

LED Tracklight ROXY-K-28W-940-55



Light Output Ratio:	100.0%	
Luminaire Power:	27.13 W	
SHR Nominal:	0.75	Calculated using the TM5
SHR Maximum:	0.85	fine grid method.

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

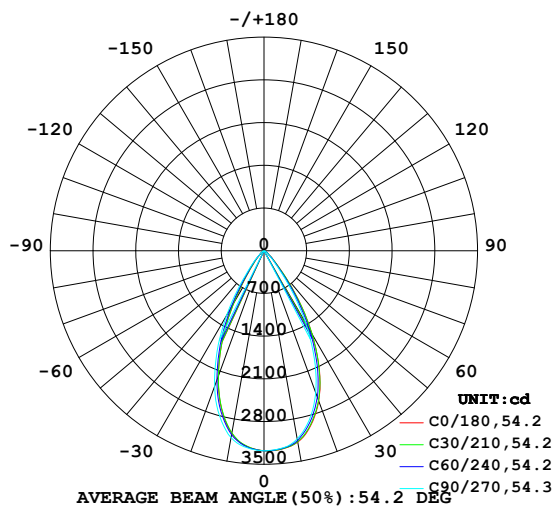
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

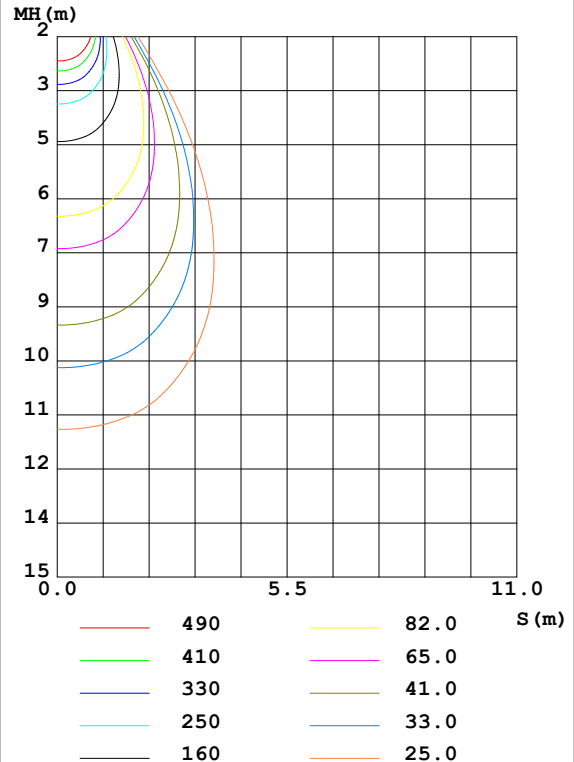
Test:U:220.9V I:0.1296A P:27.13W PF:0.9472 Freq:60.08Hz Lamp Flux:2648.03x1 lm		
NAME: ROXY-K-28W-940-55	TYPE:Tracklight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 72mm*H137mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 97.62 lm/W			
MODEL	CITIZEN-4000K	I _{max} (cd)	3282	S/MH (C0/180)	0.76
NOMINAL POWER (W)	28	LOR (%)	100.0	S/MH (C90/270)	0.81
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2648.0	η UP, DN (C0-180)	0.0, 51.9
NOMINAL FLUX (lm)	2648.03	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 48.1
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	220	η down (%)	100.0	CIBSE SHR MAX	0.85

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	3185	3173	3132	3103	3039	3035	3109	3156	0- 10	305.8	305.8	11.5,11.5
20	2622	2598	2481	2351	2196	2204	2366	2520	10- 20	786.0	1092	41.2,41.2
30	1575	1556	1366	1170	997.5	1028	1233	1397	20- 30	850.2	1942	73.3,73.3
40	492.6	467.7	359.6	288.4	253.5	270.0	338.2	393.8	30- 40	467.9	2410	91,91
50	122.9	116.9	92.12	82.60	74.68	78.74	88.87	98.99	40- 50	149.1	2559	96.6,96.6
60	50.73	49.37	41.09	35.73	30.98	31.43	36.19	42.37	50- 60	55.75	2615	98.7,98.7
70	20.73	20.68	16.14	13.19	10.44	10.84	13.77	17.08	60- 70	25.85	2641	99.7,99.7
80	2.437	2.309	0.6926	0.3029	0.1466	0.1821	0.3567	0.7376	70- 80	7.249	2648	100,100
90	0.1621	0.1596	0.1595	0.1573	0.0964	0.0940	0.0852	0.0918	80- 90	0.2660	2648	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): 2505.6 lm

%lum = 94.6%

%lamp = 94.6%

Conical surface Flux(120deg): 2614.7 lm

%lum = 98.7%

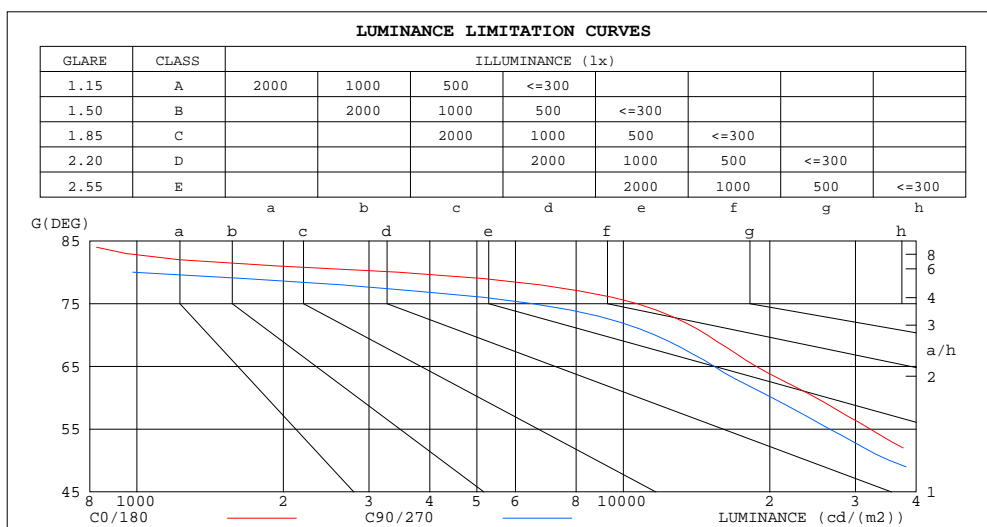
%lamp = 98.7%

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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	621	518
80	3443	981
75	10662	6488
70	14873	11602
65	18744	15364
60	24891	20207
55	32167	26535
50	46920	35238
45	82661	64698

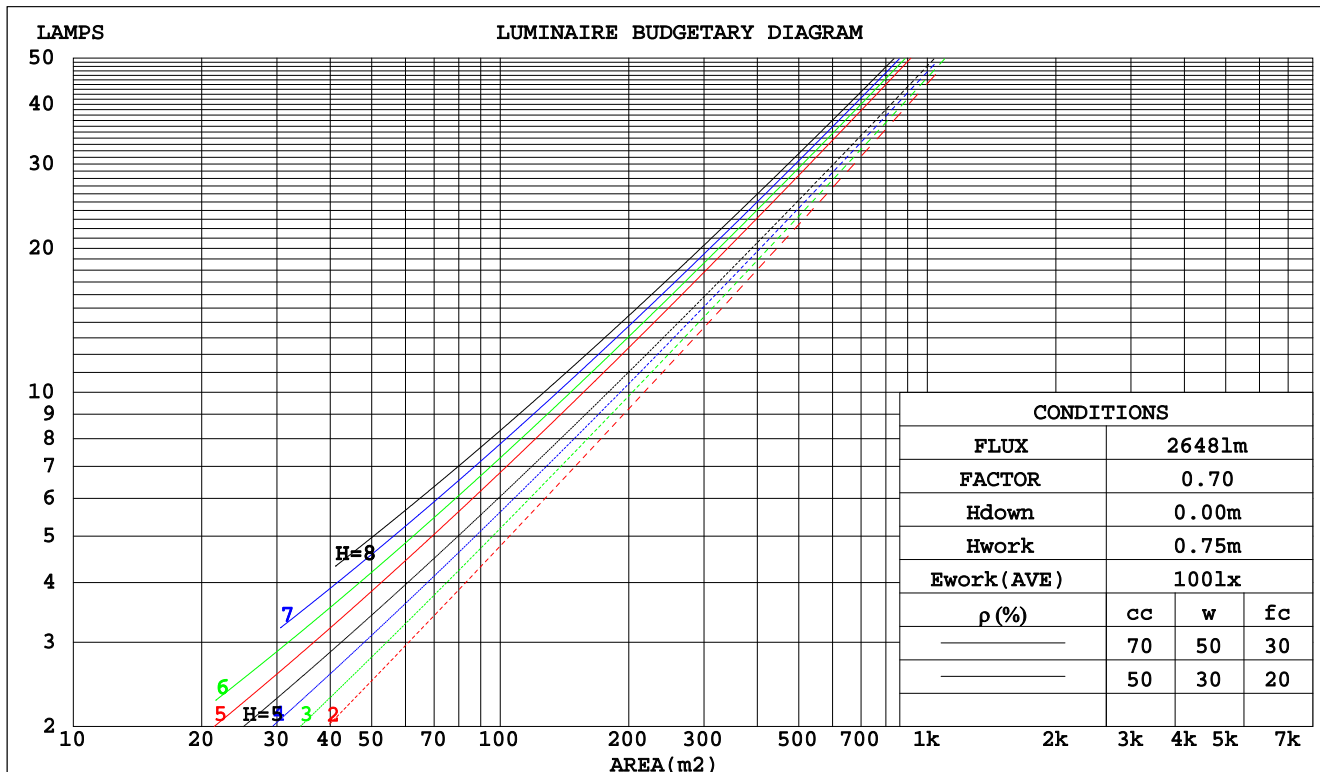
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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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	1.11	1.08	1.06	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.93
2.0	1.03	.99	.96	1.01	.98	.95	.98	.95	.92	.95	.93	.90	.92	.90	.89	.87
3.0	.96	.91	.87	.95	.90	.86	.92	.88	.85	.90	.86	.84	.87	.85	.82	.81
4.0	.90	.84	.80	.89	.84	.80	.87	.82	.79	.85	.81	.78	.83	.80	.77	.75
5.0	.84	.78	.74	.83	.78	.74	.82	.77	.73	.80	.76	.73	.78	.75	.72	.70
6.0	.79	.73	.69	.78	.73	.69	.77	.72	.68	.75	.71	.68	.74	.70	.67	.66
7.0	.75	.69	.64	.74	.68	.64	.73	.68	.64	.71	.67	.64	.70	.66	.63	.62
8.0	.70	.65	.60	.70	.64	.60	.69	.64	.60	.68	.63	.60	.67	.63	.60	.58
9.0	.67	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.56	.63	.59	.56	.55
10.0	.63	.57	.54	.63	.57	.54	.62	.57	.53	.61	.57	.53	.60	.56	.53	.52



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WEC AND CCEC

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MFR.: NEKO LIGHTING AG		

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.179	.102	.032	.172	.098	.031	.159	.091	.029	.148	.085	.027	.137	.079	.026		
2.0	.171	.094	.029	.165	.091	.028	.155	.086	.027	.145	.081	.025	.136	.077	.024		
3.0	.163	.087	.026	.158	.085	.025	.149	.081	.025	.141	.077	.024	.133	.074	.023		
4.0	.155	.080	.024	.151	.079	.023	.143	.076	.023	.136	.073	.022	.129	.070	.021		
5.0	.147	.075	.022	.144	.074	.022	.137	.071	.021	.131	.069	.021	.125	.067	.020		
6.0	.141	.070	.020	.137	.069	.020	.131	.067	.020	.126	.065	.019	.121	.063	.019		
7.0	.134	.066	.019	.131	.065	.019	.126	.064	.018	.121	.062	.018	.116	.060	.018		
8.0	.128	.063	.018	.126	.062	.017	.121	.060	.017	.117	.059	.017	.112	.058	.017		
9.0	.123	.059	.017	.121	.059	.016	.116	.057	.016	.112	.056	.016	.109	.055	.016		
10.0	.118	.056	.016	.116	.056	.016	.112	.055	.015	.108	.054	.015	.105	.053	.015		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	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	.171	.157	.145	.147	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.156	.132	.113	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.123	.098	.078	.085	.068	.054	.049	.040	.032	.016	.013	.011	
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.125	.087	.060	.107	.076	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.050	.101	.068	.043	.070	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.111	.070	.042	.095	.061	.037	.066	.043	.026	.038	.025	.015	.012	.008	.005	
8.0	.105	.064	.036	.091	.056	.031	.063	.039	.022	.036	.023	.013	.012	.008	.004	
9.0	.100	.059	.031	.086	.051	.027	.060	.036	.019	.035	.021	.012	.011	.007	.004	
10.0	.096	.055	.027	.082	.047	.024	.057	.033	.017	.033	.020	.010	.011	.006	.003	

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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:0.1296A P:27.13W PF:0.9472 Freq:60.08Hz Lamp Flux:2648.03x1 lm										
NAME: ROXY-K-28W-940-55					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	21.0	22.0	21.3	22.1	22.3	20.1	21.0	20.3	21.2	21.3
3H	21.0	21.9	21.3	22.1	22.3	20.0	20.9	20.3	21.1	21.3
4H	21.0	21.8	21.2	22.0	22.2	20.0	20.8	20.2	21.0	21.2
6H	20.9	21.6	21.2	21.9	22.1	19.9	20.6	20.2	20.9	21.1
8H	20.8	21.6	21.1	21.8	22.1	19.8	20.6	20.1	20.8	21.1
12H	20.8	21.5	21.1	21.8	22.0	19.8	20.5	20.1	20.8	21.0
4H 2H	20.9	21.7	21.1	21.9	22.1	19.9	20.7	20.2	21.0	21.2
3H	20.9	21.6	21.2	21.8	22.1	19.9	20.6	20.2	20.9	21.2
4H	20.8	21.5	21.2	21.8	22.1	19.9	20.5	20.2	20.8	21.1
6H	20.8	21.3	21.1	21.7	22.0	19.8	20.4	20.2	20.7	21.0
8H	20.7	21.2	21.1	21.6	22.0	19.7	20.3	20.1	20.6	21.0
12H	20.7	21.1	21.1	21.5	21.9	19.7	20.2	20.1	20.5	20.9
8H 4H	20.7	21.2	21.1	21.6	22.0	19.8	20.3	20.2	20.7	21.0
6H	20.6	21.1	21.1	21.5	21.9	19.7	20.1	20.1	20.5	20.9
8H	20.6	21.0	21.0	21.4	21.8	19.6	20.0	20.1	20.4	20.9
12H	20.5	20.9	21.0	21.3	21.8	19.6	19.9	20.0	20.3	20.8
12H 4H	20.7	21.2	21.1	21.5	21.9	19.7	20.2	20.1	20.6	21.0
6H	20.6	21.0	21.0	21.4	21.8	19.6	20.0	20.1	20.4	20.9
8H	20.5	20.9	21.0	21.3	21.8	19.6	19.9	20.0	20.3	20.8
Variations with the observer position at spacings:										
S = 1.0H	+ 2.7 / - 5.1					+ 2.3 / - 4.8				
1.5H	+ 4.6 / - 4.2					+ 4.0 / - 4.0				
2.0H	+ 3.9 / - 2.7					+ 3.7 / - 2.6				

CIE Pub.117, 2648 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.4$)

C Range: 0 - 360DEG
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 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.362
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Test Distance:5.850m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

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SPEC.:4000K	DIM.: $\varnothing 72\text{mm} \times H137\text{mm}$	
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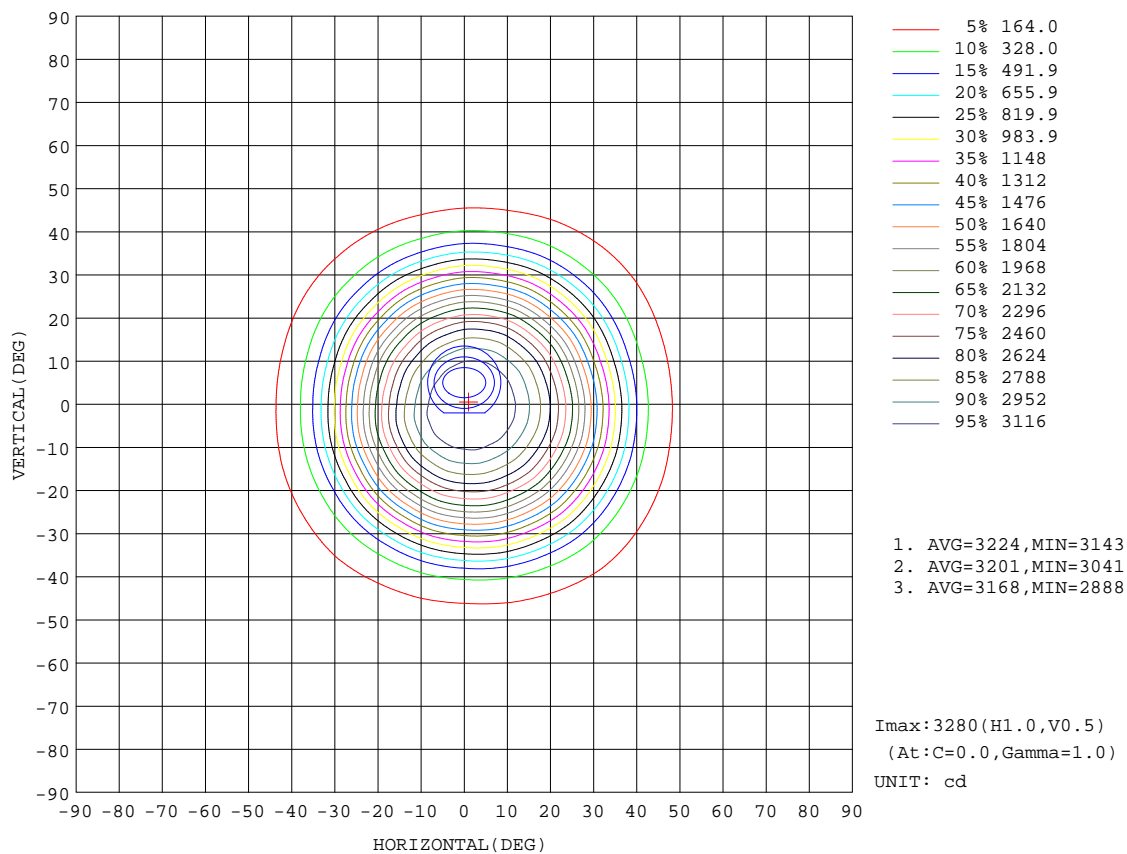
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	86	79	75	85	79	75	85	79	75	71
0.80	94	87	84	93	87	83	92	86	83	79
1.00	98	92	89	97	92	88	96	92	88	84
1.25	102	97	93	101	96	93	99	95	92	88
1.50	105	100	97	104	100	96	102	98	95	91
2.00	108	104	101	107	103	100	104	101	98	93
2.50	110	106	103	108	105	102	105	102	100	94
3.00	111	108	105	110	107	104	106	104	102	95
4.00	114	111	108	112	109	107	108	106	104	97
5.00	115	112	111	113	111	109	109	107	106	98
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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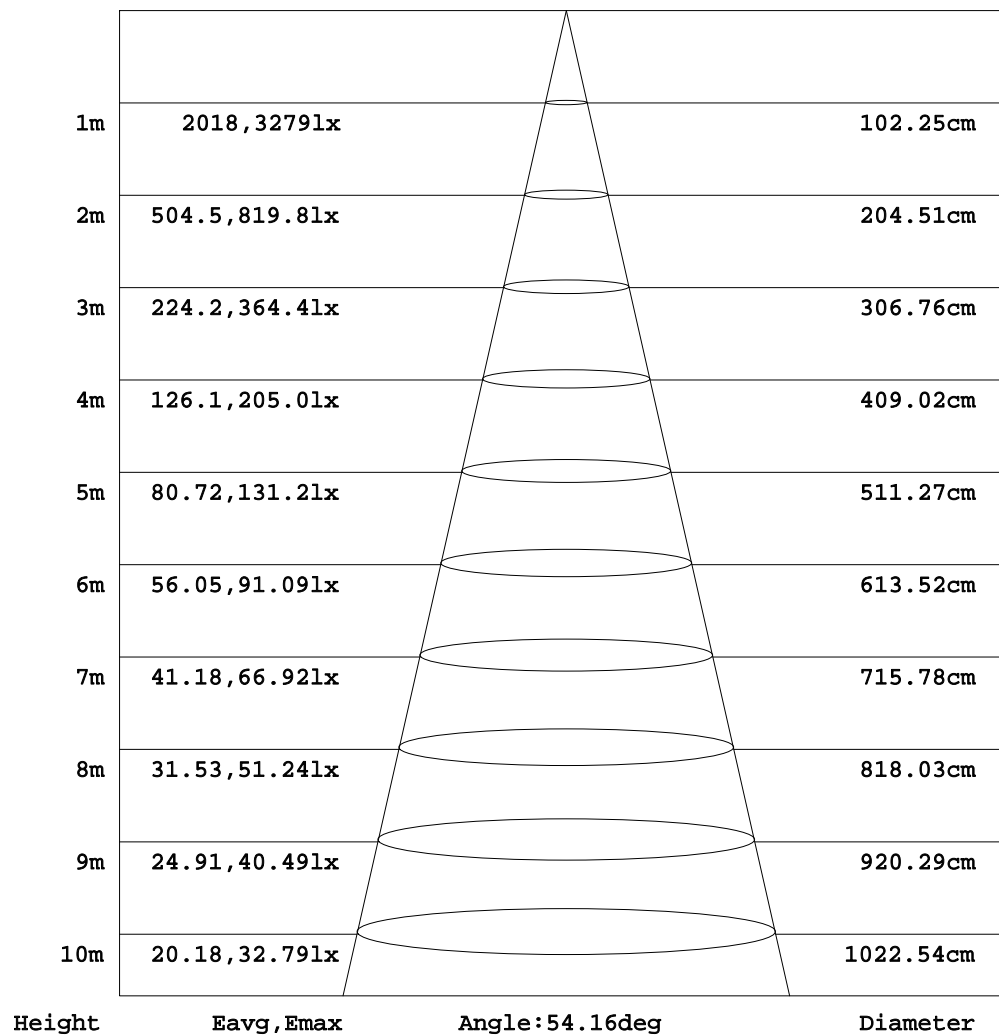
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AAI Figure

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Flux out:1792 lm



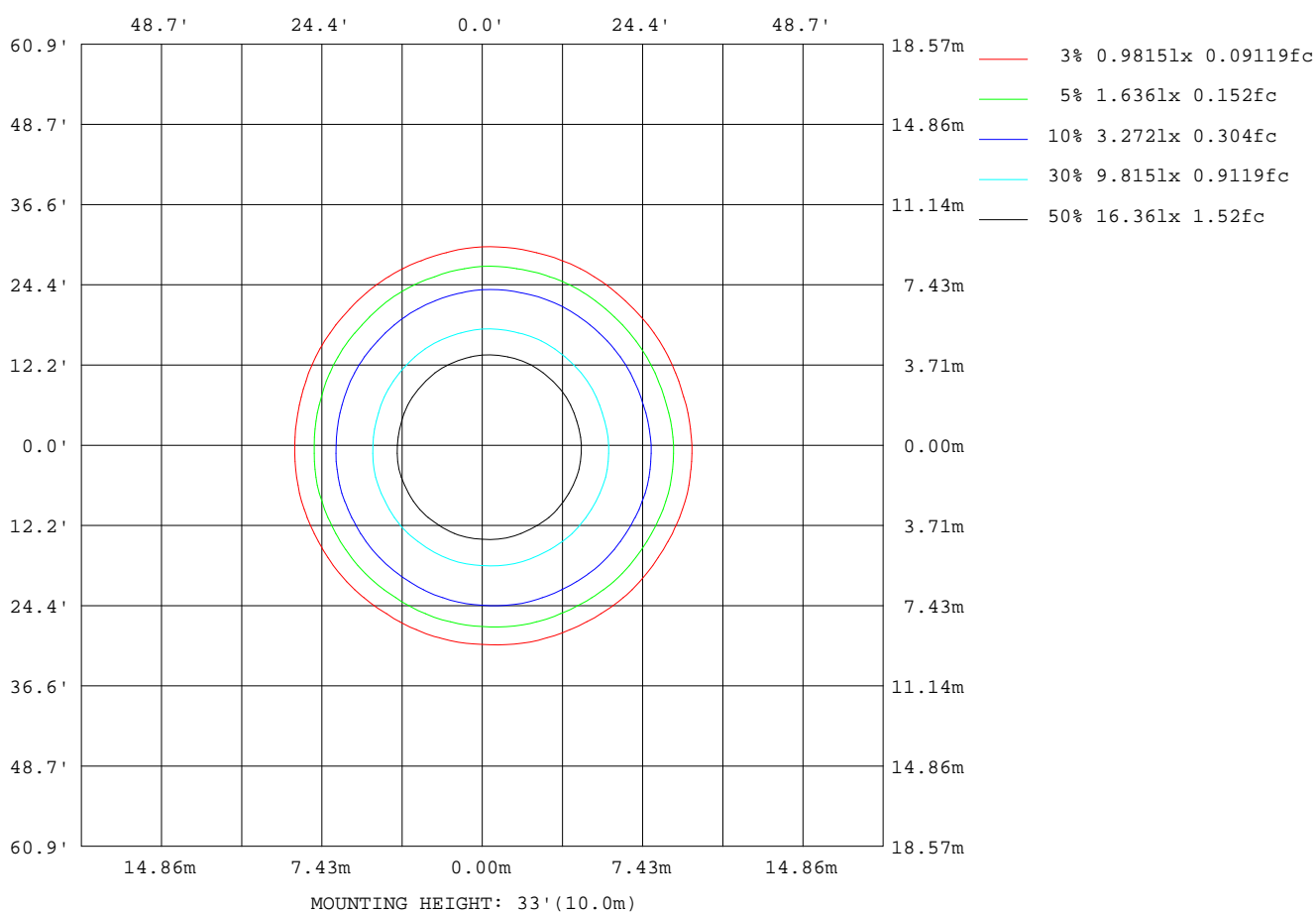
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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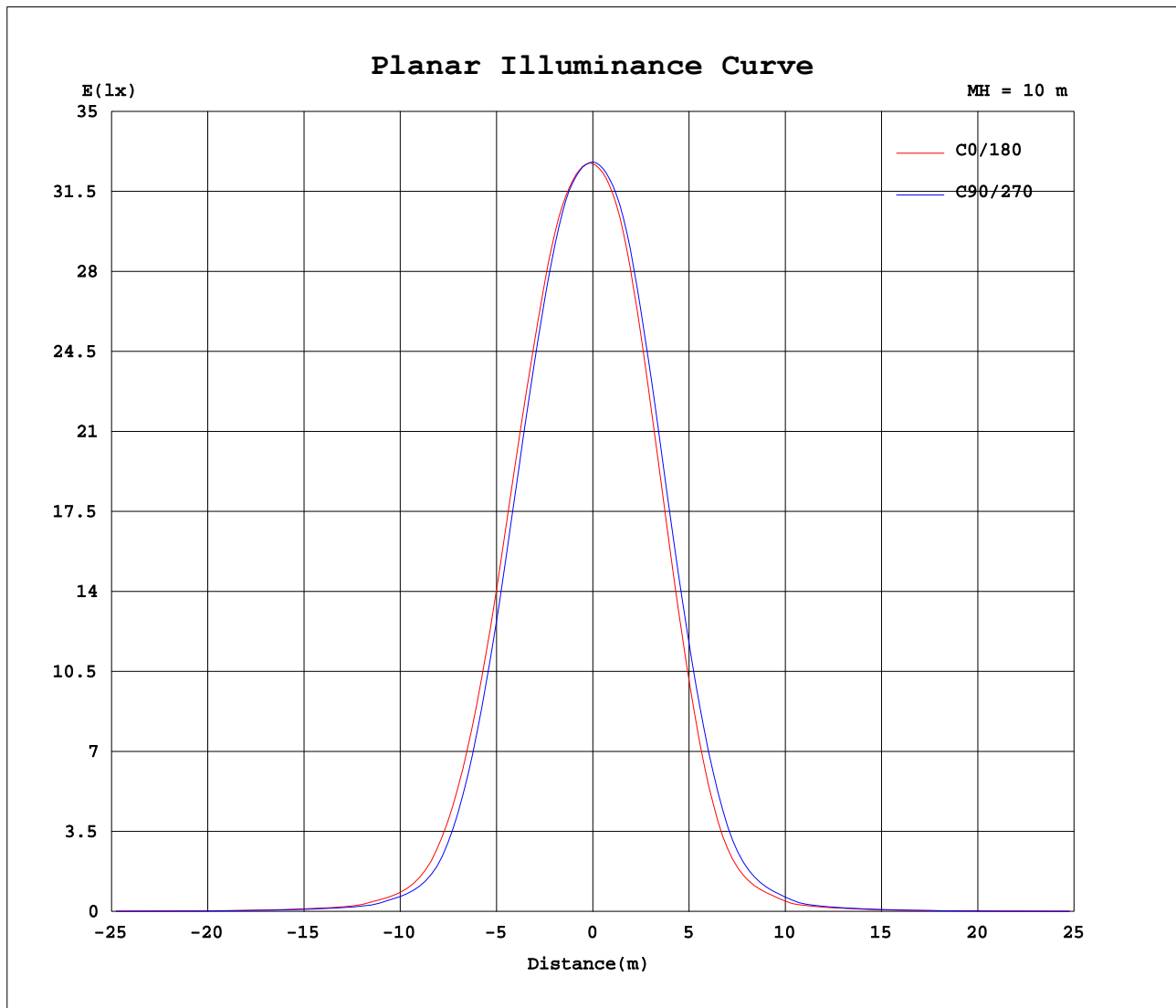
AvgL	cd/m2
L_0~180 (65) av	15157
L_0~180 (75) av	6191
L_0~180 (85) av	444
L_90~270 (65) av	14499
L_90~270 (75) av	5512
L_90~270 (85) av	404
L_45 (65) av	14904
L_45 (75) av	6020
L_45 (85) av	435

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:

```