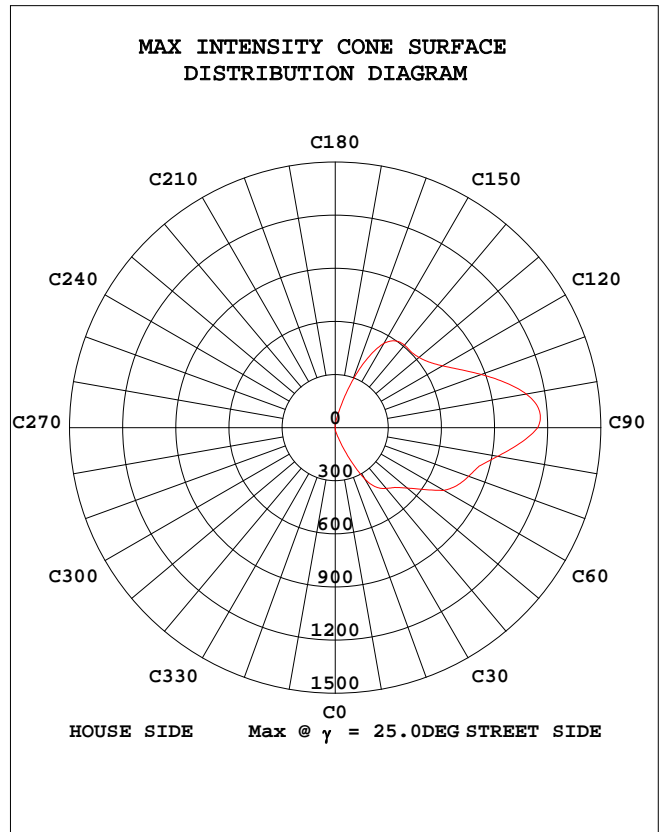
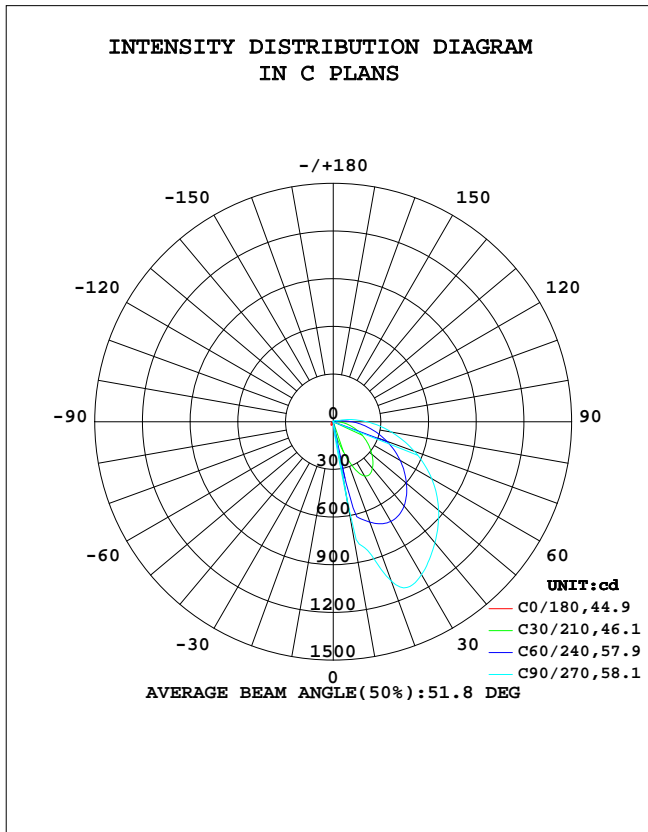


EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:221.70V I:0.0716A P:15.007W PF:0.9453 Freq:50.00Hz Lamp Flux:1025.15x1 lm					
NAME: C-231B-15W-5		TYPE:		WEIGHT:	
SPEC.:		DIM.:		SERIAL No.:	
MFR.: KLED		SUR.:		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 68.31 lm/W			
MODEL	5050 30K RA80	I _{max} (cd)	1143	η street_up(%)	4.3
NOMINAL POWER(W)	15	LOR(%)	100.0	η street_down(%)	94.6
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	1025	η house_up(%)	0.4
NOMINAL FLUX(lm)	1025.15	MAXIMUM @(C,γ)	90,25.0	η house_down(%)	0.6
LAMPS INSIDE	1	η up(%)	4.8	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	230.0	η down(%)	95.2	SLI	11.013



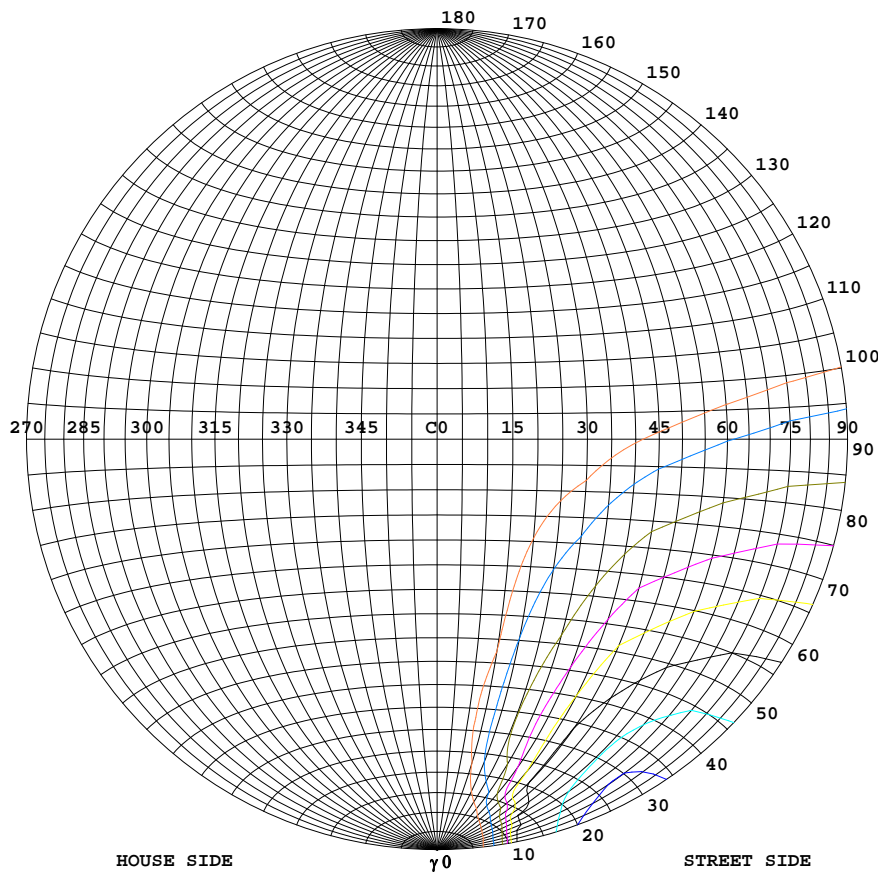
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:13.9DEG
Operators:CS01
Test Date:2023-03-04

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity:38.0%
Test Distance:10.000m [K=1.0000]
Remarks: C-231B-15W-5(5050 30K RA80)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:221.70V I:0.0716A P:15.007W PF:0.9453 Freq:50.00Hz Lamp Flux:1025.15x1 lm		
NAME: C-231B-15W-5	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



Classification:

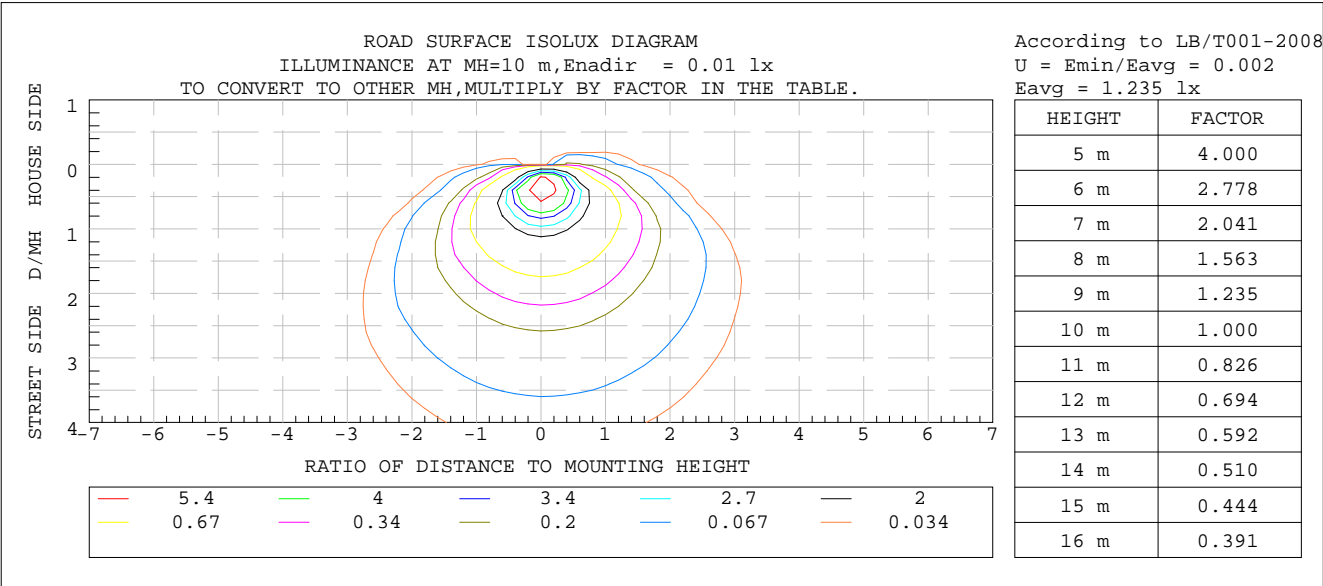
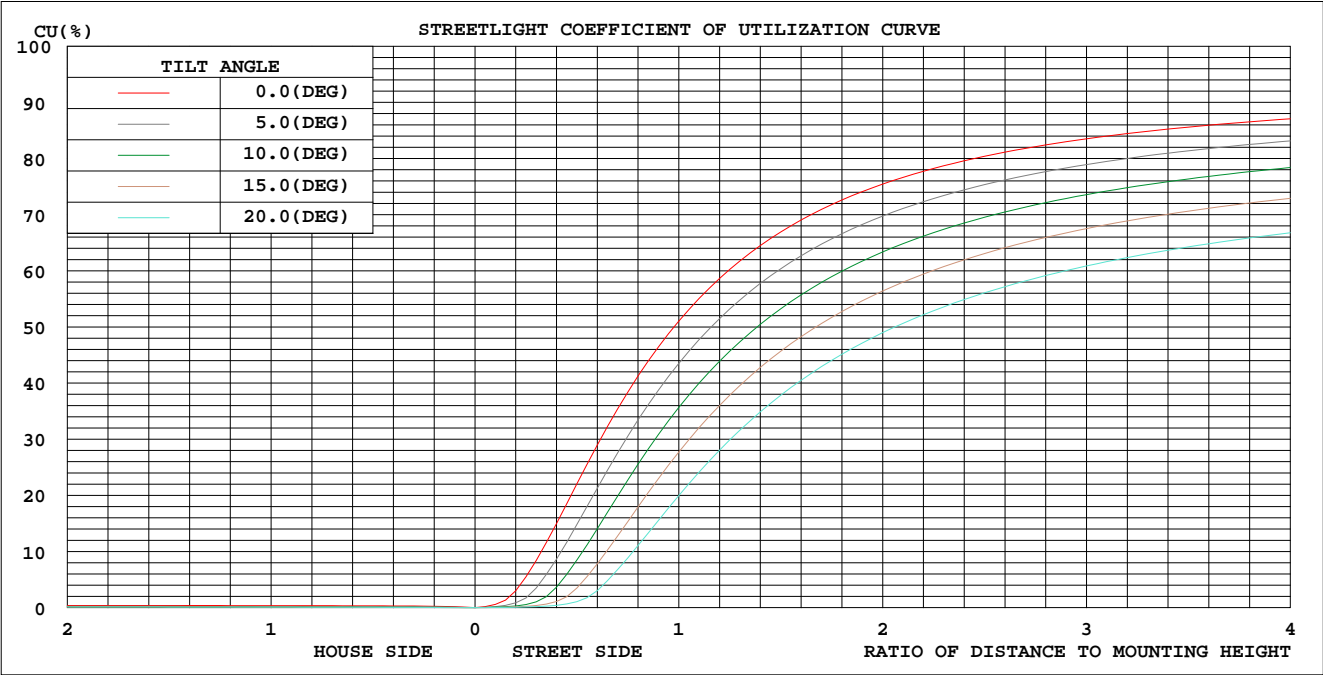
IES:Type V - Very Short
 CIE:Narrow - Short
 IES:None cut-off
 CIE:Non-cut-off
 Max.At80:361.1cd/klm
 Max.At90:206.3cd/klm
 Max.80-90:361.1cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	1143
90%	1029
80%	915
70%	800
60%	686
50%	572
40%	457
30%	343
20%	229
10%	114
5%	57

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:13.9DEG
 Operators:CS01
 Test Date:2023-03-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity:38.0%
 Test Distance:10.000m [K=1.0000]
 Remarks: C-231B-15W-5(5050 30K RA80)

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM



C Range: 0 - 360DEG	γ Range: 0 - 180DEG
C Interval: 15.0DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Temperature: 13.9DEG	Humidity: 38.0%
Operators: CS01	Test Distance: 10.000m [K=1.0000]
Test Date: 2023-03-04	Remarks: C-231B-15W-5(5050 30K RA80)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Test:U:221.70V I:0.0716A P:15.007W PF:0.9453 Freq:50.00Hz Lamp Flux:1025.15x1 lm		
NAME: C-231B-15W-5	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	0.9254	65.37	502.5	114.0	4.459	0.4263	0.6963	0.6413	0- 10	2.161	2.161	0.21,0.21
20	5.223	466.1	1066	586.2	18.72	0.1907	0.6199	0.6719	10- 20	51.04	53.20	5.19,5.19
30	6.773	476.2	1111	612.4	25.50	0.1907	0.6199	0.6194	20- 30	116.0	169.2	16.5,16.5
40	6.644	445.8	995.0	581.9	23.46	0.1907	0.6199	0.5059	30- 40	156.8	326.0	31.8,31.8
50	5.315	383.8	865.1	507.7	18.67	0.1907	0.7141	0.5257	40- 50	172.3	498.3	48.6,48.6
60	3.723	302.8	715.4	408.1	13.54	0.3734	0.7404	0.5628	50- 60	166.6	664.9	64.9,64.9
70	2.173	214.1	543.8	297.2	8.189	0.4503	0.7666	0.6000	60- 70	142.4	807.4	78.8,78.8
80	0.9749	129.2	370.2	187.0	3.486	0.4913	0.9272	0.6199	70- 80	105.3	912.7	89,89
90	0.3561	55.14	211.5	89.17	1.150	0.5260	1.252	0.7236	80- 90	63.62	976.3	95.2,95.2
100	0.2657	10.60	78.01	17.41	0.7521	0.7623	1.626	0.9273	90-100	27.14	1003	97.9,97.9
110	0.2657	8.304	20.30	11.28	0.7084	0.8889	2.062	1.184	100-110	7.645	1011	98.6,98.6
120	0.2657	6.158	17.44	8.736	0.7084	1.147	2.559	1.690	110-120	5.026	1016	99.1,99.1
130	0.3041	4.154	13.02	6.204	0.7084	1.316	3.255	1.920	120-130	3.701	1020	99.5,99.5
140	0.3859	2.719	8.689	4.062	0.7527	1.277	3.817	2.175	130-140	2.499	1022	99.7,99.7
150	0.4418	1.719	5.426	2.707	0.7527	1.239	3.863	2.140	140-150	1.539	1024	99.9,99.9
160	0.4491	1.145	3.025	1.558	0.7527	1.216	2.548	1.499	150-160	0.8514	1025	100,100
170	0.5366	0.8121	1.553	1.035	0.7527	1.193	1.859	1.424	160-170	0.3783	1025	100,100
180	0.7084	0.7629	1.162	0.9580	0.8412	0.9046	1.240	0.9580	170-180	0.1066	1025	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

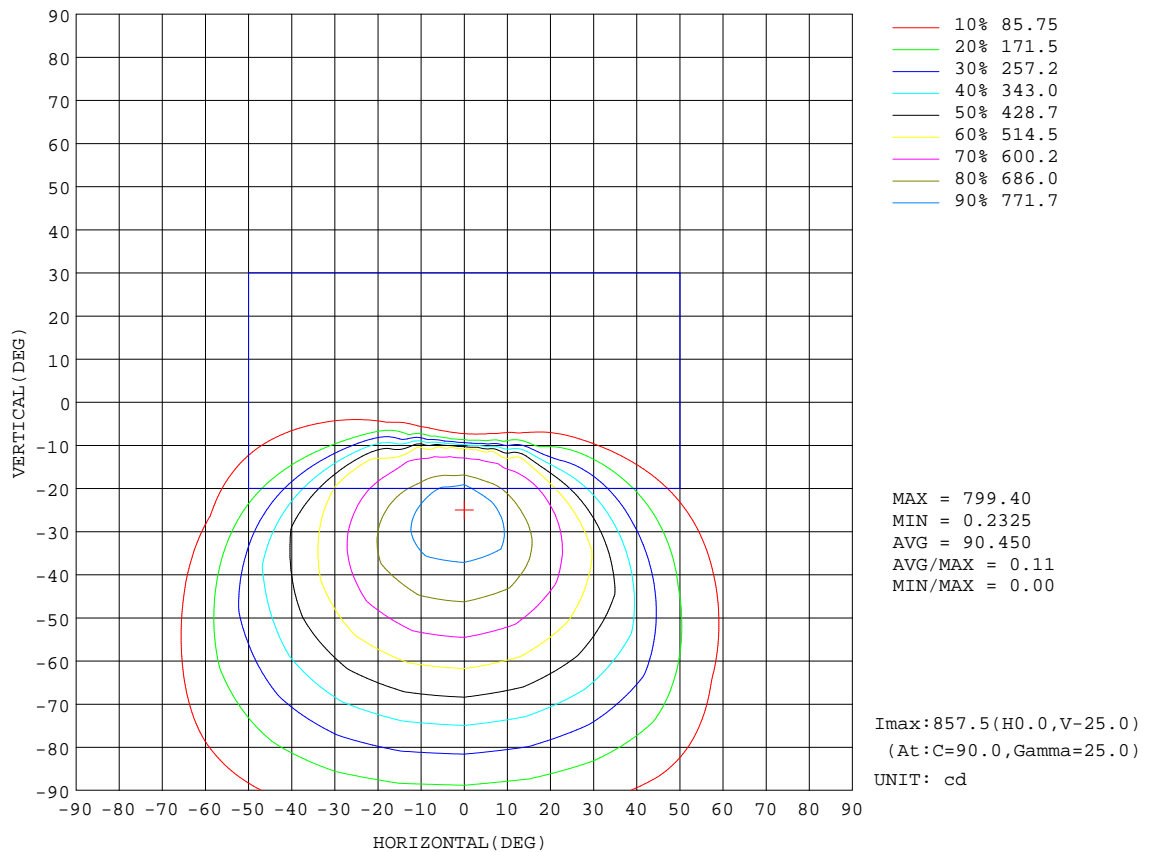
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:13.9DEG
 Operators:CS01
 Test Date:2023-03-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity:38.0%
 Test Distance:10.000m [K=1.0000]
 Remarks: C-231B-15W-5(5050 30K RA80)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

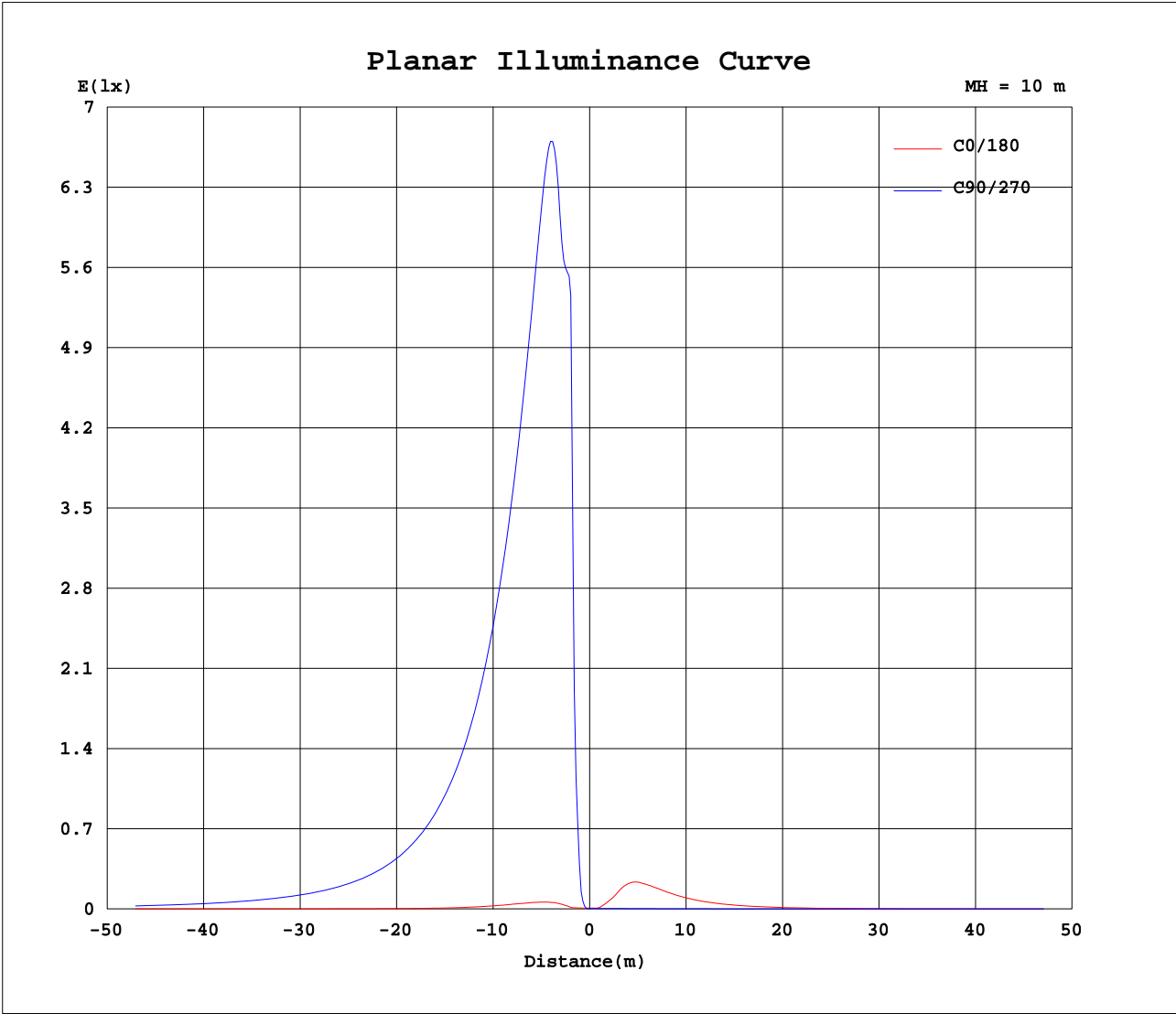
Test:U:221.70V I:0.0716A P:15.007W PF:0.9453 Freq:50.00Hz Lamp Flux:1025.15x1 lm		
NAME: C-231B-15W-5	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:13.9DEG
Operators:CS01
Test Date:2023-03-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity:38.0%
Test Distance:10.000m [K=1.0000]
Remarks: C-231B-15W-5(5050 30K RA80)

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:13.9DEG
Operators:CS01
Test Date:2023-03-04

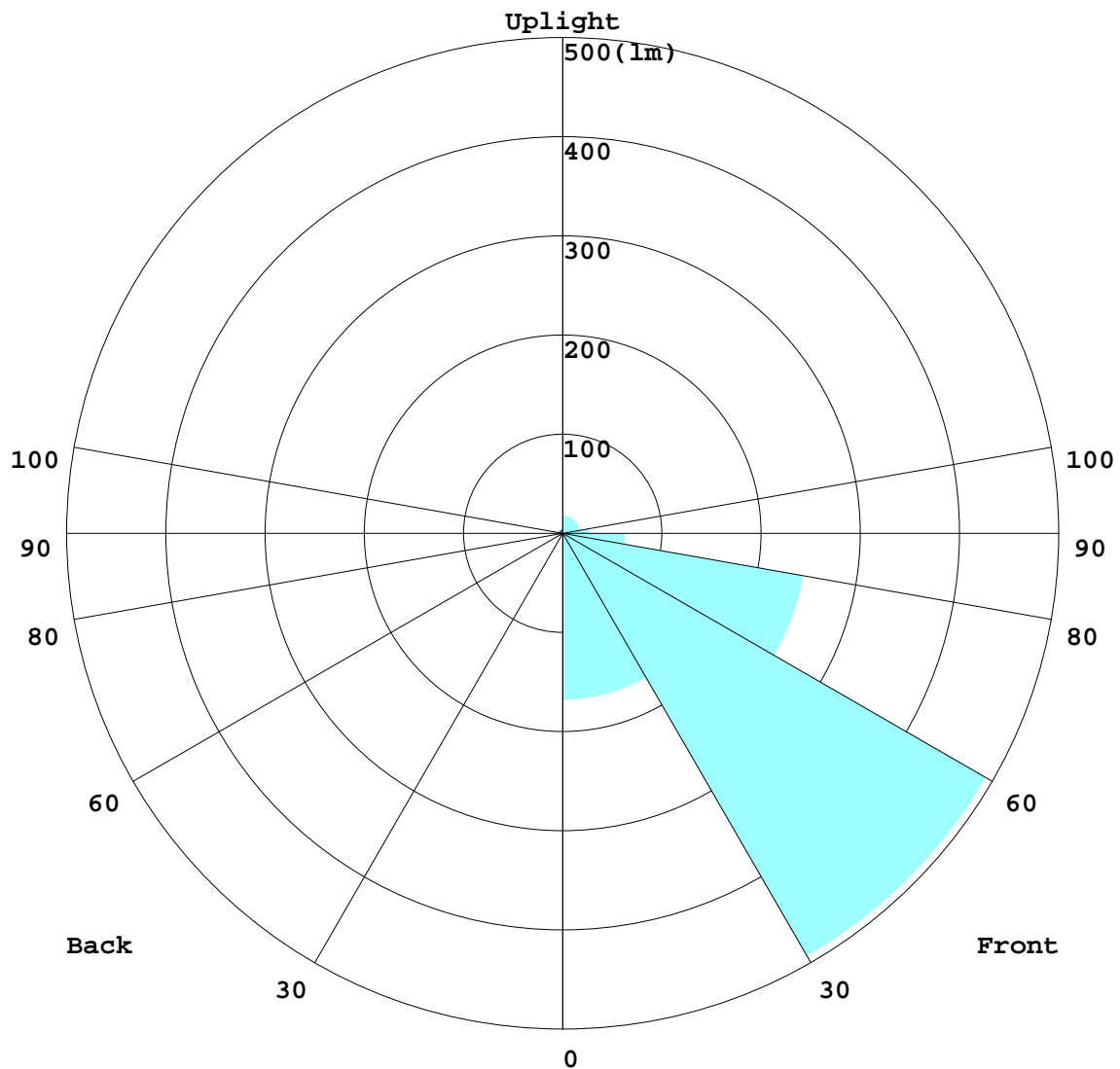
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity:38.0%
Test Distance:10.000m [K=1.0000]
Remarks: C-231B-15W-5(5050 30K RA80)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LCS REPORT

Test:U:221.70V I:0.0716A P:15.007W PF:0.9453 Freq:50.00Hz Lamp Flux:1025.15x1 lm		
NAME: C-231B-15W-5	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:13.9DEG
Operators:CS01
Test Date:2023-03-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity:38.0%
Test Distance:10.000m [K=1.0000]
Remarks: C-231B-15W-5(5050 30K RA80)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

BUG REPORT

Test:U:221.70V I:0.0716A P:15.007W PF:0.9453 Freq:50.00Hz Lamp Flux:1025.15x1 lm		
NAME: C-231B-15W-5	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	168.15	16.4
FM - Front-Medium(30-60)	492.47	48.0
FH - Front-High(60-80)	246.24	24.0
FVH - Front-Very High(80-90)	63.166	6.2
Total Forward Light	1014.6	99.0

BL - Back-Low(0-30)	1.0795	0.1
BM - Back-Medium(30-60)	3.2424	0.3
BH - Back-High(60-80)	1.465	0.1
BVH - Back-Very High(80-90)	0.44974	0.0
Total Back Light	10.541	1.0

UL - Uplight-Low(90-100)	27.138	2.6
UH - Uplight-High(100-180)	21.746	2.1
Total Up Light	48.884	4.8

BUG(Back,Up,Glare) Rating	B0-U2-G1
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	6.2366	4.3039	10.541
Street Side	970.03	44.58	1014.6

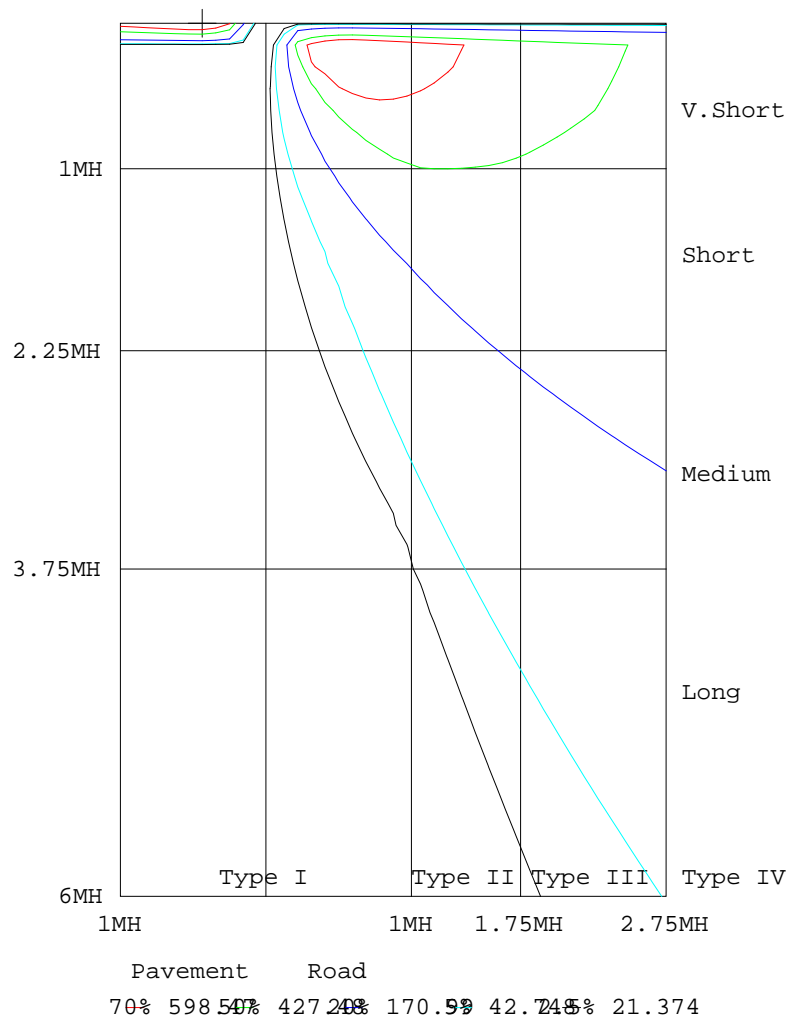
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:13.9DEG
 Operators:CS01
 Test Date:2023-03-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
 Humidity:38.0%
 Test Distance:10.000m [K=1.0000]
 Remarks: C-231B-15W-5(5050 30K RA80)

ROAD ISOCANDELA REPORT

Test:U:221.70V I:0.0716A P:15.007W PF:0.9453 Freq:50.00Hz Lamp Flux:1025.15x1 lm		
NAME: C-231B-15W-5	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:13.9DEG
Operators:CS01
Test Date:2023-03-04

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity:38.0%
Test Distance:10.000m [K=1.0000]
Remarks: C-231B-15W-5(5050 30K RA80)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.70V I:0.0716A P:15.007W PF:0.9453 Freq:50.00Hz Lamp Flux:1025.15x1 lm																			
NAME: C-231B-15W-5										TYPE:					WEIGHT:				
SPEC.:										DIM.:					SERIAL No.:				
MFR.: KLED										SUR.:					Shielding Angle:				

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
5	0.71	0.62	2.85	4.40	9.94	13.5	20.5	18.0	11.7	8.41	5.18	1.98	0.71	0.68	0.61	0.57	0.64	0.64	0.62
10	0.93	5.51	41.0	65.4	157	287	503	410	210	114	64.3	20.4	4.46	0.84	0.57	0.43	0.62	0.68	0.70
15	3.09	20.4	128	267	627	655	838	740	587	537	188	67.6	10.4	2.08	0.54	0.19	0.56	0.66	0.62
20	5.22	37.3	227	466	672	759	1066	905	647	586	433	106	18.7	2.79	0.54	0.19	0.51	0.64	0.62
25	6.20	47.1	335	478	708	841	1143	991	699	606	550	133	24.1	2.96	0.54	0.19	0.46	0.62	0.62
30	6.77	51.2	394	476	724	854	1111	979	721	612	563	148	25.5	2.97	0.54	0.19	0.37	0.43	0.62
35	6.82	51.1	402	466	719	823	1056	932	711	603	548	151	25.2	2.64	0.54	0.19	0.43	0.54	0.62
40	6.64	49.2	383	446	693	775	995	877	677	582	522	146	23.5	2.52	0.54	0.19	0.43	0.57	0.62
45	6.03	45.5	354	418	652	723	932	821	634	549	484	138	21.2	1.95	0.54	0.19	0.43	0.58	0.70
50	5.32	41.1	318	384	602	668	865	761	585	508	439	126	18.7	1.73	0.54	0.19	0.43	0.58	0.71
55	4.52	36.3	280	345	546	610	794	698	532	460	391	113	16.1	1.28	0.54	0.24	0.43	0.59	0.73
60	3.72	31.2	241	303	486	547	715	628	476	408	338	98.5	13.5	1.14	0.54	0.37	0.43	0.60	0.74
65	2.97	26.1	202	258	423	481	630	553	418	353	285	83.8	10.8	0.84	0.62	0.42	0.43	0.61	0.75
70	2.17	20.8	163	214	358	413	544	476	357	297	233	68.6	8.19	0.44	0.65	0.45	0.43	0.62	0.77
75	1.51	15.7	125	171	295	344	456	398	296	241	182	52.9	5.66	0.43	0.68	0.47	0.58	0.68	0.74
80	0.97	11.0	90.1	129	232	277	370	323	237	187	133	37.9	3.49	0.43	0.70	0.49	0.65	0.72	0.93
85	0.62	6.83	57.9	90.2	173	213	288	250	179	136	88.4	23.8	1.72	0.42	0.72	0.51	0.75	0.80	1.16
90	0.36	3.91	30.9	55.1	118	153	212	183	127	89.2	49.5	12.7	1.15	0.41	0.75	0.53	0.93	0.86	1.25
95	0.27	3.06	14.3	26.0	69.3	99.4	142	122	79.4	47.6	19.8	7.75	0.93	0.40	0.79	0.62	0.98	1.05	1.38
100	0.27	2.83	10.93	10.6	29.1	50.4	78.0	65.0	37.0	17.4	11.1	6.94	0.75	0.43	0.89	0.76	1.03	1.24	1.63
105	0.27	2.52	10.16	9.01	14.7	18.1	27.8	22.9	14.7	12.0	10.29	6.32	0.71	0.48	0.94	0.81	1.18	1.34	1.86
110	0.27	2.17	8.91	8.30	13.6	15.5	20.3	17.8	13.2	11.3	9.24	5.46	0.71	0.48	1.00	0.89	1.49	1.55	2.06
115	0.27	1.82	7.52	7.25	12.3	14.5	19.4	16.9	12.4	10.1	7.94	4.65	0.71	0.49	1.26	0.90	1.65	1.80	2.30
120	0.27	1.51	6.21	6.16	10.8	12.9	17.4	15.2	11.0	8.74	6.76	3.85	0.71	0.51	1.32	1.15	1.80	1.98	2.56
125	0.27	1.29	5.12	5.06	9.17	11.2	15.3	13.2	9.53	7.44	5.58	3.16	0.71	0.55	1.37	1.34	2.11	2.29	2.95
130	0.30	1.19	4.11	4.15	7.63	9.49	13.02	11.30	7.16	6.20	4.65	2.68	0.71	0.58	1.70	1.32	2.29	2.54	3.25
135	0.35	1.05	3.41	3.34	6.21	7.75	10.86	9.10	6.65	5.07	3.79	2.23	0.71	0.63	1.86	1.30	2.53	2.59	3.74
140	0.39	0.97	2.79	2.72	5.03	6.02	8.69	6.96	5.53	4.06	3.04	1.92	0.75	0.67	1.88	1.28	2.50	2.64	3.82
145	0.42	0.76	2.40	2.20	4.03	4.59	6.90	5.58	4.40	3.33	2.48	1.67	0.75	0.71	1.90	1.26	2.51	2.68	3.84
150	0.44	0.79	2.02	1.72	3.16	3.60	5.43	4.34	3.33	2.71	2.05	1.30	0.75	0.71	1.92	1.24	2.53	2.73	3.86
155	0.44	0.78	1.71	1.38	2.42	2.79	4.04	3.45	2.48	2.03	1.80	1.25	0.75	0.71	1.94	1.23	2.29	2.35	3.10
160	0.45	0.78	1.64	1.15	1.86	2.05	3.02	2.69	1.86	1.56	1.43	1.17	0.75	0.71	1.84	1.22	1.72	1.80	2.55
165	0.48	0.77	1.54	0.99	1.49	1.61	2.17	1.87	1.41	1.24	1.24	1.00	0.75	0.71	1.82	1.20	1.66	1.43	2.05
170	0.54	0.76	1.51	0.81	1.18	1.18	1.55	1.45	1.07	1.04	1.15	0.90	0.75	0.71	1.79	1.19	1.57	1.43	1.86
175	0.62	0.76	1.48	0.78	1.16	0.99	1.16	1.26	0.98	0.96	1.08	0.88	0.75	0.71	1.39	1.19	1.42	1.43	1.85
180	0.71	0.75	1.47	0.76	1.12	0.93	1.16	1.17	0.96	0.96	1.05	0.87	0.84	0.71	1.32	0.90	0.99	1.11	1.24

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:13.9DEG
Operators:CS01
Test Date:2023-03-04

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
γ Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity:38.0%
Test Distance:10.000m [K=1.0000]
Remarks: C-231B-15W-5(5050 30K RA80)

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.70V I:0.0716A P:15.007W PF:0.9453 Freq:50.00Hz Lamp Flux:1025.15x1 lm					
NAME: C-231B-15W-5			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.: KLED			SUR.:		Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345													
0	0.62	0.62	0.62	0.62	0.62													
5	0.62	0.66	0.63	0.62	0.62													
10	0.56	0.72	0.64	0.61	0.62													
15	0.57	0.56	0.66	0.60	0.62													
20	0.58	0.51	0.67	0.59	0.62													
25	0.59	0.40	0.65	0.58	0.62													
30	0.60	0.45	0.62	0.57	0.62													
35	0.61	0.45	0.51	0.59	0.62													
40	0.62	0.45	0.51	0.63	0.62													
45	0.62	0.46	0.49	0.68	0.62													
50	0.63	0.48	0.53	0.55	0.62													
55	0.64	0.50	0.54	0.50	0.62													
60	0.65	0.52	0.56	0.54	0.62													
65	0.67	0.53	0.58	0.58	0.62													
70	0.68	0.54	0.60	0.61	0.62													
75	0.73	0.56	0.62	0.65	0.62													
80	0.78	0.73	0.62	0.68	0.62													
85	0.83	0.68	0.62	0.68	0.62													
90	1.06	0.73	0.72	0.72	0.62													
95	1.15	0.79	0.85	0.83	0.62													
100	1.24	0.85	0.93	0.83	0.62													
105	1.56	1.24	1.13	0.89	0.82													
110	1.79	1.36	1.18	1.18	0.90													
115	2.14	1.58	1.35	1.24	0.97													
120	2.36	1.79	1.69	1.43	1.03													
125	2.62	1.97	1.86	1.55	1.10													
130	2.83	2.22	1.92	1.55	1.24													
135	3.03	2.23	2.19	1.55	1.29													
140	3.03	2.24	2.18	1.55	1.27													
145	3.03	2.25	2.16	1.55	1.25													
150	3.00	2.27	2.14	1.55	1.25													
155	2.75	2.20	1.58	1.52	1.27													
160	2.34	1.75	1.50	1.49	1.28													
165	1.78	1.50	1.46	1.44	1.29													
170	1.75	1.24	1.42	1.38	1.18													
175	1.72	1.29	1.35	1.05	1.09													
180	1.03	0.96	0.96	1.05	1.05													

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature:13.9DEG
Operators:CS01
Test Date:2023-03-04

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
γ Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.404.7
Humidity:38.0%
Test Distance:10.000m [K=1.0000]
Remarks: C-231B-15W-5(5050 30K RA80)