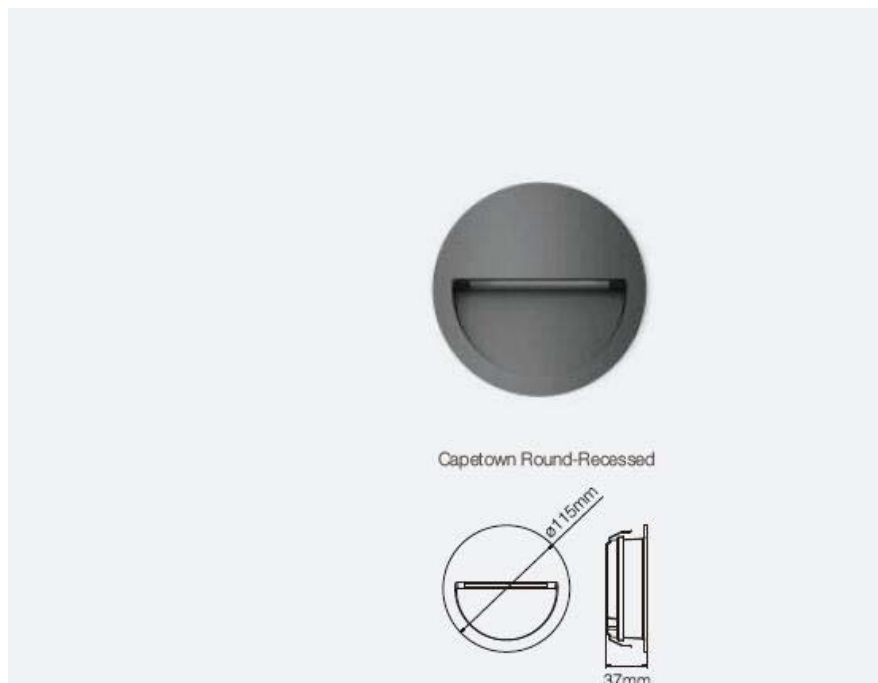


Capetown RR-830-65°



Light Output Ratio:	100.0%	
Luminaire Power:	4.319 W	
SHR Nominal:	0.00	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: 2020-06-09

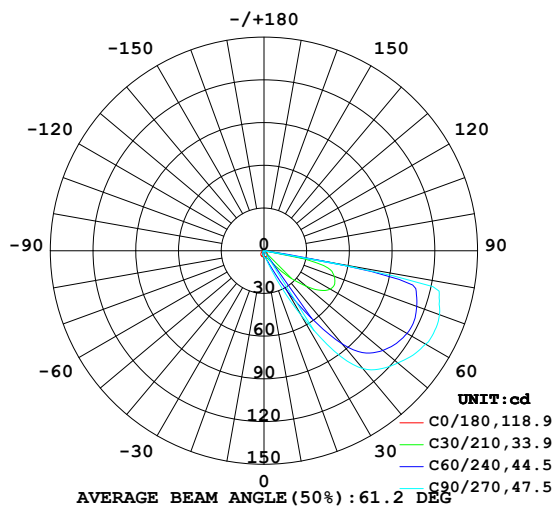
γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

**LUMINAIRE PHOTOMETRIC TEST REPORT**

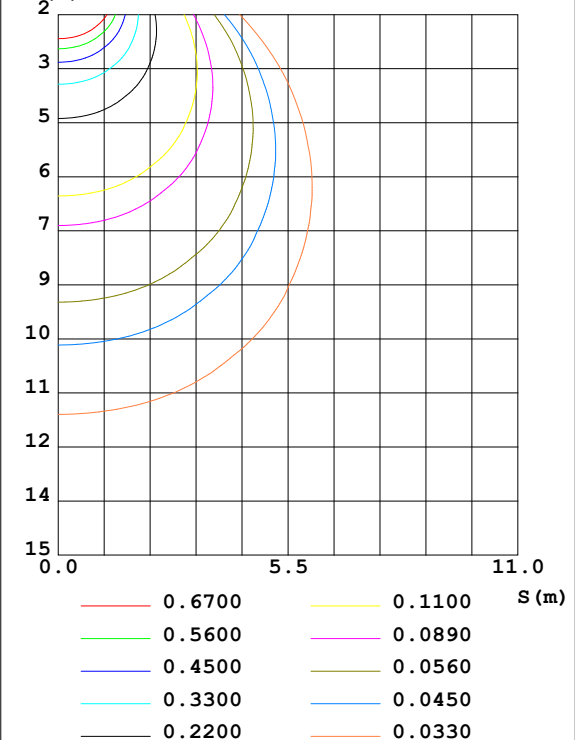
Test:U:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm		
NAME: Capetown RR-830-65°	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi$ 109mm*H33mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 35.21 lm/W			
MODEL	3000K	I <sub>max</sub> (cd)	132.4	S/MH (C0/180)	1.35
NOMINAL POWER (W)	6	LOR (%)	100.0	S/MH (C90/270)	0.61
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	152.06	$\eta$ UP, DN (C0-180)	0.0, 97.4
NOMINAL FLUX (lm)	152.058	CIE CLASS	DIRECT	$\eta$ UP, DN (C180-360)	0.0, 2.6
LAMPS INSIDE	1	$\eta$ up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	220	$\eta$ down (%)	100.0	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
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	4.407	4.970	5.144	4.949	4.383	3.550	3.084	3.499	0- 10	0.4134	0.4134	0.27,0.27
20	4.329	6.138	11.52	6.116	4.277	2.586	2.376	2.576	10- 20	1.257	1.670	1.1,1.1
30	4.124	16.23	52.32	16.33	4.011	2.175	1.779	2.184	20- 30	3.759	5.429	3.57,3.57
40	3.688	48.69	108.1	49.04	3.563	1.621	1.270	1.641	30- 40	12.66	18.09	11.9,11.9
50	3.061	84.71	122.6	83.31	2.895	1.173	0.9224	1.191	40- 50	24.81	42.90	28.2,28.2
60	2.264	93.75	131.2	90.77	2.035	0.8462	0.6623	0.8713	50- 60	33.93	76.83	50.5,50.5
70	1.315	91.97	131.1	88.77	1.082	0.5896	0.4590	0.6198	60- 70	38.90	115.7	76.1,76.1
80	0.4068	37.43	48.61	12.99	0.3455	0.4068	0.3563	0.4368	70- 80	34.98	150.7	99.1,99.1
90	0.0973	0.0457	0.0590	0.0662	0.0886	0.1762	0.2515	0.2271	80- 90	1.344	152.1	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): 29.152 lm

%lum = 19.2%

%lamp = 19.2%

Conical surface Flux(120deg): 76.834 lm

%lum = 50.5%

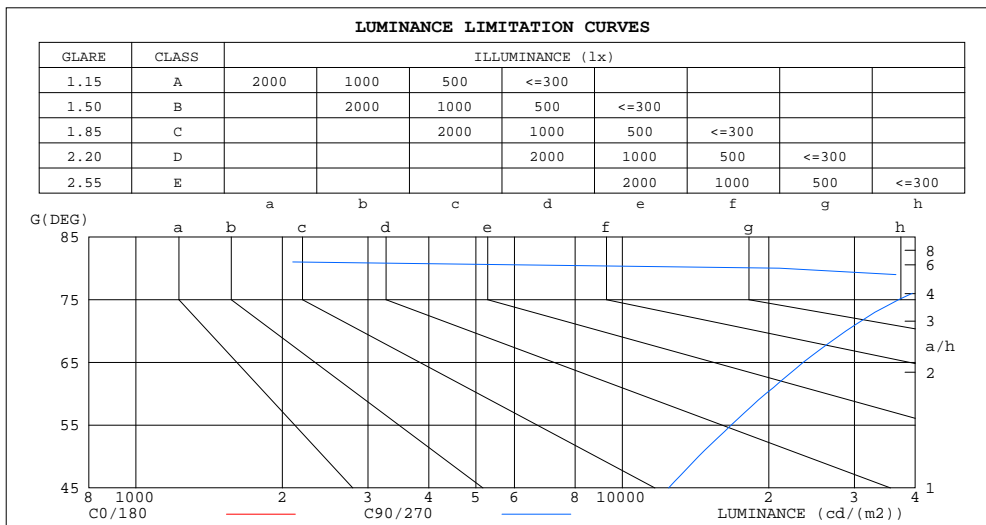
%lamp = 50.5%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity:58%  
Test Distance:5.850m [K=1.0000]  
Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm		
NAME: Capetown RR-830-65°	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi 109\text{mm} \times \text{H}33\text{mm}$	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	199	231
80	178	21048
75	232	36999
70	292	28829
65	325	23550
60	344	19723
55	356	16746
50	362	14344
45	366	12448

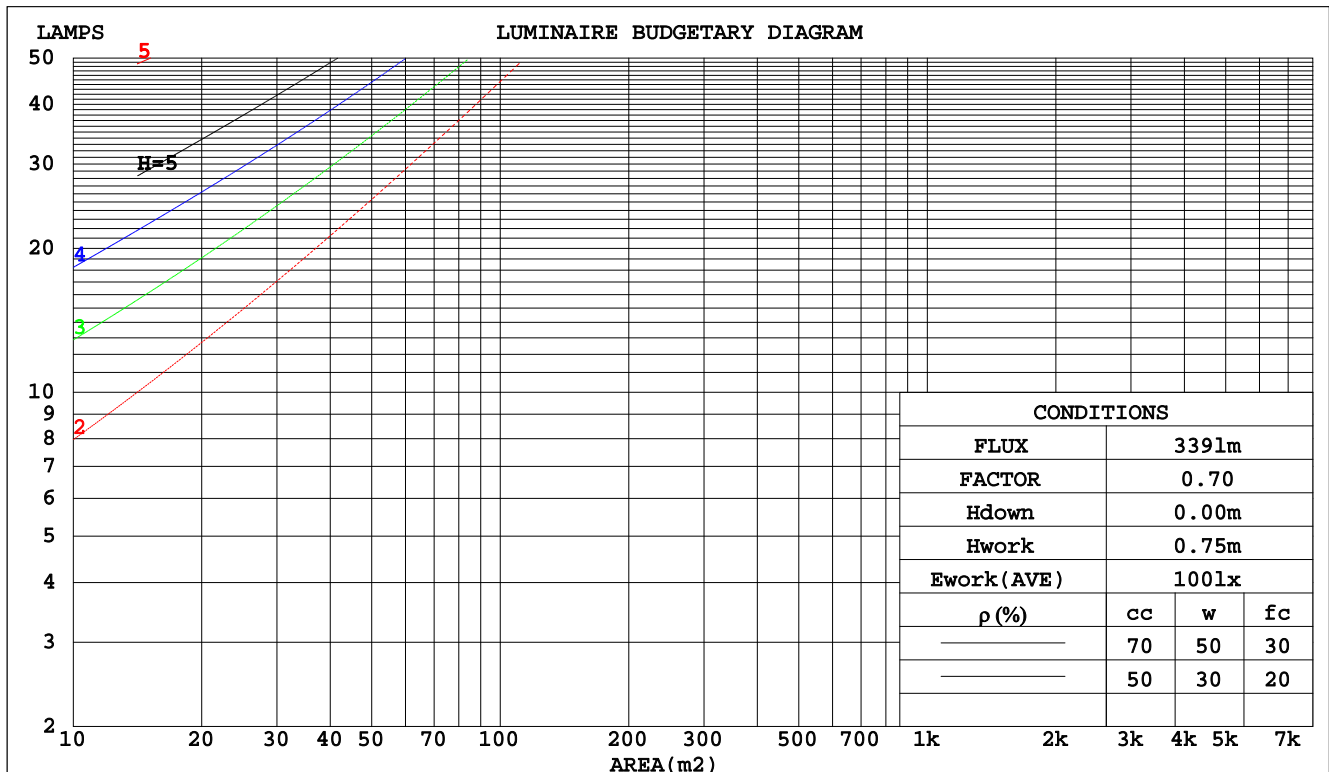
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm		
NAME: Capetown RR-830-65°	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi$ 109mm*H33mm	
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	.98	.92	.86	.95	.90	.85	.91	.86	.82	.87	.83	.79	.83	.80	.77	.75
2.0	.79	.69	.61	.77	.68	.60	.73	.65	.59	.69	.63	.57	.66	.61	.56	.53
3.0	.65	.54	.45	.63	.53	.44	.60	.51	.43	.56	.49	.42	.54	.47	.41	.39
4.0	.54	.43	.34	.53	.42	.33	.50	.40	.33	.47	.39	.32	.45	.38	.32	.29
5.0	.46	.35	.26	.45	.34	.26	.42	.33	.25	.40	.32	.25	.38	.31	.25	.22
6.0	.40	.29	.21	.39	.28	.21	.37	.27	.20	.35	.26	.20	.33	.26	.20	.17
7.0	.35	.24	.17	.34	.24	.17	.32	.23	.16	.31	.22	.16	.29	.22	.16	.14
8.0	.31	.21	.14	.30	.21	.14	.29	.20	.13	.27	.19	.13	.26	.19	.13	.11
9.0	.28	.18	.12	.27	.18	.11	.26	.17	.11	.25	.17	.11	.24	.16	.11	.09
10.0	.25	.16	.10	.25	.16	.10	.24	.15	.10	.22	.15	.09	.21	.14	.09	.07



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

## WEC AND CCEC

Test:U:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm		
NAME: Capetown RR-830-65°	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi$ 109mm*H33mm	
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	.431	.245	.078	.423	.242	.077	.410	.235	.075	.397	.229	.073	.385	.223	.072			
2.0	.404	.222	.068	.398	.219	.067	.385	.214	.066	.373	.209	.066	.362	.205	.065			
3.0	.364	.194	.058	.358	.192	.058	.347	.188	.057	.336	.184	.057	.326	.181	.056			
4.0	.327	.170	.050	.321	.168	.050	.311	.165	.049	.302	.162	.049	.293	.159	.048			
5.0	.294	.150	.043	.289	.149	.043	.280	.146	.043	.272	.143	.043	.264	.141	.042			
6.0	.267	.134	.038	.262	.133	.038	.254	.130	.038	.247	.128	.038	.239	.126	.037			
7.0	.243	.120	.034	.240	.119	.034	.232	.117	.034	.225	.116	.034	.219	.114	.033			
8.0	.223	.109	.031	.220	.108	.031	.214	.107	.030	.207	.105	.030	.202	.104	.030			
9.0	.206	.100	.028	.203	.099	.028	.197	.098	.028	.192	.096	.028	.187	.095	.027			
10.0	.191	.092	.025	.189	.091	.025	.183	.090	.025	.179	.089	.025	.174	.087	.025			

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	.189	.155	.125	.161	.133	.107	.110	.092	.074	.064	.053	.043	.020	.017	.014	
2.0	.187	.131	.084	.160	.113	.073	.110	.078	.051	.063	.046	.030	.020	.015	.010	
3.0	.183	.115	.061	.157	.099	.053	.108	.069	.037	.062	.040	.022	.020	.013	.007	
4.0	.176	.103	.047	.151	.089	.041	.104	.062	.029	.060	.036	.017	.019	.012	.006	
5.0	.168	.093	.038	.145	.081	.033	.100	.056	.023	.058	.033	.014	.019	.011	.005	
6.0	.160	.085	.031	.138	.074	.027	.095	.052	.019	.055	.030	.012	.018	.010	.004	
7.0	.152	.079	.027	.131	.068	.024	.090	.048	.017	.053	.028	.010	.017	.009	.003	
8.0	.145	.073	.024	.124	.063	.021	.086	.044	.015	.050	.026	.009	.016	.009	.003	
9.0	.137	.068	.021	.118	.059	.019	.082	.042	.013	.048	.025	.008	.015	.008	.003	
10.0	.130	.064	.019	.112	.055	.017	.078	.039	.012	.045	.023	.007	.015	.008	.002	

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
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:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm										
NAME: Capetown RR-830-65°					TYPE: Recessed Ground Light			SERIAL No.:		
SPEC.: 3000K					DIM.: $\phi$ 109mm*H33mm					
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	25.4	27.4	25.7	27.6	27.9	34.5	36.5	34.8	36.7	37.0
3H	26.2	28.1	26.6	28.3	28.6	38.0	39.9	38.3	40.1	40.4
4H	26.4	28.1	26.7	28.4	28.7	39.9	41.6	40.2	41.9	42.2
6H	26.4	28.0	26.7	28.3	28.6	41.3	43.0	41.7	43.3	43.6
8H	26.3	27.9	26.7	28.2	28.6	41.3	42.9	41.6	43.2	43.5
12H	26.2	27.8	26.6	28.1	28.5	41.2	42.8	41.6	43.1	43.4
4H 2H	30.6	32.3	30.9	32.6	32.9	35.1	36.9	35.4	37.1	37.4
3H	32.1	33.7	32.5	34.0	34.3	38.9	40.5	39.3	40.8	41.1
4H	32.6	34.0	33.0	34.4	34.7	41.0	42.5	41.4	42.8	43.2
6H	32.6	33.9	33.0	34.3	34.7	42.6	43.9	43.0	44.2	44.6
8H	32.6	33.8	33.0	34.2	34.6	42.5	43.7	43.0	44.1	44.5
12H	32.5	33.7	33.0	34.1	34.5	42.5	43.6	42.9	44.0	44.4
8H 4H	35.7	36.9	36.1	37.3	37.7	41.4	42.6	41.8	43.0	43.4
6H	35.8	36.9	36.3	37.3	37.7	42.9	44.0	43.4	44.4	44.8
8H	35.8	36.7	36.3	37.2	37.6	42.9	43.8	43.4	44.2	44.7
12H	35.8	36.6	36.3	37.0	37.5	42.9	43.7	43.4	44.1	44.6
12H 4H	36.0	37.1	36.4	37.5	37.9	41.3	42.5	41.8	42.9	43.3
6H	36.1	37.0	36.6	37.5	37.9	42.9	43.8	43.4	44.3	44.7
8H	36.1	36.9	36.6	37.4	37.8	42.9	43.7	43.4	44.1	44.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.2					+ 0.1 / - 0.3				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.3				

CIE Pub.117, 152.1 lm Total Lamp Luminous Flux Correct ( $8\log(F/F_0) = -6.5$ )

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

Test:U:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm		
NAME: Capetown RR-830-65°	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi$ 109mm*H33mm	
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) $k(RI) \times RCR = 5$									
$k = 0.60$	40	25	16	39	25	16	37	24	16	7
0.80	49	34	24	48	33	24	46	32	23	14
1.00	58	43	33	57	42	32	54	45	32	22
1.25	66	52	41	65	51	41	61	49	40	30
1.50	73	59	48	71	58	48	67	56	47	37
2.00	83	70	61	80	69	60	76	66	58	48
2.50	89	77	69	86	76	68	82	73	66	55
3.00	94	84	76	91	82	75	86	79	72	62
4.00	100	92	85	97	90	84	92	86	81	71
5.00	104	97	91	101	95	90	96	91	87	76
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

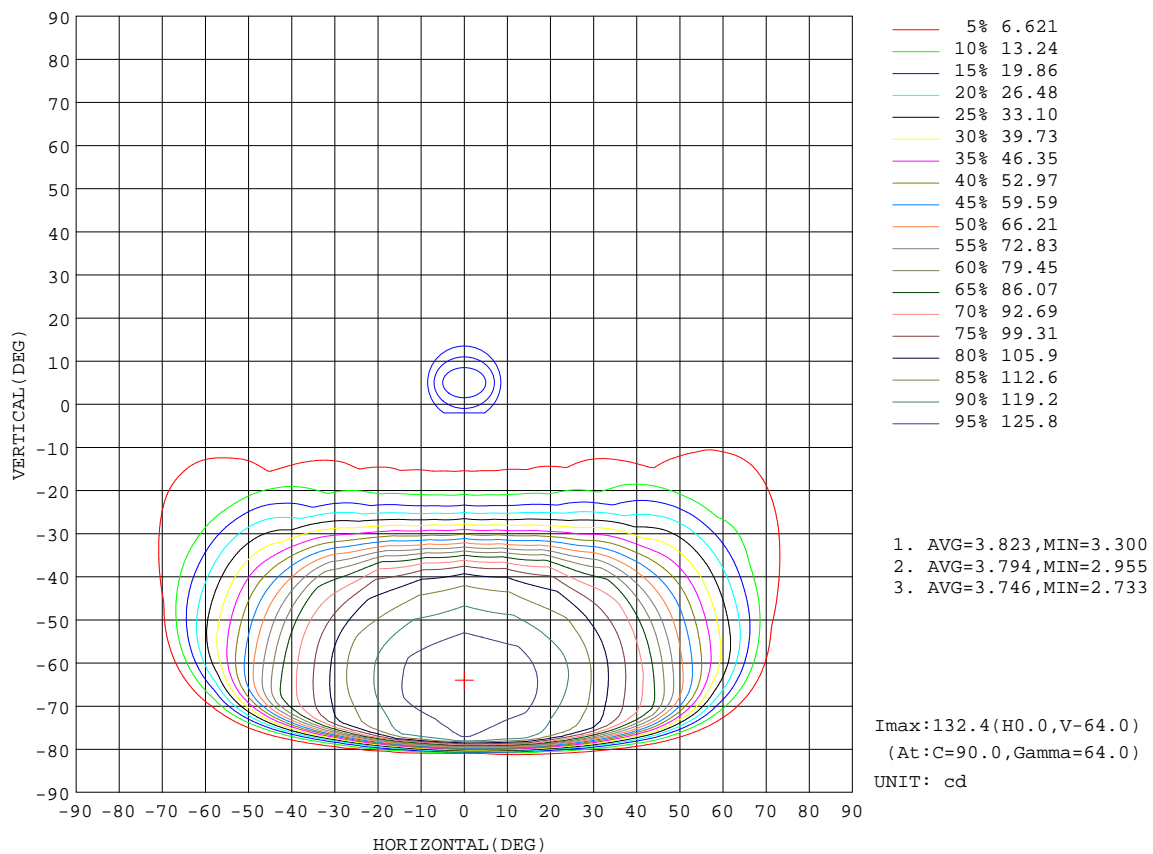
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:



ISOCANDELA DIAGRAM

Test:U:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm		
NAME: Capetown RR-830-65°	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi$ 109mm*H33mm	
MFR.: NEKO LIGHTING AG		



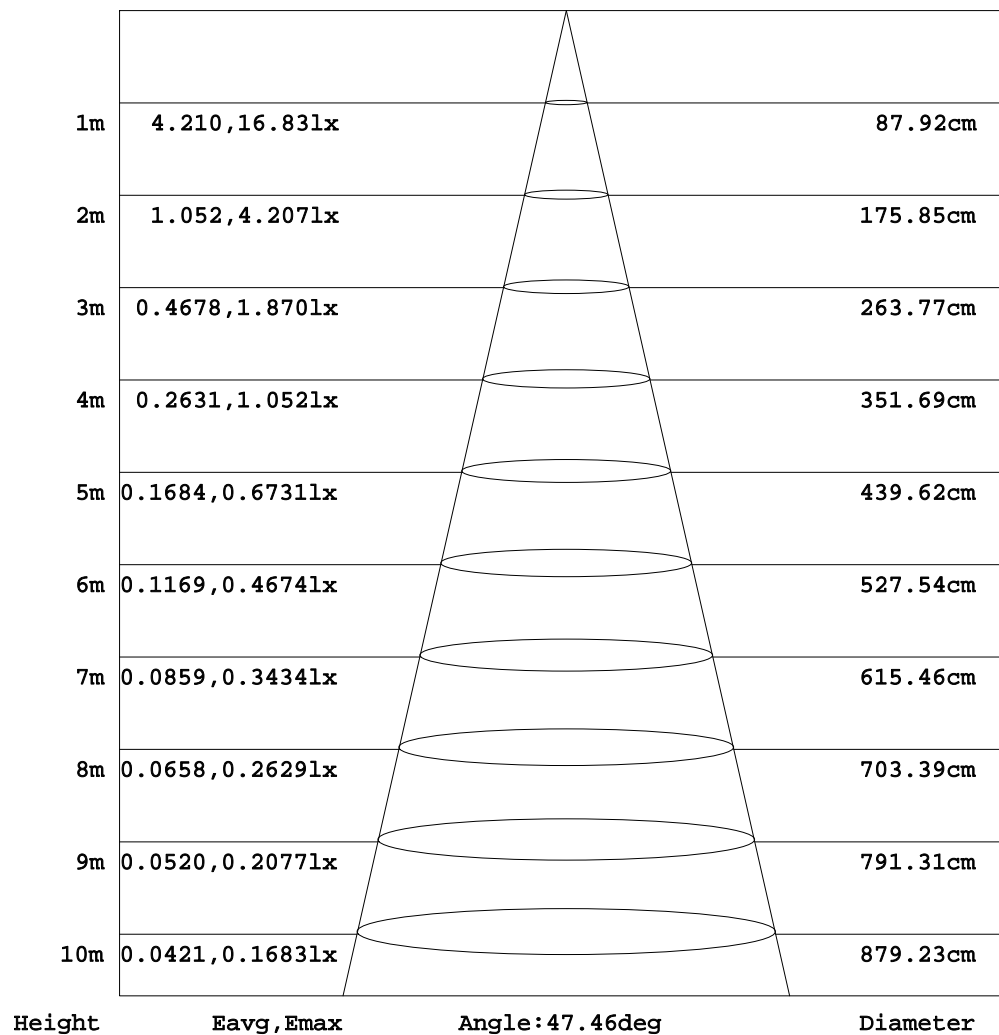
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

**AAI Figure**

Test:U:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm		
NAME: Capetown RR-830-65°	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi 109\text{mm} \times H33\text{mm}$	
MFR.: NEKO LIGHTING AG		

Flux out: 2.622 lm



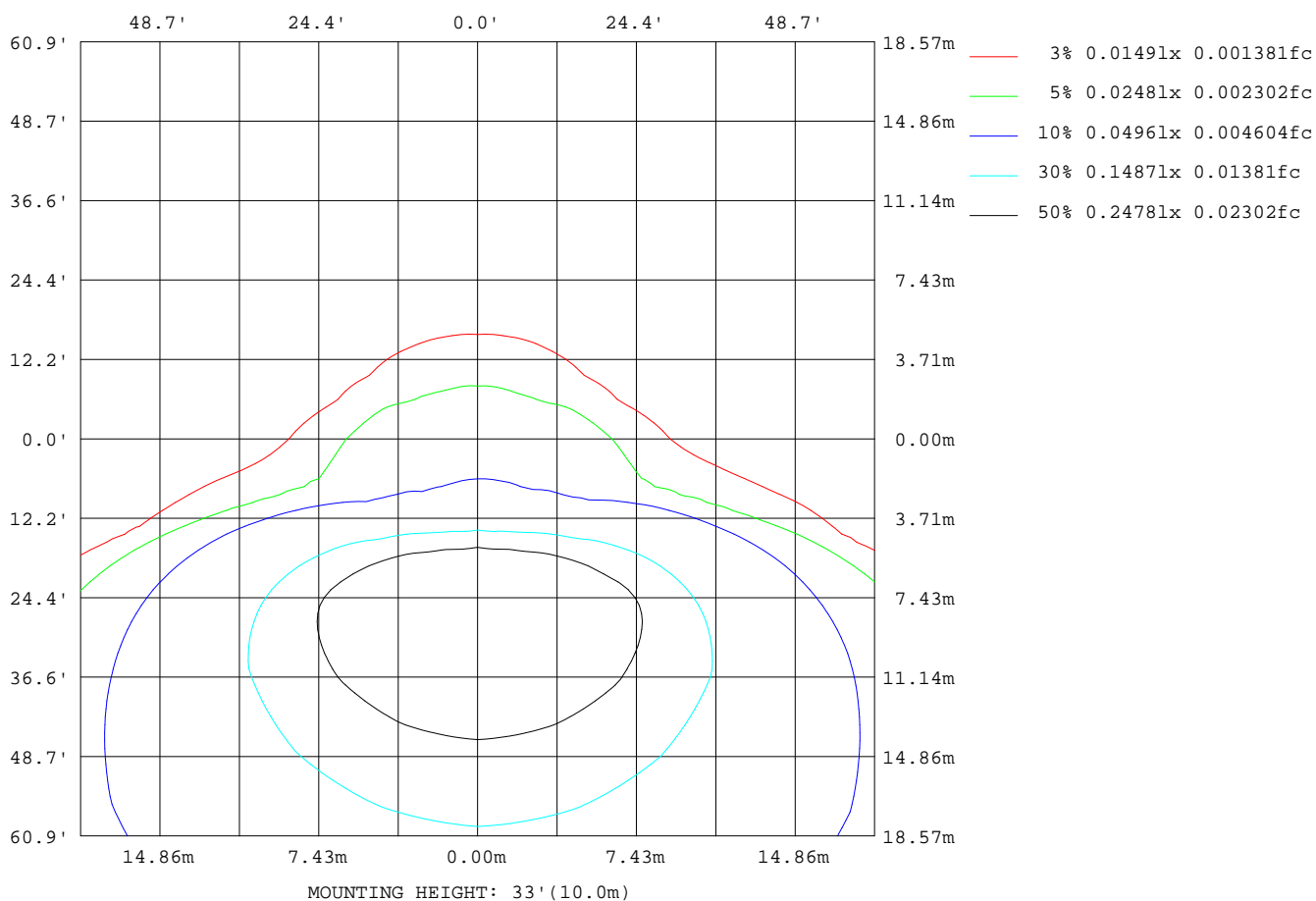
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm		
NAME: Capetown RR-830-65°	TYPE: Recessed Ground Light	SERIAL No.:
SPEC.: 3000K	DIM.: $\phi 109\text{mm} \times \text{H}33\text{mm}$	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: Jason  
Test Date: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.362  
Humidity: 58%  
Test Distance: 5.850m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:220.9V I:0.0445A P:4.319W PF:0.4394 Freq:60.07Hz Lamp Flux:152.058x1 lm		
NAME: Capetown RR-830-65°	TYPE:Recessed Ground Light	SERIAL No.:
SPEC.:3000K	DIM.: φ109mm*H33mm	
MFR.: NEKO LIGHTING AG		

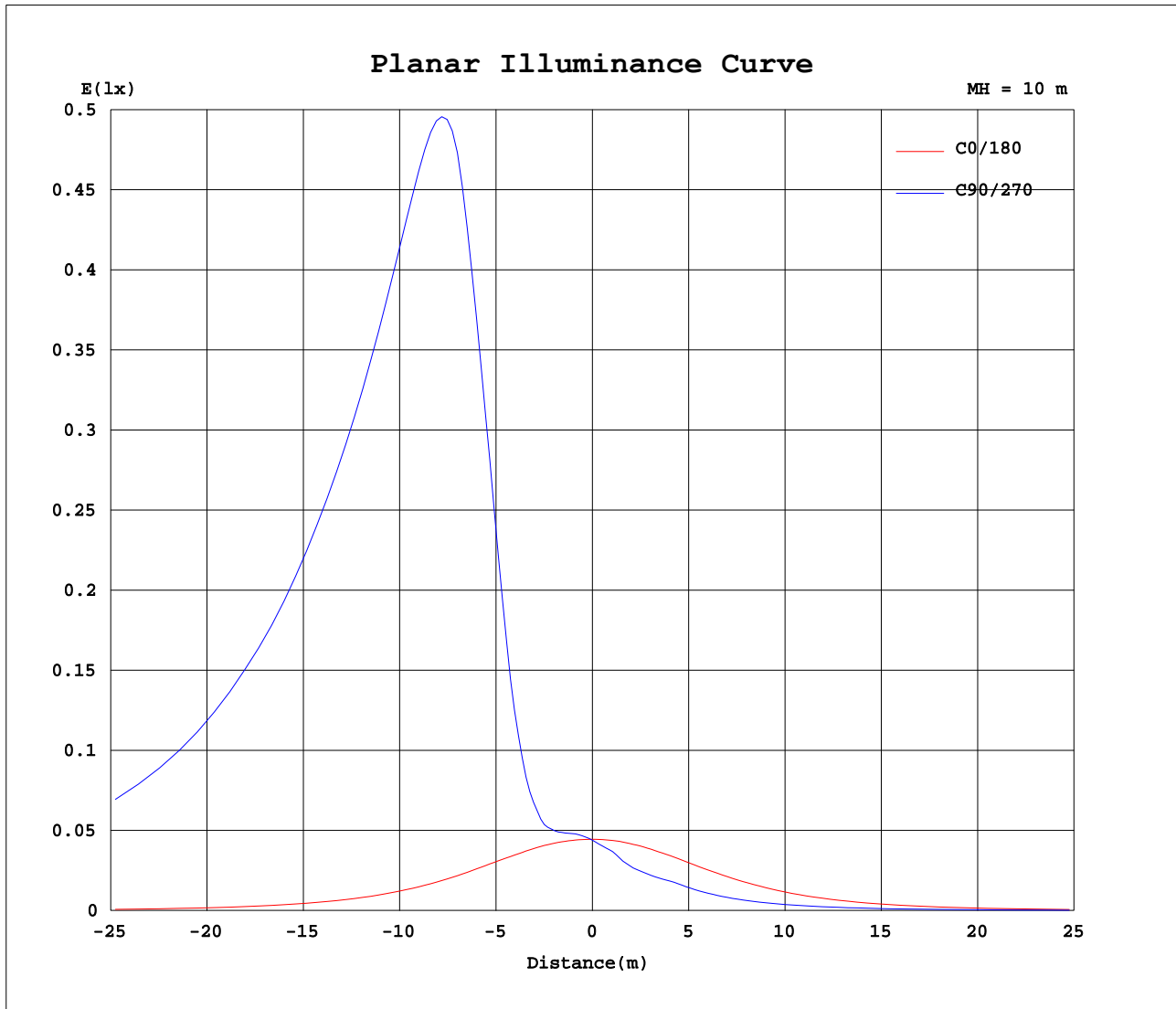
AvgL	cd/m2
L_0~180 (65) av	302
L_0~180 (75) av	203
L_0~180 (85) av	200
L_90~270 (65) av	11825
L_90~270 (75) av	18557
L_90~270 (85) av	255
L_45 (65) av	8254
L_45 (75) av	12464
L_45 (85) av	250

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:Jason  
Test Date:2020-06-09

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
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: 2020-06-09

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
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: 1.0DEG
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: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:5.850m [K=1.0000]
Remarks:

```