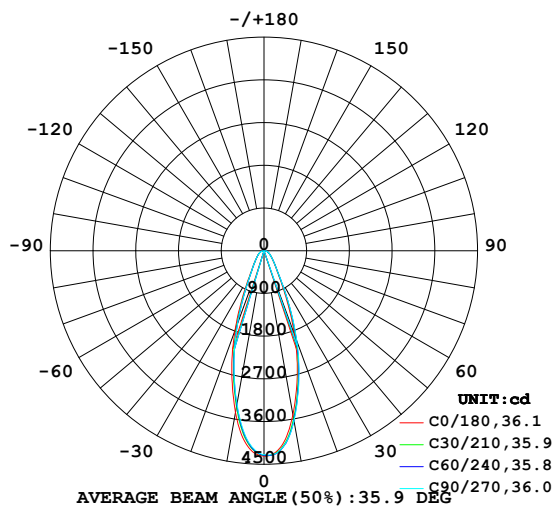


LUMINAIRE PHOTOMETRIC TEST REPORT

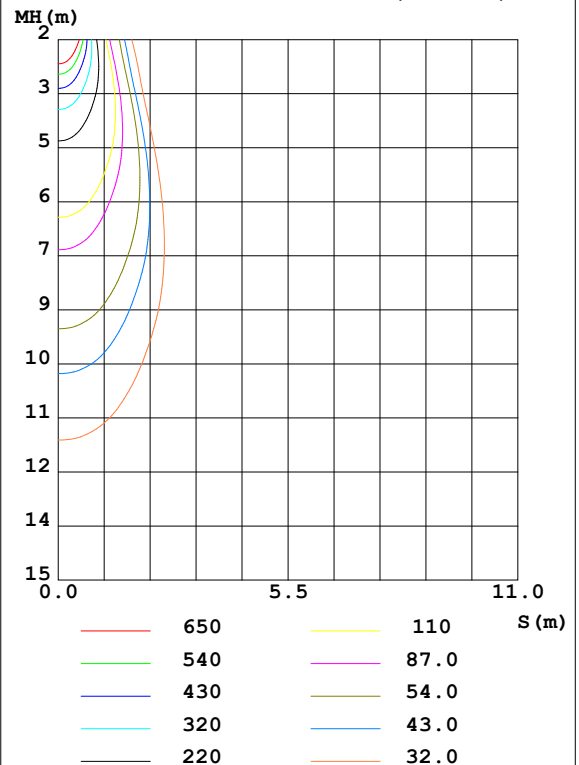
Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm		
NAME: VIBES-V2RC-28W-930-36°	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 77mm*H39mm*2	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 83.79 lm/W
MODEL	3000K	I _{max} (cd)	4328	S/MH (C0/180)	0.58	
NOMINAL POWER (W)	28	LOR (%)	100.0	S/MH (C90/270)	0.55	
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2400.7	η UP, DN (C0-180)	0.0, 52.5	
NOMINAL FLUX (lm)	2400.68	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 47.5	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.60	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jasoan
Test Date: 2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 8.967m [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	3512	3611	3645	3521	3461	3322	3279	3372	0- 10	371.0	371.0	15.5,15.5
20	1882	1987	2023	1899	1787	1648	1628	1737	10- 20	724.5	1096	45.6,45.6
30	654.4	705.6	708.0	643.2	606.2	566.7	566.7	600.5	20- 30	508.5	1604	66.8,66.8
40	326.3	338.5	336.7	314.6	301.4	293.5	298.4	306.6	30- 40	272.4	1876	78.2,78.2
50	198.7	204.9	201.4	192.7	186.2	183.6	185.0	188.4	40- 50	188.8	2065	86,86
60	133.2	138.2	138.0	132.9	129.4	126.3	124.9	127.4	50- 60	142.2	2208	92,92
70	86.49	90.92	92.26	88.51	86.33	81.76	80.25	82.15	60- 70	107.2	2315	96.4,96.4
80	37.70	43.77	46.81	40.47	35.35	30.40	29.22	32.63	70- 80	66.90	2382	99.2,99.2
90	1.345	3.445	5.022	2.337	0.8279	0.5610	0.5610	0.5583	80- 90	19.09	2401	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): 1978.3 lm

%lum = 82.4%

%lamp = 82.4%

Conical surface Flux(120deg): 2207.5 lm

%lum = 92.0%

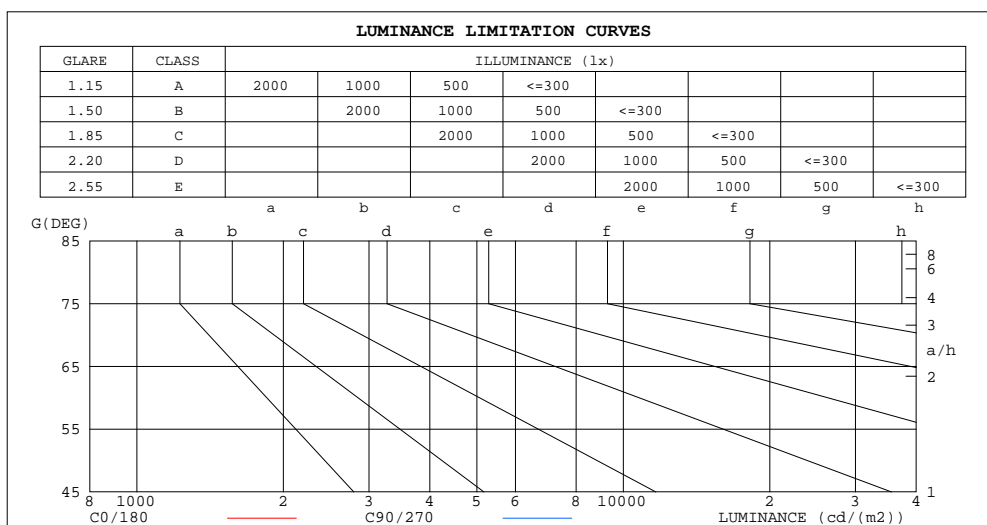
%lamp = 92.0%

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 γ Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm		
NAME: VIBES-V2RC-28W-930-36°	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi 77\text{mm} \times H39\text{mm} \times 2$	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	60014	73527
80	65271	81027
75	75151	81919
70	76018	81085
65	77533	81453
60	80058	82992
55	84525	86589
50	92926	94187
45	106364	108430

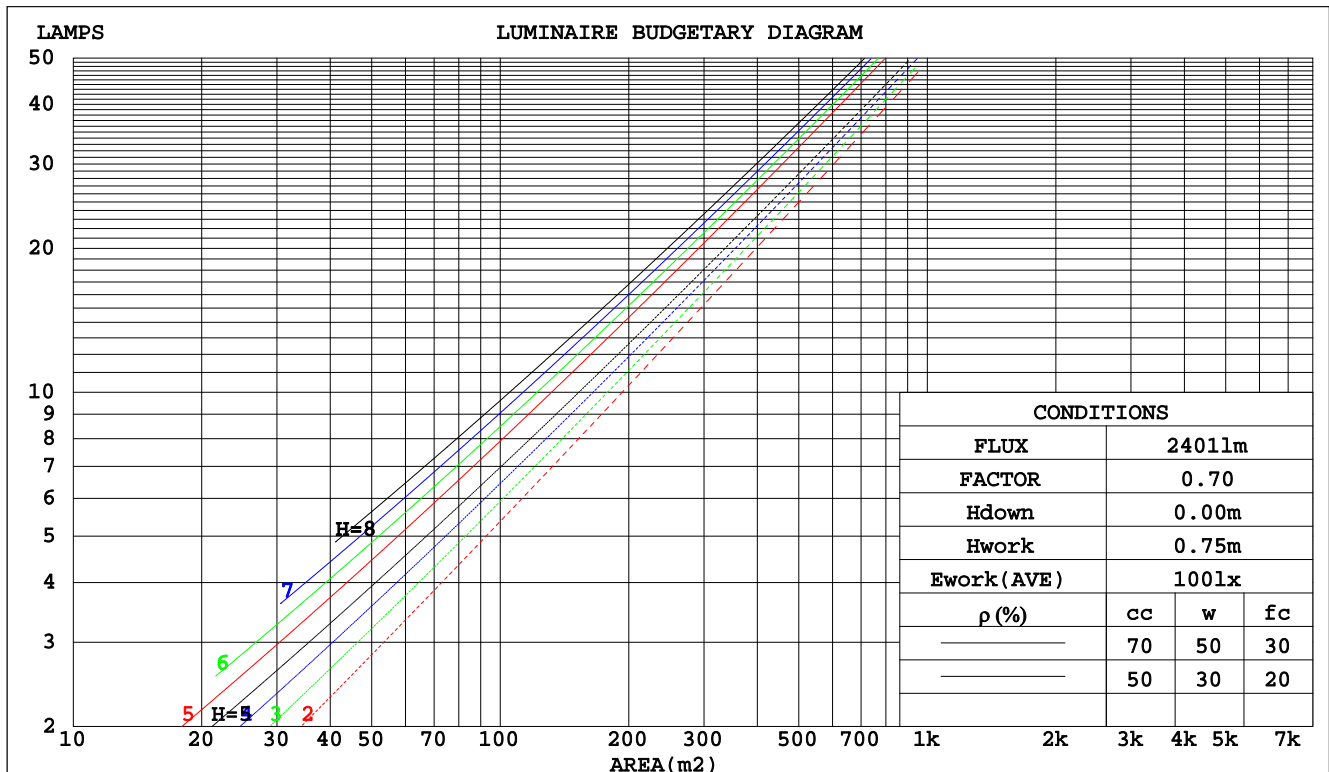
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm		
NAME: VIBES-V2RC-28W-930-36°	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ77mm*H39mm*2	
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	1.09	1.06	1.03	1.07	1.04	1.02	1.03	1.01	.99	.99	.97	.96	.95	.94	.93	.91
2.0	1.00	.96	.92	.98	.94	.91	.95	.92	.89	.92	.89	.87	.89	.87	.85	.83
3.0	.93	.87	.83	.91	.86	.82	.89	.84	.81	.86	.82	.79	.84	.81	.78	.76
4.0	.86	.80	.76	.85	.79	.75	.83	.78	.74	.81	.77	.73	.79	.75	.72	.71
5.0	.81	.74	.70	.80	.74	.69	.78	.73	.69	.76	.72	.68	.75	.71	.68	.66
6.0	.76	.70	.65	.75	.69	.65	.74	.68	.64	.72	.67	.64	.71	.67	.63	.62
7.0	.72	.65	.61	.71	.65	.61	.70	.64	.60	.68	.64	.60	.67	.63	.60	.58
8.0	.68	.62	.57	.67	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.57	.55
9.0	.65	.58	.54	.64	.58	.54	.63	.58	.54	.62	.57	.54	.61	.57	.54	.52
10.0	.61	.56	.52	.61	.55	.52	.60	.55	.51	.59	.55	.51	.59	.54	.51	.50



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-11-15

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm		
NAME: VIBES-V2RC-28W-930-36°	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: φ77mm*H39mm*2	
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	.211	.120	.038	.204	.117	.037	.191	.110	.035	.180	.104	.033	.169	.098	.032		
2.0	.198	.108	.033	.192	.106	.033	.181	.101	.031	.171	.096	.030	.162	.092	.029		
3.0	.184	.098	.029	.179	.096	.029	.170	.092	.028	.161	.088	.027	.153	.085	.026		
4.0	.172	.089	.026	.168	.088	.026	.160	.085	.025	.152	.082	.025	.145	.079	.024		
5.0	.161	.082	.024	.157	.081	.023	.150	.078	.023	.143	.076	.023	.137	.073	.022		
6.0	.151	.076	.022	.148	.075	.021	.141	.073	.021	.136	.071	.021	.130	.069	.020		
7.0	.142	.070	.020	.139	.069	.020	.134	.068	.019	.129	.066	.019	.124	.064	.019		
8.0	.134	.066	.018	.132	.065	.018	.127	.063	.018	.122	.062	.018	.118	.061	.018		
9.0	.127	.062	.017	.125	.061	.017	.121	.060	.017	.117	.058	.017	.113	.057	.017		
10.0	.121	.058	.016	.119	.057	.016	.115	.056	.016	.111	.055	.016	.108	.054	.016		

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	.173	.157	.142	.148	.135	.122	.102	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.160	.132	.109	.137	.114	.095	.094	.079	.066	.054	.046	.039	.017	.015	.013	
3.0	.148	.114	.086	.127	.098	.075	.087	.068	.053	.050	.040	.031	.016	.013	.010	
4.0	.138	.099	.070	.118	.086	.061	.081	.060	.043	.047	.035	.025	.015	.011	.008	
5.0	.129	.088	.058	.111	.076	.050	.076	.053	.035	.044	.031	.021	.014	.010	.007	
6.0	.121	.079	.048	.104	.068	.042	.072	.048	.030	.042	.028	.018	.013	.009	.006	
7.0	.114	.071	.041	.098	.062	.036	.068	.043	.025	.039	.025	.015	.013	.008	.005	
8.0	.108	.065	.035	.093	.056	.031	.064	.039	.022	.037	.023	.013	.012	.008	.004	
9.0	.102	.060	.031	.088	.052	.027	.061	.036	.019	.036	.021	.011	.012	.007	.004	
10.0	.097	.055	.027	.084	.048	.024	.058	.034	.017	.034	.020	.010	.011	.007	.003	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-11-15

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm										
NAME: VIBES-V2RC-28W-930-36°					TYPE:Downlight			SERIAL No.:		
SPEC.:3000K					DIM.: $\phi 77\text{mm} \times \text{H}39\text{mm} \times 2$					
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	22.6	23.6	22.8	23.8	24.0	22.7	23.7	22.9	23.9	24.1
3H	23.9	24.9	24.2	25.1	25.3	24.1	25.1	24.4	25.3	25.5
4H	24.6	25.5	24.8	25.7	25.9	24.8	25.7	25.1	25.9	26.2
6H	25.1	25.9	25.4	26.2	26.4	25.4	26.2	25.7	26.5	26.7
8H	25.2	26.0	25.5	26.3	26.5	25.6	26.4	25.9	26.7	26.9
12H	25.3	26.1	25.6	26.3	26.6	25.7	26.5	26.0	26.8	27.0
4H 2H	23.1	24.0	23.4	24.3	24.5	23.2	24.1	23.5	24.4	24.6
3H	24.7	25.5	25.1	25.8	26.1	24.9	25.7	25.2	25.9	26.2
4H	25.5	26.2	25.9	26.5	26.9	25.7	26.4	26.1	26.7	27.1
6H	26.1	26.8	26.5	27.1	27.5	26.4	27.1	26.8	27.4	27.8
8H	26.3	26.9	26.7	27.3	27.6	26.7	27.3	27.1	27.6	28.0
12H	26.4	27.0	26.8	27.4	27.7	26.8	27.4	27.2	27.8	28.2
8H 4H	25.8	26.4	26.2	26.8	27.2	26.0	26.6	26.4	27.0	27.3
6H	26.6	27.1	27.0	27.5	27.9	26.9	27.4	27.3	27.8	28.2
8H	26.9	27.3	27.3	27.7	28.2	27.2	27.6	27.6	28.1	28.5
12H	27.1	27.4	27.5	27.9	28.4	27.4	27.8	27.9	28.3	28.7
12H 4H	25.9	26.4	26.3	26.8	27.2	26.0	26.6	26.4	27.0	27.4
6H	26.7	27.1	27.1	27.5	28.0	27.0	27.4	27.4	27.8	28.3
8H	27.0	27.3	27.4	27.8	28.3	27.3	27.7	27.8	28.1	28.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 2401 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.0$)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm		
NAME: VIBES-V2RC-28W-930-36°	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\varnothing 77\text{mm} \times H39\text{mm} \times 2$	
MFR.: NEKO LIGHTING AG		

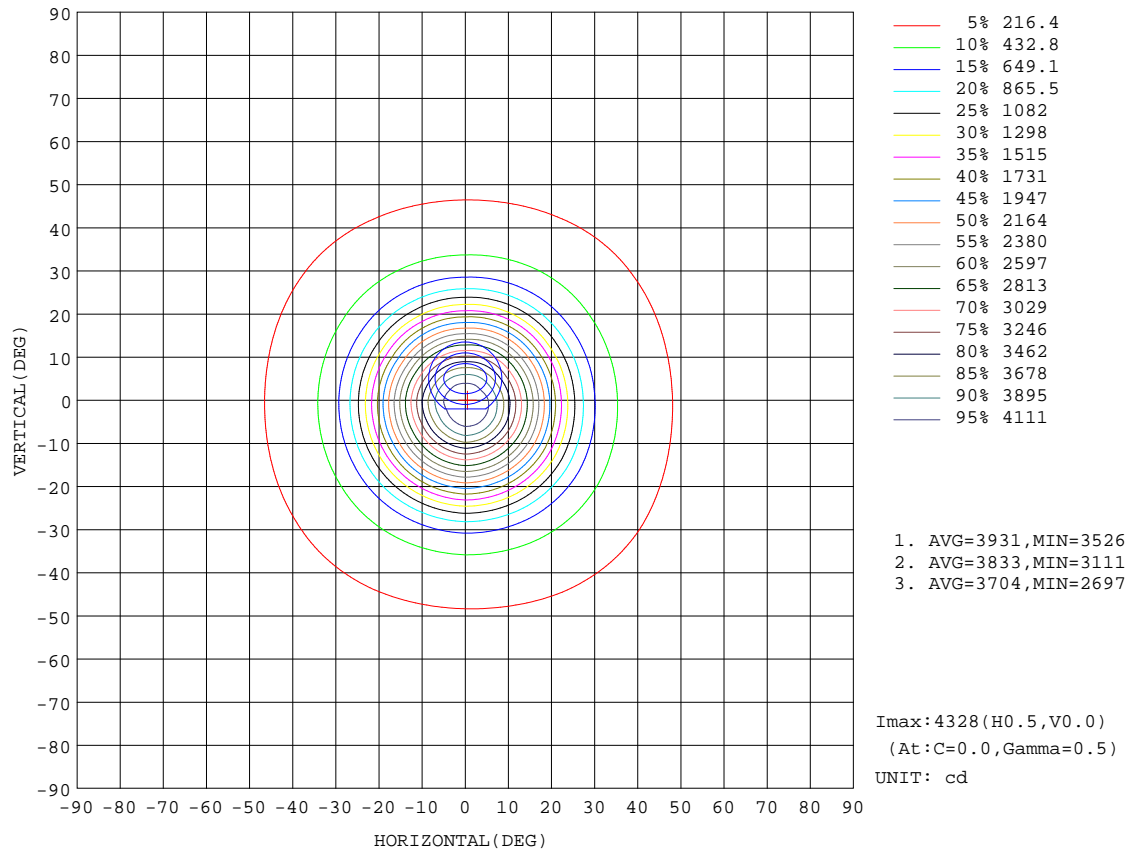
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	78	70	65	78	70	65	77	70	65	61
0.80	86	79	74	86	78	74	84	78	73	69
1.00	92	85	80	91	84	79	89	84	79	74
1.25	97	90	85	96	89	85	93	88	84	79
1.50	100	94	89	99	93	89	96	91	88	82
2.00	104	99	94	103	97	94	100	95	92	86
2.50	107	101	97	105	100	97	101	98	95	88
3.00	109	104	100	107	103	99	103	100	97	90
4.00	111	108	105	109	106	103	105	103	101	93
5.00	113	110	107	111	108	106	107	105	103	95
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jasoan
 Test Date:2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
 Humidity:58%
 Test Distance:8.967m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm		
NAME: VIBES-V2RC-28W-930-36°	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi 77\text{mm} \times \text{H}39\text{mm} \times 2$	
MFR.: NEKO LIGHTING AG		



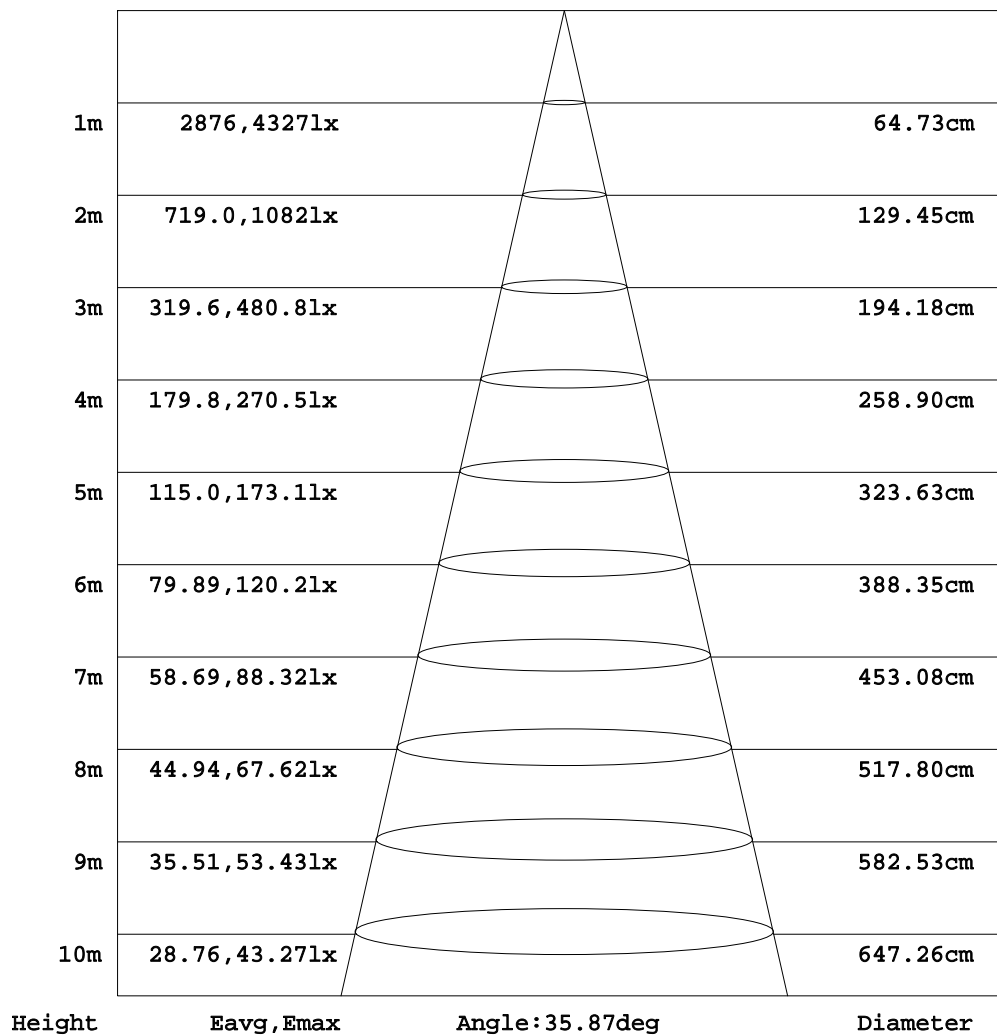
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

AAI Figure

Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm		
NAME: VIBES-V2RC-28W-930-36°	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi 77\text{mm} \times \text{H}39\text{mm} \times 2$	
MFR.: NEKO LIGHTING AG		

Flux out:953.9 lm



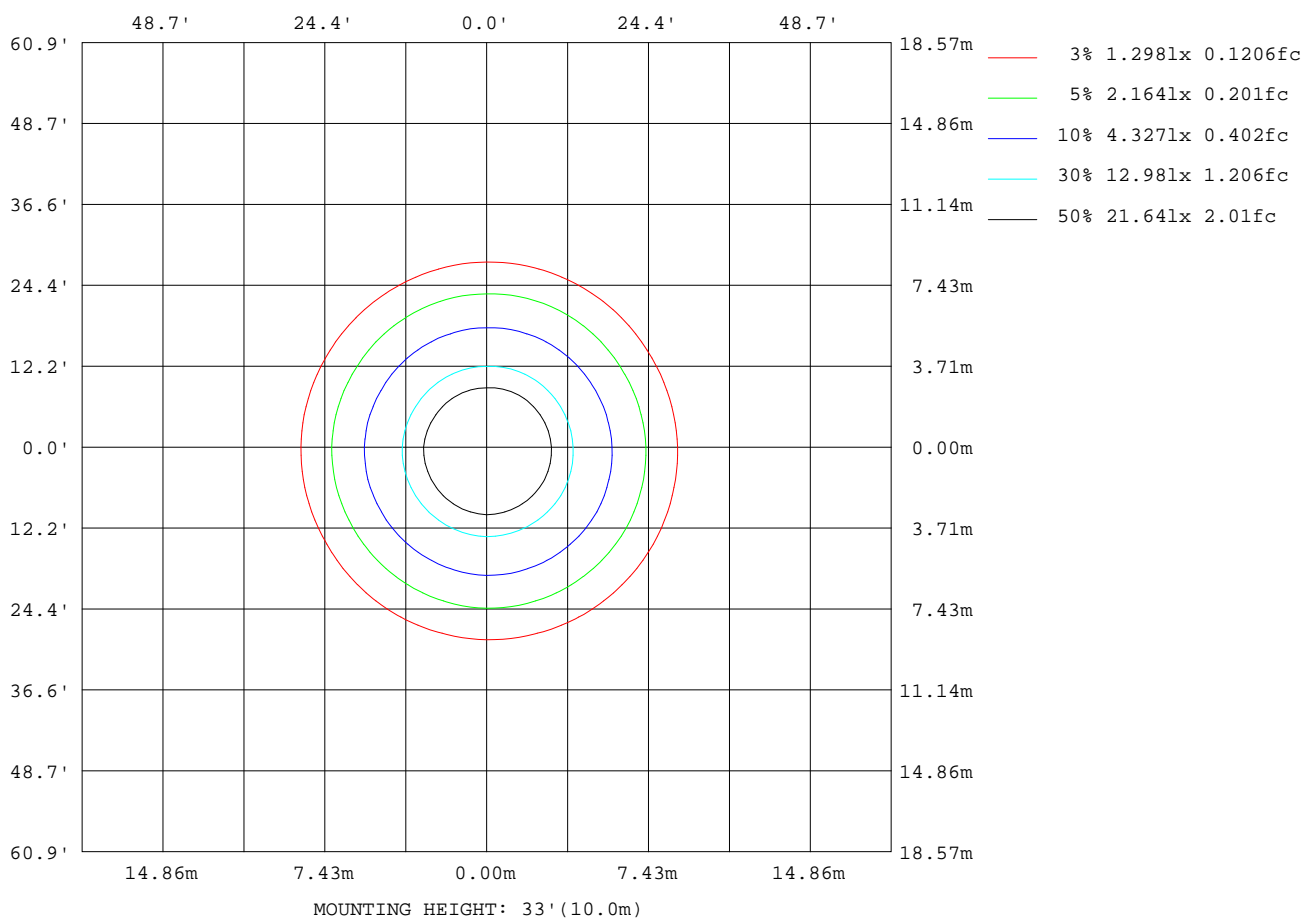
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm		
NAME: VIBES-V2RC-28W-930-36°	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: $\phi 77\text{mm} \times H39\text{mm} \times 2$	
MFR.: NEKO LIGHTING AG		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:241.1V I:0.1222A P:28.65W PF:0.9724 Freq:49.99Hz Lamp Flux:2400.68x1 lm		
NAME: VIBES-V2RC-28W-930-36°	TYPE:Downlight	SERIAL No.:
SPEC.:3000K	DIM.: ϕ 77mm*H39mm*2	
MFR.: NEKO LIGHTING AG		

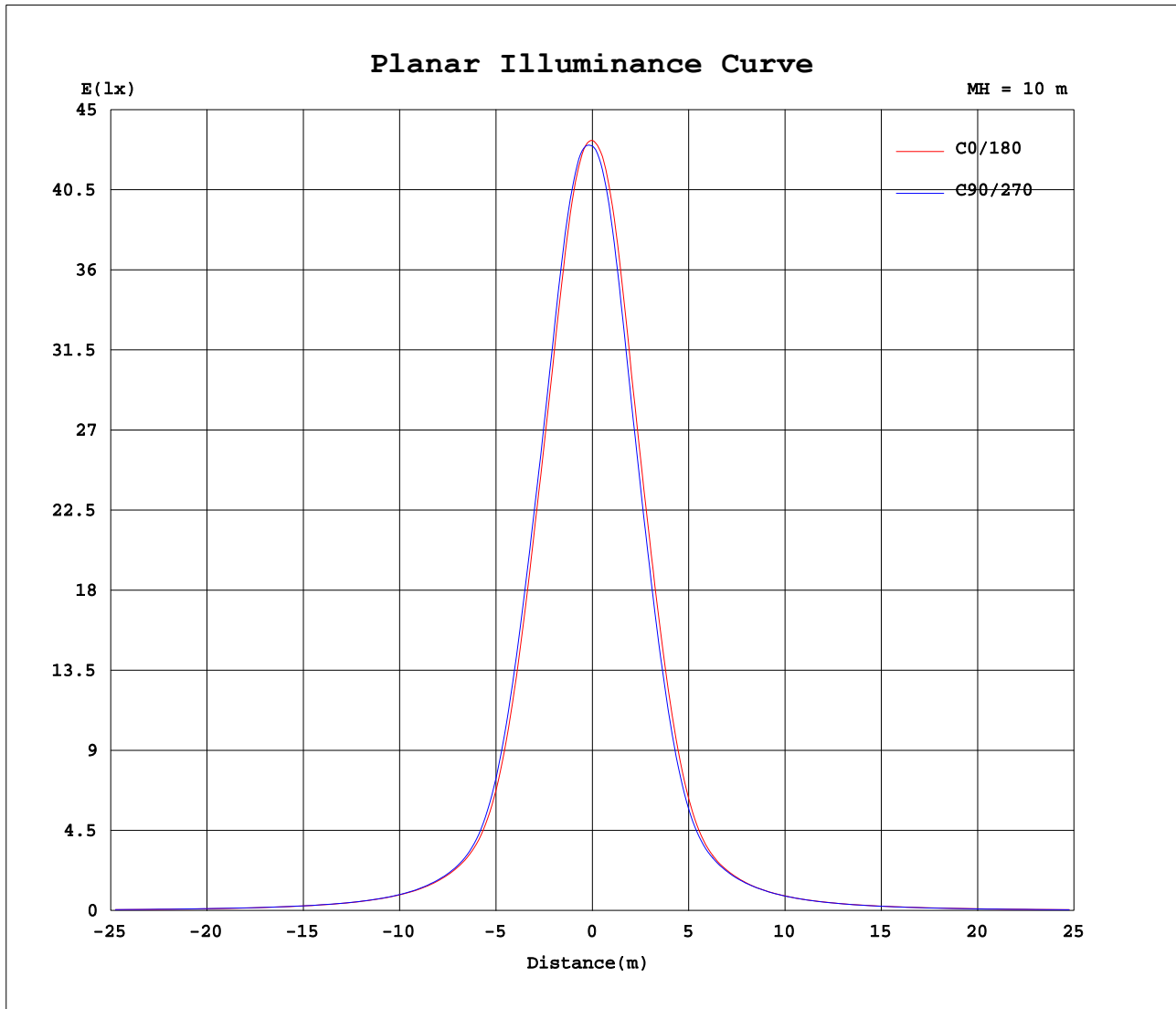
AvgL	cd/m2
L_0~180 (65) av	77012
L_0~180 (75) av	75058
L_0~180 (85) av	58433
L_90~270 (65) av	77052
L_90~270 (75) av	74846
L_90~270 (85) av	59904
L_45 (65) av	76773
L_45 (75) av	74543
L_45 (85) av	58642

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jasoan
Test Date:2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
Test Distance:8.967m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jasoan
Test Date: 2022-11-15

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 8.967m [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:8.967m [K=1.0000]
Remarks:

```