

LUMINAIRE PHOTOMETRIC TEST REPORT

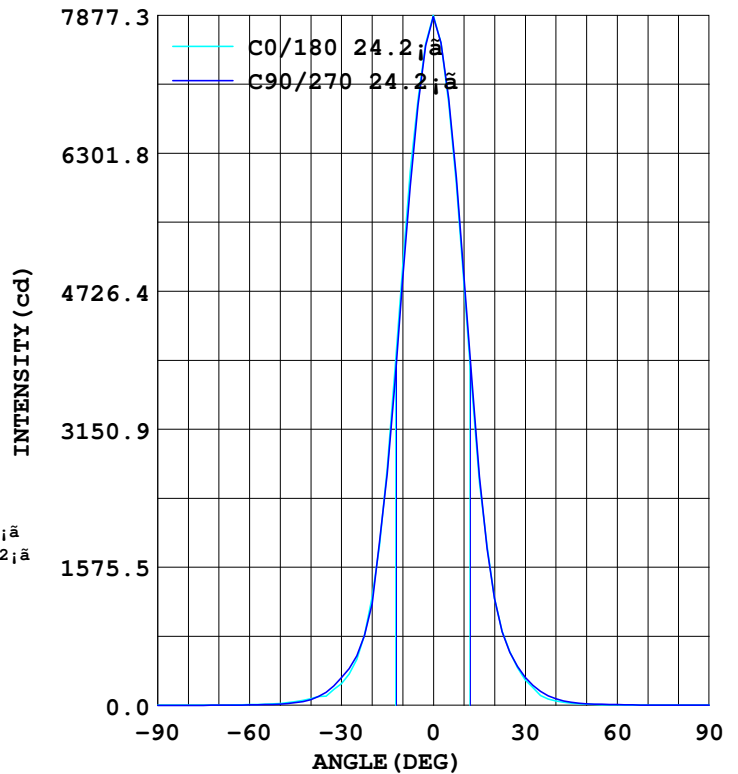
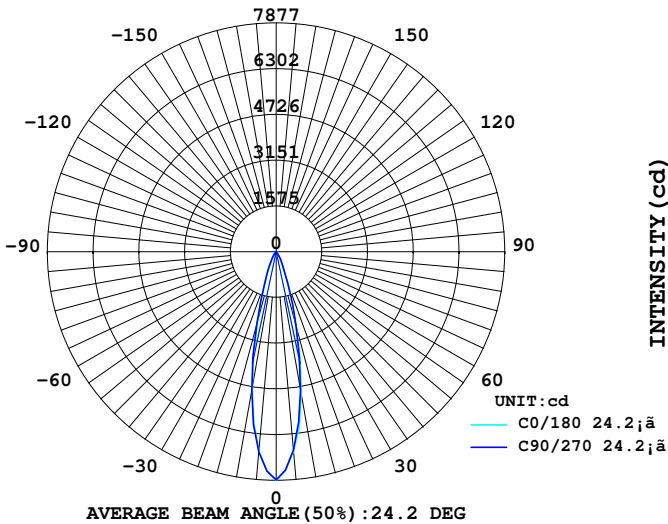
Report number: 0305-23

MANUFACTURER: BRIGHT		
Address:		
NAME: AMOSTRA	TYPE: SPOT DE TRILHO 24°	WEIGHT:
SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---

DATA OF LAMP		Imax (cd)	7877	S/MH (C0/180)	0.41
MODEL	LED	EFFICIENCY (%)	100.0	S/MH (C90/270)	0.41
NOMINAL POWER (W)	20	TOTAL FLUX (lm)	1755.2	Voltage (V)	220.6
RATED VOLTAGE (V)	220	EFFICIENCY (lm/W)	84.4	Current (A)	0.102
NOMINAL FLUX (lm)	1755.2	η up (%)	0.0	Power (W)	20.79
LAMPS QUANTITY	1	η down (%)	100.0	Power Factor (PF)	0.917
TEST VOLTAGE (V)	220.7	Effective Flux (lm)	1755.2	EEL	0.193

LUMINOUS INTENSITY DISTRIBUTION

LUMINOUS INTENSITY DISTRIBUTION



Test System: HOPOO HPG1800
 Temperature: 25.3DEG
 Operators: CRISTIANE SANTOS
 Test Date: 09-08-2023

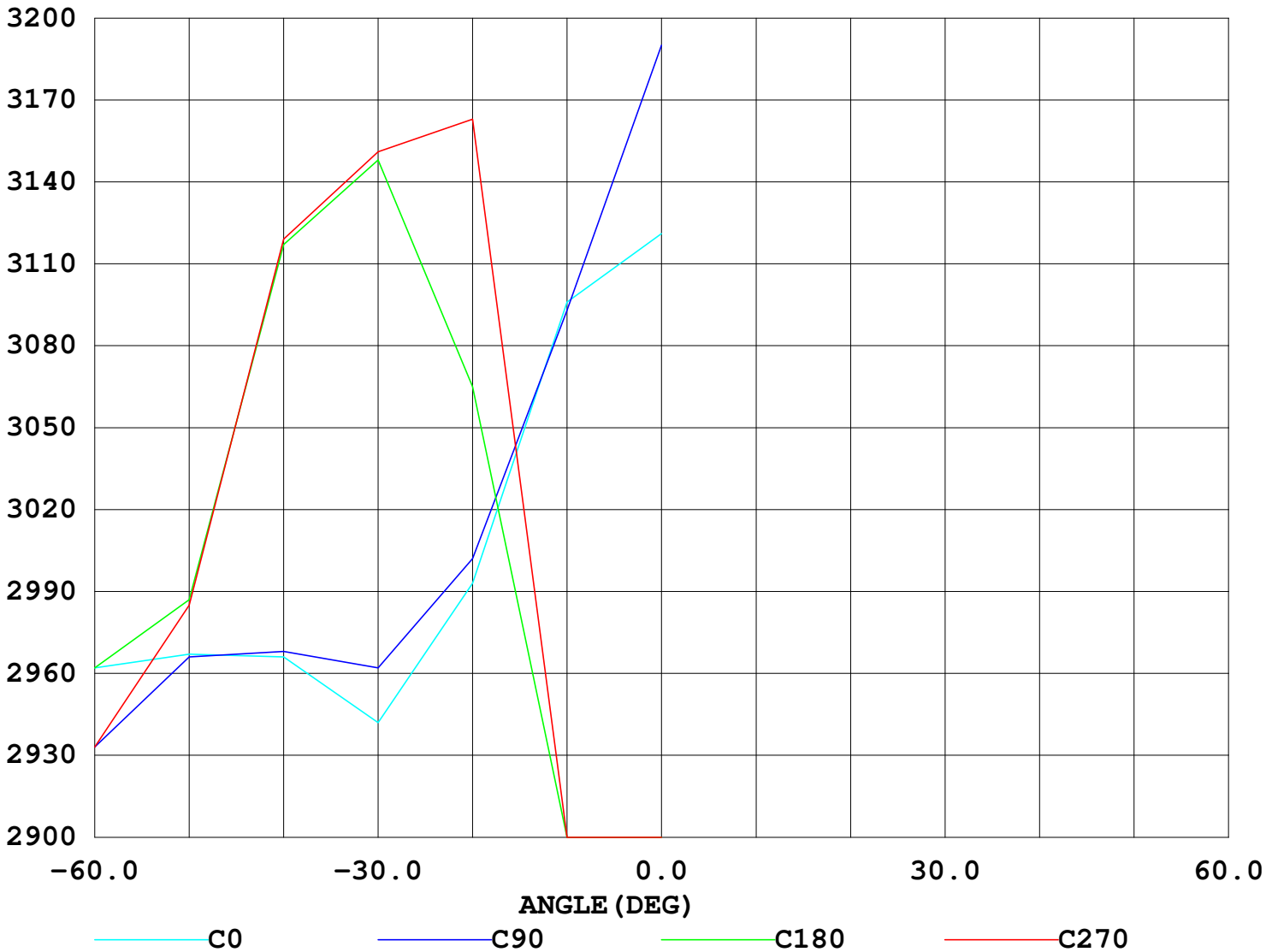
Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity: 65.0%
 Test Distance: 10.000 m
 Remarks:

Color Temperature Distrib

Report number: 0305-23

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COLOR TEMPERATURE DISTRIBUTION



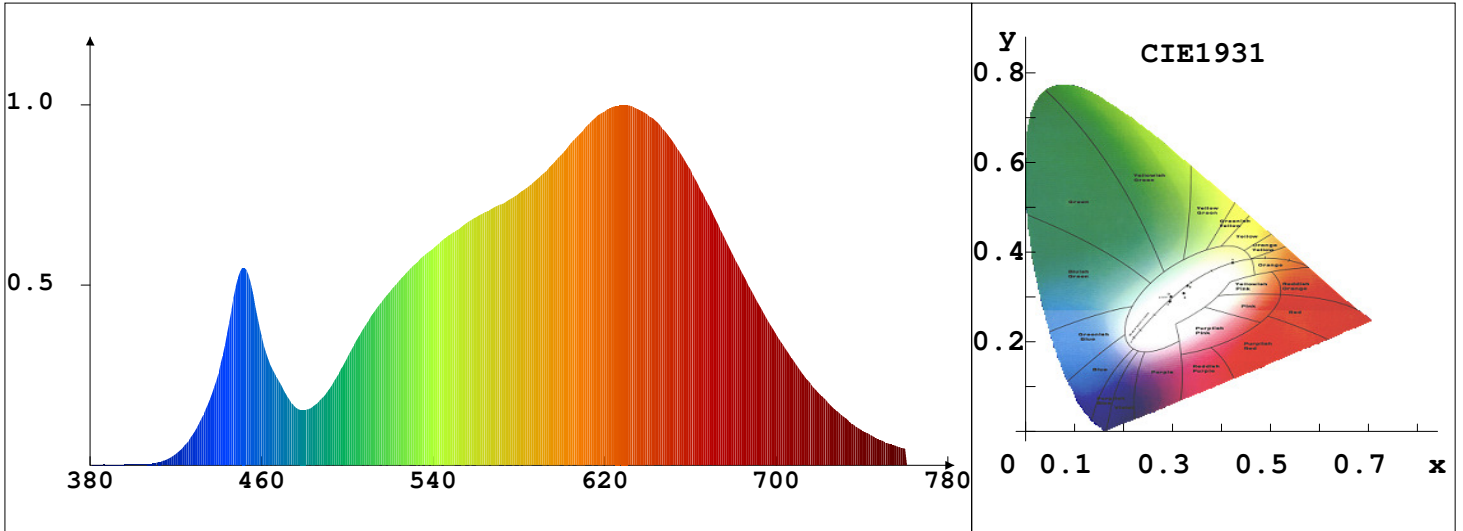
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Spectrum Chart

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Avg Chro. Para.

CCT: 2963K Chro. Coord.: $x_a=0.4372$ $y_a=0.4002$ $u'_a=0.2525$ $v'_a=0.5199$ $|u'v'|=0.0016$

Current Angle: $C=0.0$ $G=0.0$

Chroma Parameters

Chro.Coord.: $x=0.4369$ $y=0.3995$ $u'=0.2526$ $v'=0.5196$ $duv=-0.0018$

CCT: 2962K Dominant Wave: 583.7nm Purity: 51.0% Light Intensity: 780.8cd

Flux RGB Ratio: R=24.9%,G=72.7%,B=2.4% Peak Wave: 627.8nm Half Width: 164.9nm

Rendering Index: Ra= 92.3

R1 =94 R2 =94 R3 =92 R4 =93 R5 =92 R6 =92 R7 =94 R8 =88

R9 =71 R10=84 R11=93 R12=78 R13=94 R14=95 R15=92

Instrument State

Scan Range: 380nm-780nm Integral Time: 180.0ms Peak Signal: 180000 Dark Signal: 55954

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Color Temperature Data List

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NAME: AMOSTRA		TYPE: SPOT DE TRILHO 24°	
SPECIFICATION: LED 20W 3000K		DIMENSION:	
		WEIGHT:	
		SERIAL No.: ---	

Gamma\C	C0 (CT;/nu'v')		C90 (CT;/nu'v')		Gamma\C	C180 (CT;/nu'v')		C270 (CT;/nu'v')	
0.0	2962K	0.0003	2933K	0.0016	-0.0	2962K	0.0003	2933K	0.0016
10.0	2967K	0.0003	2966K	0.0001	-10.0	2987K	0.0000	2985K	0.0000
20.0	2966K	0.0001	2968K	0.0003	-20.0	3117K	0.0000	3119K	0.0000
30.0	2942K	0.0012	2962K	0.0002	-30.0	3148K	0.0000	3151K	0.0000
40.0	2993K	0.0000	3002K	0.0000	-40.0	3065K	0.0000	3163K	0.0000
50.0	3096K	0.0000	3093K	0.0000	-50.0	OK	0.0000	OK	0.0000
60.0	3121K	0.0000	3190K	0.0000	-60.0	OK	0.0000	OK	0.0000

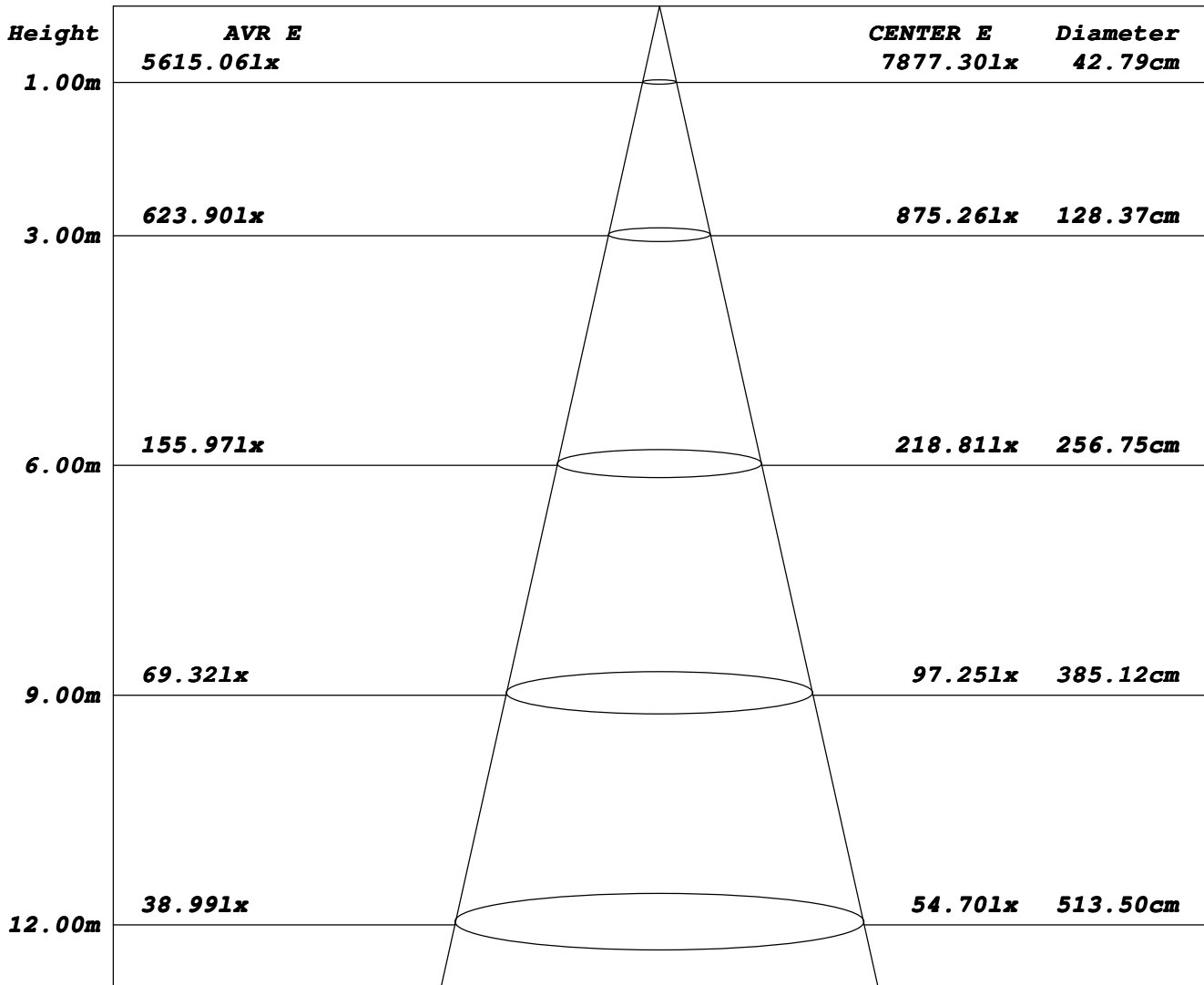
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:CRISTIANE SANTOS
Test Date:09-08-2023

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

AVERAGE AND CENTER E Figure

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NAME: AMOSTRA	TYPE: SPOT DE TRILHO 24°	WEIGHT:
SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---



Angle: 24.2deg

Test System: HOPOO HPG1800
 Temperature: 25.3DEG
 Operators: CRISTIANE SANTOS
 Test Date: 09-08-2023

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity: 65.0%
 Test Distance: 10.000 m
 Remarks:

ZONAL FLUX DIAGRAM

Report number: 0305-23

MANUFACTURER: BRIGHT		
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SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---

γ	C0	C90	C180	C270					γ	zone	total
5.0	6906	6846	6879	6930					0- 5	175.5	175.5
10.0	4988	4855	4798	4881					5- 10	419.1	594.7
15.0	2704	2644	2550	2614					10- 15	436.6	1031
20.0	1236	1160	1223	1221					15- 20	304.4	1336
25.0	524.2	563.9	611.2	606.1					20- 25	178.0	1514
30.0	245.6	314.8	292.0	319.1					25- 30	106.3	1620
35.0	104.2	149.8	110.8	157.5					30- 35	61.34	1682
40.0	75.30	65.40	48.40	73.50					35- 40	32.09	1714
45.0	41.29	29.30	23.80	35.29					40- 45	17.48	1731
50.0	21.60	14.40	11.20	17.90					45- 50	9.550	1741
55.0	13.40	7.900	6.800	11.30					50- 55	5.573	1746
60.0	8.100	4.400	4.200	7.600					55- 60	3.620	1750
65.0	4.000	1.000	1.400	3.800					60- 65	2.088	1752
70.0	2.700	0.200	0.800	2.700					65- 70	0.993	1753
75.0	2.100	0	0.600	2.100					70- 75	0.718	1754
80.0	1.700	0	0.500	1.700					75- 80	0.572	1754
85.0	1.400	0	0.500	1.400					80- 85	0.482	1755
90.0	1.100	0	0.900	1.100					85- 90	0.438	1755
95.0									90- 95		
100.0									95-100		
105.0									100-105		
110.0									105-110		
115.0									110-115		
120.0									115-120		
125.0									120-125		
130.0									125-130		
135.0									130-135		
140.0									135-140		
145.0									140-145		
150.0									145-150		
155.0									150-155		
160.0									155-160		
165.0									160-165		
170.0									165-170		
175.0									170-175		
180.0									175-180		
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:CRISTIANE SANTOS
 Test Date:09-08-2023

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

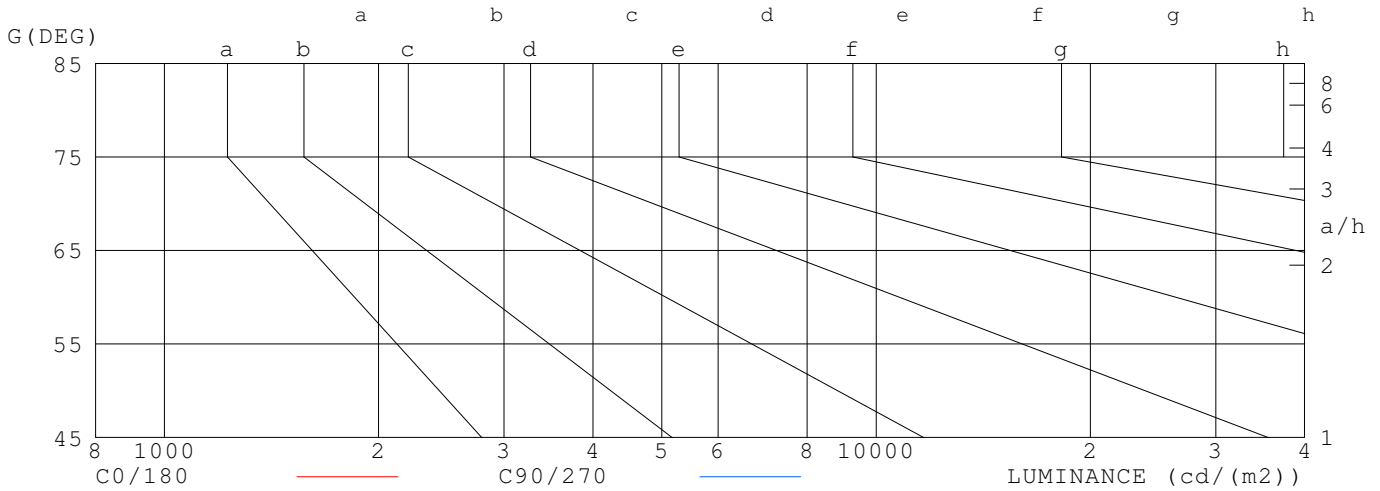
LUMINANCE LIMITATION CURVES

Report number: 0305-23

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Address:		
NAME: AMOSTRA	TYPE: SPOT DE TRILHO 24°	WEIGHT:
SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



LUMINANCE cd/m2		
G (DEG)	C0/180	C90/270
85	161	0
80	98	0
75	81	0
70	79	6
65	95	24
60	162	88
55	234	138
50	336	224
45	584	414

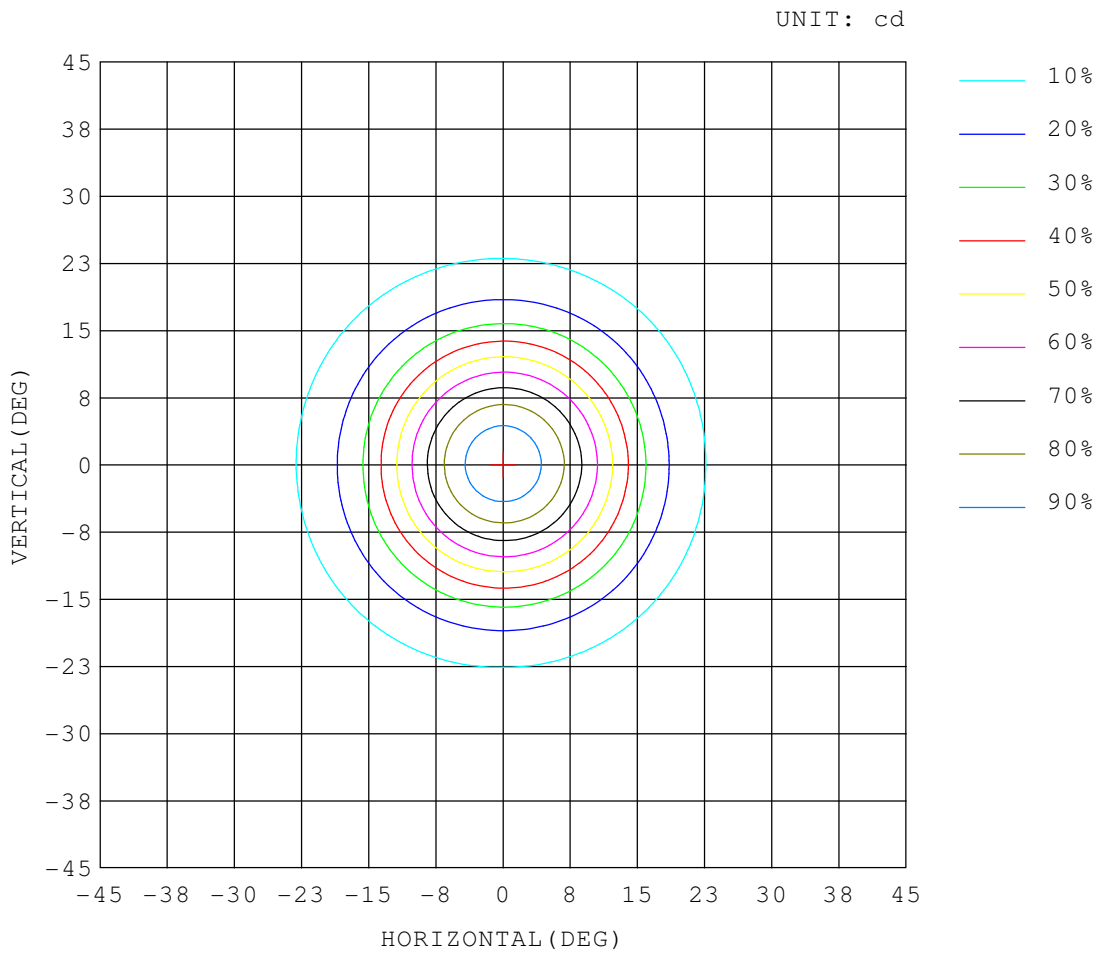
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:CRISTIANE SANTOS
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Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

ISOCANDELA DIAGRAM

Report number: 0305-23

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SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---



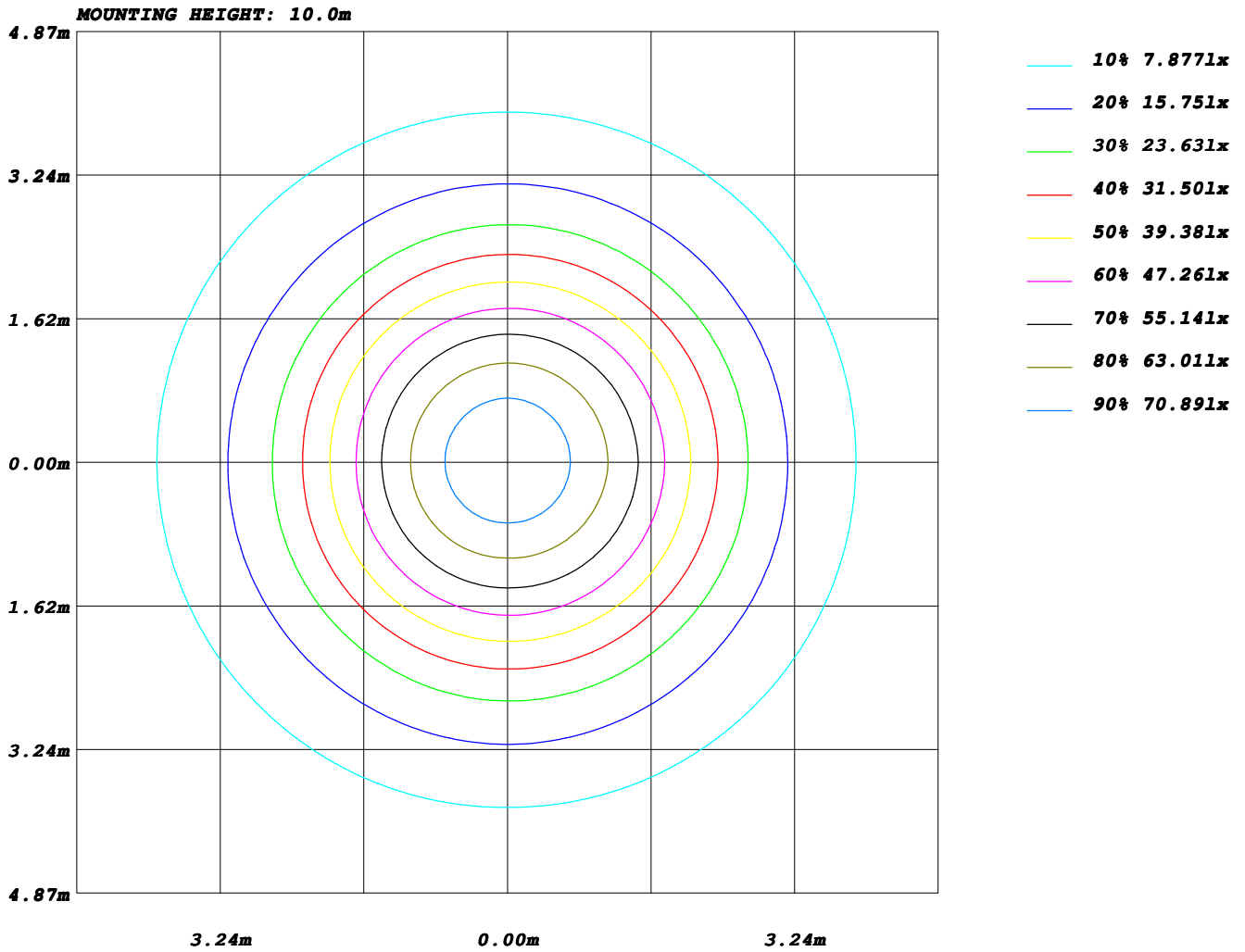
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ISOLUX DIAGRAM

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SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---



Test System: HOPOO HPG1800
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AREA LUMINOUS FLUX

Report number: 0305-23

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Address:		
NAME: AMOSTRA	TYPE: SPOT DE TRILHO 24°	WEIGHT:
SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---

		AREA FLUX DIAGRAM																UNIT:lm		Φ t	Φ a
VERTICAL (DEG)	45	0.04	0.06	0.08	0.12	0.17	0.23	0.29	0.35	0.39	0.39	0.37	0.32	0.26	0.20	0.15	0.11	0.08	0.06	3.68	3.68
	40	0.05	0.08	0.13	0.20	0.30	0.44	0.59	0.73	0.83	0.84	0.76	0.63	0.49	0.36	0.25	0.17	0.11	0.08	7.04	7.04
	35	0.07	0.11	0.20	0.34	0.55	0.85	1.21	1.53	1.72	1.71	1.51	1.19	0.88	0.63	0.42	0.26	0.16	0.10	13.4	13.4
	30	0.09	0.17	0.31	0.57	1.01	1.66	2.36	2.99	3.37	3.34	2.91	2.26	1.59	1.00	0.65	0.40	0.23	0.13	25.0	25.0
	25	0.11	0.23	0.46	0.94	1.79	2.92	4.27	5.59	6.50	6.47	5.50	4.08	2.72	1.67	0.93	0.56	0.32	0.17	45.2	45.2
	20	0.14	0.30	0.66	1.49	2.81	4.77	7.60	11.0	13.6	13.6	11.0	7.54	4.51	2.55	1.37	0.71	0.42	0.22	84.5	84.5
	15	0.17	0.38	0.92	2.08	4.04	7.44	13.4	21.2	27.2	27.4	21.6	13.5	7.35	3.67	1.84	0.88	0.50	0.26	154	154
	10	0.19	0.44	1.15	2.60	5.23	10.6	20.8	34.1	43.5	43.8	34.8	21.4	10.7	4.90	2.25	1.04	0.56	0.30	239	239
	5	0.20	0.46	1.28	2.92	6.04	13.0	26.2	42.9	54.6	54.6	43.8	27.3	13.2	5.77	2.48	1.13	0.57	0.32	297	297
	0	0.20	0.46	1.28	2.91	6.02	13.0	26.1	42.8	54.4	54.4	43.6	27.3	13.2	5.75	2.47	1.13	0.57	0.32	296	296
	-5	0.19	0.43	1.14	2.58	5.18	10.6	20.8	33.9	43.1	43.3	34.6	21.5	10.7	4.84	2.23	1.04	0.55	0.29	238	238
	-10	0.17	0.37	0.91	2.06	3.96	7.32	13.5	21.3	27.1	27.2	21.6	13.7	7.23	3.59	1.82	0.87	0.49	0.26	154	154
	-15	0.14	0.29	0.64	1.48	2.76	4.64	7.41	11.0	13.8	13.8	11.0	7.35	4.38	2.49	1.36	0.70	0.40	0.21	84.0	84.0
	-20	0.11	0.22	0.44	0.92	1.77	2.85	4.09	5.34	6.18	6.15	5.25	3.91	2.65	1.65	0.91	0.55	0.31	0.17	43.5	43.5
	-25	0.08	0.15	0.29	0.54	0.99	1.64	2.31	2.88	3.21	3.18	2.80	2.21	1.56	0.98	0.62	0.38	0.22	0.13	24.2	24.2
	-30	0.06	0.10	0.18	0.31	0.52	0.81	1.16	1.49	1.68	1.67	1.47	1.15	0.84	0.59	0.39	0.25	0.15	0.09	12.9	12.9
-35	0.04	0.07	0.11	0.18	0.27	0.40	0.54	0.68	0.76	0.77	0.70	0.58	0.45	0.33	0.23	0.16	0.10	0.07	6.45	6.45	
-40	0.03	0.05	0.07	0.10	0.15	0.20	0.25	0.30	0.34	0.34	0.32	0.28	0.23	0.18	0.14	0.10	0.07	0.05	3.21	3.21	
-45																					
		-45	-40	-35	-30	-25	-20	-15	-10	HORIZONTAL (DEG)	10	15	20	25	30	35	40	45			
Φ t		2.07	4.36	10.2	22.3	43.6	83.6	153	241	303	303	244	156	83.2	41.2	20.5	10.4	5.83	3.23	1755	
Φ a		2.07	4.36	10.2	22.3	43.6	83.6	153	241	303	303	244	156	83.2	41.2	20.5	10.4	5.83	3.23		1755

Test System:HOPOO HPG1800
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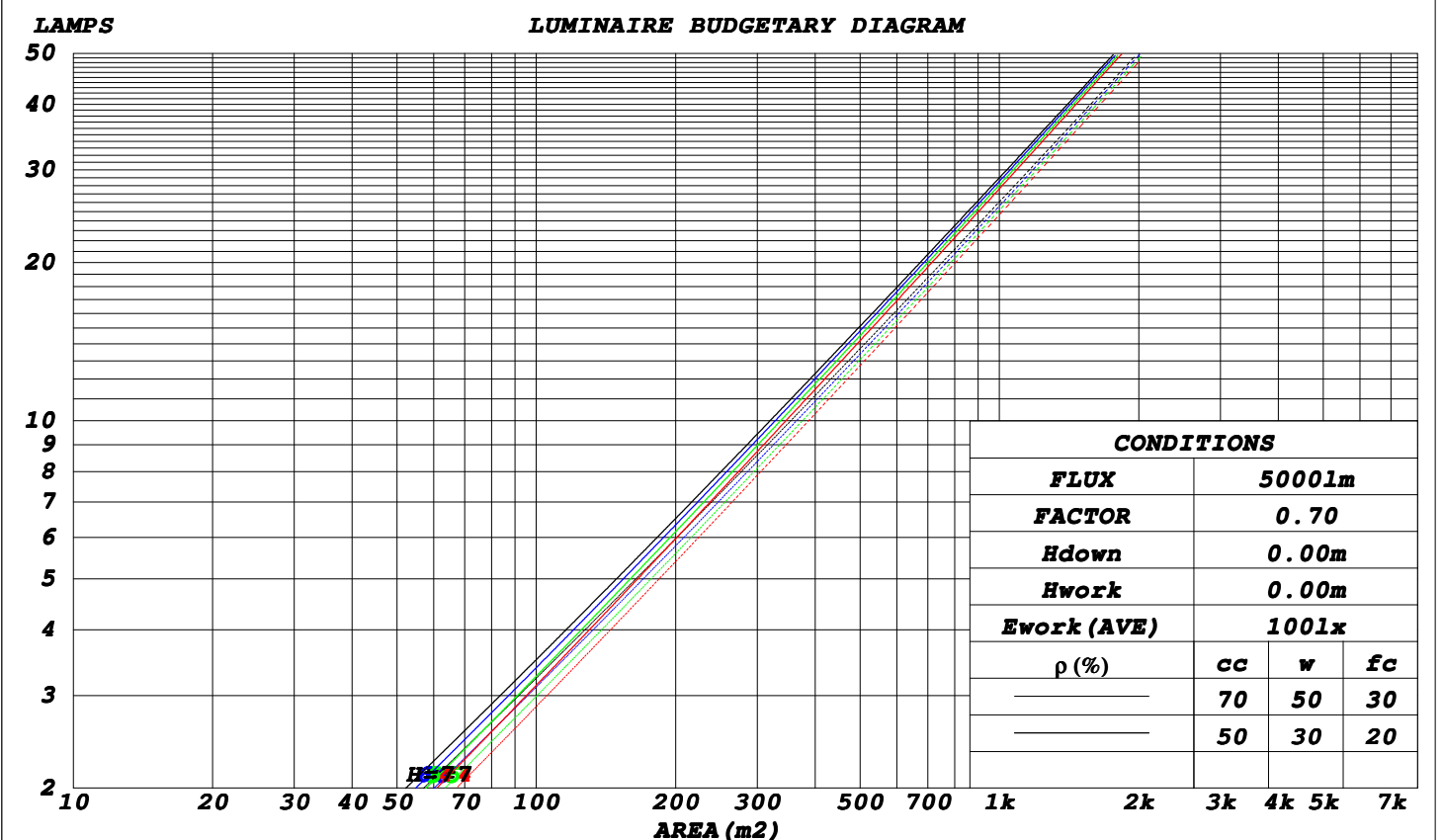
Test Set: 5.0deg/s C-Gamma (TYPE C)
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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number: 0305-23

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Address:														
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SPECIFICATION: LED 20W 3000K					DIMENSION:					SERIAL No.: ---				

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						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	1.13	1.11	1.09	1.11	1.09	1.07	1.07	1.05	1.04	1.03	1.02	1.01	.00	.99	.98	.96
2.0	1.07	1.04	1.01	1.06	1.03	1.00	1.02	1.00	.98	.00	.98	.96	.97	.95	.94	.93
3.0	1.02	.99	.96	1.01	.98	.95	.99	.96	.93	.96	.94	.92	.94	.92	.91	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.91	.88	.92	.89	.87	.86
5.0	.94	.90	.87	.93	.90	.87	.92	.88	.86	.90	.87	.85	.89	.86	.84	.83
6.0	.91	.87	.83	.90	.86	.83	.89	.85	.83	.88	.85	.82	.86	.84	.82	.81
7.0	.88	.83	.80	.87	.83	.80	.86	.82	.80	.85	.82	.79	.84	.81	.79	.78
8.0	.85	.81	.78	.84	.80	.78	.84	.80	.77	.83	.79	.77	.82	.79	.77	.76
9.0	.82	.78	.75	.82	.78	.75	.81	.77	.75	.80	.77	.75	.80	.77	.74	.74
10.0	.80	.76	.73	.80	.76	.73	.79	.75	.73	.78	.75	.73	.78	.75	.72	.71



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WEC AND CCEC

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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	.141	.080	.025	.134	.077	.024	.122	.070	.022	.111	.064	.020	.100	.058	.019	
2.0	.131	.072	.022	.126	.069	.021	.115	.064	.020	.106	.059	.019	.097	.055	.017	
3.0	.123	.065	.020	.118	.063	.019	.109	.059	.018	.101	.056	.017	.094	.052	.016	
4.0	.115	.060	.018	.111	.058	.017	.104	.055	.016	.097	.052	.016	.091	.049	.015	
5.0	.108	.055	.016	.105	.054	.016	.099	.052	.015	.093	.049	.015	.088	.047	.014	
6.0	.103	.051	.015	.100	.050	.015	.095	.048	.014	.090	.047	.014	.085	.045	.013	
7.0	.098	.048	.014	.095	.047	.014	.091	.046	.013	.086	.044	.013	.082	.043	.013	
8.0	.093	.045	.013	.091	.045	.013	.087	.043	.012	.083	.042	.012	.079	.041	.012	
9.0	.089	.043	.012	.087	.042	.012	.083	.041	.012	.080	.040	.011	.077	.039	.011	
10.0	.085	.041	.011	.084	.040	.011	.080	.039	.011	.077	.038	.011	.074	.037	.011	

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	.169	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.129	.114	.102	.089	.079	.071	.051	.046	.042	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.065	.097	.074	.057	.067	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.105	.076	.055	.090	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.097	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.091	.061	.041	.078	.053	.035	.054	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.085	.055	.035	.073	.048	.031	.051	.034	.022	.030	.020	.013	.010	.007	.004	
10.0	.080	.051	.031	.069	.044	.027	.048	.031	.019	.028	.018	.011	.009	.006	.004	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:CRISTIANE SANTOS
 Test Date:09-08-2023

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

Uncorrected UGR Table

Report number: 0305-23

MANUFACTURER: BRIGHT										
Address:										
NAME: AMOSTRA					TYPE: SPOT DE TRILHO 24°			WEIGHT:		
SPECIFICATION: LED 20W 3000K					DIMENSION:			SERIAL No.: ---		

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	0.4	1.1	0.6	1.2	1.4	0.9	1.6	1.1	1.7	1.9
3H	0.4	1.0	0.6	1.2	1.4	0.8	1.4	1.0	1.6	1.8
4H	0.3	0.9	0.6	1.2	1.4	0.7	1.3	1.0	1.5	1.7
6H	0.4	0.9	0.6	1.2	1.4	0.6	1.2	0.9	1.4	1.6
8H	0.4	0.9	0.7	1.2	1.4	0.6	1.1	0.9	1.4	1.6
12H	0.4	0.9	0.7	1.2	1.5	0.5	1.1	0.8	1.3	1.6
4H 2H	0.3	0.9	0.5	1.1	1.3	0.8	1.4	1.0	1.6	1.8
3H	0.2	0.7	0.5	1.0	1.2	0.6	1.1	0.9	1.4	1.6
4H	0.2	0.7	0.5	1.0	1.3	0.5	1.0	0.8	1.3	1.6
6H	0.2	0.7	0.6	1.0	1.3	0.4	0.8	0.8	1.2	1.5
8H	0.3	0.7	0.7	1.0	1.4	0.3	0.7	0.7	1.1	1.5
12H	0.4	0.7	0.8	1.1	1.5	0.3	0.7	0.7	1.0	1.4
8H 4H	0.1	0.5	0.4	0.8	1.2	0.4	0.8	0.7	1.1	1.5
6H	0.1	0.5	0.5	0.8	1.3	0.3	0.6	0.7	1.0	1.4
8H	0.2	0.5	0.7	0.9	1.4	0.2	0.5	0.7	0.9	1.4
12H	0.4	0.6	0.9	1.1	1.5	0.2	0.4	0.6	0.8	1.3
12H 4H	0.0	0.4	0.4	0.7	1.1	0.3	0.7	0.7	1.0	1.4
6H	0.1	0.4	0.5	0.8	1.2	0.2	0.5	0.7	0.9	1.4
8H	0.2	0.4	0.6	0.9	1.3	0.2	0.4	0.6	0.9	1.3
Variations with the observer position at spacings:										
S = 1.0H	+ 2.4 / - 4.1					+ 3.2 / - 7.5				
1.5H	+ 4.1 / - 3.8					+ 5.1 / - 5.2				
2.0H	+ 4.5 / - 3.8					+ 4.5 / - 5.9				

CIE Pub.117 Corrected 1755 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.0)

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:CRISTIANE SANTOS
 Test Date:09-08-2023

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

UTILIZATION FACTORS TABLE

Report number: 0305-23

MANUFACTURER: BRIGHT		
Address:		
NAME: AMOSTRA	TYPE: SPOT DE TRILHO 24°	WEIGHT:
SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---

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	90	84	81	90	84	81	89	84	81	77
0.80	97	92	88	97	91	88	95	91	88	85
1.00	101	96	93	100	96	92	99	95	92	88
1.25	105	100	97	104	99	96	102	98	96	92
1.50	107	103	100	106	102	99	104	101	98	94
2.00	109	106	103	108	105	102	105	103	100	95
2.50	111	108	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	106	107	105	103	97
4.00	114	112	110	112	110	108	109	107	106	99
5.00	116	113	112	113	112	110	110	108	107	100
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

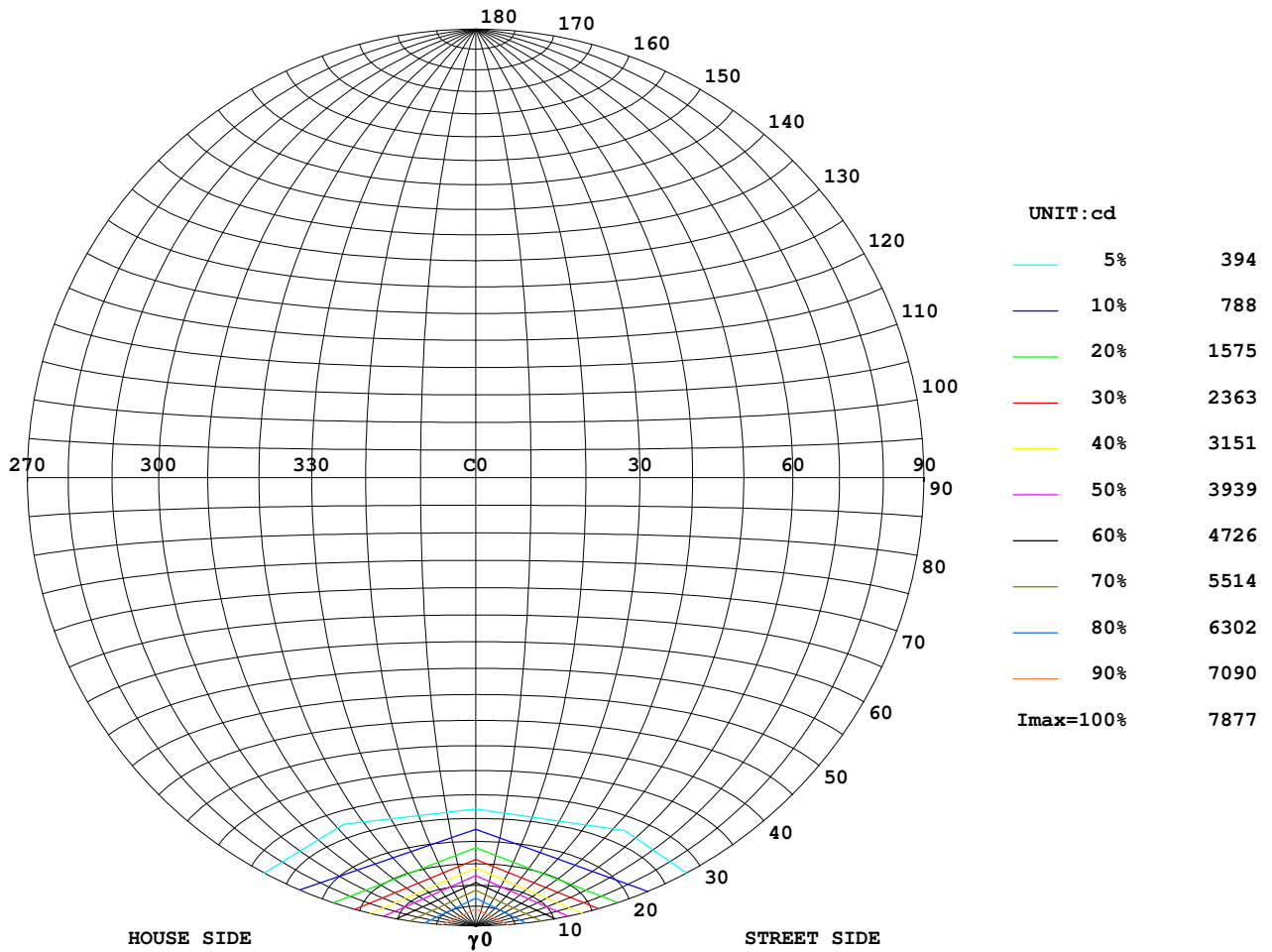
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:CRISTIANE SANTOS
Test Date:09-08-2023

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

ISOCANDELA DIAGRAM

Report number: 0305-23

MANUFACTURER: BRIGHT		
Address:		
NAME: AMOSTRA	TYPE: SPOT DE TRILHO 24°	WEIGHT:
SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---



Test System: HOPOO HPG1800
 Temperature: 25.3 DEG
 Operators: CRISTIANE SANTOS
 Test Date: 09-08-2023

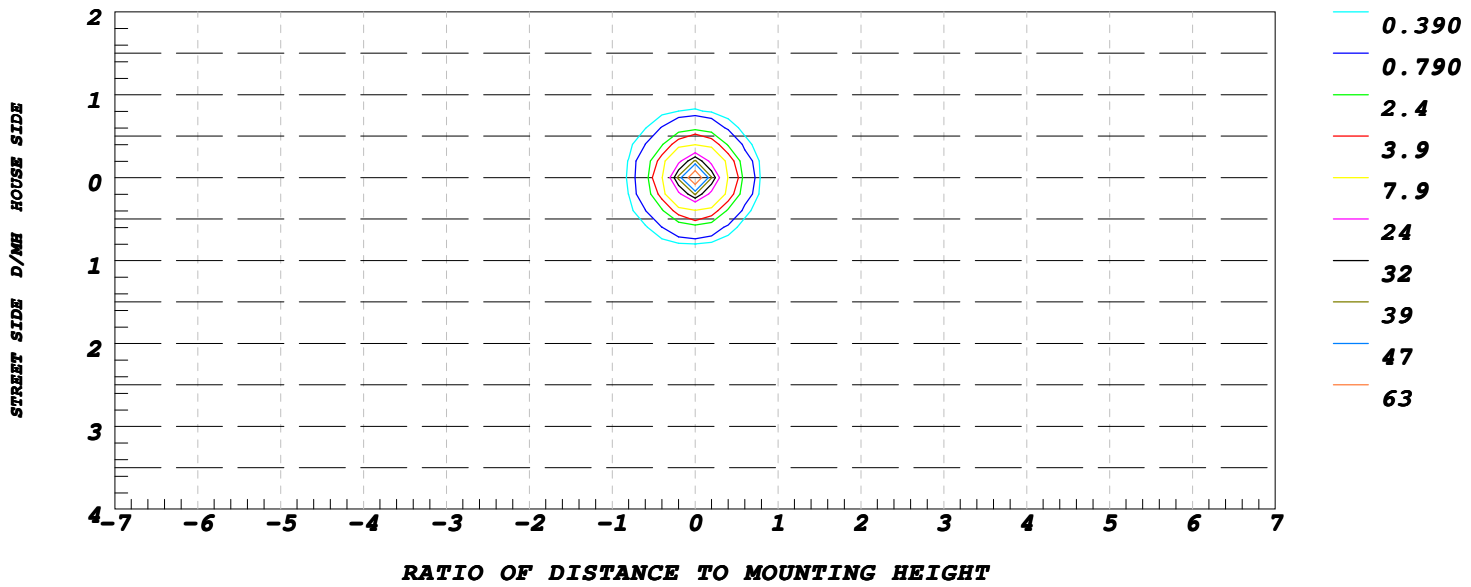
Test Set: 5.0 deg/s C-Gamma (TYPE C)
 Humidity: 65.0%
 Test Distance: 10.000 m
 Remarks:

ISOLUX DIAGRAM

Report number: 0305-23

MANUFACTURER: BRIGHT		
Address:		
NAME: AMOSTRA	TYPE: SPOT DE TRILHO 24°	WEIGHT:
SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---

ILLUMINANCE AT MH=10 m, Enadir = 78.77 lx



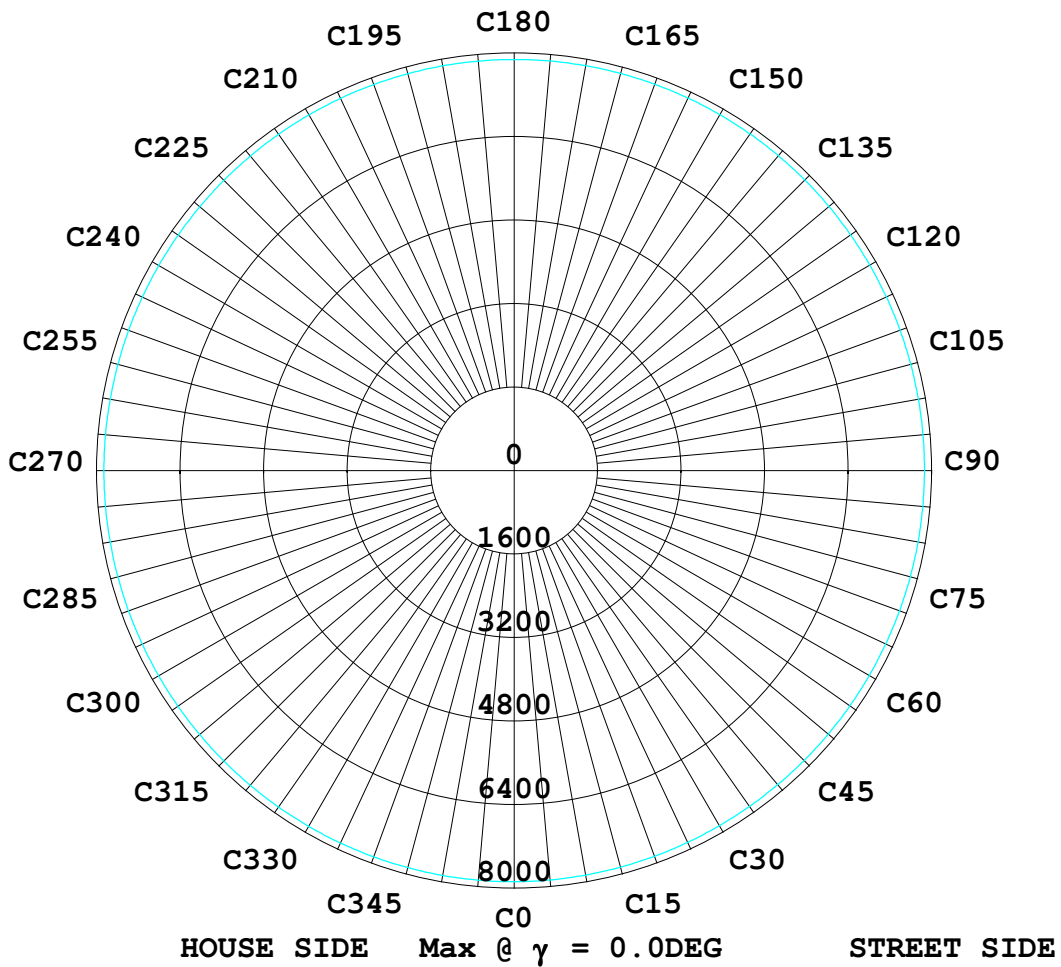
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:CRISTIANE SANTOS
 Test Date:09-08-2023

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

ISOCANDELA DIAGRAM

Report number: 0305-23

MANUFACTURER: BRIGHT		
Address:		
NAME: AMOSTRA	TYPE: SPOT DE TRILHO 24°	WEIGHT:
SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---



Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:CRISTIANE SANTOS
 Test Date:09-08-2023

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number: 0305-23

MANUFACTURER: BRIGHT		
Address:		
NAME: AMOSTRA	TYPE: SPOT DE TRILHO 24°	WEIGHT:
SPECIFICATION: LED 20W 3000K	DIMENSION:	SERIAL No.: ---

UNIT: cd

γ (DEG)	C (DEG)			
	0	90	180	270
0.0	7877	7860	7877	7860
5.0	6906	6846	6879	6930
10.0	4988	4855	4798	4881
15.0	2704	2644	2550	2614
20.0	1236	1160	1223	1221
25.0	524	564	611	606
30.0	246	315	292	319
35.0	104	150	111	158
40.0	75.3	65.4	48.4	73.5
45.0	41.2	29.3	23.8	35.2
50.0	21.6	14.4	11.2	17.9
55.0	13.4	7.90	6.80	11.3
60.0	8.10	4.40	4.20	7.60
65.0	4.00	1.00	1.40	3.80
70.0	2.70	0.20	0.80	2.70
75.0	2.10	0.00	0.60	2.10
80.0	1.70	0.00	0.50	1.70
85.0	1.40	0.00	0.50	1.40
90.0	1.10	0.00	0.90	1.10

Test System:HOPOO HPG1800
Temperature:25.3DEG
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Test Date:09-08-2023

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks: