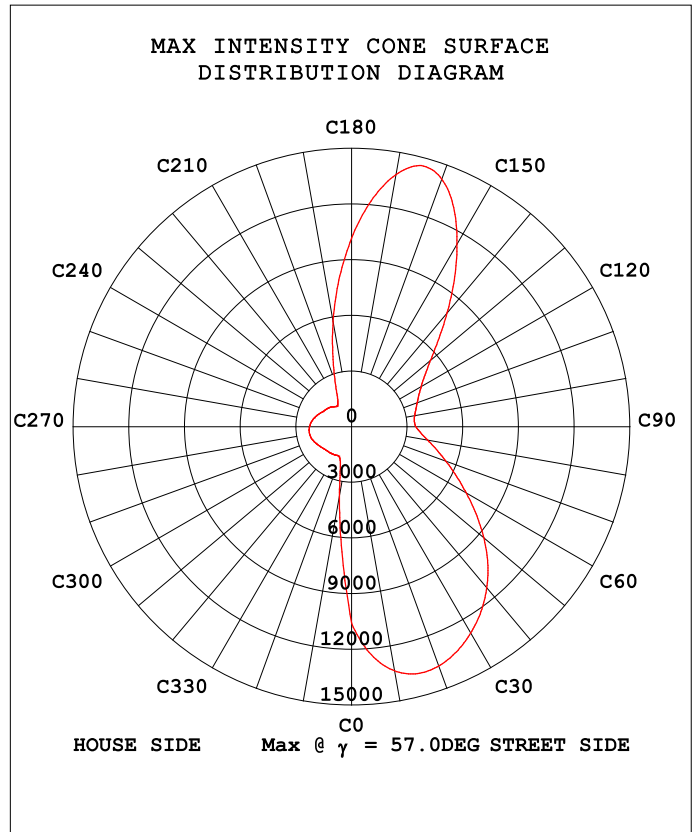
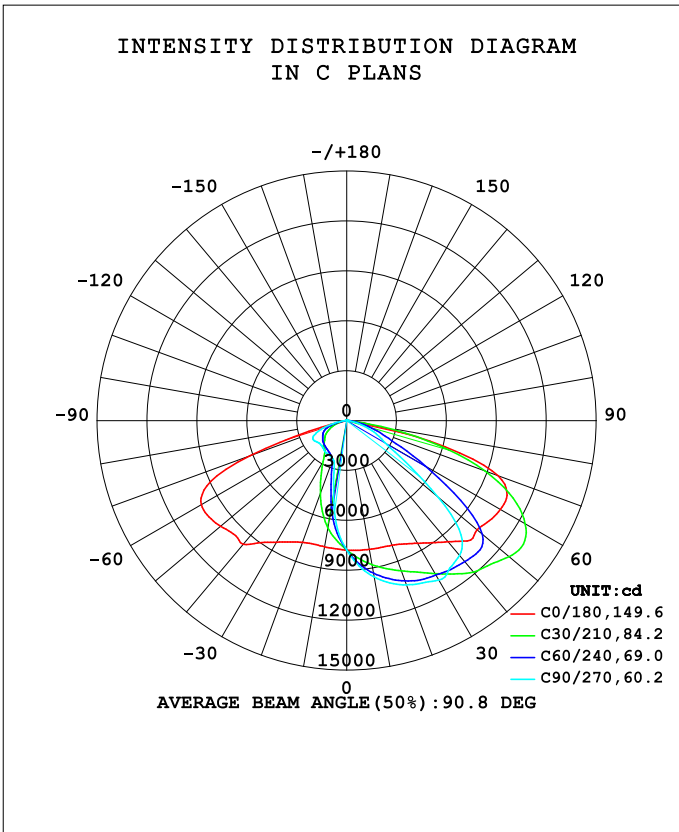


STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.01V I:0.8592A P:194.37W PF:0.9836 Freq:49.99Hz Lamp Flux:28107.8x1 lm		
NAME: ORCA II 200W 4000K - 181104	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BBT-LIGHTING	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 144.61 lm/W
MODEL	4000	I _{max} (cd)	14571	η street_up (%)	0.2	
NOMINAL POWER (W)	200	LOR (%)	100.0	η street_down (%)	74.0	
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	28108	η house_up (%)	0.4	
NOMINAL FLUX (lm)	28107.8	MAXIMUM @ (C, γ)	165,57.0	η house_down (%)	25.4	
LAMPS INSIDE	1	η up (%)	0.6	76 FLASHAREA (m2)	0.05000	
TEST VOLTAGE (V)	230	η down (%)	99.4	SLI	24.004	

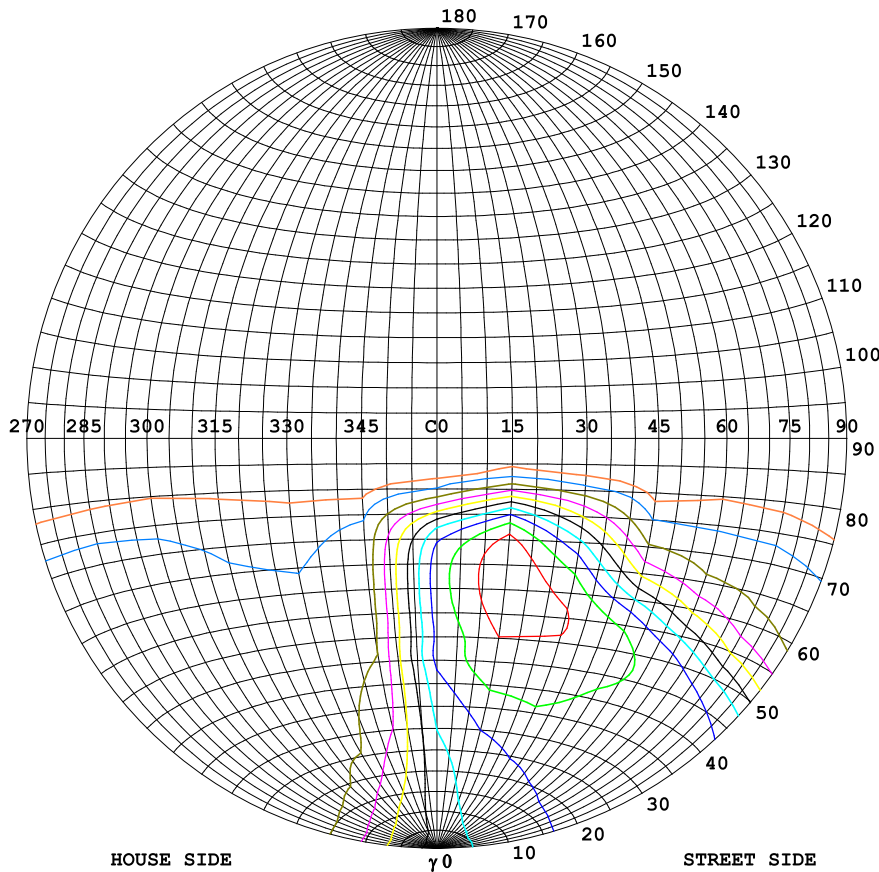


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2023-10-24

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.471
Humidity: 65.0%
Test Distance: 9.345m [K=1.0000]
Remarks:

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.01V I:0.8592A P:194.37W PF:0.9836 Freq:49.99Hz Lamp Flux:28107.8x1 lm		
NAME: ORCA II 200W 4000K - 181104	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BBT-LIGHTING	SUR.:	Shielding Angle:



Classification:

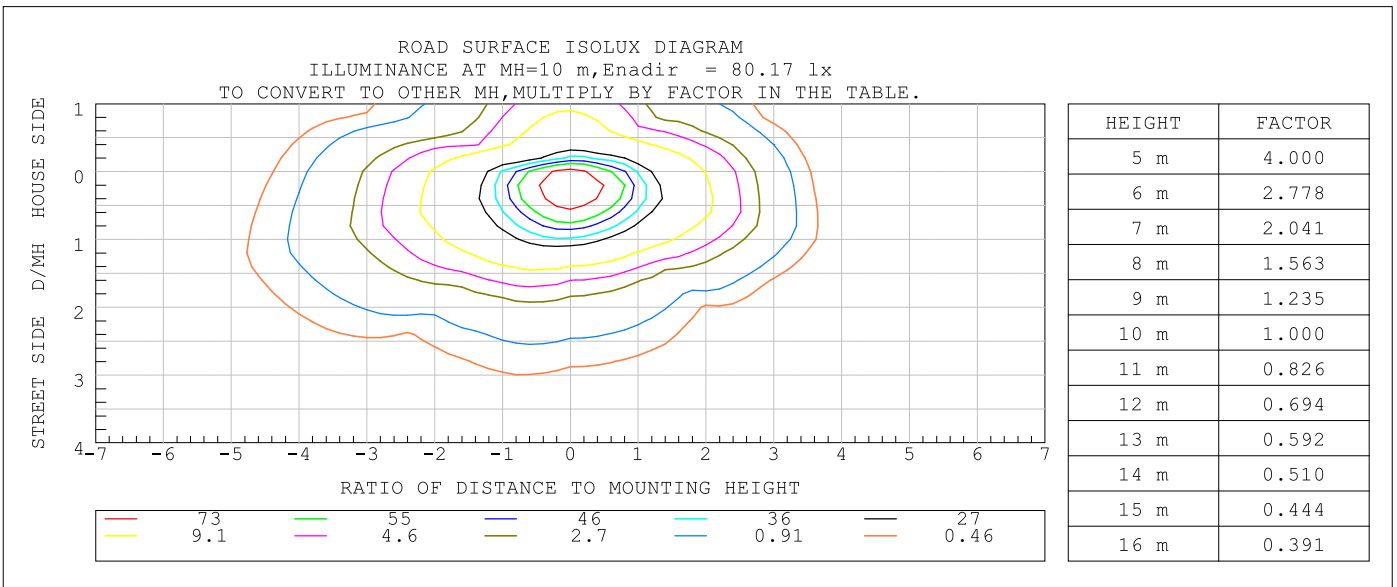
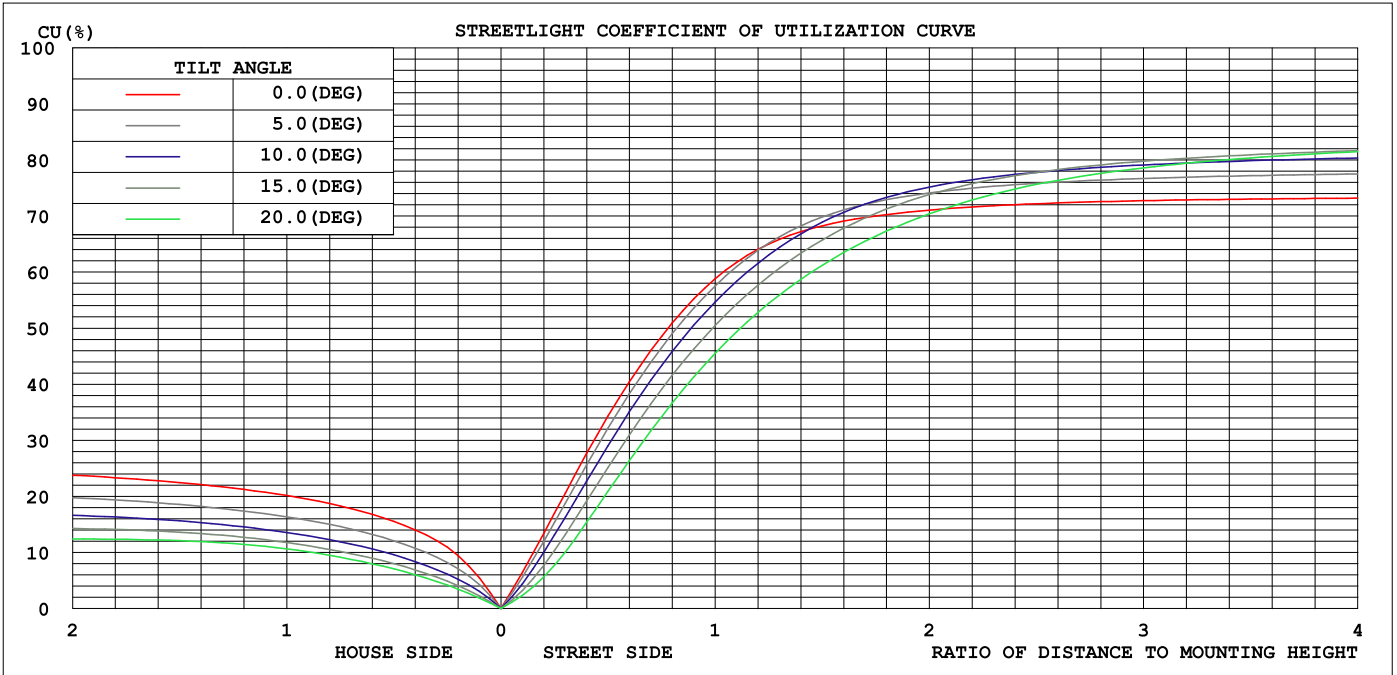
IES:Type II - Short
 CIE:Narrow - Short
 IES:Semi cut-off
 CIE:Non-cut-off
 Max.At80:143.8cd/klm
 Max.At90:2.325cd/klm
 Max.80-90:143.8cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	14571
— 90%	13114
— 80%	11657
— 70%	10200
— 60%	8743
— 50%	7286
— 40%	5828
— 30%	4371
— 20%	2914
— 10%	1457
— 5%	729

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-10-24

gamma Range: 0 - 180DEG
 gamma Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.471
 Humidity:65.0%
 Test Distance:9.345m [K=1.0000]
 Remarks:

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2023-10-24

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.471
Humidity: 65.0%
Test Distance: 9.345m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

Test:U:230.01V I:0.8592A P:194.37W PF:0.9836 Freq:49.99Hz Lamp Flux:28107.8x1 lm		
NAME: ORCA II 200W 4000K - 181104	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BBT-LIGHTING	SUR.:	Shielding Angle:

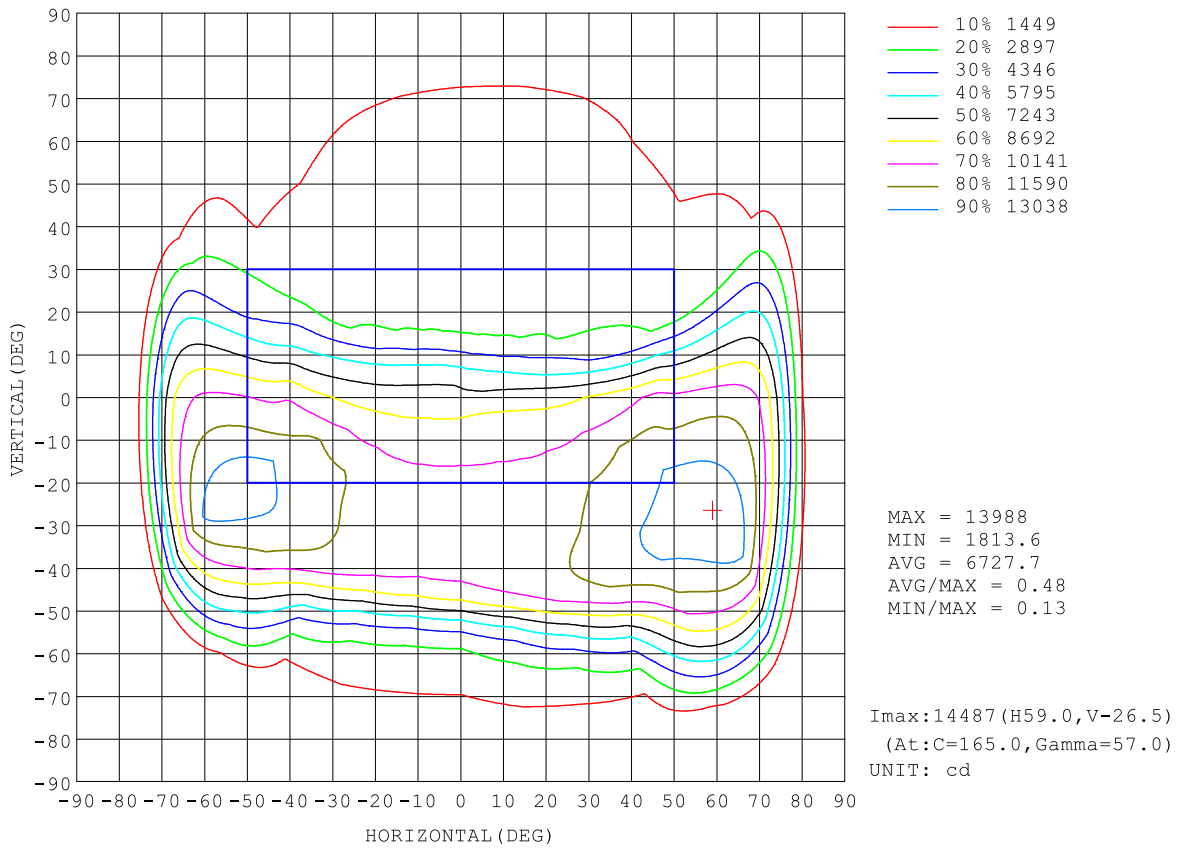
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	785.7	910.2	954.3	925.3	770.2	588.0	462.6	551.3	0- 10	728.0	728.0	2.59,2.59
20	797.7	1001	1051	1033	779.4	319.6	245.5	285.2	10- 20	2008	2736	9.73,9.73
30	851.8	1071	1108	1123	844.1	218.2	231.3	238.2	20- 30	3212	5948	21.2,21.2
40	951.1	1134	1056	1168	970.4	198.1	220.3	220.7	30- 40	4479	10427	37.1,37.1
50	1023	1196	722.0	1070	989.5	174.7	213.8	205.9	40- 50	5513	15940	56.7,56.7
60	1068	866.4	266.5	478.7	1009	141.2	232.3	173.4	50- 60	5402	21342	75.9,75.9
70	968.0	309.4	140.6	122.0	616.3	95.27	176.7	135.5	60- 70	4352	25694	91.4,91.4
80	147.2	52.15	33.61	22.62	29.44	23.63	45.79	64.99	70- 80	2025	27719	98.6,98.6
90	4.430	2.018	0.7918	0.6346	2.156	1.456	0.5419	2.736	80- 90	217.4	27937	99.4,99.4
100	2.376	0.5519	0.6924	0.7069	3.287	2.699	1.190	2.020	90-100	15.73	27952	99.4,99.4
110	3.379	0.8611	0.9107	0.9328	4.135	3.722	2.275	3.327	100-110	21.47	27974	99.5,99.5
120	3.972	1.210	1.078	1.109	4.578	4.421	3.465	4.340	110-120	26.73	28001	99.6,99.6
130	4.284	1.571	1.153	1.257	4.574	4.766	4.382	5.014	120-130	28.33	28029	99.7,99.7
140	4.247	1.952	1.237	1.479	4.283	4.817	4.965	5.246	130-140	26.36	28055	99.8,99.8
150	4.102	2.421	1.562	1.831	4.110	4.761	5.047	4.994	140-150	21.96	28077	99.9,99.9
160	4.078	2.958	2.197	2.285	4.086	4.593	4.926	4.487	150-160	16.58	28094	100,100
170	4.106	3.502	2.987	2.798	4.117	4.361	4.448	3.971	160-170	10.42	28104	100,100
180	4.166	4.010	3.740	3.436	4.167	4.009	3.738	3.434	170-180	3.575	28108	100,100
DEG	LUMINOUS INTENSITY:X10cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.471
 Humidity:65.0%
 Test Distance:9.345m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

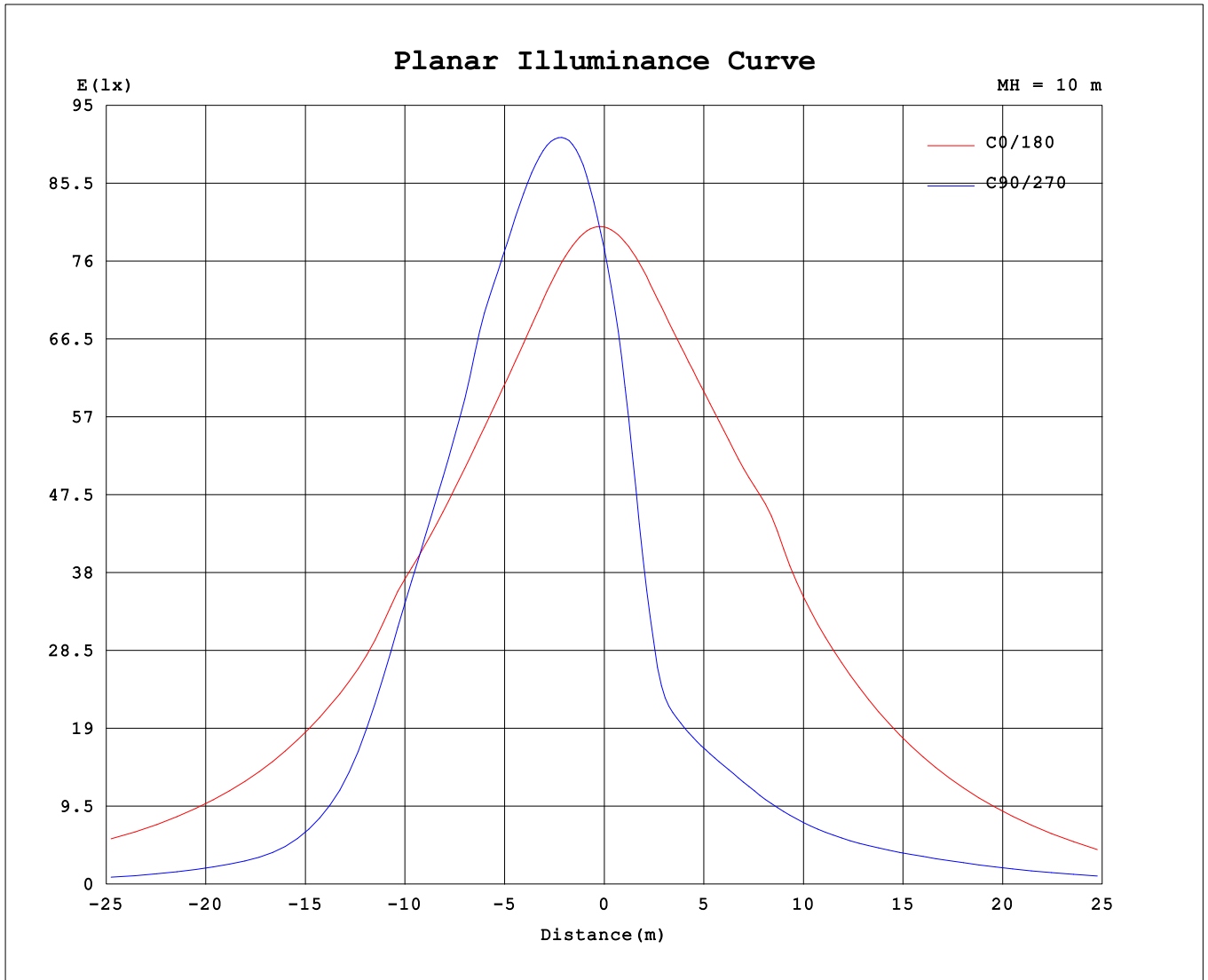
Test:U:230.01V I:0.8592A P:194.37W PF:0.9836 Freq:49.99Hz Lamp Flux:28107.8x1 lm		
NAME: ORCA II 200W 4000K - 181104	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BBT-LIGHTING	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.471
 Humidity:65.0%
 Test Distance:9.345m [K=1.0000]
 Remarks:

Planar Illuminance Curve



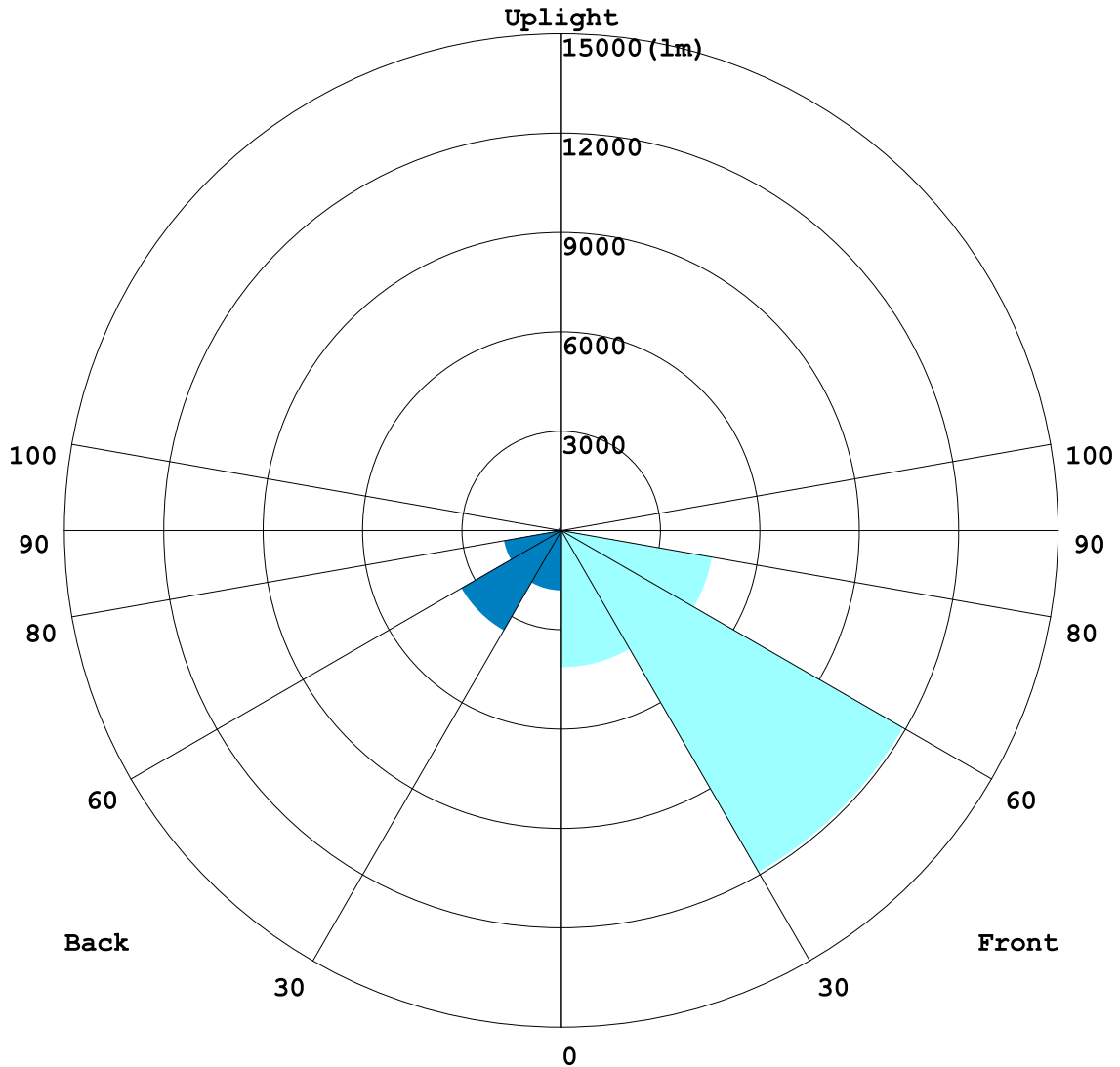
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.471
 Humidity: 65.0%
 Test Distance: 9.345m [K=1.0000]
 Remarks:

LCS REPORT

Test:U:230.01V I:0.8592A P:194.37W PF:0.9836 Freq:49.99Hz Lamp Flux:28107.8x1 lm		
NAME: ORCA II 200W 4000K - 181104	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BBT-LIGHTING	SUR.:	Shielding Angle:

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.471
 Humidity:65.0%
 Test Distance:9.345m [K=1.0000]
 Remarks:

BUG REPORT

Test:U:230.01V I:0.8592A P:194.37W PF:0.9836 Freq:49.99Hz Lamp Flux:28107.8x1 lm		
NAME: ORCA II 200W 4000K - 181104	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BBT-LIGHTING	SUR.:	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	4136.3	14.7
FM - Front-Medium(30-60)	11913	42.4
FH - Front-High(60-80)	4620.2	16.4
FVH - Front-Very High(80-90)	137.14	0.5
Total Forward Light	20861	74.2

BL - Back-Low(0-30)	1811.4	6.4
BM - Back-Medium(30-60)	3480.9	12.4
BH - Back-High(60-80)	1757.1	6.3
BVH - Back-Very High(80-90)	80.291	0.3
Total Back Light	7247.2	25.8

UL - Uplight-Low(90-100)	15.734	0.1
UH - Uplight-High(100-180)	155.42	0.6
Total Up Light	171.15	0.6

BUG(Back,Up,Glare) Rating	B3-U3-G3
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	7129.6	117.51	7247.2
Street Side	20807	53.64	20861

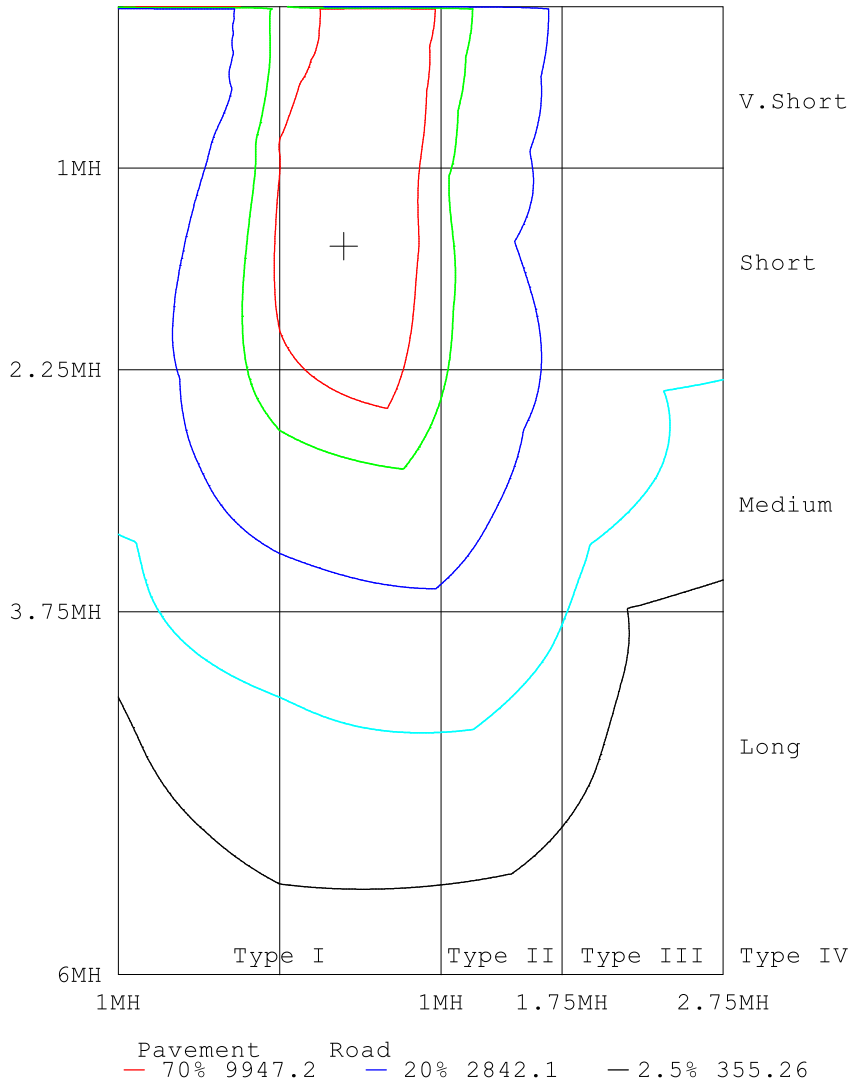
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.471
 Humidity:65.0%
 Test Distance:9.345m [K=1.0000]
 Remarks:

ROAD ISOCANDELA REPORT

Test:U:230.01V I:0.8592A P:194.37W PF:0.9836 Freq:49.99Hz Lamp Flux:28107.8x1 lm		
NAME: ORCA II 200W 4000K - 181104	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BBT-LIGHTING	SUR.:	Shielding Angle:

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG γ Range: 0 - 180DEG
 C Interval: 15.0DEG γ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-10-24
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.471
 Humidity: 65.0%
 Test Distance: 9.345m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.01V I:0.8592A P:194.37W PF:0.9836 Freq:49.99Hz Lamp Flux:28107.8x1 lm		
NAME: ORCA II 200W 4000K - 181104	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BBT-LIGHTING	SUR.:	Shielding Angle:

Table--1

UNIT: X10cd

C (DEG) \ γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	778	778	778	778	778	778	778	778	778	778	778	778	778	778	778	778	778	778	778
5	783	808	831	849	863	874	878	878	870	856	836	811	774	747	722	698	678	661	653
10	786	837	879	910	931	948	954	956	945	925	891	845	770	714	655	588	532	484	463
15	790	865	921	959	983	1003	1010	1013	1001	981	943	883	769	679	566	446	364	313	295
20	798	897	961	1001	1025	1044	1051	1055	1046	1033	1000	934	779	645	465	320	255	246	246
25	818	939	1005	1039	1056	1073	1077	1079	1073	1084	1068	1002	805	616	367	241	229	232	235
30	852	996	1062	1071	1072	1101	1108	1098	1085	1123	1151	1089	844	588	285	218	217	225	231
35	896	1068	1126	1101	1092	1106	1082	1091	1094	1144	1213	1206	896	564	231	206	209	220	228
40	951	1159	1188	1134	1106	1085	1056	1062	1092	1168	1243	1249	970	547	215	198	203	212	220
45	1023	1243	1223	1174	1118	1048	973	981	1046	1166	1289	1322	963	489	195	192	196	205	215
50	1023	1276	1273	1196	1066	873	722	726	843	1070	1290	1405	990	444	174	175	189	201	214
55	1048	1350	1296	1119	838	568	432	437	532	798	1201	1454	1011	407	157	160	177	203	222
60	1068	1405	1239	866	547	359	266	273	313	479	1011	1439	1009	370	136	141	166	204	232
65	1063	1411	1103	548	328	261	206	209	215	255	732	1302	929	321	109	121	152	193	221
70	968	1327	885	309	214	191	141	144	147	122	408	893	616	184	79.9	95.3	124	155	177
75	615	997	569	145	131	116	79.9	79.9	84.2	58.8	91.9	293	161	49.9	50.5	59.7	81.9	99.2	112
80	147	404	210	52.1	66.9	54.2	33.6	31.8	33.6	22.6	16.5	32.8	29.4	16.5	20.1	23.6	34.3	38.1	45.8
85	21.7	58.9	22.5	19.6	21.0	13.2	5.85	3.61	2.90	2.00	1.75	2.37	4.53	3.56	3.27	2.98	2.82	3.69	1.00
90	4.43	5.36	3.63	2.02	1.18	0.97	0.79	0.75	0.73	0.63	0.57	0.90	2.16	2.51	2.14	1.46	0.86	0.64	0.54
95	1.84	1.17	0.72	0.58	0.57	0.56	0.58	0.62	0.62	0.59	0.65	1.18	2.72	3.18	2.83	2.06	1.30	0.96	0.80
100	2.38	1.48	0.82	0.55	0.56	0.63	0.69	0.73	0.74	0.71	0.82	1.49	3.29	3.84	3.50	2.70	1.85	1.41	1.19
105	2.91	1.89	1.08	0.70	0.68	0.74	0.81	0.85	0.85	0.83	0.98	1.79	3.78	4.34	4.02	3.26	2.42	1.95	1.70
110	3.38	2.30	1.35	0.86	0.79	0.84	0.91	0.96	0.95	0.93	1.14	2.03	4.14	4.70	4.42	3.72	2.98	2.52	2.28
115	3.72	2.65	1.62	1.03	0.89	0.93	1.00	1.05	1.04	1.03	1.29	2.22	4.39	4.97	4.74	4.12	3.46	3.09	2.88
120	3.97	2.92	1.88	1.21	0.99	1.01	1.08	1.12	1.12	1.11	1.42	2.34	4.58	5.12	4.92	4.42	3.86	3.61	3.47
125	4.17	3.18	2.13	1.39	1.08	1.08	1.13	1.17	1.17	1.18	1.54	2.38	4.65	5.11	4.97	4.64	4.22	4.05	3.96
130	4.28	3.40	2.35	1.57	1.18	1.13	1.15	1.19	1.20	1.26	1.64	2.40	4.57	4.98	4.96	4.77	4.53	4.43	4.38
135	4.30	3.53	2.54	1.76	1.32	1.19	1.18	1.21	1.24	1.36	1.75	2.40	4.42	4.80	4.88	4.80	4.72	4.71	4.74
140	4.25	3.59	2.69	1.95	1.50	1.30	1.24	1.26	1.31	1.48	1.88	2.41	4.28	4.64	4.79	4.82	4.78	4.85	4.96
145	4.17	3.60	2.84	2.17	1.73	1.47	1.36	1.36	1.43	1.63	2.00	2.45	4.17	4.51	4.72	4.80	4.81	4.90	5.04
150	4.10	3.62	3.00	2.42	1.98	1.71	1.56	1.54	1.62	1.83	2.14	2.52	4.11	4.40	4.62	4.76	4.83	4.94	5.05
155	4.07	3.67	3.18	2.69	2.28	2.01	1.84	1.80	1.87	2.05	2.29	2.62	4.09	4.33	4.53	4.68	4.80	4.95	5.04
160	4.08	3.75	3.35	2.96	2.62	2.36	2.20	2.13	2.17	2.29	2.46	2.73	4.09	4.28	4.44	4.59	4.72	4.86	4.93
165	4.09	3.83	3.53	3.23	2.96	2.75	2.59	2.50	2.48	2.53	2.65	2.87	4.09	4.24	4.36	4.48	4.59	4.69	4.72
170	4.11	3.93	3.71	3.50	3.30	3.14	2.99	2.86	2.78	2.80	2.88	3.04	4.12	4.21	4.29	4.36	4.42	4.47	4.45
175	4.15	4.03	3.89	3.77	3.63	3.51	3.36	3.23	3.13	3.11	3.13	3.22	4.16	4.19	4.20	4.20	4.19	4.19	4.11
180	4.17	4.12	4.07	4.01	3.93	3.86	3.74	3.62	3.50	3.44	3.38	3.39	4.17	4.12	4.07	4.01	3.93	3.86	3.74

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.471
 Humidity:65.0%
 Test Distance:9.345m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.01V I:0.8592A P:194.37W PF:0.9836 Freq:49.99Hz Lamp Flux:28107.8x1 lm		
NAME: ORCA II 200W 4000K - 181104	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BBT-LIGHTING	SUR.:	Shielding Angle:

Table--2

UNIT: X10cd

C (DEG) \ γ (DEG)	285	300	315	330	345														
0	778	778	778	778	778														
5	651	666	686	715	744														
10	460	496	551	628	701														
15	297	332	396	517	649														
20	250	256	285	402	589														
25	240	243	251	309	520														
30	237	236	238	254	452														
35	234	231	229	237	391														
40	226	224	221	226	345														
45	220	214	214	218	307														
50	218	207	206	211	278														
55	223	205	195	185	243														
60	232	204	173	166	231														
65	224	193	156	143	215														
70	186	169	136	117	189														
75	124	126	104	89.8	129														
80	58.1	70.8	65.0	58.9	56.3														
85	7.92	19.3	25.2	27.4	25.3														
90	0.51	0.75	2.74	5.79	6.53														
95	0.77	0.90	1.40	1.96	2.29														
100	1.17	1.39	2.02	2.61	2.91														
105	1.69	1.98	2.70	3.29	3.55														
110	2.28	2.62	3.33	3.83	4.04														
115	2.91	3.24	3.88	4.24	4.37														
120	3.52	3.79	4.34	4.63	4.60														
125	4.05	4.26	4.72	4.97	4.76														
130	4.49	4.67	5.01	5.18	4.80														
135	4.86	5.01	5.21	5.19	4.65														
140	5.11	5.22	5.25	5.06	4.42														
145	5.18	5.23	5.16	4.85	4.22														
150	5.13	5.11	4.99	4.65	4.07														
155	5.06	4.95	4.75	4.44	3.95														
160	4.89	4.72	4.49	4.19	3.83														
165	4.65	4.46	4.23	3.97	3.71														
170	4.35	4.16	3.97	3.77	3.59														
175	4.01	3.85	3.72	3.58	3.49														
180	3.62	3.50	3.43	3.39	3.39														

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:DAMIN
 Test Date:2023-10-24

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.471
 Humidity:65.0%
 Test Distance:9.345m [K=1.0000]
 Remarks: