

LED Tracklight ROXY-K-28W-940-35



Light Output Ratio:	100.0%	
Luminaire Power:	27.64 W	
SHR Nominal:	0.50	Calculated using the TM5
SHR Maximum:	0.60	fine grid method.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason
Test Date: 2020-06-20

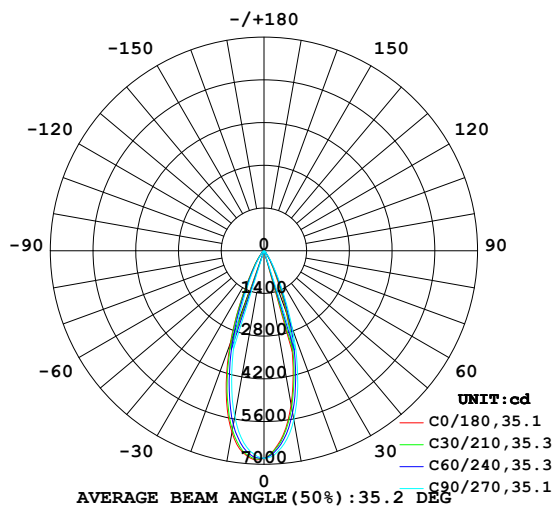
γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.362
Humidity: 58%
Test Distance: 5.850m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

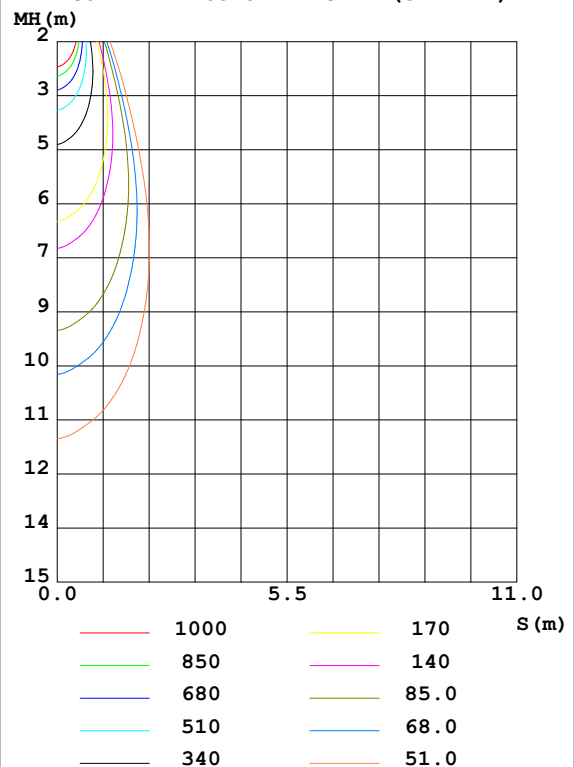
Test:U:220.8V I:0.1297A P:27.64W PF:0.1297 Freq:60.07Hz Lamp Flux:2747.93x1 lm		
NAME: ROXY-K-28W-940-35	TYPE:Tracklight	SERIAL No.:
SPEC.:4000K	DIM.: ϕ 72mm*H137mm	
MFR.: NEKO LIGHTING AG		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 99.41 lm/W			
MODEL	CITIZEN-4000K	I _{max} (cd)	6859	S/MH (C0/180)	0.61
NOMINAL POWER (W)	28	LOR (%)	100.0	S/MH (C90/270)	0.56
RATED VOLTAGE (V)	220	TOTAL FLUX (lm)	2747.9	η UP, DN (C0-180)	0.0, 50.2
NOMINAL FLUX (lm)	2747.93	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 49.8
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)



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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	5128	5331	5632	5937	6043	5858	5523	5163	0- 10	590.2	590.2	21.5,21.5
20	2134	2409	2740	3065	3238	2995	2554	2157	10- 20	1136	1727	62.8,62.8
30	469.5	571.1	681.2	785.8	823.1	737.3	612.6	500.5	20- 30	649.0	2376	86.5,86.5
40	112.1	131.7	145.9	191.6	200.6	184.7	146.1	113.9	30- 40	210.8	2586	94.1,94.1
50	69.24	70.97	69.05	72.63	76.56	80.56	76.42	72.19	40- 50	77.85	2664	97,97
60	34.07	38.11	42.05	47.45	50.26	47.06	41.49	36.03	50- 60	53.09	2717	98.9,98.9
70	9.537	9.906	12.43	15.75	16.07	14.67	12.70	10.66	60- 70	24.48	2742	99.8,99.8
80	0.2255	0.2639	0.4335	0.9352	1.178	0.4725	0.3030	0.2195	70- 80	5.861	2748	100,100
90	0.1660	0.1573	0.1553	0.1532	0.1179	0.1136	0.1093	0.1138	80- 90	0.2121	2748	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): 2630.5 lm

%lum = 95.7%

%lamp = 95.7%

Conical surface Flux(120deg): 2717.4 lm

%lum = 98.9%

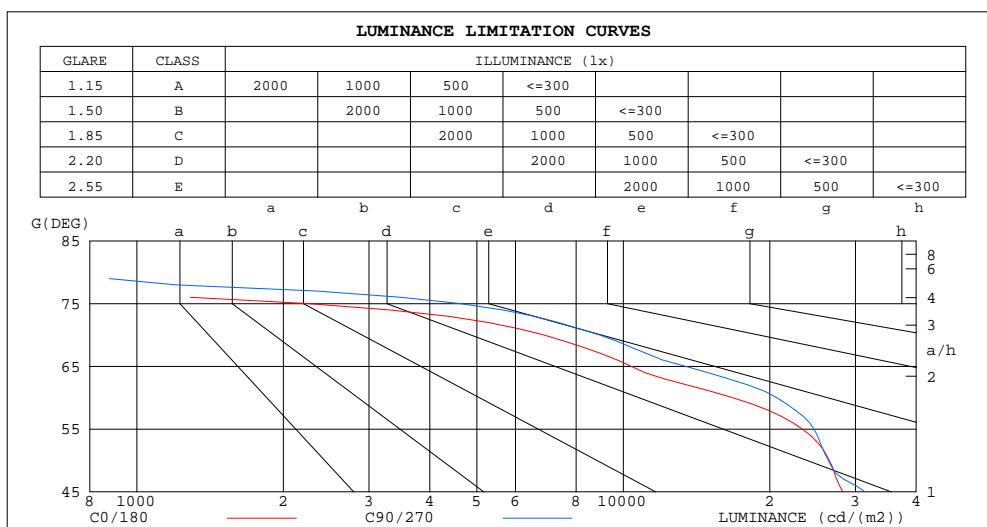
%lamp = 98.9%

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Humidity:58%
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LUMINANCE LIMITATION CURVES

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SPEC.:4000K	DIM.: ϕ 72mm*H137mm	
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LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	481	512
80	320	613
75	2247	4619
70	6860	8931
65	10379	13420
60	16765	20659
55	23338	24661
50	26501	26392
45	28259	31421

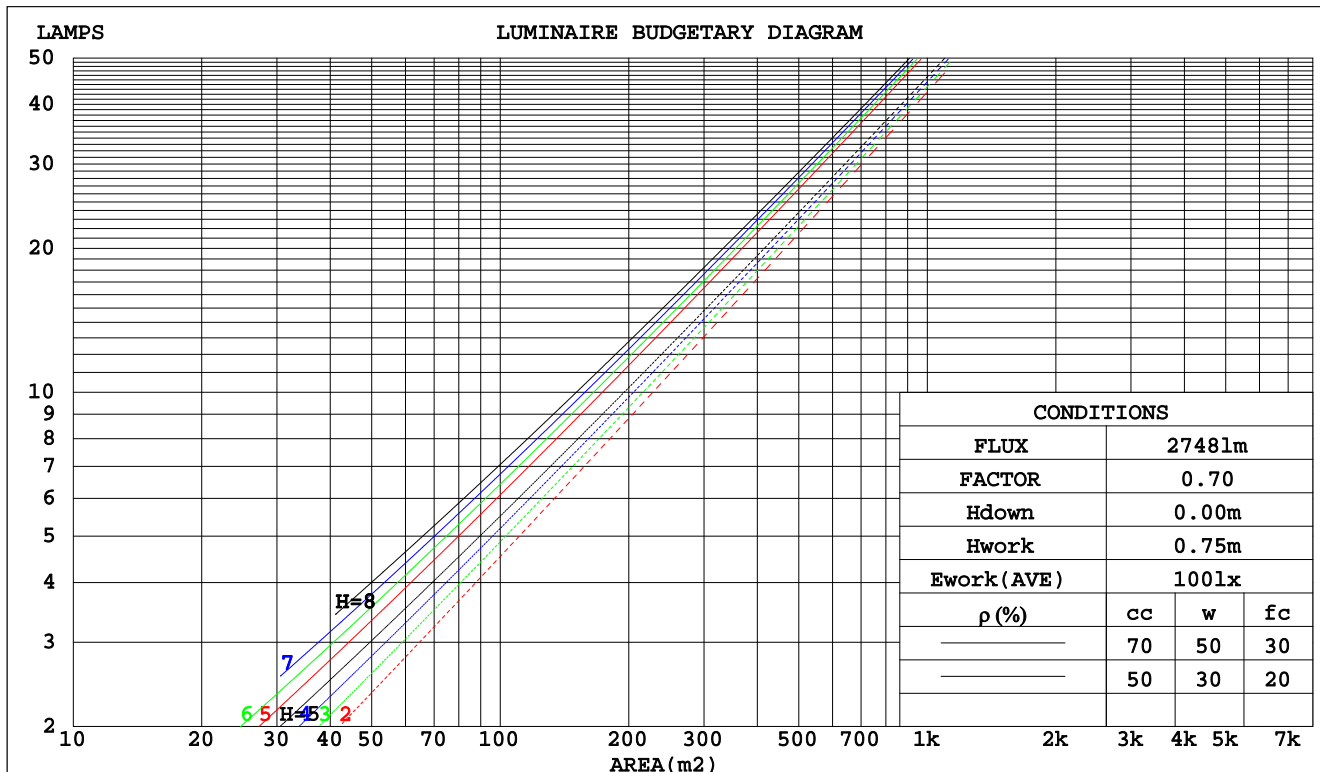
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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SPEC.:4000K	DIM.: ϕ 72mm*H137mm	
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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	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	1.12	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	1.05	1.02	.99	1.04	1.00	.98	1.00	.98	.96	.97	.95	.93	.95	.93	.92	.90
3.0	.99	.95	.92	.98	.94	.91	.96	.92	.90	.93	.90	.88	.91	.89	.87	.85
4.0	.94	.90	.86	.93	.89	.85	.91	.87	.85	.89	.86	.84	.87	.85	.83	.81
5.0	.90	.85	.81	.89	.84	.81	.87	.83	.80	.86	.82	.79	.84	.81	.79	.77
6.0	.86	.81	.77	.85	.80	.77	.83	.79	.76	.82	.79	.76	.81	.78	.75	.74
7.0	.82	.77	.73	.81	.76	.73	.80	.76	.73	.79	.75	.72	.78	.75	.72	.71
8.0	.78	.73	.70	.78	.73	.70	.77	.73	.70	.76	.72	.69	.75	.72	.69	.68
9.0	.75	.70	.67	.75	.70	.67	.74	.70	.67	.73	.69	.67	.72	.69	.66	.65
10.0	.72	.68	.64	.72	.67	.64	.71	.67	.64	.71	.67	.64	.70	.66	.64	.63



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WEC AND CCEC

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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	.159	.090	.029	.152	.087	.028	.139	.080	.026	.128	.074	.024	.117	.068	.022		
2.0	.150	.082	.025	.144	.079	.024	.134	.074	.023	.124	.070	.022	.115	.065	.021		
3.0	.141	.075	.022	.136	.073	.022	.128	.069	.021	.120	.065	.020	.112	.062	.019		
4.0	.133	.069	.020	.129	.068	.020	.122	.065	.019	.115	.062	.019	.108	.059	.018		
5.0	.126	.064	.019	.123	.063	.018	.116	.061	.018	.110	.058	.017	.105	.056	.017		
6.0	.120	.060	.017	.117	.059	.017	.111	.057	.017	.106	.055	.016	.101	.053	.016		
7.0	.114	.056	.016	.111	.055	.016	.106	.054	.015	.102	.052	.015	.097	.051	.015		
8.0	.109	.053	.015	.106	.052	.015	.102	.051	.015	.098	.050	.014	.094	.048	.014		
9.0	.104	.050	.014	.102	.050	.014	.098	.048	.014	.094	.047	.014	.091	.046	.013		
10.0	.100	.048	.013	.098	.047	.013	.094	.046	.013	.091	.045	.013	.088	.044	.013		

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	.170	.157	.146	.145	.135	.126	.099	.093	.087	.057	.054	.051	.018	.017	.016		
2.0	.153	.133	.115	.131	.114	.100	.090	.079	.069	.052	.046	.041	.017	.015	.013		
3.0	.140	.113	.093	.120	.098	.080	.082	.068	.056	.047	.040	.033	.015	.013	.011		
4.0	.128	.098	.076	.110	.085	.066	.076	.059	.046	.044	.035	.027	.014	.011	.009		
5.0	.119	.086	.063	.102	.075	.055	.070	.052	.038	.041	.031	.023	.013	.010	.008		
6.0	.110	.077	.053	.095	.067	.046	.065	.047	.032	.038	.027	.019	.012	.009	.006		
7.0	.103	.069	.045	.089	.060	.039	.061	.042	.028	.036	.025	.016	.012	.008	.005		
8.0	.097	.062	.039	.084	.054	.034	.058	.038	.024	.034	.022	.014	.011	.007	.005		
9.0	.092	.057	.033	.079	.049	.029	.055	.035	.021	.032	.021	.012	.010	.007	.004		
10.0	.087	.052	.029	.075	.046	.026	.052	.032	.018	.030	.019	.011	.010	.006	.004		

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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:220.8V I:0.1297A P:27.64W PF:0.1297 Freq:60.07Hz Lamp Flux:2747.93x1 lm										
NAME: ROXY-K-28W-940-35					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	13.5	14.3	13.7	14.5	14.6	14.5	15.3	14.7	15.4	15.6
3H	13.6	14.4	13.9	14.6	14.8	14.6	15.3	14.8	15.5	15.7
4H	13.6	14.3	13.8	14.5	14.7	14.6	15.3	14.8	15.5	15.7
6H	13.5	14.1	13.8	14.4	14.6	14.5	15.1	14.8	15.4	15.6
8H	13.4	14.1	13.7	14.3	14.6	14.4	15.1	14.7	15.3	15.6
12H	13.4	14.0	13.7	14.3	14.5	14.4	15.0	14.7	15.3	15.5
4H 2H	13.6	14.3	13.9	14.6	14.8	14.5	15.2	14.8	15.4	15.6
3H	13.8	14.4	14.1	14.6	14.9	14.7	15.3	15.0	15.5	15.8
4H	13.7	14.3	14.0	14.6	14.9	14.6	15.2	15.0	15.5	15.8
6H	13.6	14.1	14.0	14.4	14.8	14.5	15.0	14.9	15.4	15.7
8H	13.6	14.0	13.9	14.4	14.7	14.5	14.9	14.9	15.3	15.7
12H	13.5	13.9	13.9	14.3	14.7	14.4	14.8	14.8	15.2	15.6
8H 4H	13.6	14.0	14.0	14.4	14.8	14.5	15.0	14.9	15.3	15.7
6H	13.5	13.9	13.9	14.2	14.7	14.4	14.8	14.8	15.2	15.6
8H	13.4	13.8	13.9	14.2	14.6	14.3	14.7	14.8	15.1	15.5
12H	13.4	13.6	13.8	14.1	14.6	14.3	14.6	14.7	15.0	15.5
12H 4H	13.5	13.9	13.9	14.3	14.7	14.4	14.9	14.9	15.2	15.6
6H	13.4	13.8	13.9	14.2	14.6	14.3	14.7	14.8	15.1	15.5
8H	13.4	13.6	13.8	14.1	14.6	14.3	14.6	14.7	15.0	15.5
Variations with the observer position at spacings:										
S = 1.0H	+ 1.0 / - 1.3					+ 1.9 / - 1.6				
1.5H	+ 1.1 / - 1.1					+ 3.0 / - 1.4				
2.0H	+ 1.4 / - 3.2					+ 1.0 / - 2.6				

CIE Pub.117, 2748 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.5$)

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 γ 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

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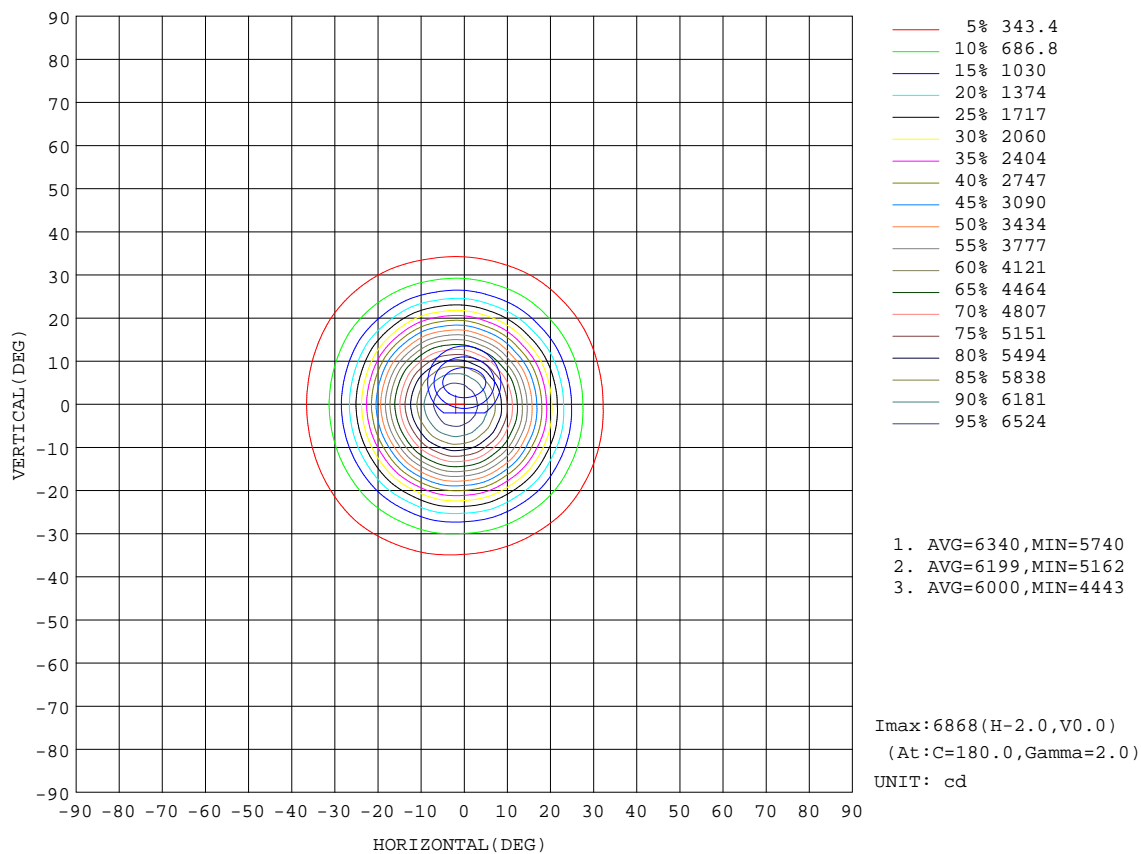
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	78	87	81	78	87	81	78	74
0.80	95	89	86	95	89	86	93	88	85	82
1.00	100	94	90	99	94	90	97	93	90	86
1.25	103	98	95	102	98	95	100	97	94	90
1.50	106	101	98	105	101	98	103	99	97	92
2.00	109	105	101	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	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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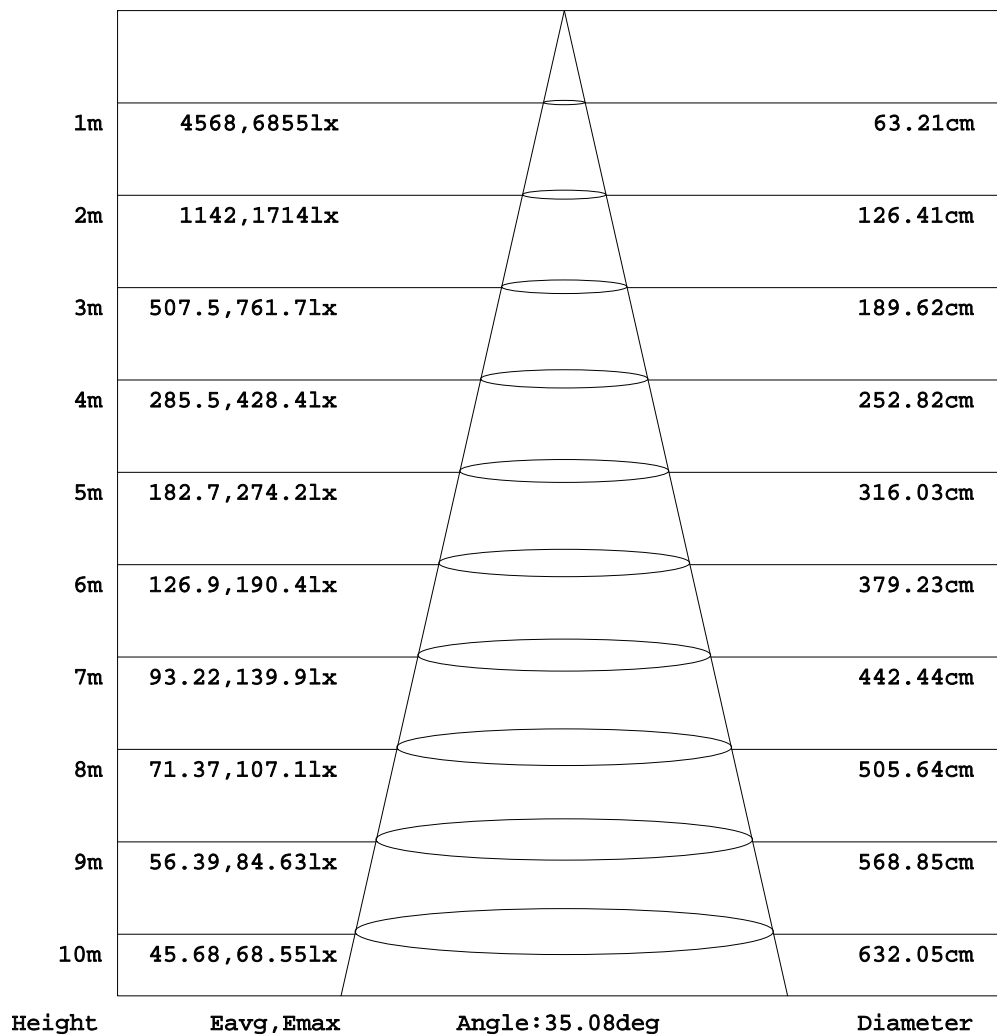
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AAI Figure

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Flux out:1515 lm



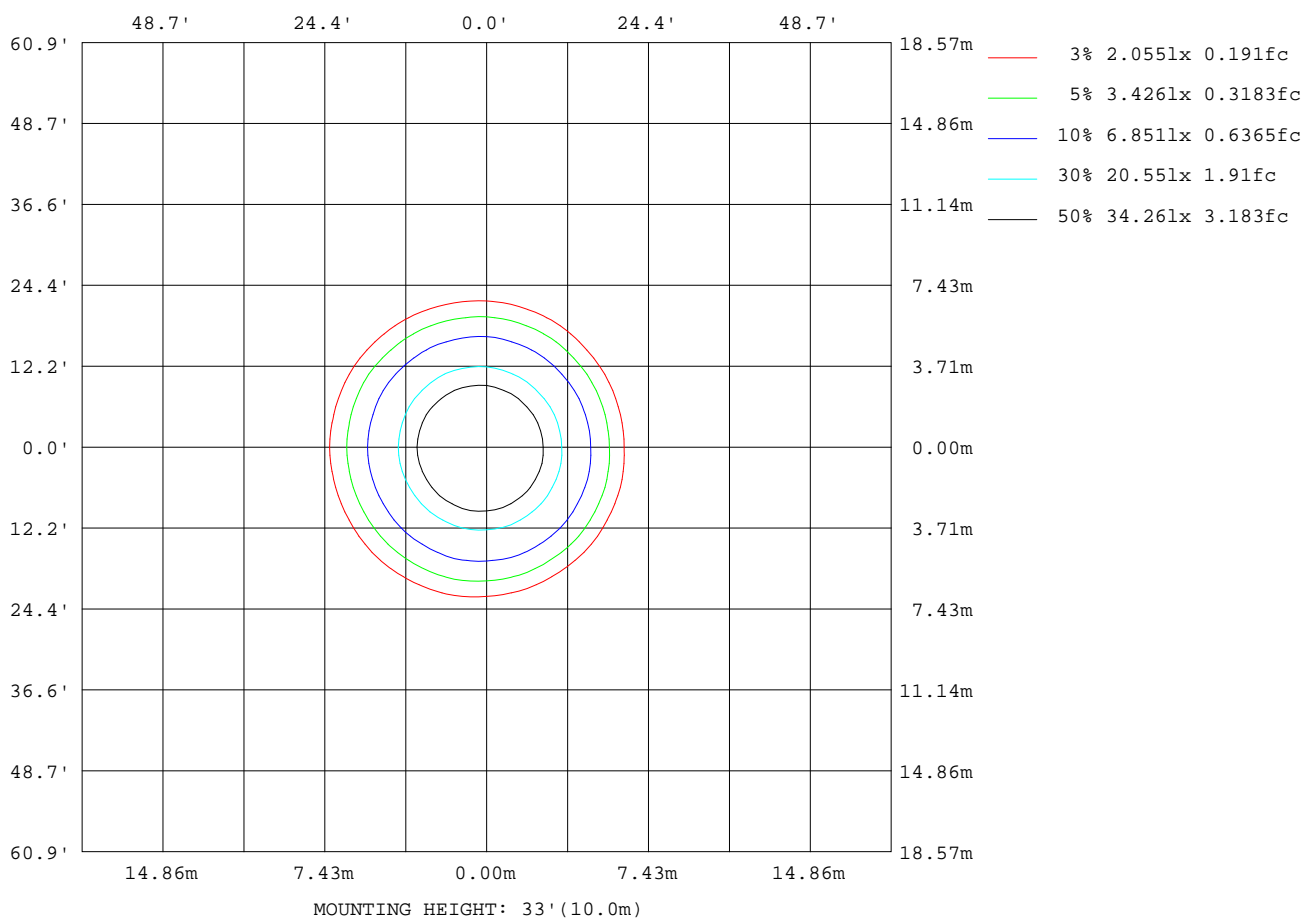
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ISOLUX DIAGRAM

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LED Avg.L Report

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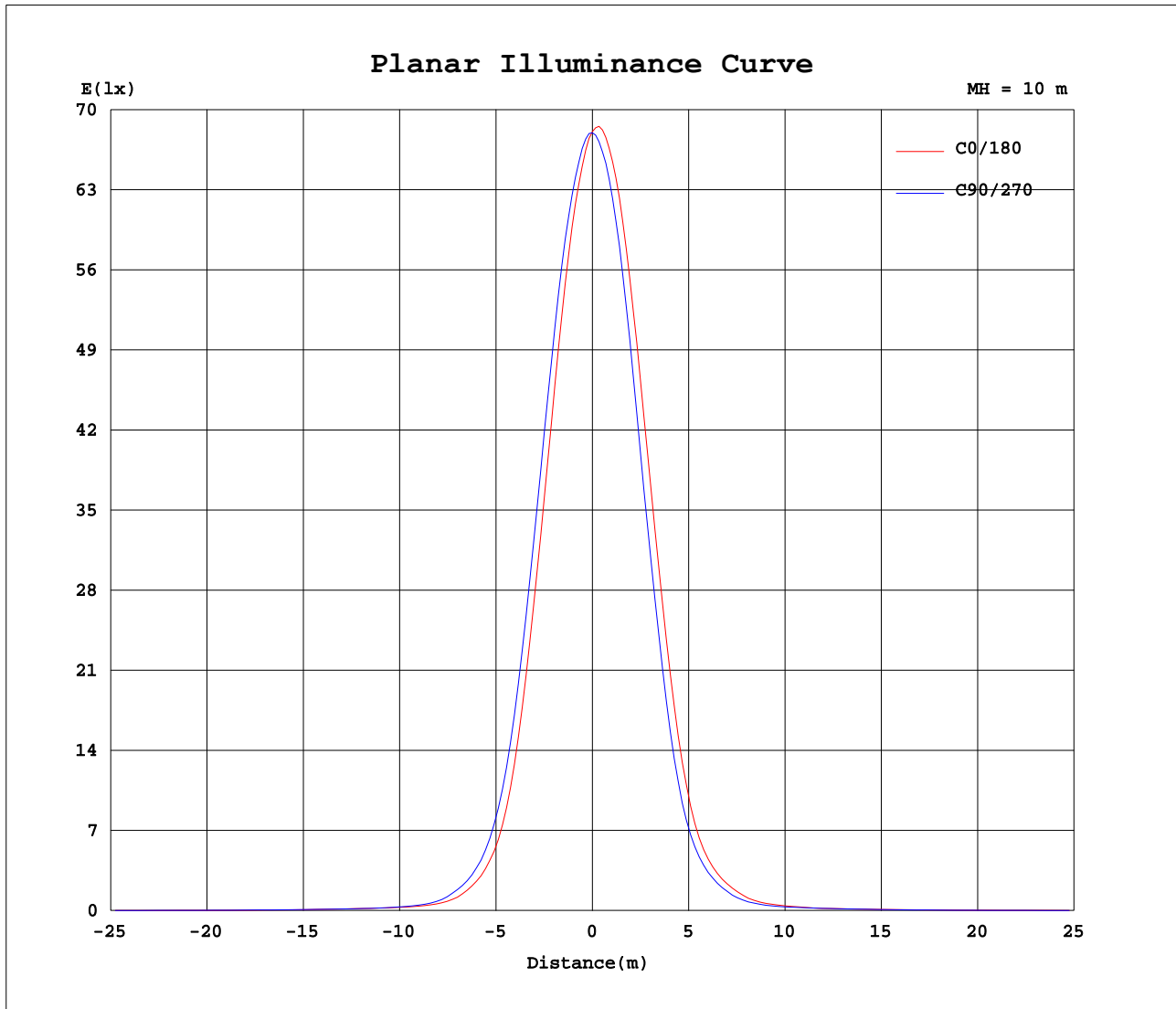
AvgL	cd/m2
L_0~180 (65) av	13940
L_0~180 (75) av	4963
L_0~180 (85) av	446
L_90~270 (65) av	13182
L_90~270 (75) av	4837
L_90~270 (85) av	438
L_45 (65) av	13576
L_45 (75) av	4920
L_45 (85) av	446

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason
Test Date:2020-06-20

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: 2020-06-20

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:

```