

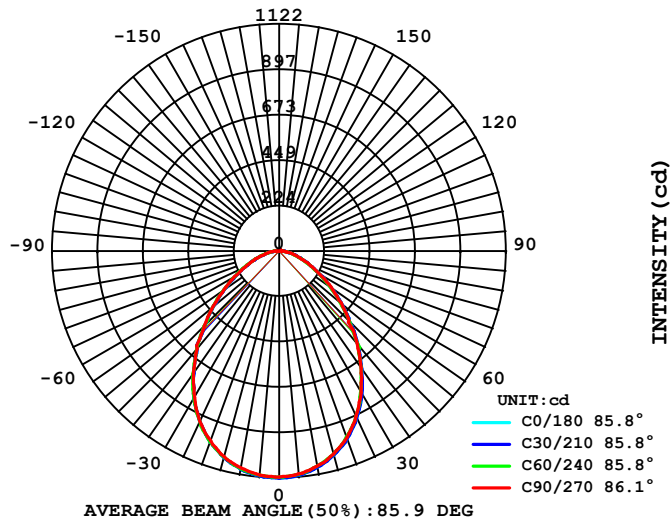
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

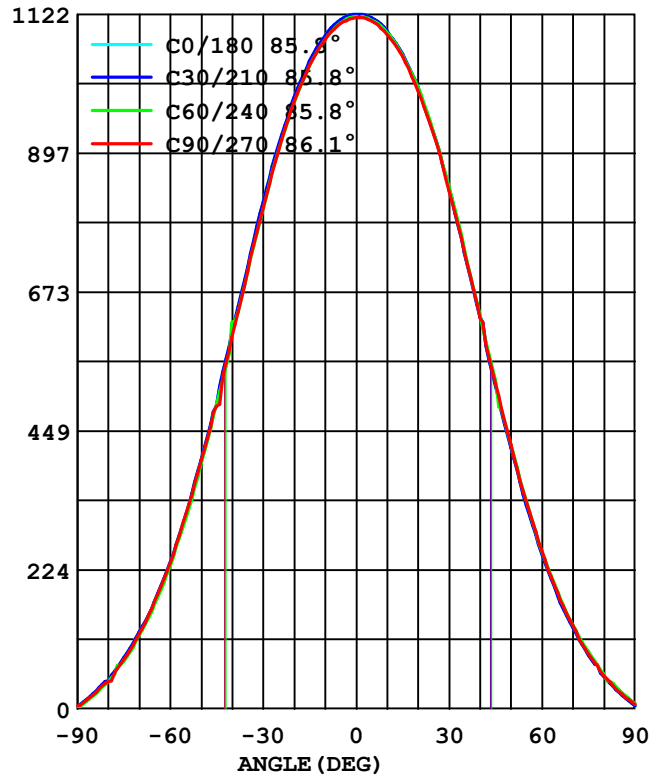
MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K) : 0	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax (cd)	1122	S/MH (C0/180)	1.11
MODEL	KAS-DL03-D-420	EFFICIENCY (%)	100.0	S/MH (C90/270)	1.10
NOMINAL POWER (W)	20	TOTAL FLUX (lm)	2247.0	Voltage (V)	219.8
RATED VOLTAGE (V)	220	EFFICIENCY (lm/W)	103.6	Current (A)	0.105
NOMINAL FLUX (lm)	2247.1	η up (%)	0.8	Power (W)	21.69
LAMPS QUANTITY	1	η down (%)	99.2	Power Factor (PF)	0.939
TEST VOLTAGE (V)	219.9	Effective Flux (lm)	2128.8	EET	0.139

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



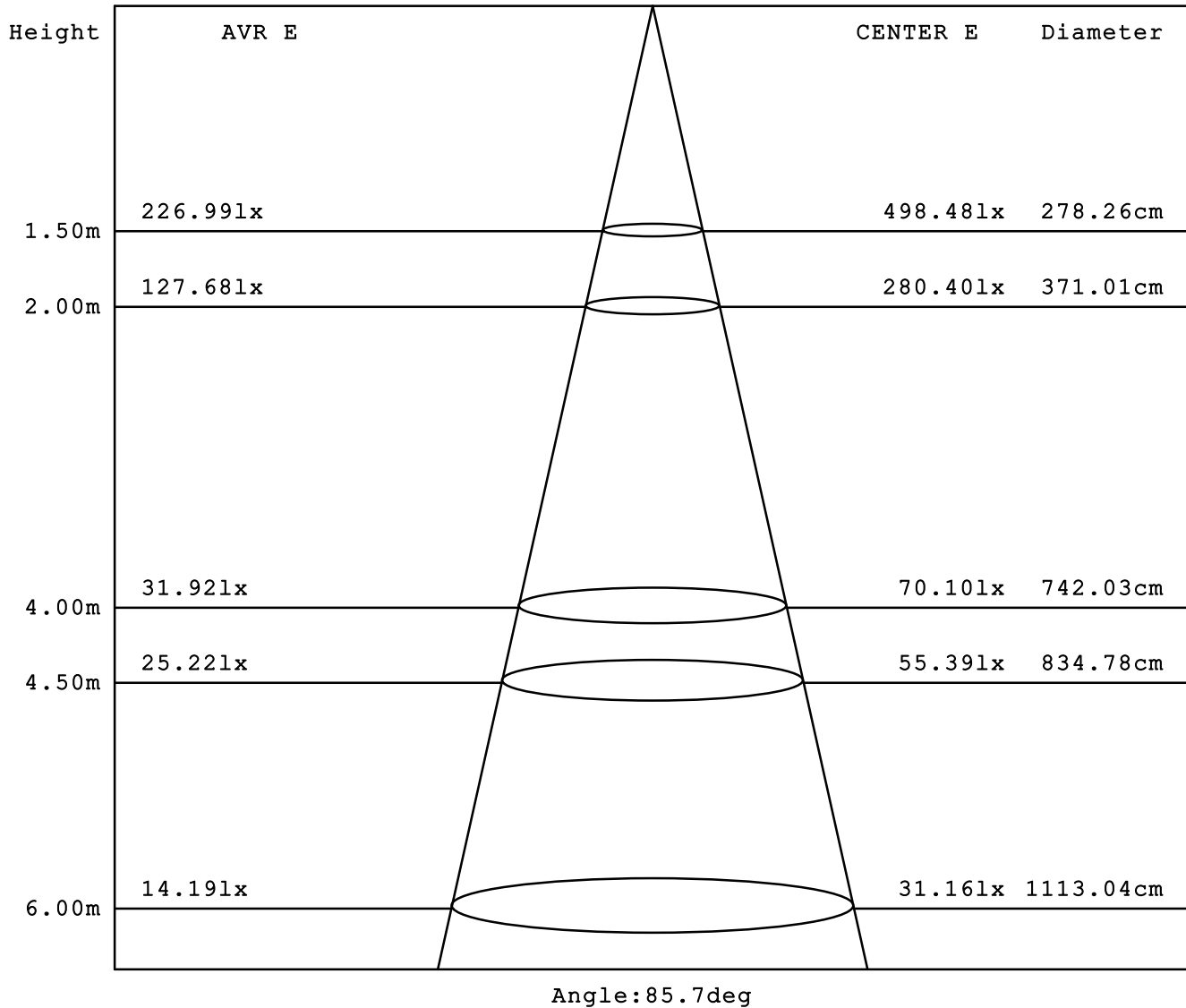
Test System: HOPOO HPG1600
 Temperature: 25.3 DEG
 Operators:
 Test Date: 2019年06月04日

Test Set: 7.0 deg/s C-Gamma (TYPE C)
 Humidity: 65.0%
 Test Distance: 4.500 m
 Remarks:

AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K) : 0	DIMENSION:	SERIAL No.:



Test System: HOPOO HPG1600
Temperature: 25.3DEG
Operators:
Test Date: 2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
Humidity: 65.0%
Test Distance: 4.500 m
Remarks:

ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K) : 0	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Zone	total
5.0	1113	1107	1106	1075	1116	1112	1111	1081	0- 5	26.45	26.45
10.0	1087	1081	1081	1047	1095	1092	1089	1057	5- 10	78.02	104.4
15.0	1046	1038	1038	1003	1057	1055	1053	1017	10- 15	125.5	230.0
20.0	987.0	977.1	979.4	944.1	1003	1003	997.4	959.9	15- 20	166.4	396.5
25.0	910.5	902.1	900.9	869.4	930.2	930.4	927.8	889.3	20- 25	198.1	594.7
30.0	817.8	806.8	809.1	781.7	841.6	844.4	837.0	798.3	25- 30	218.3	813.1
35.0	713.4	705.1	707.3	681.6	736.9	743.7	738.1	699.0	30- 35	225.5	1039
40.0	606.9	623.5	600.4	580.2	630.7	634.9	629.6	597.0	35- 40	221.1	1260
45.0	489.1	491.5	488.0	478.1	520.2	529.7	524.7	486.2	40- 45	205.5	1465
50.0	401.8	395.2	400.0	385.7	421.6	425.9	426.3	400.2	45- 50	183.2	1649
55.0	312.3	306.8	313.8	302.6	328.5	336.3	334.5	313.1	50- 55	157.1	1806
60.0	237.0	231.4	236.4	227.9	250.4	255.3	255.5	239.0	55- 60	128.7	1935
65.0	172.7	167.7	173.2	166.5	182.7	189.5	187.2	174.6	60- 65	101.1	2036
70.0	123.0	118.0	120.3	116.3	130.4	135.1	133.6	124.0	65- 70	75.90	2112
75.0	82.04	75.72	79.16	76.84	86.14	92.05	88.49	81.13	70- 75	53.91	2166
80.0	44.49	44.24	43.86	44.64	51.88	56.55	53.48	44.92	75- 80	35.07	2201
85.0	24.38	19.70	22.13	22.36	26.21	30.36	27.32	24.08	80- 85	19.72	2220
90.0	4.817	3.318	4.532	4.115	5.158	8.325	6.979	5.708	85- 90	7.755	2228
95.0	2.541	1.517	2.427	1.650	2.579	3.736	2.636	3.413	90- 95	1.966	2230
100.0	1.801	1.043	1.763	1.118	1.517	2.370	1.574	2.218	95-100	1.120	2231
105.0	1.517	0.929	1.517	0.986	0.967	1.650	1.024	1.536	100-105	0.772	2232
110.0	1.479	1.156	1.650	1.175	0.816	1.327	0.910	1.251	105-110	0.633	2233
115.0	1.820	1.687	2.067	1.650	1.062	1.536	1.232	1.498	110-115	0.693	2233
120.0	2.294	2.275	2.598	2.181	1.536	1.896	1.763	1.839	115-120	0.876	2234
125.0	2.863	2.901	3.243	2.750	1.953	2.313	2.332	2.218	120-125	1.068	2235
130.0	3.489	3.489	3.963	3.262	2.389	2.674	2.996	2.655	125-130	1.235	2236
135.0	4.115	4.039	4.703	3.698	2.825	3.015	3.679	3.110	130-135	1.366	2238
140.0	4.741	4.570	5.386	4.077	3.375	3.375	4.324	3.622	135-140	1.449	2239
145.0	5.291	5.120	6.012	4.381	3.925	3.868	4.912	4.077	140-145	1.479	2241
150.0	5.765	5.689	6.448	4.722	4.494	4.381	5.367	4.589	145-150	1.454	2242
155.0	6.087	6.182	6.751	5.120	4.874	4.968	5.689	5.025	150-155	1.364	2244
160.0	6.391	6.524	6.884	5.518	5.158	5.424	5.841	5.329	155-160	1.205	2245
165.0	6.637	6.618	6.903	5.822	5.481	5.556	6.068	5.405	160-165	0.986	2246
170.0	6.732	6.239	6.846	5.955	5.936	5.575	6.334	5.291	165-170	0.723	2247
175.0	6.296	5.879	6.637	5.803	6.372	5.500	6.201	5.367	170-175	0.434	2247
180.0	6.201	5.841	6.201	5.462	6.182	5.689	6.144	5.443	175-180	0.143	2247
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:4.500 m
 Remarks:

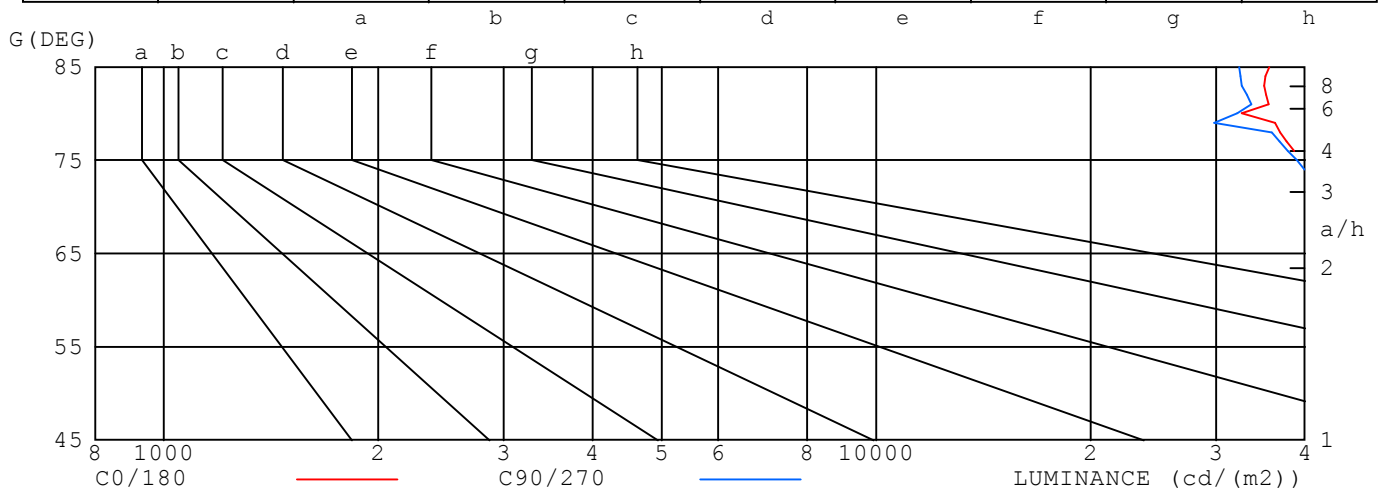
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K) : 0	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	35649	32350
80	32640	32181
75	40382	38963
70	45838	44835
65	52057	52217
60	60395	60245
55	69374	69716
50	79634	79288
45	88124	87926

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年06月04日

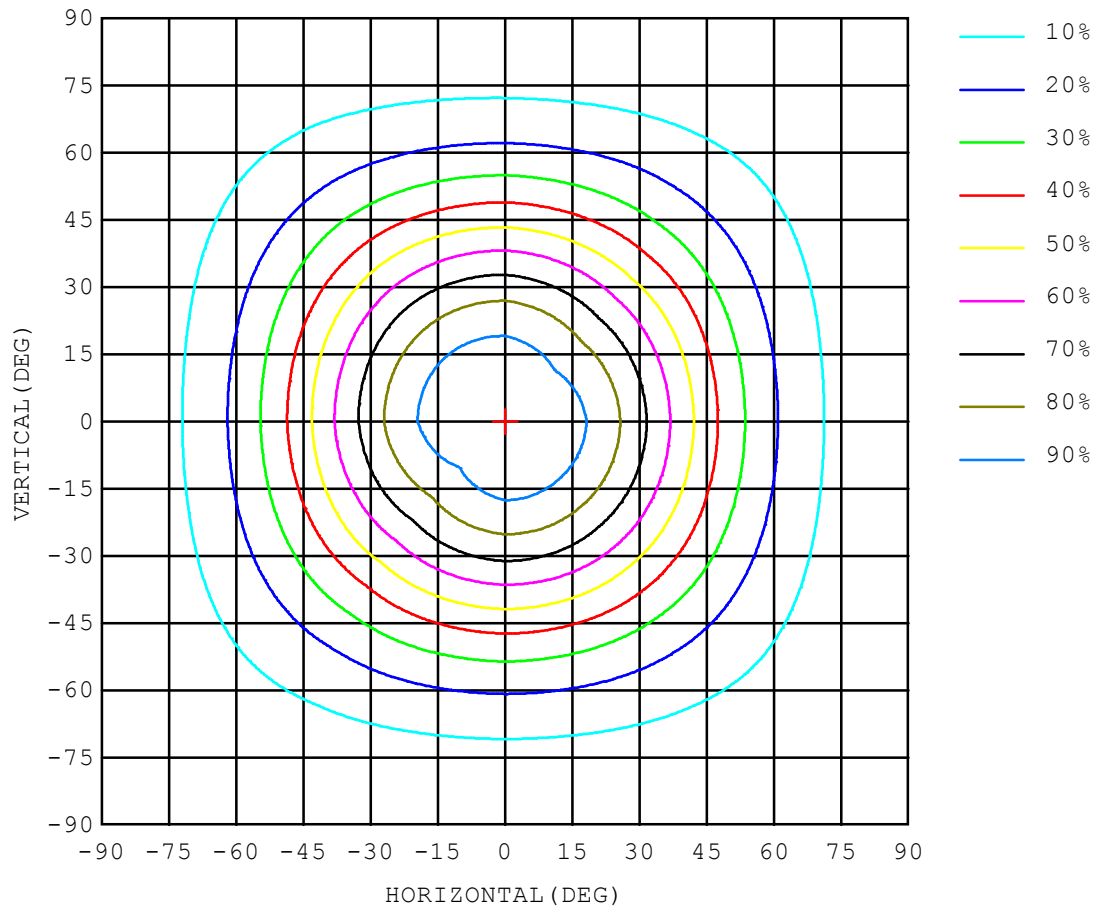
Test Set: 7.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:4.500 m
 Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K) : 0	DIMENSION:	SERIAL No.:

UNIT: cd



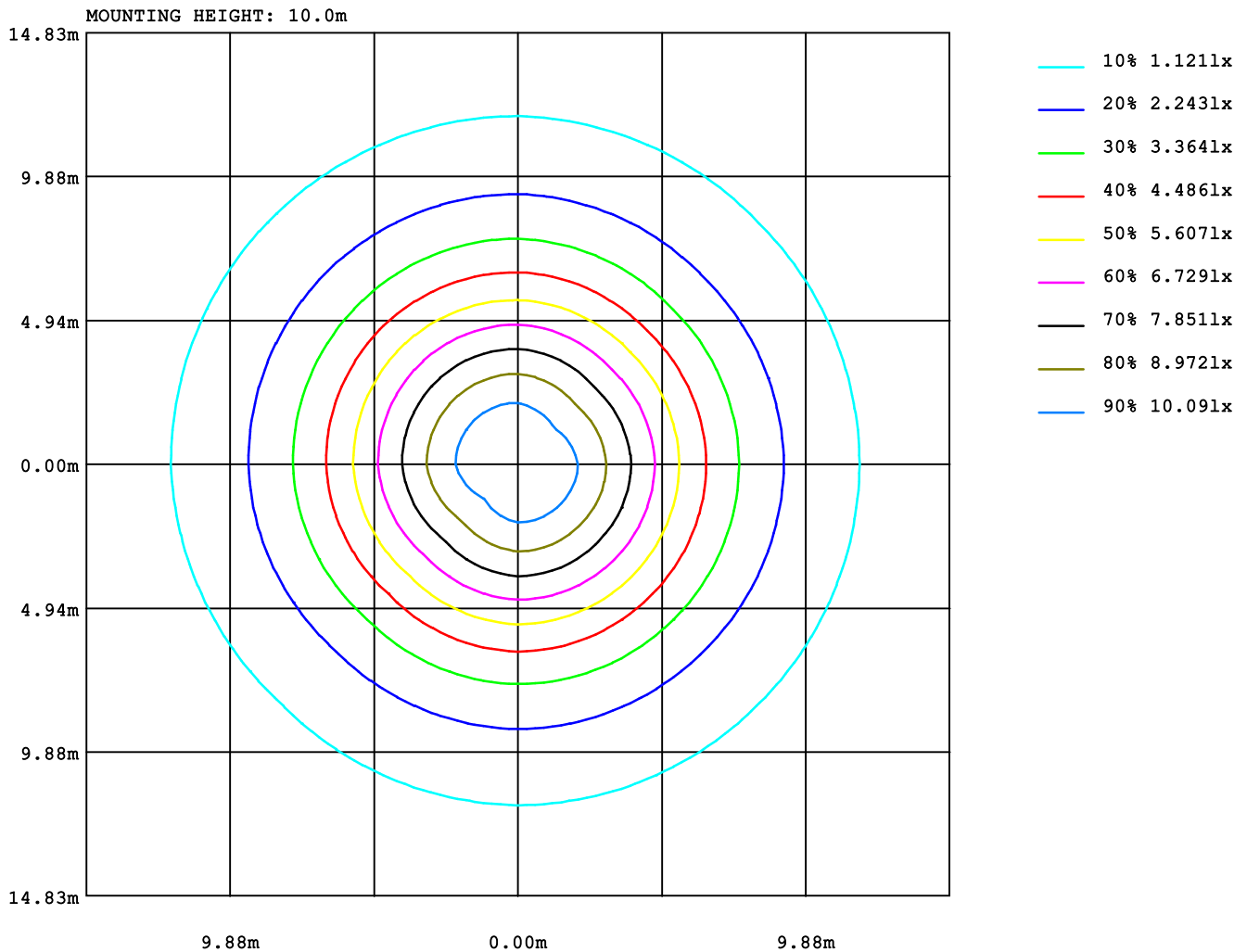
Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:4.500 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K): 0	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:4.500 m
Remarks:

AREA LUMINOUS FLUX

Report number:

MANUFACTURER:																			
Address:																			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604										TYPE:					WEIGHT:				
SPECIFICATION:					CCT (K) : 0					DIMENSION:					SERIAL No.:				

	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	90	80	70	60	50	40	30	20	10	0	10	20	30	40	50	60	70	80	90			
VERTICAL (DEG)	90	0.02	0.09	0.20	0.35	0.51	0.65	0.75	0.83	0.86	0.85	0.78	0.67	0.54	0.40	0.27	0.16	0.07	0.02	8.00	0.00	
	80	0.03	0.18	0.45	0.82	1.28	1.77	2.22	2.56	2.73	2.69	2.45	2.06	1.60	1.12	0.72	0.39	0.15	0.03	23.3	2.69	
	70	0.04	0.27	0.73	1.47	2.41	3.45	4.45	5.25	5.70	5.65	5.11	4.24	3.20	2.18	1.31	0.65	0.25	0.04	46.4	38.0	
	60	0.06	0.37	1.07	2.22	3.81	5.70	7.62	9.20	10.0	9.99	8.95	7.29	5.35	3.53	2.05	0.97	0.33	0.05	78.7	74.7	
	50	0.07	0.47	1.42	3.08	5.51	8.55	11.6	14.2	15.7	15.6	13.8	11.1	8.01	5.16	2.87	1.32	0.43	0.06	119	117	
	40	0.08	0.56	1.77	3.98	7.36	11.6	16.2	20.0	22.1	21.8	19.3	15.2	10.9	6.91	3.73	1.65	0.52	0.07	164	162	
	30	0.08	0.64	2.07	4.81	9.09	14.6	20.5	25.2	27.7	27.4	24.3	19.4	13.7	8.60	4.53	1.94	0.59	0.08	206	204	
	20	0.09	0.70	2.30	5.45	10.4	16.9	23.7	28.9	31.5	31.0	27.8	22.7	16.2	9.90	5.15	2.16	0.65	0.08	236	235	
	10	0.09	0.73	2.42	5.79	11.2	18.2	25.3	30.6	33.3	32.7	30.0	24.6	17.5	10.6	5.50	2.28	0.68	0.08	252	251	
	0	0.09	0.72	2.40	5.74	11.1	17.9	24.9	30.0	32.6	33.1	30.2	24.7	17.5	10.6	5.49	2.28	0.68	0.08	251	249	
	-10	0.09	0.69	2.25	5.32	10.1	16.3	22.5	27.3	30.6	31.0	28.1	22.8	16.2	9.91	5.13	2.15	0.65	0.08	232	230	
	-20	0.08	0.63	2.00	4.61	8.66	13.8	19.0	23.6	26.6	26.9	24.2	19.5	13.9	8.55	4.48	1.92	0.59	0.08	200	198	
	-30	0.07	0.54	1.68	3.75	6.87	10.7	14.9	18.7	21.0	21.1	19.0	15.3	10.8	6.82	3.67	1.62	0.51	0.07	157	155	
	-40	0.06	0.45	1.33	2.85	5.04	7.73	10.6	13.2	14.7	14.8	13.3	10.8	7.84	5.04	2.80	1.29	0.42	0.06	113	110	
	-50	0.05	0.35	0.99	2.01	3.40	5.09	6.90	8.46	9.39	9.41	8.51	6.98	5.14	3.40	1.98	0.95	0.32	0.05	73.4	69.0	
	-60	0.04	0.25	0.66	1.30	2.07	3.00	3.96	4.75	5.22	5.23	4.77	3.98	3.02	2.07	1.26	0.63	0.23	0.04	42.5	32.2	
-70	0.03	0.16	0.39	0.69	1.07	1.49	1.89	2.21	2.39	2.39	2.20	1.88	1.48	1.05	0.66	0.36	0.14	0.03	20.5	0.73		
-80	0.02	0.08	0.16	0.26	0.37	0.48	0.58	0.65	0.69	0.68	0.63	0.54	0.43	0.31	0.21	0.13	0.06	0.02	6.27	0.00		
-90																						
-90 -80 -70 -60 -50 -40 -30 -20 20 30 40 50 60 70 80 90																						
Φ t	1.10	7.88	24.3	54.5	100	158	218	266	293	293	264	214	154	96.3	51.8	22.8	7.27	1.00	2247			
Φ a	0.00	0.81	17.6	48.5	94.5	153	212	260	288	287	258	208	148	90.5	45.8	16.0	0.37	0.00		2129		

Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2019年06月04日

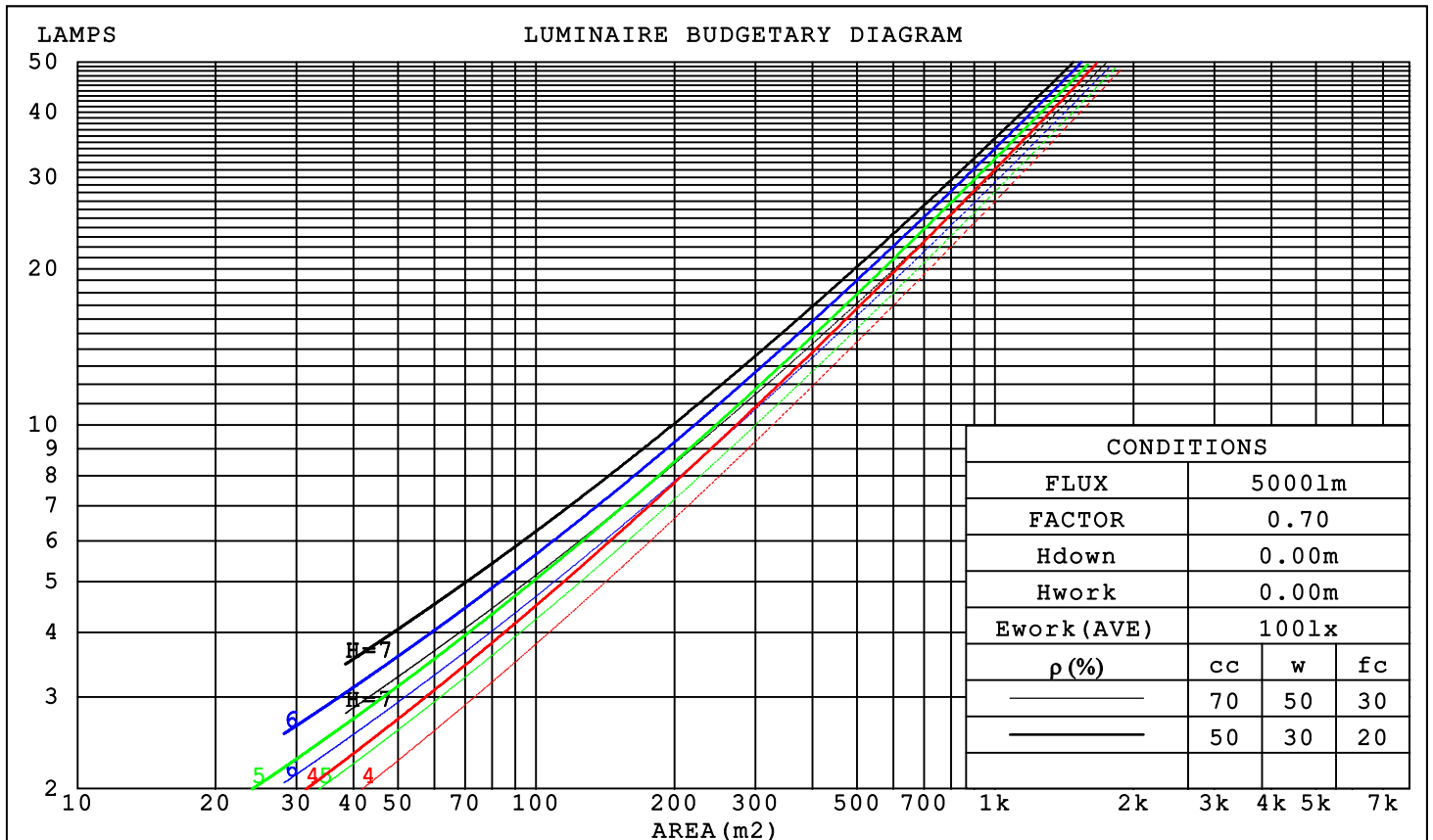
Test Set: 7.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:4.500 m
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604								TYPE:				WEIGHT:			
SPECIFICATION:				CCT (K): 0				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	1.01	1.01	1.01	.99
1.0	1.06	1.02	.99	1.04	1.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.94	.88	.83	.92	.87	.82	.89	.84	.80	.85	.81	.78	.82	.79	.76	.74
3.0	.84	.77	.71	.82	.76	.70	.79	.74	.69	.77	.72	.68	.74	.70	.66	.64
4.0	.75	.68	.62	.74	.67	.61	.72	.65	.60	.69	.64	.59	.67	.62	.58	.56
5.0	.68	.60	.54	.67	.59	.54	.65	.58	.53	.63	.57	.52	.61	.56	.52	.50
6.0	.62	.54	.48	.61	.53	.48	.59	.52	.47	.58	.51	.47	.56	.51	.46	.44
7.0	.57	.49	.43	.56	.48	.43	.54	.47	.42	.53	.47	.42	.52	.46	.42	.40
8.0	.52	.44	.39	.51	.44	.39	.50	.43	.38	.49	.43	.38	.48	.42	.38	.36
9.0	.48	.41	.35	.48	.40	.35	.46	.40	.35	.45	.39	.35	.44	.39	.35	.33
10.0	.45	.37	.32	.44	.37	.32	.43	.37	.32	.42	.36	.32	.41	.36	.32	.30



Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:4.500 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Report number:

MANUFACTURER:											
Address:											
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604						TYPE:			WEIGHT:		
SPECIFICATION:				CCT (K): 0		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						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.268	.152	.048	.261	.149	.047	.247	.142	.045	.235	.135	.043	.223	.129	.042		
2.0	.255	.140	.043	.249	.137	.042	.237	.132	.041	.226	.127	.040	.216	.122	.039		
3.0	.239	.127	.038	.233	.125	.038	.223	.121	.037	.213	.117	.036	.204	.113	.035		
4.0	.223	.116	.034	.218	.114	.034	.209	.111	.033	.200	.108	.032	.193	.105	.032		
5.0	.208	.106	.031	.204	.105	.031	.196	.102	.030	.188	.099	.030	.181	.097	.029		
6.0	.195	.098	.028	.191	.097	.028	.184	.094	.027	.177	.092	.027	.171	.090	.027		
7.0	.183	.090	.026	.179	.089	.025	.173	.087	.025	.167	.085	.025	.161	.084	.025		
8.0	.172	.084	.024	.169	.083	.023	.163	.081	.023	.157	.080	.023	.152	.078	.023		
9.0	.162	.078	.022	.159	.078	.022	.154	.076	.022	.149	.075	.021	.144	.073	.021		
10.0	.153	.073	.020	.151	.073	.020	.146	.071	.020	.141	.070	.020	.137	.069	.020		

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	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.184	.163	.144	.157	.140	.124	.108	.096	.086	.062	.056	.050	.020	.018	.016	
2.0	.174	.139	.109	.149	.119	.094	.102	.083	.066	.059	.048	.039	.019	.016	.013	
3.0	.165	.121	.085	.142	.104	.074	.097	.072	.052	.056	.042	.031	.018	.014	.010	
4.0	.157	.107	.069	.135	.092	.060	.093	.064	.042	.054	.038	.025	.017	.012	.008	
5.0	.150	.096	.057	.128	.083	.050	.088	.058	.035	.051	.034	.021	.017	.011	.007	
6.0	.143	.088	.048	.123	.076	.042	.085	.053	.030	.049	.031	.018	.016	.010	.006	
7.0	.136	.081	.042	.117	.070	.037	.081	.049	.026	.047	.029	.015	.015	.009	.005	
8.0	.130	.075	.037	.112	.065	.032	.077	.046	.023	.045	.027	.014	.015	.009	.005	
9.0	.124	.070	.033	.107	.061	.029	.074	.043	.021	.043	.025	.012	.014	.008	.004	
10.0	.119	.066	.030	.103	.057	.026	.071	.040	.019	.041	.024	.011	.013	.008	.004	

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:4.500 m
 Remarks:

UGR Table

Report number:

MANUFACTURER:										
Address:										
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604					TYPE:			WEIGHT:		
SPECIFICATION:		CCT (K) : 0			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	26.8	28.2	27.1	28.4	28.6	26.8	28.2	27.1	28.4	28.6
3H	27.7	29.0	28.0	29.2	29.4	27.7	28.9	28.0	29.2	29.4
4H	28.0	29.2	28.3	29.5	29.7	28.0	29.2	28.3	29.4	29.7
6H	28.2	29.4	28.6	29.6	29.9	28.2	29.3	28.5	29.6	29.8
8H	28.3	29.4	28.7	29.7	30.0	28.2	29.3	28.6	29.6	29.9
12H	28.4	29.4	28.7	29.7	30.0	28.3	29.3	28.6	29.6	29.9
4H 2H	27.2	28.4	27.5	28.6	28.9	27.1	28.3	27.5	28.6	28.9
3H	28.2	29.2	28.6	29.5	29.9	28.2	29.2	28.5	29.5	29.8
4H	28.6	29.6	29.0	29.9	30.3	28.6	29.5	29.0	29.9	30.2
6H	29.0	29.8	29.4	30.2	30.5	28.9	29.7	29.3	30.1	30.5
8H	29.1	29.9	29.5	30.2	30.6	29.0	29.8	29.4	30.1	30.5
12H	29.2	29.9	29.6	30.3	30.7	29.1	29.8	29.5	30.2	30.6
8H 4H	28.8	29.5	29.2	29.9	30.3	28.7	29.5	29.1	29.9	30.3
6H	29.2	29.8	29.6	30.3	30.7	29.1	29.8	29.6	30.2	30.6
8H	29.4	30.0	29.9	30.4	30.9	29.3	29.9	29.8	30.3	30.8
12H	29.6	30.1	30.1	30.5	31.0	29.5	29.9	29.9	30.4	30.9
12H 4H	28.7	29.5	29.2	29.9	30.3	28.7	29.4	29.1	29.8	30.2
6H	29.2	29.8	29.7	30.2	30.7	29.1	29.7	29.6	30.1	30.6
8H	29.4	29.9	29.9	30.4	30.9	29.4	29.8	29.8	30.3	30.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.4				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.2				
2.0H	+ 0.6 / - 0.6					+ 0.6 / - 0.6				

CIE Pub.117 Corrected 2247 lm Total Lamp Luminous Flux. (8log(F/F0) = 2.8)

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:4.500 m
 Remarks:

UTILIZATION FACTORS TABLE

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K) : 0	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) $k(RI) \times RCR = 5$									
$k = 0.60$	64	54	48	63	54	47	62	53	47	41
0.80	74	64	57	73	63	57	71	63	57	51
1.00	82	72	66	81	72	66	79	73	65	59
1.25	88	79	73	87	79	73	84	77	72	65
1.50	93	84	78	91	84	78	88	82	77	70
2.00	99	91	86	97	90	85	94	88	84	76
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	103	97	93	99	94	91	83
4.00	108	103	99	106	102	98	102	98	95	86
5.00	110	106	103	108	104	101	103	100	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

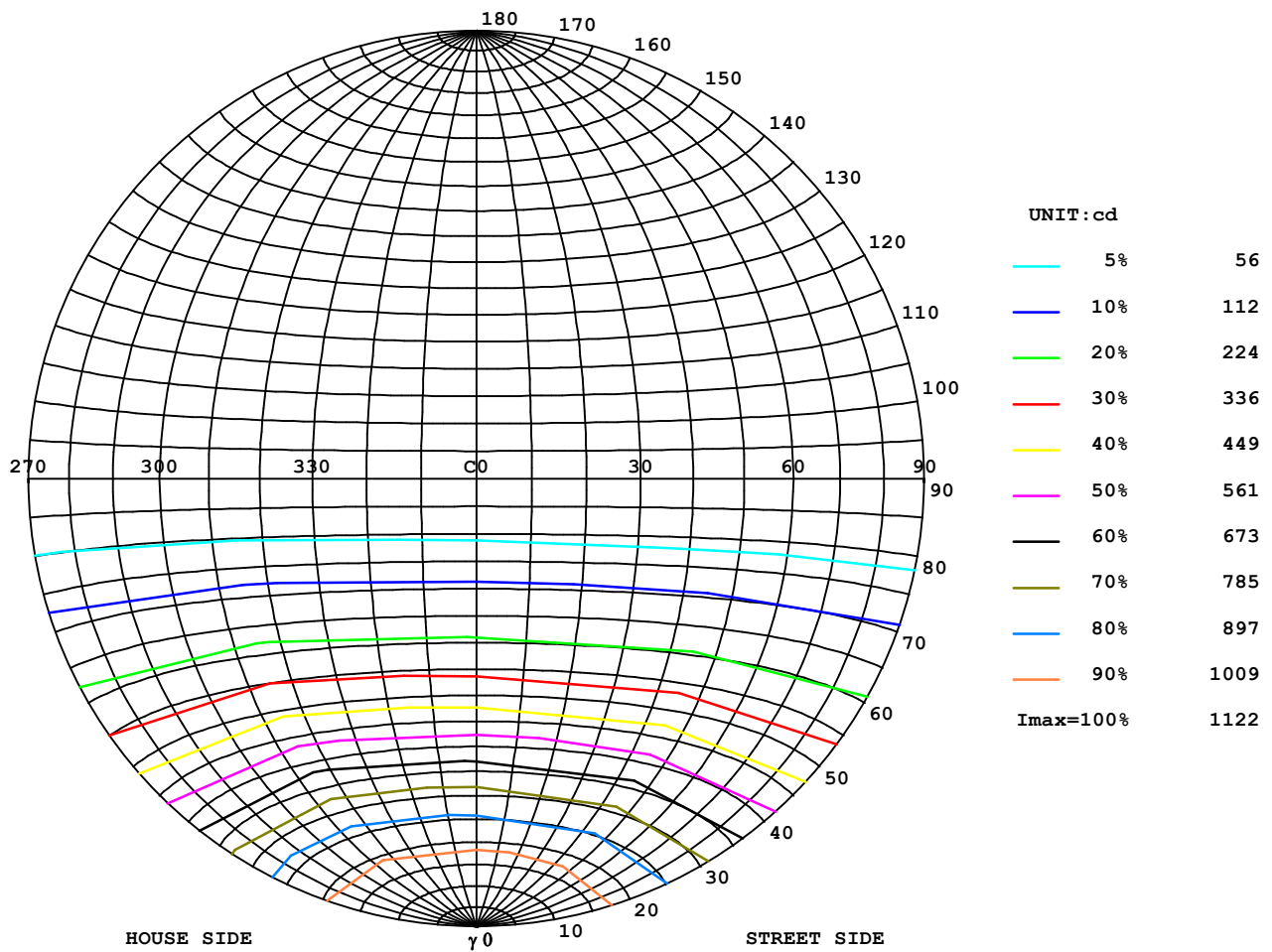
Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:4.500 m
 Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K) : 0	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2019年06月04日

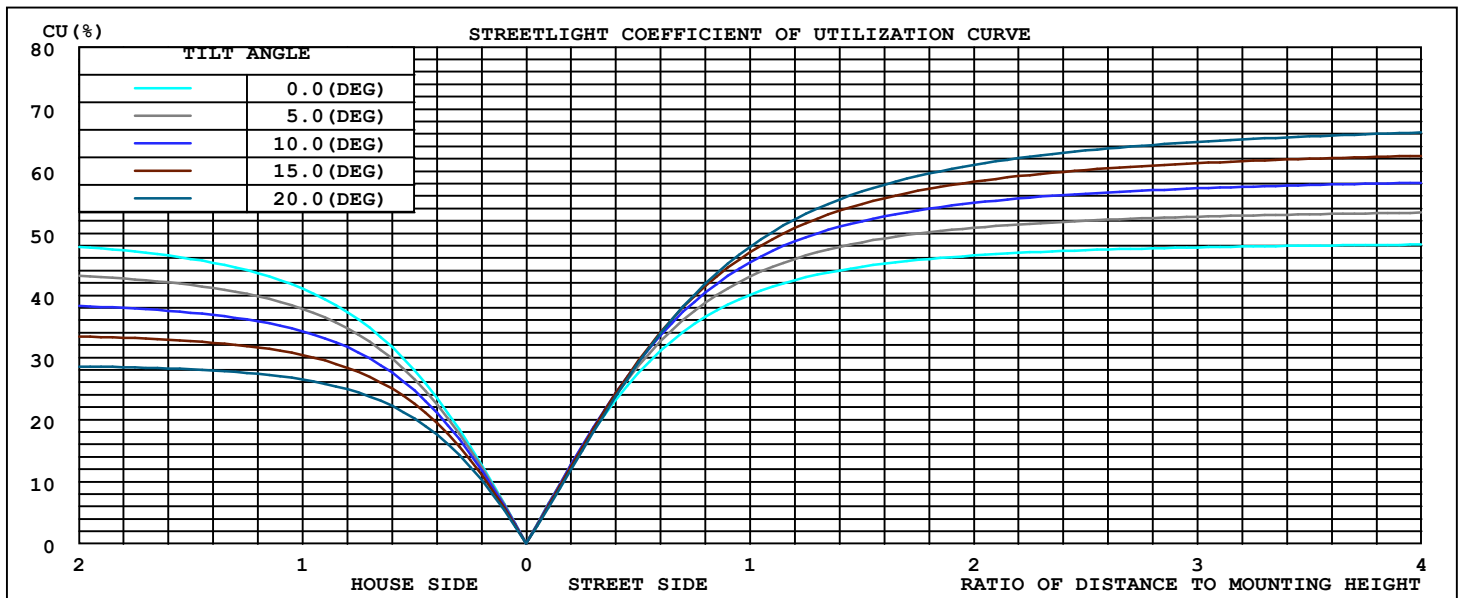
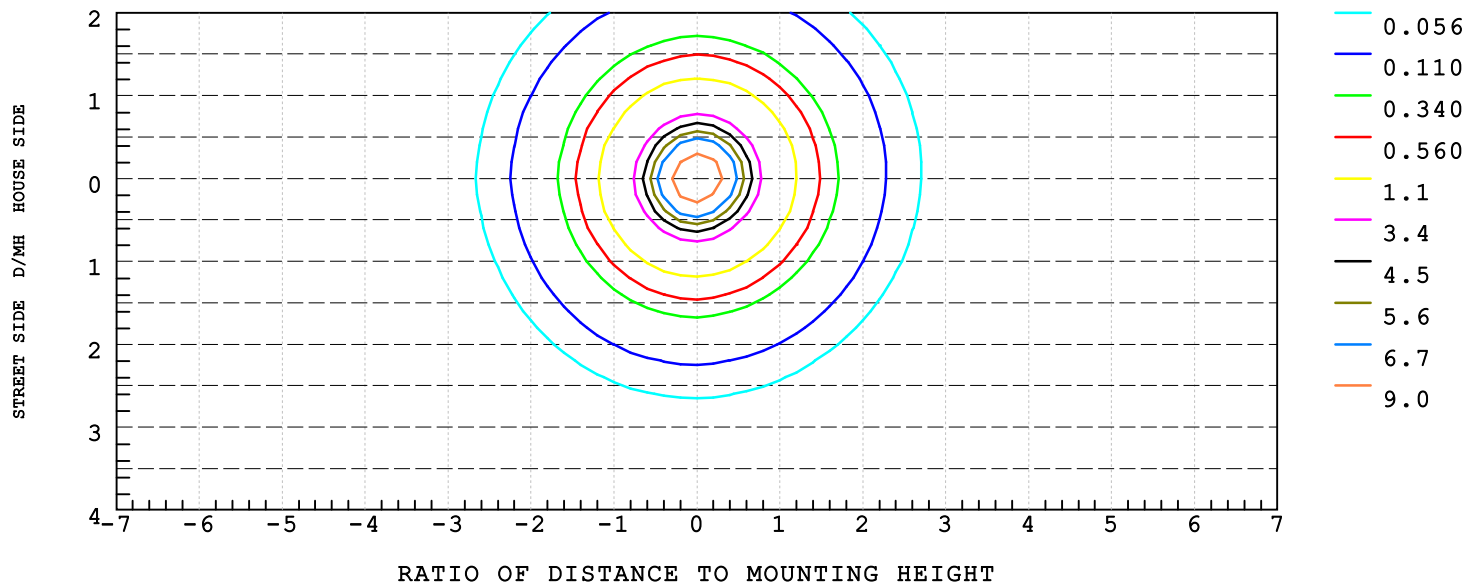
Test Set: 7.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:4.500 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K): 0	DIMENSION:	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 11.22 lx



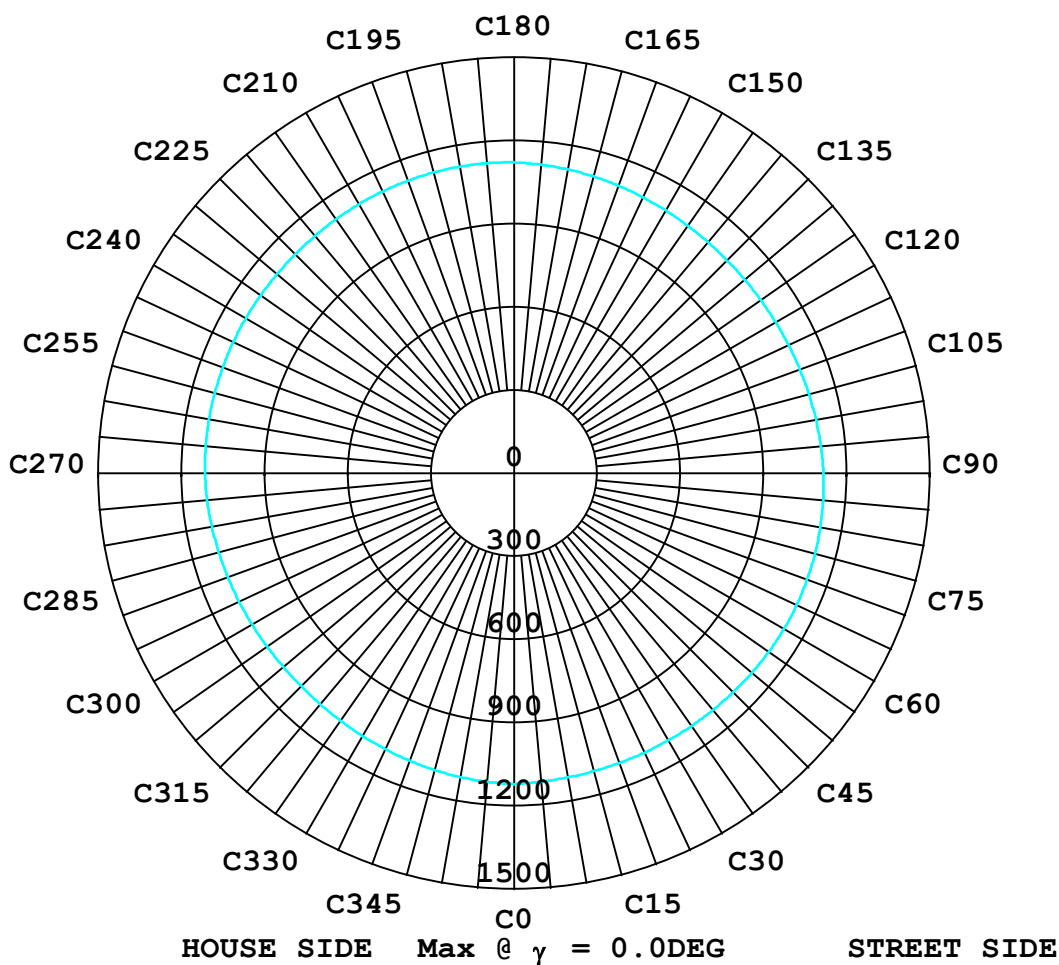
Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:4.500 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K) : 0	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:4.500 m
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER:			
Address:			
NAME: KAS-DL03-D-420 20W 3000K 90°V9190604		TYPE:	WEIGHT:
SPECIFICATION:	CCT (K) : 0	DIMENSION:	SERIAL No.:

UNIT: cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315
0.0	1122	1118	1116	1087	1122	1118	1116	1087
5.0	1113	1107	1106	1075	1116	1112	1111	1081
10.0	1087	1081	1081	1047	1095	1092	1089	1057
15.0	1046	1038	1038	1003	1057	1055	1053	1017
20.0	987	977	979	944	1003	1003	997	960
25.0	911	902	901	869	930	930	928	889
30.0	818	807	809	782	842	844	837	798
35.0	713	705	707	682	737	744	738	699
40.0	607	624	600	580	631	635	630	597
45.0	489	492	488	478	520	530	525	486
50.0	402	395	400	386	422	426	426	400
55.0	312	307	314	303	329	336	335	313
60.0	237	231	236	228	250	255	256	239
65.0	173	168	173	167	183	190	187	175
70.0	123	118	120	116	130	135	134	124
75.0	82.0	75.7	79.1	76.8	86.1	92.0	88.4	81.1
80.0	44.4	44.2	43.8	44.6	51.8	56.5	53.4	44.9
85.0	24.3	19.7	22.1	22.3	26.2	30.3	27.3	24.0
90.0	4.81	3.31	4.53	4.11	5.15	8.32	6.97	5.70
95.0	2.54	1.51	2.42	1.65	2.57	3.73	2.63	3.41
100.0	1.80	1.04	1.76	1.11	1.51	2.37	1.57	2.21
105.0	1.51	0.93	1.51	0.99	0.97	1.65	1.02	1.53
110.0	1.47	1.15	1.65	1.17	0.82	1.32	0.91	1.25
115.0	1.82	1.68	2.06	1.65	1.06	1.53	1.23	1.49
120.0	2.29	2.27	2.59	2.18	1.53	1.89	1.76	1.83
125.0	2.86	2.90	3.24	2.75	1.95	2.31	2.33	2.21
130.0	3.48	3.48	3.96	3.26	2.38	2.67	2.99	2.65
135.0	4.11	4.03	4.70	3.69	2.82	3.01	3.67	3.11
140.0	4.74	4.57	5.38	4.07	3.37	3.37	4.32	3.62
145.0	5.29	5.12	6.01	4.38	3.92	3.86	4.91	4.07
150.0	5.76	5.68	6.44	4.72	4.49	4.38	5.36	4.58
155.0	6.08	6.18	6.75	5.12	4.87	4.96	5.68	5.02
160.0	6.39	6.52	6.88	5.51	5.15	5.42	5.84	5.32
165.0	6.63	6.61	6.90	5.82	5.48	5.55	6.06	5.40
170.0	6.73	6.23	6.84	5.95	5.93	5.57	6.33	5.29
175.0	6.29	5.87	6.63	5.80	6.37	5.50	6.20	5.36
180.0	6.20	5.84	6.20	5.46	6.18	5.68	6.14	5.44

Test System:HOPOO HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2019年06月04日

Test Set: 7.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:4.500 m
 Remarks: