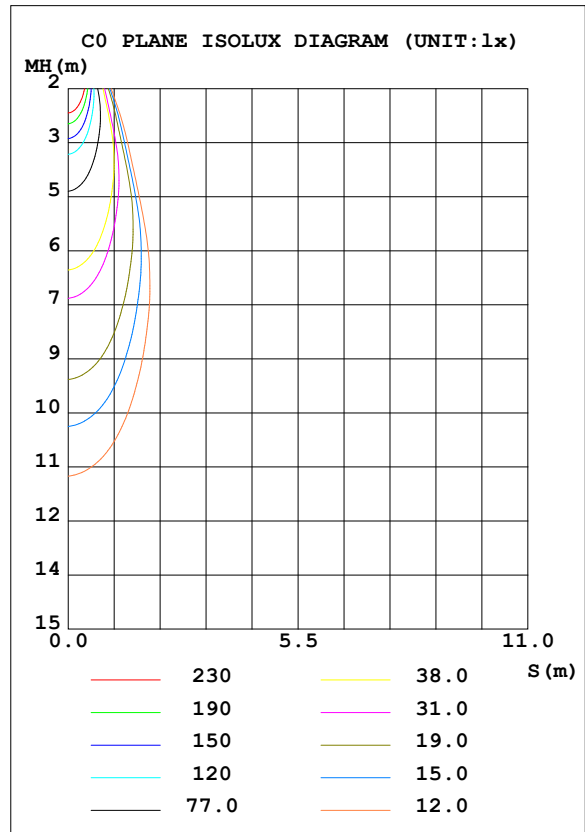
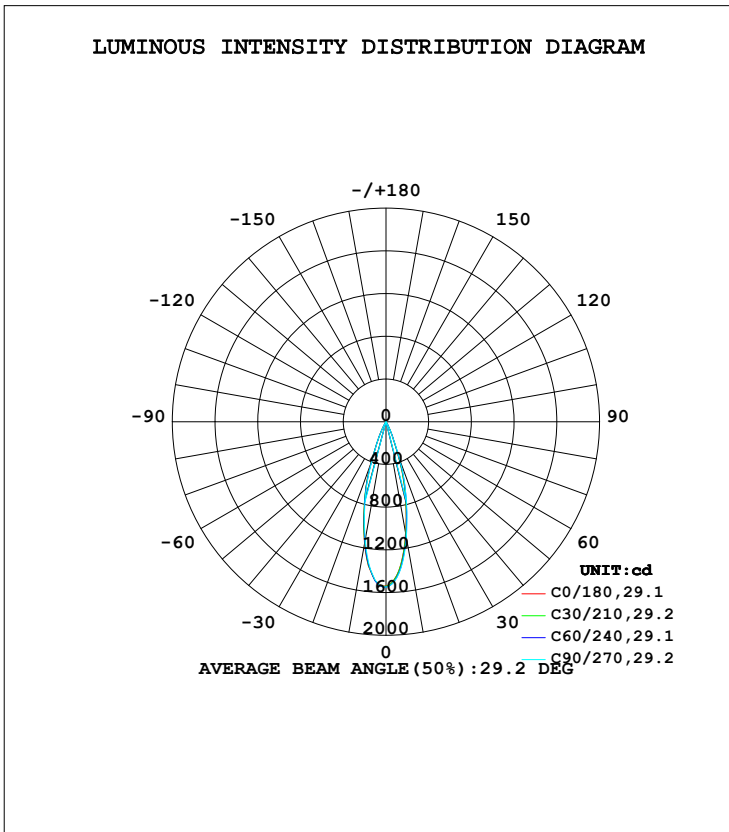


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 69.70 lm/W			
MODEL	LUMINUS-3000K	I _{max} (cd)	1550	S/MH (C0/180)	0.50
NOMINAL POWER (W)	6	LOR (%)	100.0	S/MH (C90/270)	0.49
RATED VOLTAGE (V)	18	TOTAL FLUX (lm)	407.42	η UP, DN (C0-180)	0.0, 49.1
NOMINAL FLUX (lm)	407.416	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.9
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	16.7	η down (%)	100.0	CIBSE SHR MAX	0.50



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Myles
 Test Date: 2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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	1060	1091	1101	1137	1158	1126	1125	1092	0- 10	126.2	126.2	31,31
20	328.2	357.0	366.1	390.5	417.3	394.6	385.3	357.7	10- 20	200.1	326.2	80.1,80.1
30	30.36	32.92	34.19	36.88	39.84	38.35	36.54	33.64	20- 30	67.95	394.2	96.7,96.7
40	4.940	5.547	6.027	6.634	6.570	6.084	5.703	5.285	30- 40	9.136	403.3	99,99
50	1.768	1.836	1.880	1.881	1.894	1.875	1.833	1.814	40- 50	2.367	405.7	99.6,99.6
60	0.8317	0.8454	0.8515	0.7929	0.7554	0.7572	0.7664	0.8162	50- 60	1.165	406.8	99.9,99.9
70	0.2518	0.2402	0.2452	0.1900	0.1659	0.1904	0.1856	0.2320	60- 70	0.4482	407.3	100,100
80	0.0526	0.0371	0.0569	0.0284	0.0239	0.0416	0.0283	0.0482	70- 80	0.1145	407.4	100,100
90	0.0109	0.0109	0.0109	0.0066	0.0066	0.0066	0.0066	0.0066	80- 90	0.0166	407.4	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): 404.78 lm

%lum = 99.4%

%lamp = 99.4%

Conical surface Flux(120deg): 406.84 lm

%lum = 99.9%

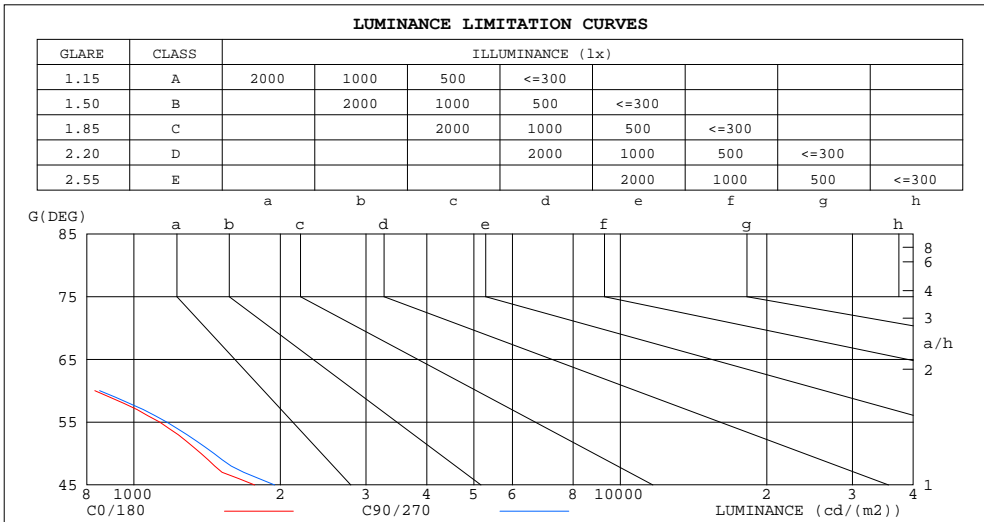
%lamp = 99.9%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	100	113
80	151	164
75	241	233
70	368	358
65	564	562
60	831	851
55	1130	1168
50	1374	1461
45	1770	1947

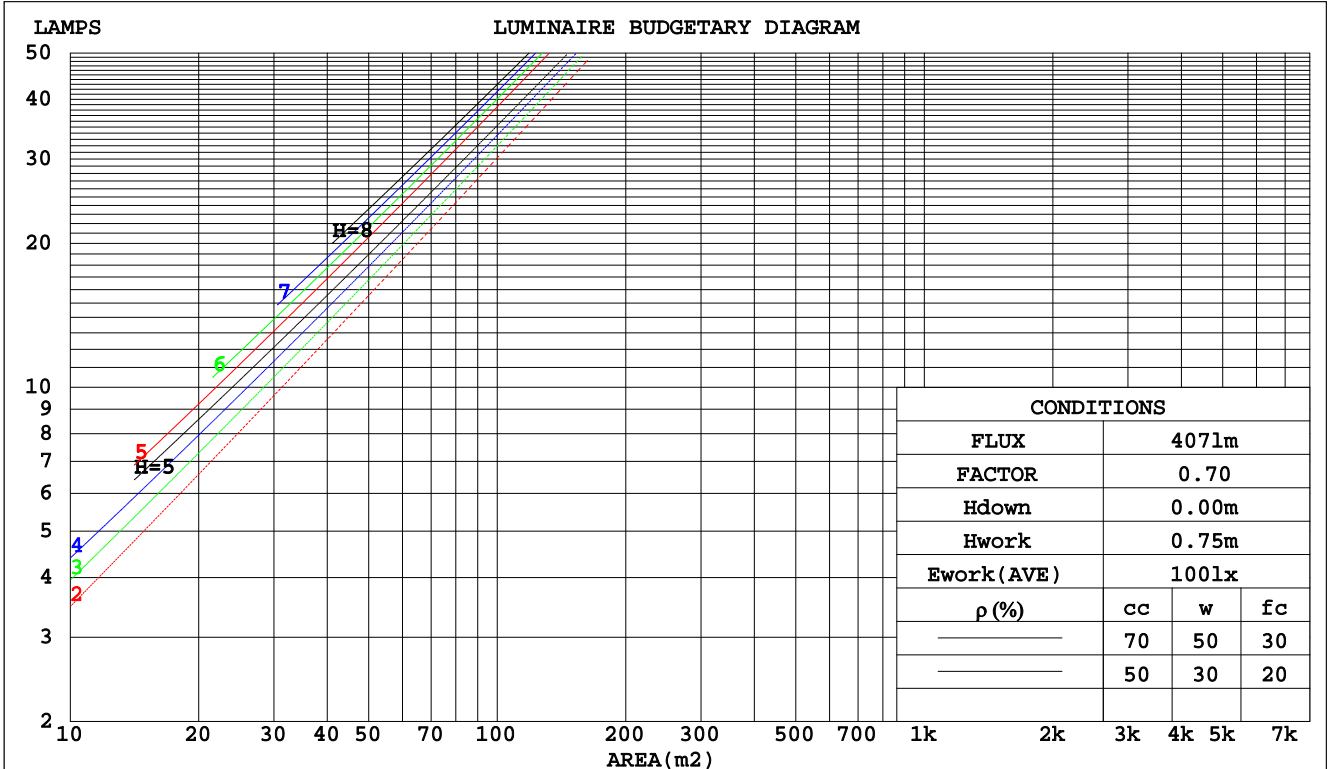
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Myles
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
MFR.: NEKO LIGHTING AG		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	1.13	1.11	1.09	1.11	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.00	.99	.98	.97
2.0	1.08	1.04	1.02	1.06	1.03	1.01	1.03	1.01	.99	.00	.98	.97	.97	.96	.95	.93
3.0	1.03	.99	.96	1.02	.98	.96	.99	.96	.94	.97	.95	.93	.95	.93	.91	.90
4.0	.99	.95	.92	.98	.94	.91	.96	.93	.90	.94	.91	.89	.92	.90	.88	.87
5.0	.95	.91	.88	.94	.90	.87	.93	.89	.87	.91	.88	.86	.90	.87	.85	.84
6.0	.92	.87	.84	.91	.87	.84	.90	.86	.84	.88	.85	.83	.87	.85	.83	.82
7.0	.89	.84	.81	.88	.84	.81	.87	.83	.81	.86	.83	.80	.85	.82	.80	.79
8.0	.86	.82	.79	.85	.81	.79	.84	.81	.78	.84	.80	.78	.83	.80	.78	.77
9.0	.83	.79	.76	.83	.79	.76	.82	.78	.76	.81	.78	.76	.81	.78	.75	.75
10.0	.81	.77	.74	.80	.76	.74	.80	.76	.74	.79	.76	.74	.78	.76	.73	.72



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Myles
 Test Date: 2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
MFR.: NEKO LIGHTING AG		

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.138	.079	.025	.131	.075	.024	.119	.068	.022	.108	.062	.020	.097	.056	.018	
2.0	.128	.070	.022	.123	.068	.021	.112	.062	.019	.103	.058	.018	.094	.053	.017	
3.0	.119	.064	.019	.115	.062	.019	.106	.058	.018	.098	.054	.017	.091	.050	.016	
4.0	.112	.058	.017	.108	.057	.017	.101	.054	.016	.094	.051	.015	.088	.048	.015	
5.0	.106	.054	.016	.102	.053	.015	.096	.050	.015	.091	.048	.014	.085	.046	.014	
6.0	.100	.050	.014	.097	.049	.014	.092	.047	.014	.087	.045	.013	.083	.043	.013	
7.0	.095	.047	.013	.093	.046	.013	.088	.045	.013	.084	.043	.013	.080	.042	.012	
8.0	.091	.044	.012	.089	.044	.012	.085	.042	.012	.081	.041	.012	.077	.040	.012	
9.0	.087	.042	.012	.085	.042	.012	.082	.040	.011	.078	.039	.011	.075	.038	.011	
10.0	.084	.040	.011	.082	.040	.011	.079	.039	.011	.076	.038	.011	.073	.037	.011	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.168	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.150	.133	.118	.129	.114	.102	.088	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.135	.113	.096	.116	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.123	.098	.079	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.066	.097	.074	.057	.067	.052	.040	.039	.030	.024	.012	.010	.008	
6.0	.104	.076	.055	.089	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.096	.068	.047	.083	.059	.041	.057	.041	.029	.033	.024	.017	.011	.008	.006	
8.0	.090	.061	.041	.077	.053	.036	.054	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.084	.055	.035	.073	.048	.031	.050	.034	.022	.029	.020	.013	.009	.007	.004	
10.0	.079	.050	.031	.069	.044	.027	.048	.031	.019	.028	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Myles
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
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	6.3	6.9	6.5	7.1	7.2	7.0	7.6	7.2	7.8	7.9
3H	6.2	6.9	6.5	7.0	7.2	6.9	7.5	7.2	7.7	7.9
4H	6.2	6.8	6.4	7.0	7.2	6.9	7.5	7.1	7.7	7.9
6H	6.1	6.7	6.4	6.9	7.1	6.8	7.4	7.1	7.6	7.8
8H	6.1	6.6	6.4	6.9	7.1	6.8	7.3	7.1	7.5	7.8
12H	6.0	6.5	6.3	6.8	7.1	6.7	7.2	7.0	7.5	7.8
4H 2H	6.2	6.8	6.4	7.0	7.2	6.9	7.5	7.1	7.7	7.9
3H	6.2	6.7	6.5	7.0	7.2	6.8	7.3	7.1	7.6	7.9
4H	6.1	6.6	6.5	6.9	7.2	6.8	7.2	7.1	7.5	7.8
6H	6.0	6.5	6.4	6.8	7.1	6.7	7.1	7.1	7.4	7.8
8H	6.0	6.4	6.4	6.7	7.1	6.6	7.0	7.0	7.4	7.7
12H	5.9	6.3	6.3	6.7	7.1	6.6	6.9	7.0	7.3	7.7
8H 4H	6.0	6.4	6.4	6.7	7.1	6.6	7.0	7.0	7.4	7.7
6H	5.9	6.2	6.3	6.6	7.0	6.5	6.9	7.0	7.3	7.7
8H	5.9	6.1	6.3	6.6	7.0	6.5	6.8	6.9	7.2	7.6
12H	5.8	6.0	6.3	6.5	7.0	6.4	6.7	6.9	7.1	7.6
12H 4H	5.9	6.3	6.3	6.7	7.1	6.6	6.9	7.0	7.3	7.7
6H	5.9	6.1	6.3	6.6	7.0	6.5	6.8	6.9	7.2	7.6
8H	5.8	6.0	6.3	6.5	7.0	6.4	6.7	6.9	7.1	7.6
Variations with the observer position at spacings:										
S = 1.0H	+ 2.4 / - 3.4					+ 2.8 / - 3.9				
1.5H	+ 4.0 / - 2.1					+ 4.6 / - 2.5				
2.0H	+ 2.0 / - 2.5					+ 2.3 / - 2.7				

CIE Pub.117, 407.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.1)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Myles
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
MFR.: NEKO LIGHTING AG		

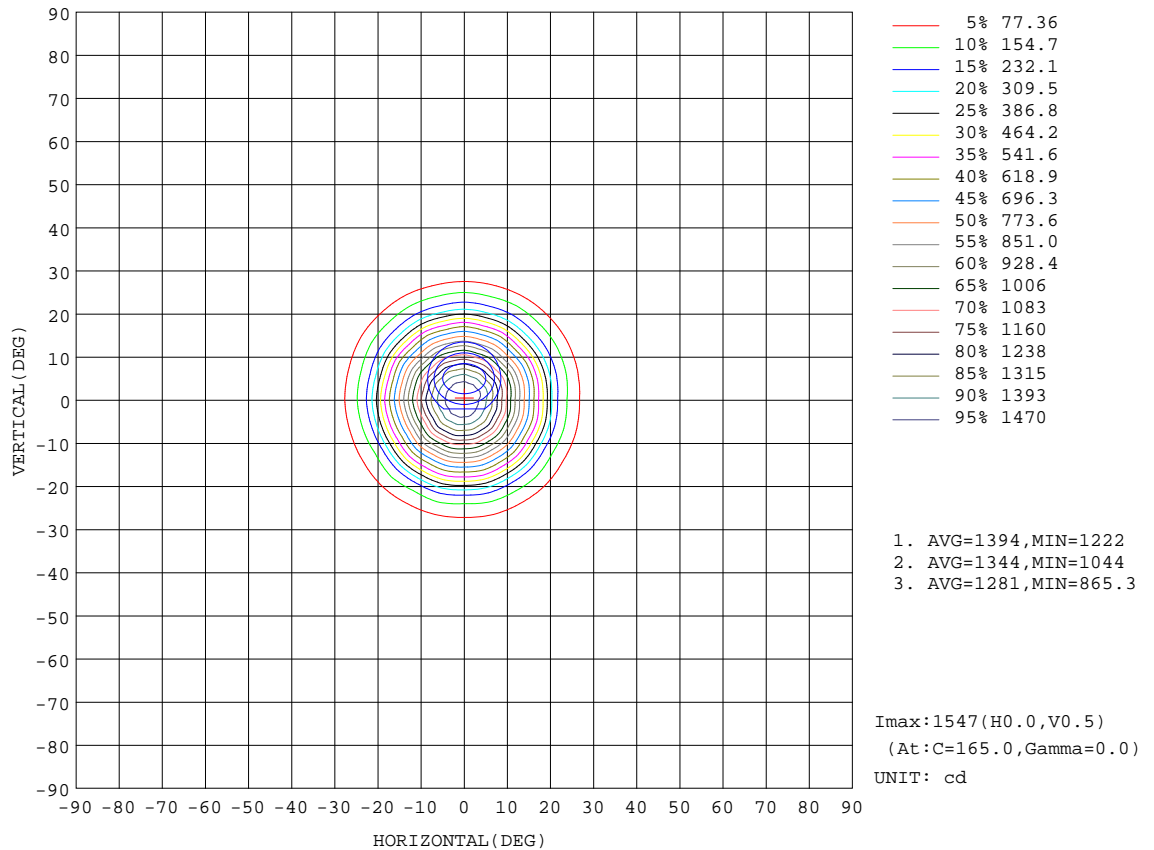
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	91	85	82	90	85	82	90	85	82	78
0.80	98	93	89	97	92	89	96	92	89	86
1.00	102	97	93	101	96	93	99	96	93	89
1.25	105	101	97	104	100	97	102	99	96	92
1.50	108	103	100	106	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	108	106	104	98
4.00	115	112	110	112	110	109	109	107	106	99
5.00	116	114	112	114	112	110	110	108	107	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Myles
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:56%
 Test Distance:5.850m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
MFR.: NEKO LIGHTING AG		



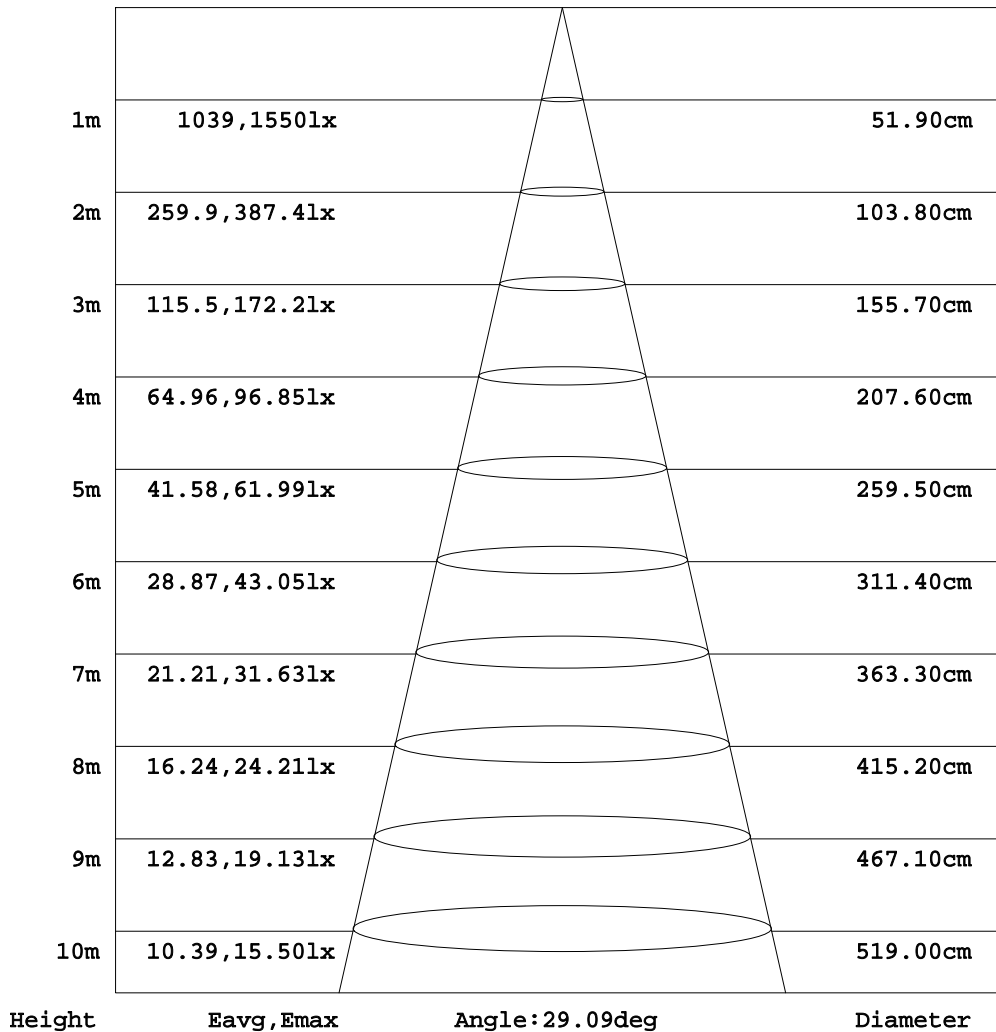
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2018-07-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

AAI Figure

Test:U:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
MFR.: NEKO LIGHTING AG		

Flux out:234.4 lm



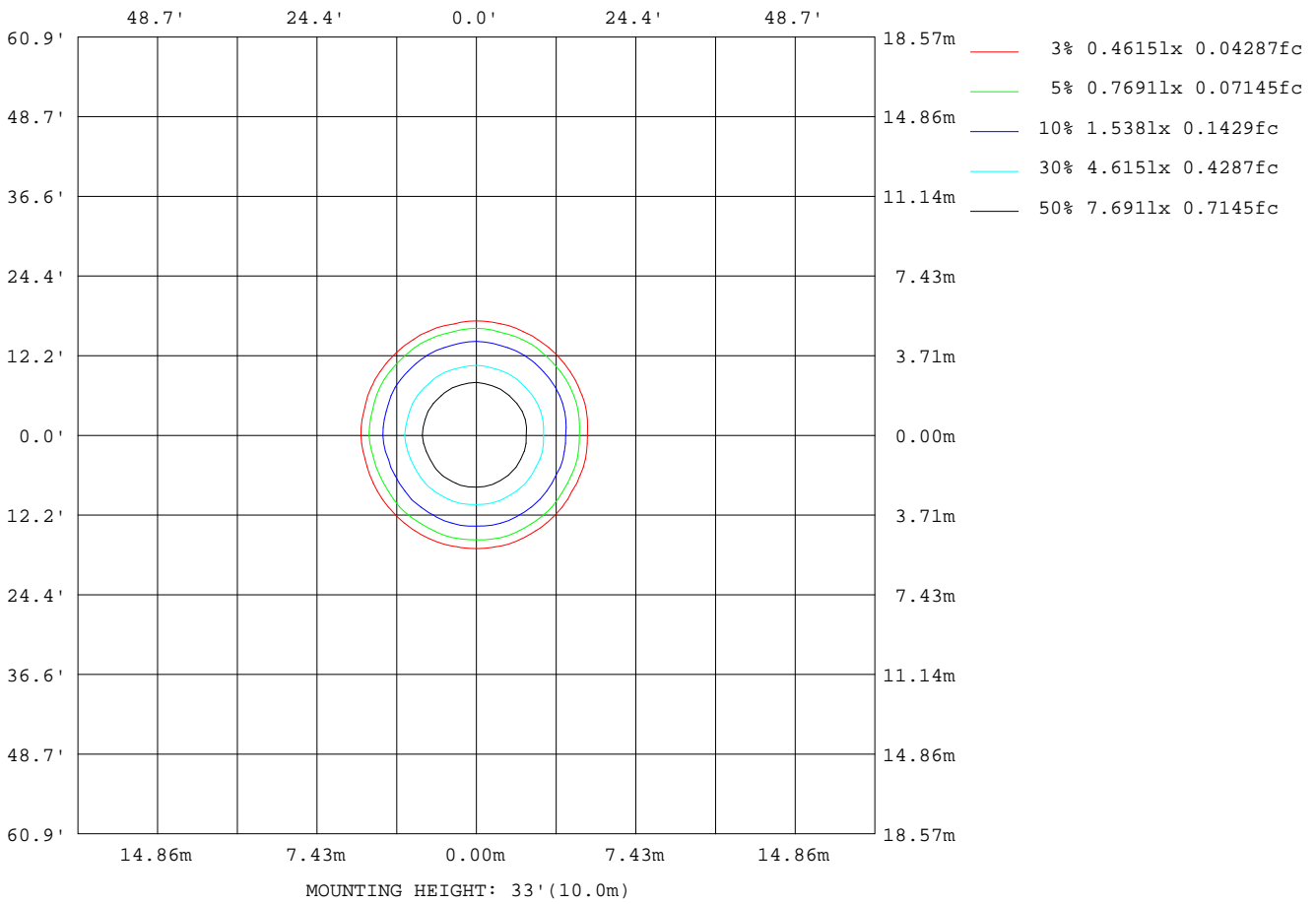
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2018-07-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
Test Distance:5.850m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Myles
 Test Date:2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 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:16.70V I:0.3500A P:5.845W PF:1.000 Freq:0Hz Lamp Flux:407.416x1 lm		
NAME: SIGN45-G-6W-930-30	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ50.5mm*H62mm	
MFR.: NEKO LIGHTING AG		

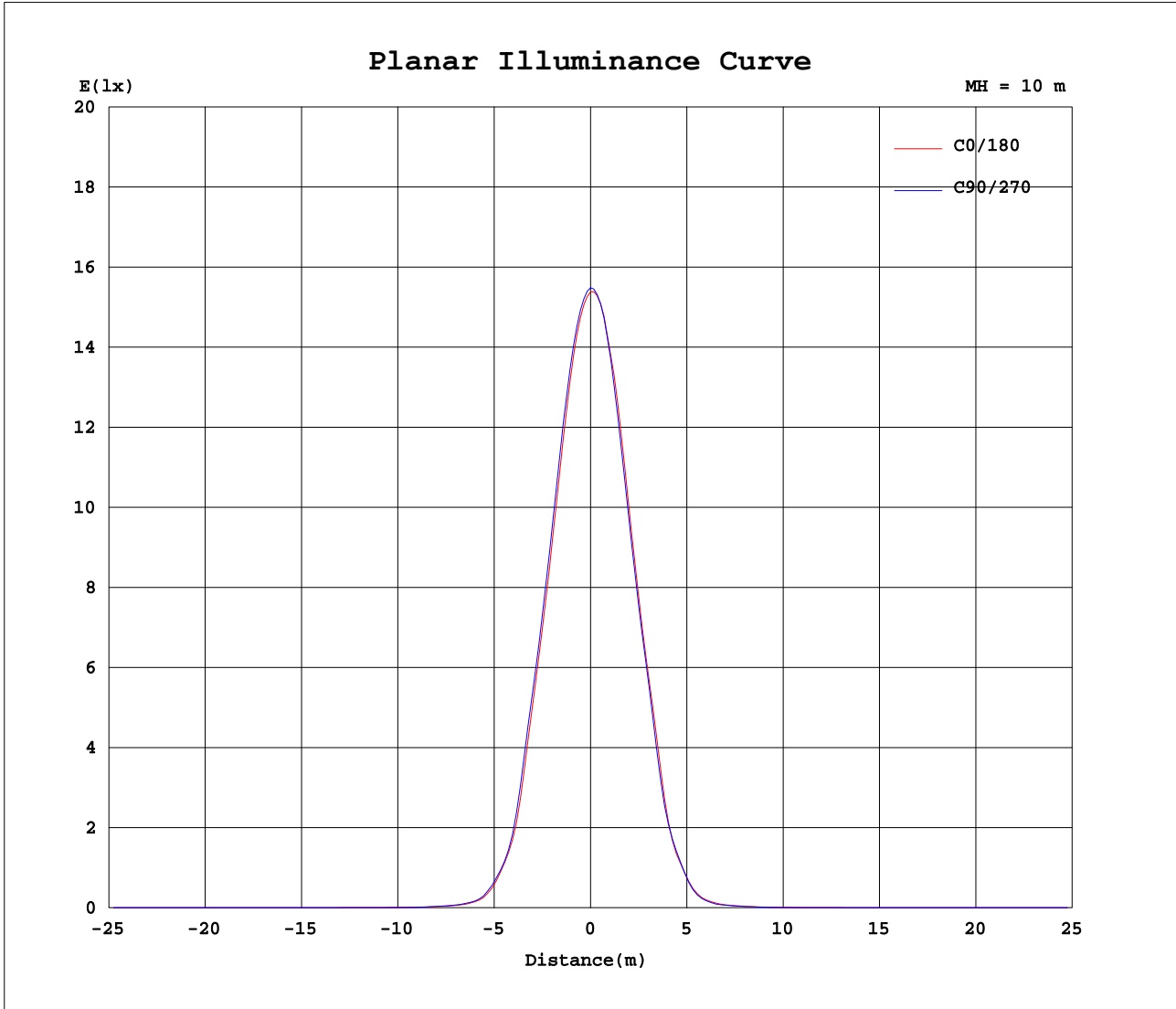
AvgL	cd/m2
L_0~180 (65) av	496
L_0~180 (75) av	190
L_0~180 (85) av	69
L_90~270 (65) av	514
L_90~270 (75) av	196
L_90~270 (85) av	75
L_45 (65) av	506
L_45 (75) av	193
L_45 (85) av	56

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Myles
Test Date:2018-07-30

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:56%
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: Myles
 Test Date: 2018-07-30

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity: 56%
 Test Distance: 5.850m [K=1.0000]
 Remarks:

