

LED Tracklight ROXY-K-28W-940-20



Light Output Ratio:	100.0%	
Luminaire Power:	27.13 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: 2020-06-11

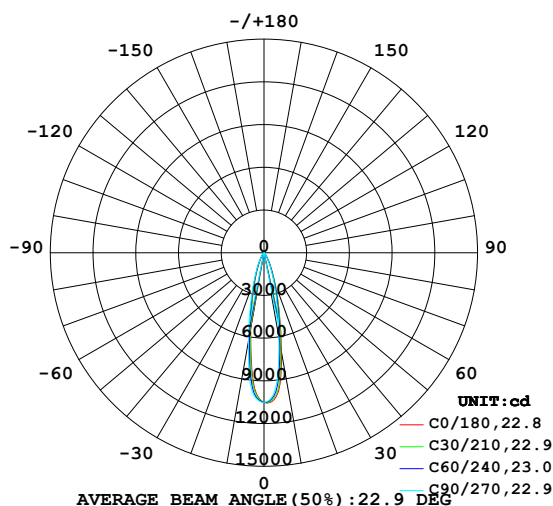
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

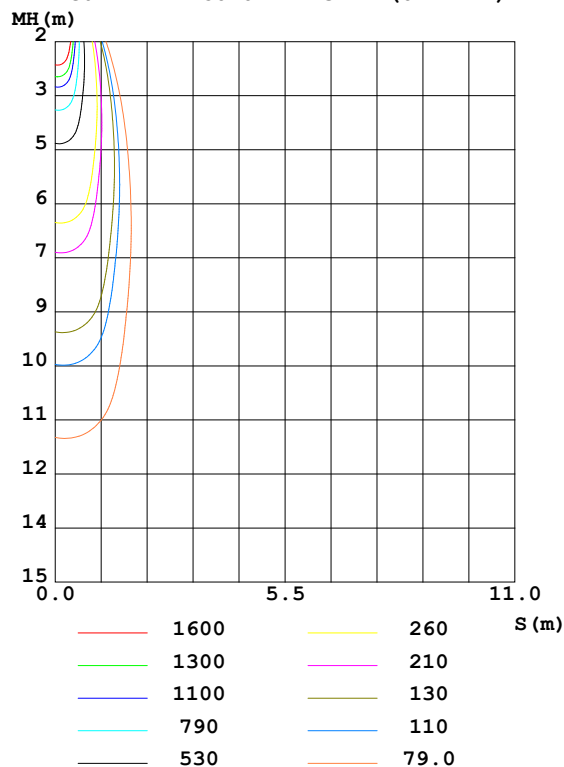
Test:U:220.9V I:0.1297A P:27.13W PF:0.9472 Freq:60.07Hz Lamp Flux:2645.25x1 lm		
NAME: ROXY-K-28W-940-20	TYPE:Tracklight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 72mm*H137mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 97.49 lm/W			
MODEL	CITIZEN-4000K	I _{max} (cd)	10556	S/MH (C0/180)	0.35
NOMINAL POWER (W)	28	LOR (%)	100.0	S/MH (C90/270)	0.40
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2645.2	η UP, DN (C0-180)	0.0, 50.6
NOMINAL FLUX (lm)	2645.25	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.4
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
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

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γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	707.8	666.5	605.5	570.9	538.3	566.9	629.6	670.9	0- 10	798.4	798.4	30.2,30.2
20	220.5	217.1	190.7	175.2	162.6	176.6	194.3	201.3	10- 20	984.6	1783	67.4,67.4
30	61.48	60.30	50.63	47.50	43.01	49.51	53.57	56.74	20- 30	487.4	2270	85.8,85.8
40	19.13	19.12	17.04	16.42	15.41	16.60	17.56	18.02	30- 40	185.9	2456	92.9,92.9
50	9.859	9.591	8.630	8.668	8.123	8.803	9.128	9.591	40- 50	96.81	2553	96.5,96.5
60	4.993	4.736	4.078	4.111	4.051	4.335	4.487	4.617	50- 60	59.21	2612	98.8,98.8
70	1.687	1.561	1.237	1.243	1.234	1.335	1.475	1.508	60- 70	26.39	2639	99.8,99.8
80	0.0756	0.0449	0.0283	0.0235	0.0177	0.0235	0.0300	0.0410	70- 80	6.359	2645	100,100
90	0.0127	0.0125	0.0127	0.0127	0.0088	0.0087	0.0081	0.0083	80- 90	0.1552	2645	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:×10cd									UNIT:lm		

Conical surface Flux(90deg): 2510.3 lm

%lum = 94.9%

%lamp = 94.9%

Conical surface Flux(120deg): 2612.3 lm

%lum = 98.8%

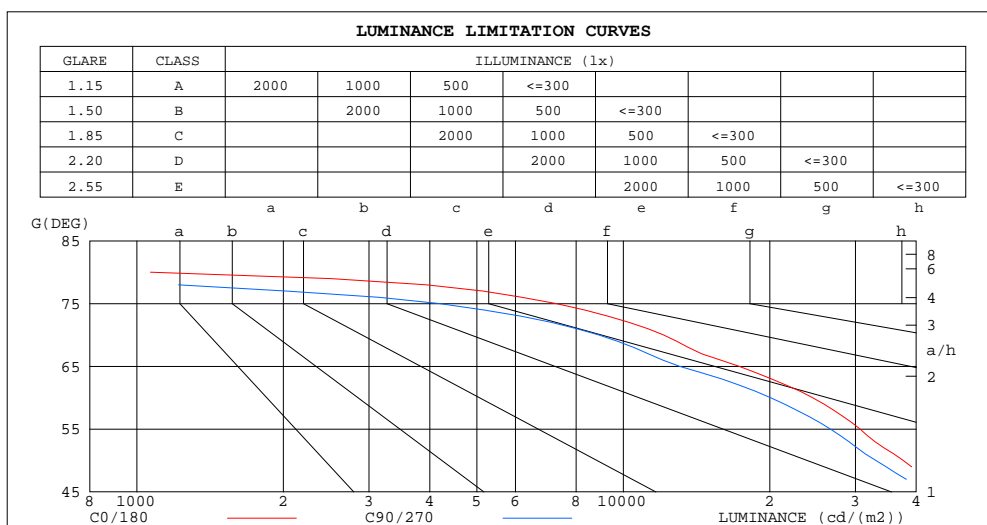
%lamp = 98.8%

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

LUMINANCE LIMITATION CURVES

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SPEC.:4000K	DIM.: ϕ 72mm*H137mm	
MFR.: NEKO LIGHTING AG		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	419	395
80	1067	401
75	7272	4186
70	12092	8899
65	17298	13052
60	24485	20066
55	30681	26646
50	37606	33030
45	46491	41931

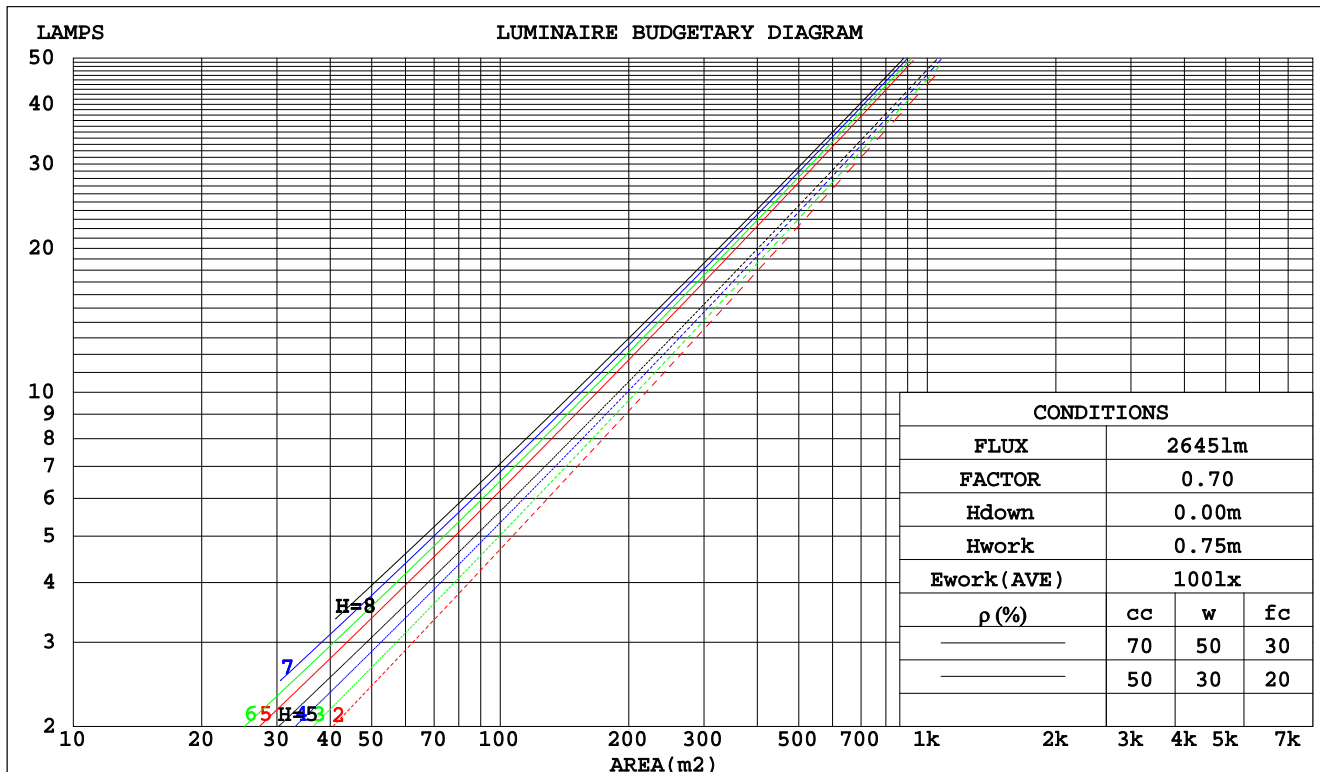
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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	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	1.12	1.10	1.08	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	.00	.99	.98	.97	.95
2.0	1.06	1.02	.99	1.04	1.01	.98	1.01	.98	.96	.98	.96	.94	.95	.94	.92	.91
3.0	1.00	.96	.93	.99	.95	.92	.96	.93	.91	.94	.91	.89	.92	.90	.88	.87
4.0	.95	.91	.87	.94	.90	.87	.92	.89	.86	.90	.87	.85	.89	.86	.84	.83
5.0	.91	.86	.83	.90	.86	.83	.89	.85	.82	.87	.84	.81	.86	.83	.81	.79
6.0	.87	.83	.79	.87	.82	.79	.85	.81	.78	.84	.81	.78	.83	.80	.77	.76
7.0	.84	.79	.76	.83	.79	.76	.82	.78	.75	.81	.78	.75	.80	.77	.74	.73
8.0	.81	.76	.73	.80	.76	.73	.79	.75	.72	.78	.75	.72	.78	.74	.72	.71
9.0	.78	.73	.70	.78	.73	.70	.77	.73	.70	.76	.72	.70	.75	.72	.69	.68
10.0	.75	.71	.68	.75	.71	.68	.74	.70	.68	.74	.70	.67	.73	.70	.67	.66



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WEC AND CCEC

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SPEC.:4000K	DIM.: φ72mm*H137mm	
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	.154	.087	.028	.147	.084	.027	.134	.077	.025	.123	.071	.023	.112	.065	.021		
2.0	.145	.079	.024	.139	.077	.024	.129	.072	.022	.119	.067	.021	.110	.062	.020		
3.0	.136	.072	.022	.131	.070	.021	.122	.066	.020	.114	.063	.019	.107	.059	.018		
4.0	.128	.066	.020	.124	.065	.019	.116	.062	.018	.110	.059	.018	.103	.056	.017		
5.0	.121	.061	.018	.117	.060	.018	.111	.058	.017	.105	.055	.016	.099	.053	.016		
6.0	.114	.057	.016	.111	.056	.016	.106	.054	.016	.100	.052	.015	.096	.050	.015		
7.0	.108	.054	.015	.106	.053	.015	.101	.051	.015	.096	.049	.014	.092	.048	.014		
8.0	.103	.050	.014	.101	.050	.014	.096	.048	.014	.092	.047	.014	.089	.046	.013		
9.0	.098	.048	.013	.096	.047	.013	.092	.046	.013	.089	.045	.013	.086	.043	.013		
10.0	.094	.045	.012	.092	.045	.012	.089	.043	.012	.086	.042	.012	.083	.042	.012		

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	.169	.158	.147	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.153	.133	.116	.131	.114	.100	.090	.079	.070	.052	.046	.041	.017	.015	.013		
3.0	.139	.113	.093	.119	.098	.081	.082	.068	.057	.047	.040	.033	.015	.013	.011		
4.0	.127	.098	.076	.109	.085	.066	.075	.059	.047	.043	.035	.028	.014	.011	.009		
5.0	.117	.086	.064	.100	.075	.055	.069	.052	.039	.040	.031	.023	.013	.010	.008		
6.0	.109	.076	.053	.093	.066	.047	.064	.046	.033	.037	.027	.020	.012	.009	.006		
7.0	.101	.068	.046	.087	.059	.040	.060	.042	.028	.035	.025	.017	.011	.008	.006		
8.0	.095	.062	.039	.082	.054	.034	.056	.038	.024	.033	.022	.014	.011	.007	.005		
9.0	.089	.056	.034	.077	.049	.030	.053	.034	.021	.031	.020	.013	.010	.007	.004		
10.0	.084	.052	.030	.073	.045	.026	.050	.032	.019	.029	.019	.011	.010	.006	.004		

C Range: 0 - 360DEG
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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:

UGR(Unified Glare Rating) Table

Test:U:220.9V I:0.1297A P:27.13W PF:0.9472 Freq:60.07Hz Lamp Flux:2645.25x1 lm										
NAME: ROXY-K-28W-940-20					TYPE:Tracklight			SERIAL No.:		
SPEC.:4000K					DIM.: ϕ 72mm*H137mm					
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	16.2	16.9	16.4	17.1	17.2	15.5	16.2	15.7	16.4	16.6
3H	16.4	17.1	16.6	17.3	17.5	15.6	16.3	15.9	16.5	16.7
4H	16.4	17.0	16.6	17.3	17.5	15.6	16.3	15.9	16.5	16.7
6H	16.3	16.9	16.6	17.2	17.4	15.5	16.1	15.8	16.4	16.6
8H	16.3	16.9	16.6	17.1	17.4	15.5	16.1	15.8	16.3	16.6
12H	16.2	16.8	16.5	17.1	17.3	15.4	16.0	15.7	16.3	16.5
4H 2H	16.2	16.9	16.5	17.1	17.3	15.6	16.3	15.9	16.5	16.7
3H	16.5	17.1	16.8	17.3	17.6	15.8	16.4	16.1	16.7	16.9
4H	16.5	17.0	16.8	17.3	17.6	15.8	16.3	16.1	16.6	16.9
6H	16.4	16.9	16.8	17.2	17.6	15.7	16.2	16.1	16.5	16.8
8H	16.4	16.8	16.8	17.2	17.5	15.6	16.1	16.0	16.4	16.8
12H	16.3	16.7	16.7	17.1	17.5	15.6	16.0	16.0	16.4	16.7
8H 4H	16.4	16.8	16.8	17.2	17.6	15.7	16.1	16.1	16.5	16.8
6H	16.3	16.7	16.7	17.1	17.5	15.6	15.9	16.0	16.3	16.8
8H	16.3	16.6	16.7	17.0	17.4	15.5	15.8	16.0	16.3	16.7
12H	16.2	16.5	16.7	16.9	17.4	15.5	15.7	15.9	16.2	16.7
12H 4H	16.3	16.7	16.8	17.1	17.5	15.6	16.0	16.0	16.4	16.8
6H	16.3	16.6	16.7	17.0	17.4	15.5	15.8	16.0	16.3	16.7
8H	16.2	16.5	16.7	16.9	17.4	15.5	15.7	15.9	16.2	16.7
Variations with the observer position at spacings:										
S = 1.0H	+ 1.1 / - 1.6					+ 1.2 / - 1.8				
1.5H	+ 1.6 / - 0.8					+ 1.2 / - 1.1				
2.0H	+ 1.8 / - 2.2					+ 1.9 / - 2.2				

CIE Pub.117, 2645 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.4$)

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 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity:58%
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Remarks:

UTILIZATION FACTORS TABLE

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SPEC.:4000K	DIM.: $\varnothing 72\text{mm} \times H137\text{mm}$	
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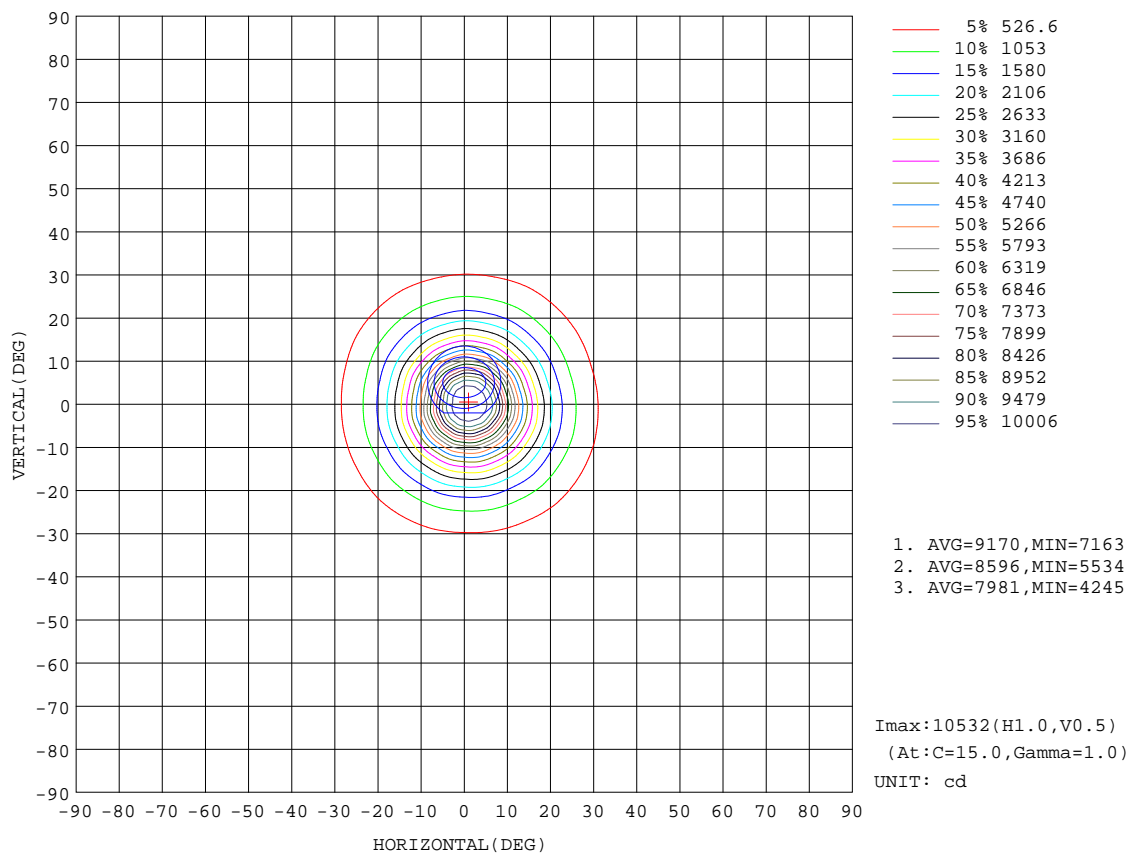
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	87	81	77	87	80	77	86	80	77	73
0.80	94	89	85	94	88	85	93	88	84	81
1.00	99	93	90	98	93	89	97	93	89	85
1.25	103	98	94	102	97	94	100	96	93	89
1.50	106	101	98	105	100	97	102	99	96	92
2.00	108	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	102	105	103	101	95
3.00	112	108	106	110	107	104	107	104	102	96
4.00	114	111	109	112	109	107	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	99
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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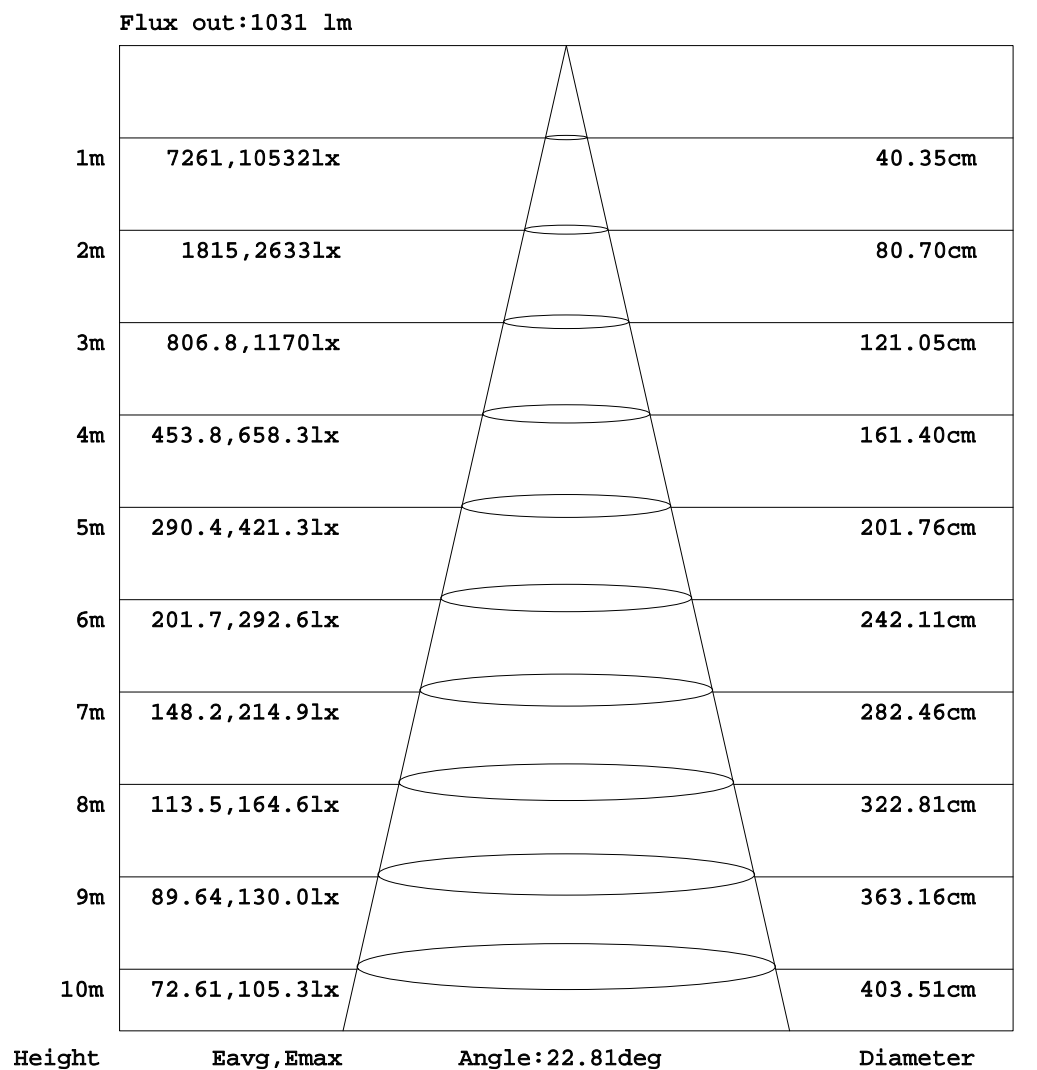


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AAI Figure

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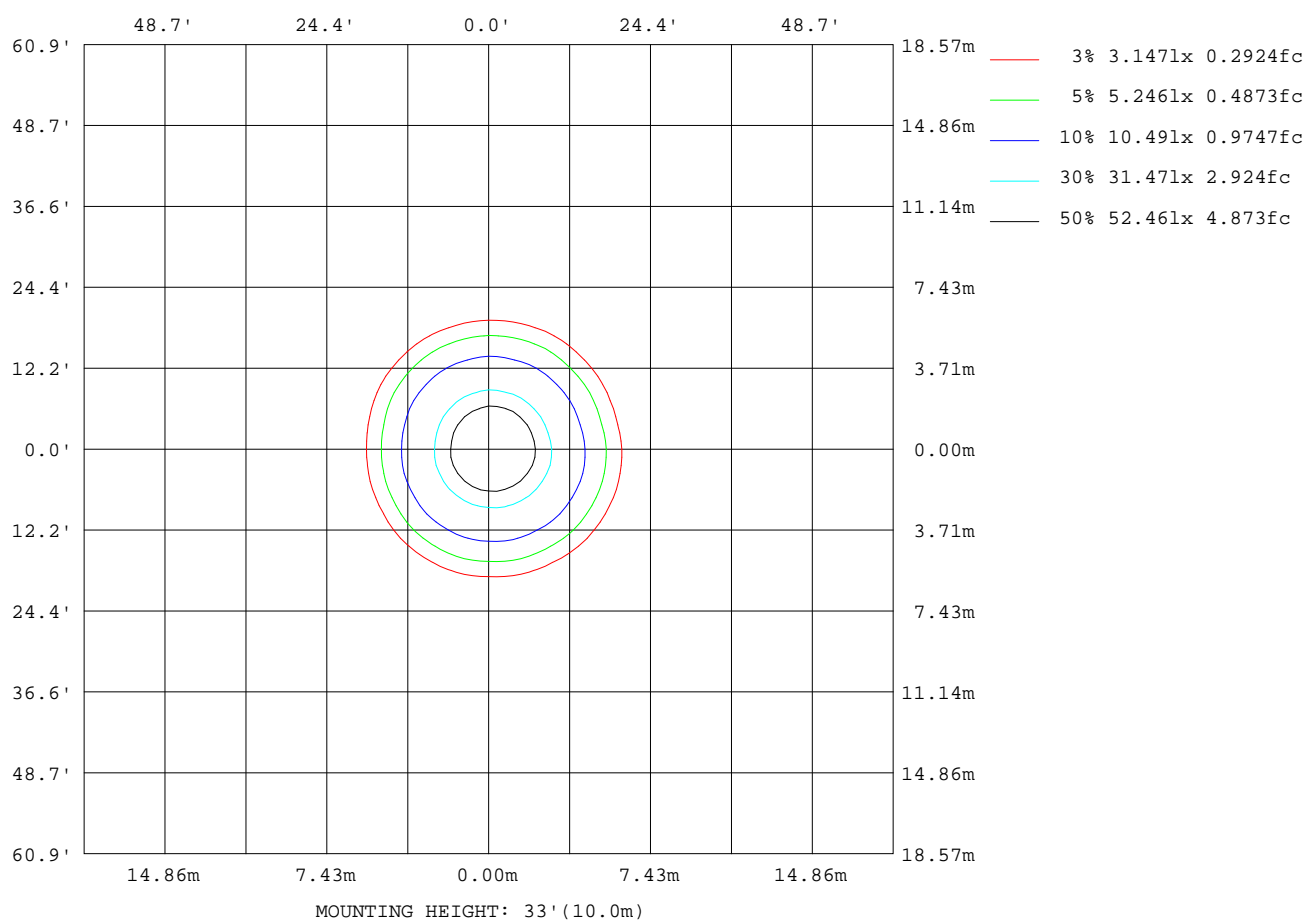
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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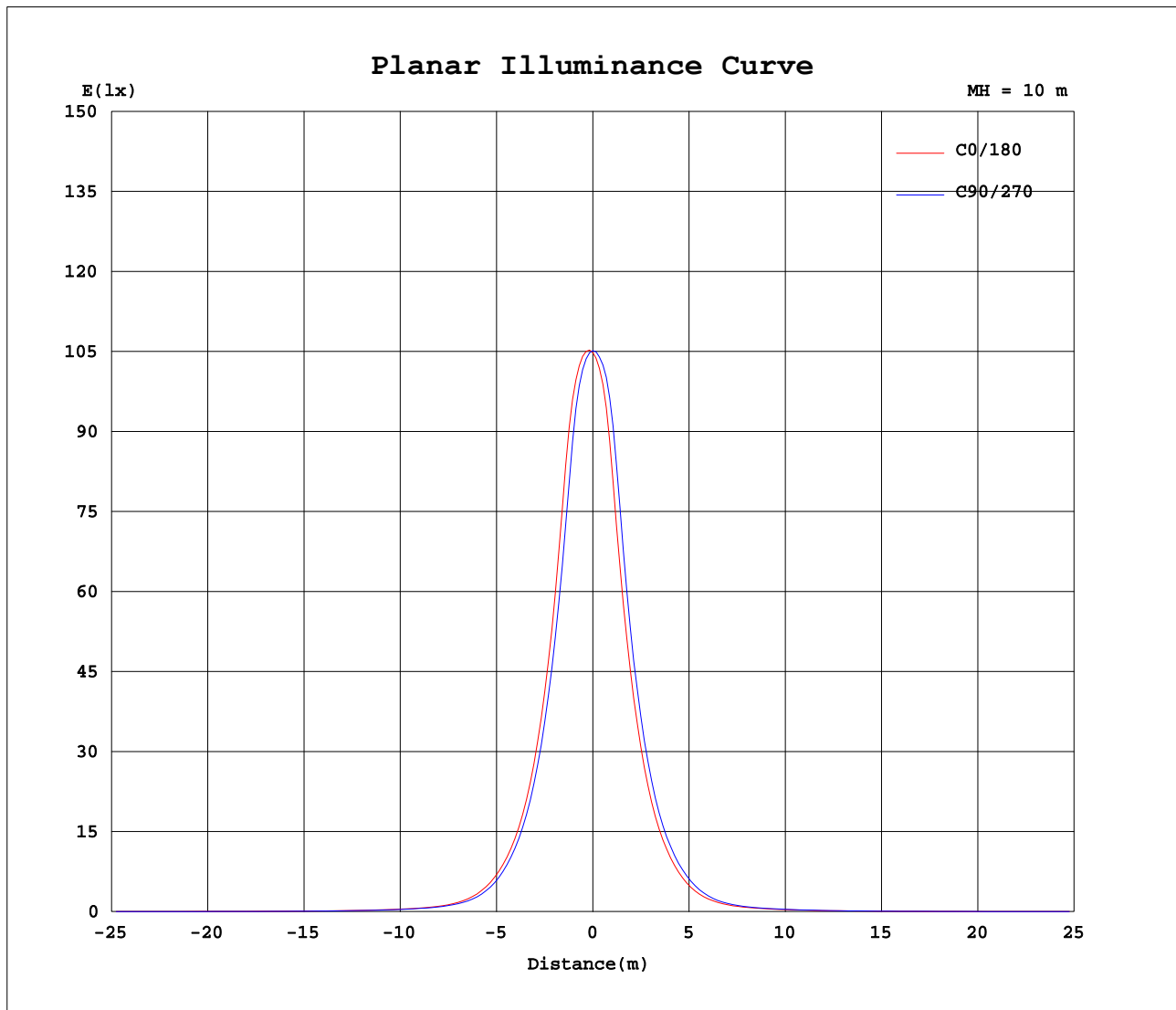
AvgL	cd/m2
L_0~180 (65) av	15267
L_0~180 (75) av	5586
L_0~180 (85) av	331
L_90~270 (65) av	13992
L_90~270 (75) av	4989
L_90~270 (85) av	320
L_45 (65) av	14717
L_45 (75) av	5282
L_45 (85) av	334

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-11

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: 2020-06-11

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:

```

```

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:

```