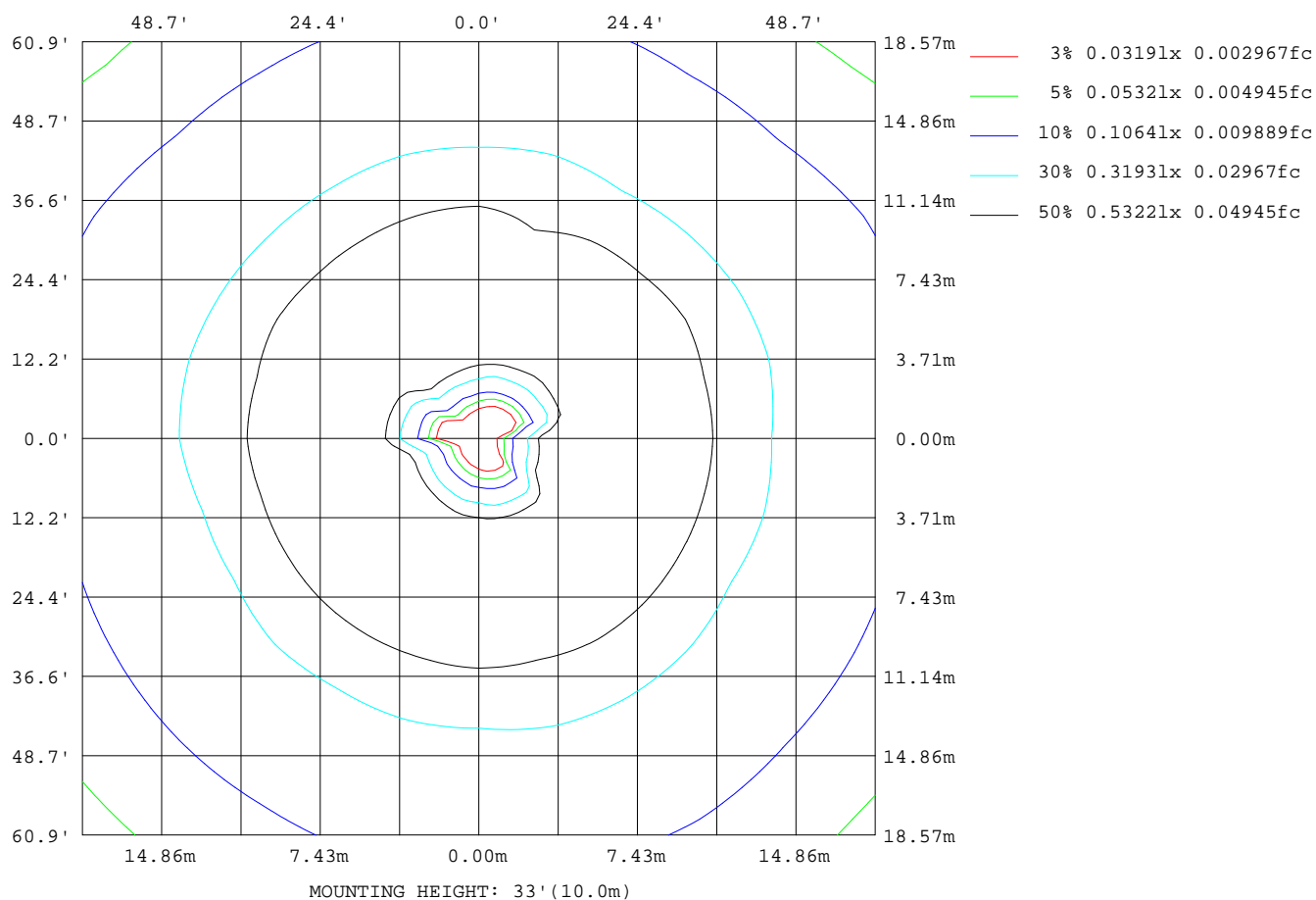
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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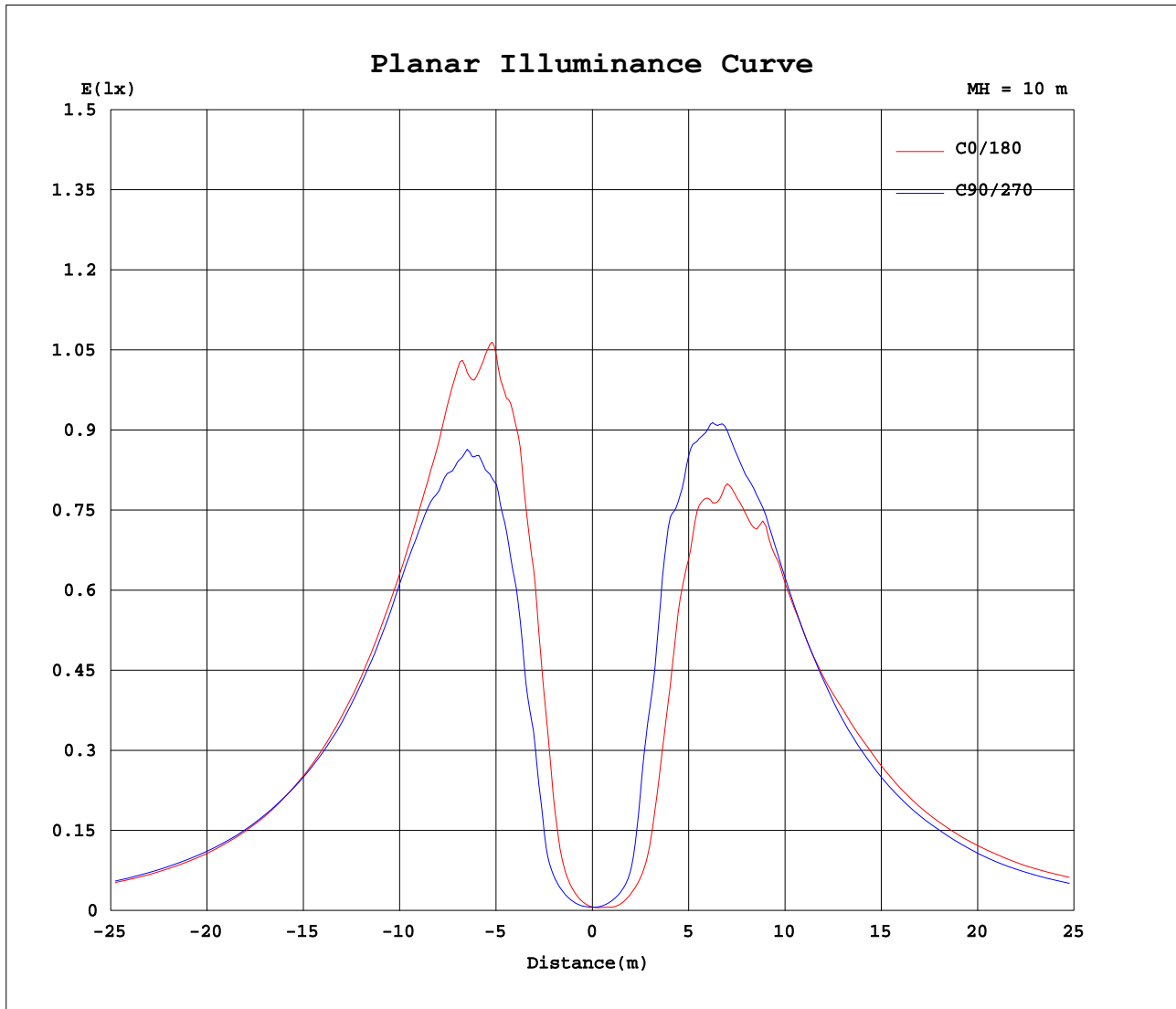
AvgL	cd/m2
L_0~180 (65) av	23879
L_0~180 (75) av	25734
L_0~180 (85) av	42253
L_90~270 (65) av	24091
L_90~270 (75) av	22953
L_90~270 (85) av	35161
L_45 (65) av	24057
L_45 (75) av	24064
L_45 (85) av	36124

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-09-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2020-09-09

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

```