

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity (Luminaire orientation as tested.)	401.1 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
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Beam Spread	At 10% of Imax	154.6V x 122.5H
	At 50% of Imax	110.3V x 106.3H
	At 90% of Imax	48.6V x 51.2H

Beam Flux	Total	997.6 lumens per klm.
	To 10% of Imax	977.5 lumens per klm.
	To 50% of Imax	824.9 lumens per klm.
	To 90% of Imax	216.0 lumens per klm.

Upward LOR	0.0 %
Downward LOR	99.8 %

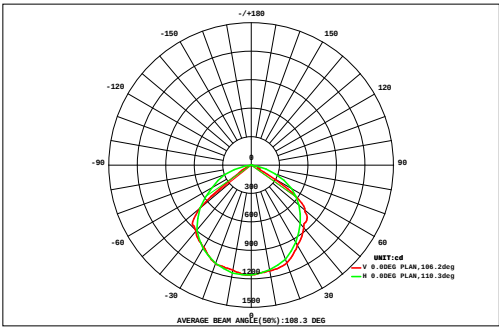
Luminaire Efficiency(Light Output Ratio)	100.0 %
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H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:24.0DEG
Operators:QC1
Test Date:2024-03-25

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:40%
Test Distance:8.300m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.00V I:1.243A P:29.82W PF:1.000 Lamp Flux:2890.05x1 lm		
NAME: 8.02.038.0017 LLS-WZB-W40-L9-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240100040
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:



DATA OF LAMP		Eff:96.91lm/W	
MODEL	LLS-WZB-W40-L9-S	Imax(cd)	1159
NOMINAL POWER(W)	30	AVAILABILITY(%)	98.1
RATED VOLTAGE(V)	24	Avai. FLUX(lm)	2836
NOMINAL FLUX(lm)	2890.05	LOR(%)	100.0
LAMPS INSIDE	1	TOTAL FLUX(lm)	2890
TEST VOLTAGE(V)	24.0	θ @50%(H,V)	106,110DEG

AREA FLUX DIAGRAM																		UNIT:lm	Φ t	Φ a
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.06	0.29	0.83	3.27	4.55	4.46	3.38	2.16	0.48	0.53	0.23	0.02	0.00	0.00	20.2	15.0
70	0.00	0.00	0.00	0.04	0.53	2.04	6.30	11.5	11.1	11.1	10.3	8.49	3.65	0.91	0.74	0.15	0.00	0.00	66.9	62.3
60	0.00	0.00	0.00	0.37	1.85	7.68	15.7	16.5	17.2	17.4	16.1	14.1	11.1	3.32	0.96	0.49	0.01	0.00	123	118
50	0.00	0.00	0.04	1.10	5.04	15.8	18.6	21.0	21.8	21.9	20.9	17.6	15.0	8.94	1.62	0.82	0.06	0.00	170	167
40	0.00	0.00	0.19	1.93	11.0	19.0	22.2	25.0	26.2	26.1	24.9	21.3	17.4	13.2	3.74	0.92	0.13	0.00	213	210
30	0.00	0.00	0.43	3.14	15.4	21.0	25.2	28.4	30.1	29.9	28.6	24.7	19.8	15.4	6.48	1.02	0.22	0.00	250	247
20	0.00	0.00	0.64	4.78	17.5	22.8	27.7	31.0	32.9	32.7	31.0	26.9	21.6	16.5	8.41	1.12	0.28	0.00	276	274
10	0.00	0.00	0.72	5.63	18.2	23.9	28.9	32.4	34.4	34.2	32.4	28.3	22.7	17.2	9.49	1.23	0.33	0.00	290	288
0	0.00	0.00	0.69	5.35	18.2	24.0	29.0	32.7	34.9	34.7	33.0	28.9	23.1	17.6	9.80	1.31	0.35	0.00	294	292
-10	0.00	0.00	0.50	3.86	17.3	23.5	28.2	31.9	33.9	33.9	32.3	28.2	22.6	17.4	9.41	1.25	0.36	0.00	284	282
-20	0.00	0.00	0.32	2.63	14.8	22.4	26.7	30.1	31.7	31.8	30.4	26.2	21.3	16.3	7.57	1.12	0.30	0.00	264	261
-30	0.00	0.00	0.12	1.69	9.60	20.3	23.8	27.5	28.7	28.6	27.5	23.6	19.4	14.7	4.80	1.02	0.18	0.00	232	229
-40	0.00	0.00	0.02	1.00	4.22	15.8	20.7	23.0	24.0	24.1	23.2	19.6	16.9	10.8	1.93	0.89	0.06	0.00	186	183
-50	0.00	0.00	0.00	0.26	1.33	7.39	15.6	17.1	17.6	17.7	16.8	14.8	12.6	4.58	0.97	0.61	0.01	0.00	127	123
-60	0.00	0.00	0.00	0.00	0.51	0.81	6.74	10.8	11.1	11.3	10.4	9.36	5.03	0.71	0.92	0.20	0.00	0.00	67.9	63.4
-70	0.00	0.00	0.00	0.00	0.01	0.25	0.25	4.48	5.49	5.83	4.89	2.88	0.31	0.58	0.43	0.02	0.00	0.00	25.4	20.4
-80	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.37	0.52	0.02	0.00	0.10	0.17	0.00	0.00	0.00	0.00	1.22	0.12
-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Φ t	0.00	0.00	3.66	31.8	135	227	296	347	366	366	346	297	233	159	67.5	12.2	2.29	0.00	2890	---
Φ a	0.00	0.00	0.14	25.7	130	224	294	346	364	364	345	296	231	154	60.2	1.16	0.00	0.00	---	2836

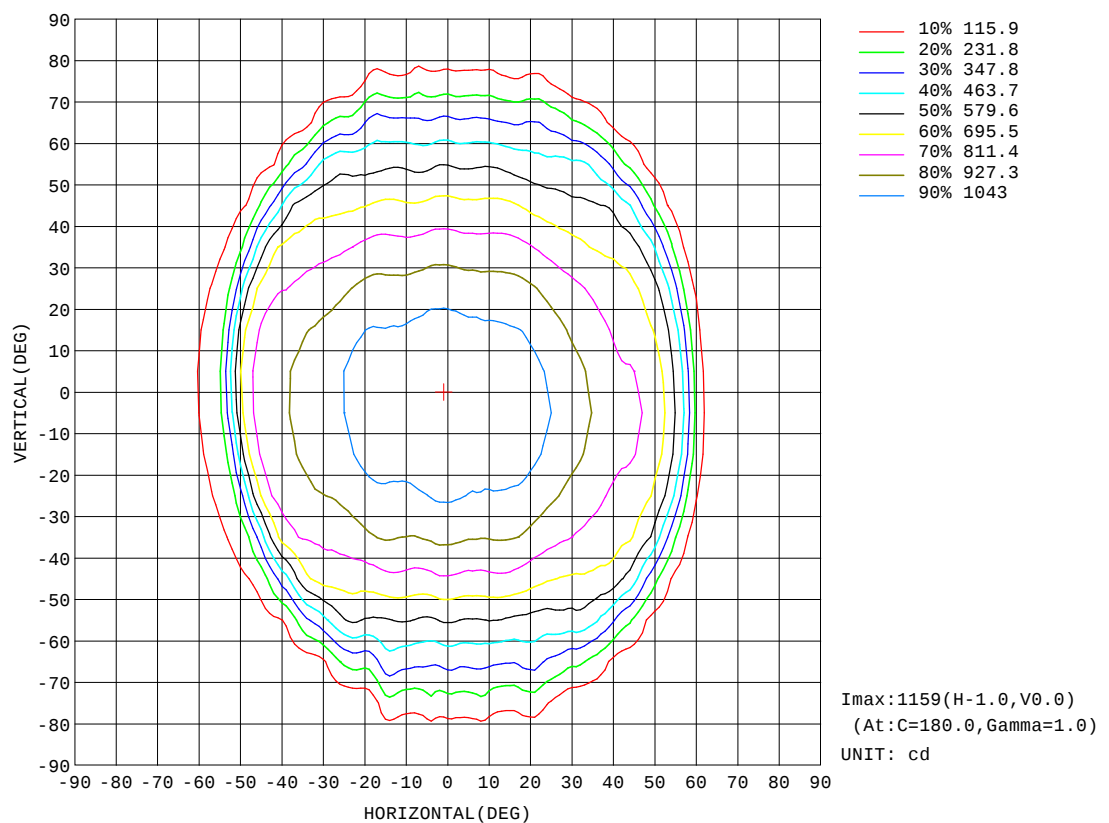
one-half-peak spread: U:55.7,D:55.2 , L:33.6,Beam Type: Type 6 x 7 (H x V)

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:24.0DEG
Operators:QC1
Test Date:2024-03-25

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:40%
Test Distance:8.300m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:1.243A P:29.82W PF:1.000 Lamp Flux:2890.05x1 lm		
NAME: 8.02.038.0017 LLS-WZB-W40-L9-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240100040
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

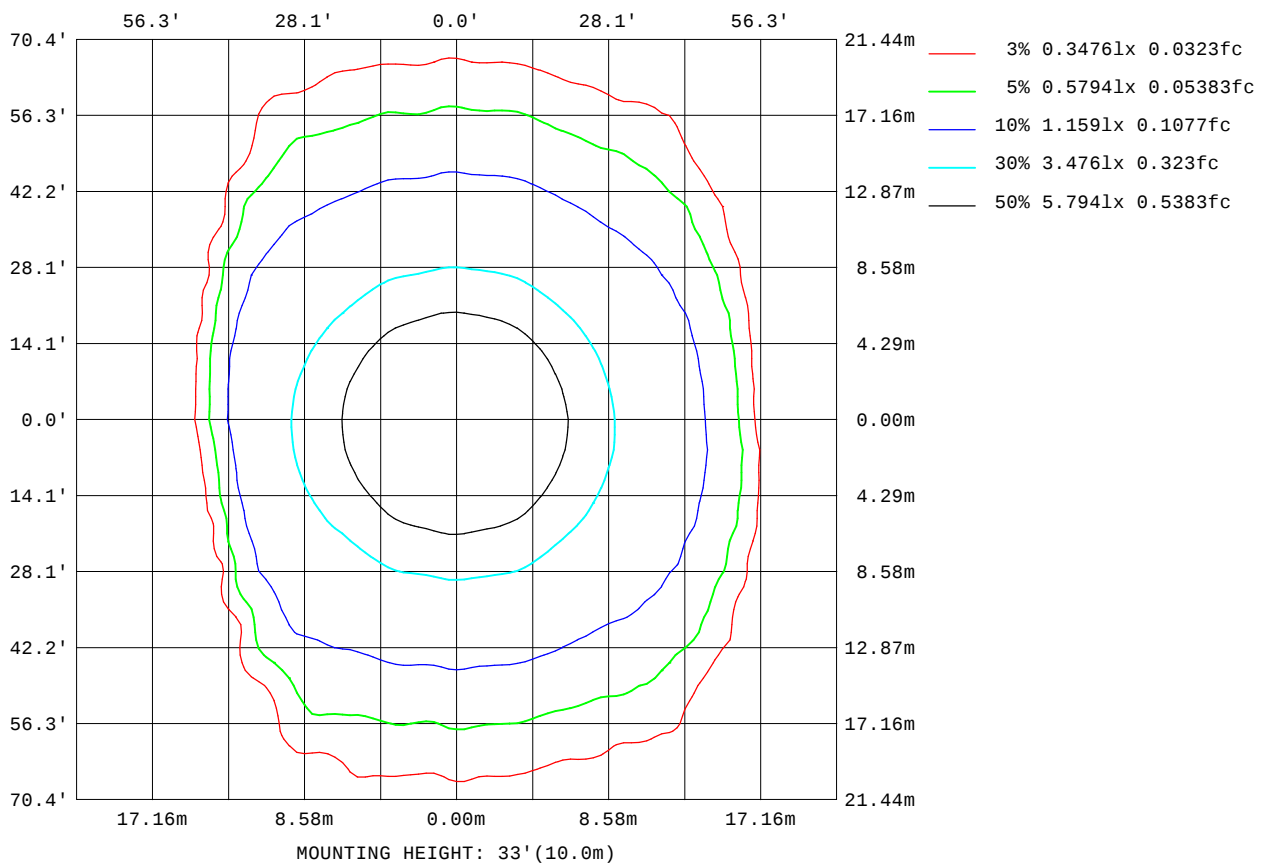


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:24.0DEG
Operators:QC1
Test Date:2024-03-25

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:40%
Test Distance:8.300m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:1.243A P:29.82W PF:1.000 Lamp Flux:2890.05x1 lm		
NAME: 8.02.038.0017 LLS-WZB-W40-L9-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240100040
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

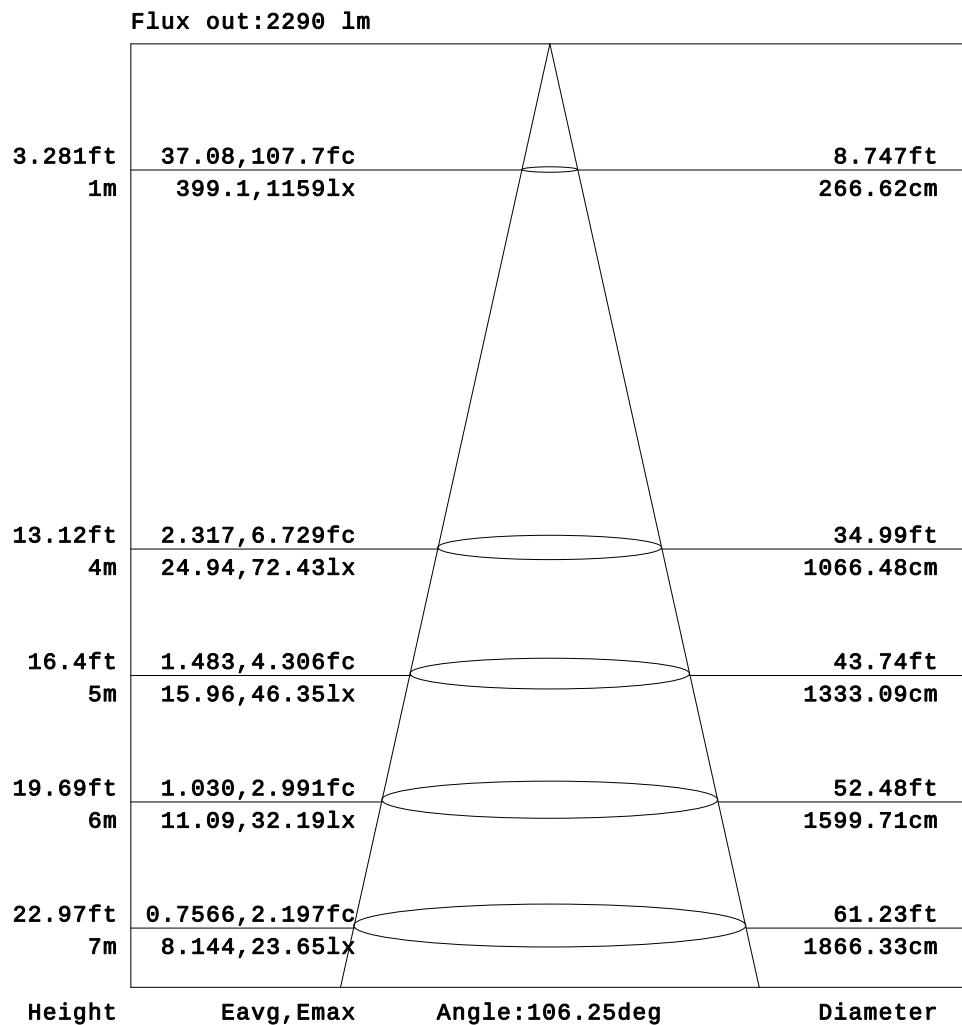


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:24.0DEG
Operators:QC1
Test Date:2024-03-25

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:40%
Test Distance:8.300m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:1.243A P:29.82W PF:1.000 Lamp Flux:2890.05x1 lm		
NAME: 8.02.038.0017 LLS-WZB-W40-L9-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240100040
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

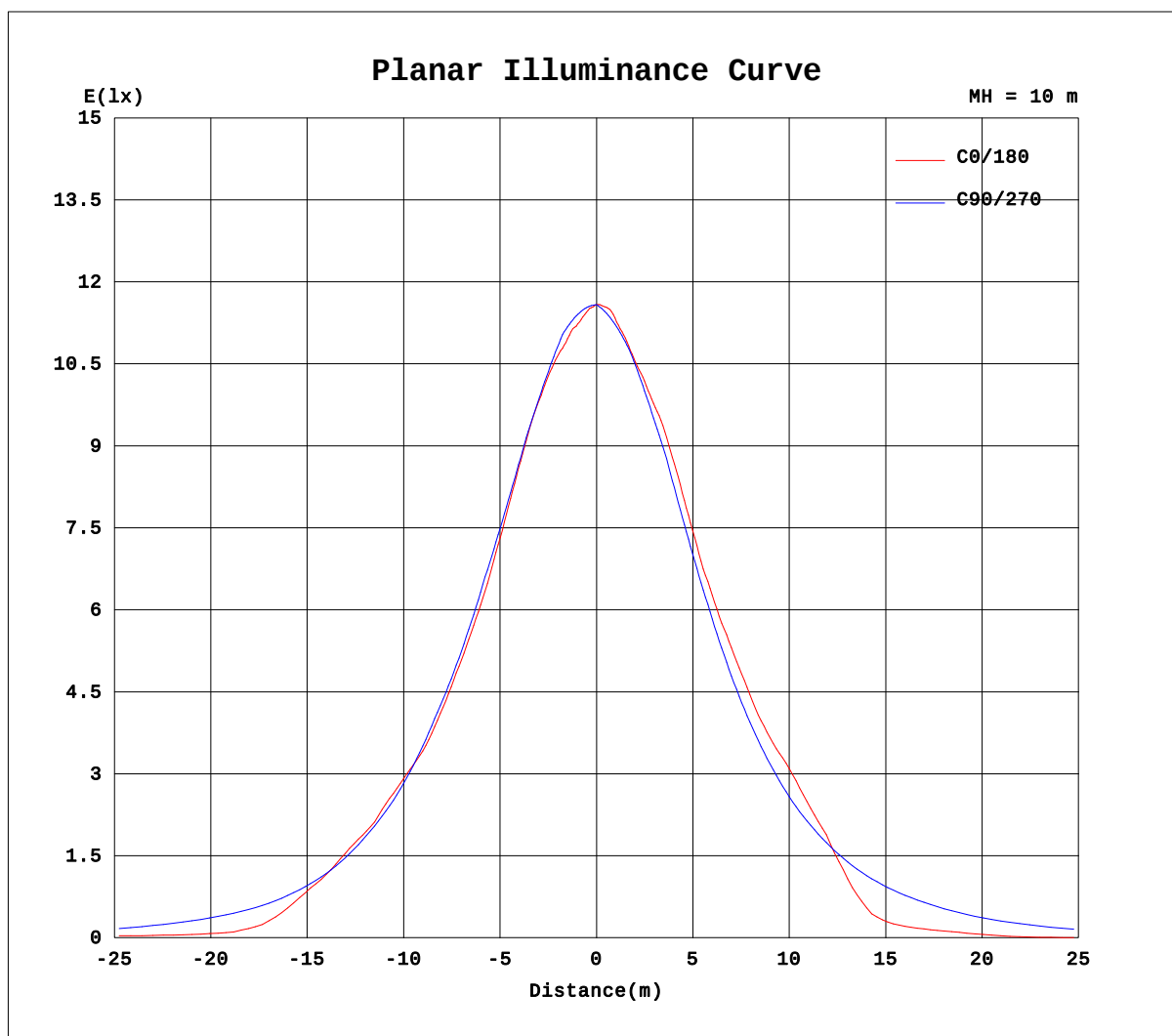


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:24.0DEG
Operators:QC1
Test Date:2024-03-25

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:40%
Test Distance:8.300m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:24.0DEG
Operators:QC1
Test Date:2024-03-25

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:40%
Test Distance:8.300m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:1.243A P:29.82W PF:1.000 Lamp Flux:2890.05x1 lm		
NAME: 8.02.038.0017 LLS-WZB-W40-L9-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240100040
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

Table--1																		UNIT: cd	
H(°) \ V(°)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23	1.73	10.4	6.53	9.87	79.4	70.7
-75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	6.53	11.3	23.0	21.1	29.9	190	156	188	186
-70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54	13.1	22.7	43.9	40.5	49.3	373	302	297	301
-65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	5.12	24.5	43.2	52.2	99.8	253	269	414	389	369	389
-60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	10.2	48.4	73.3	81.8	156	466	488	456	476	441	477
-55	0.00	0.00	0.00	0.00	0.00	0.00	0.33	11.8	43.6	75.6	115	292	432	574	572	571	588	562	592
-50	0.00	0.00	0.00	0.00	0.00	0.00	0.65	21.8	77.0	103	157	502	709	682	655	686	700	684	708
-45	0.00	0.00	0.00	0.00	0.00	0.31	10.9	53.8	100	161	400	642	746	747	749	783	781	778	801
-40	0.00	0.00	0.00	0.00	0.00	0.62	21.1	85.8	123	219	644	782	783	812	842	879	862	873	893
-35	0.00	0.00	0.00	0.00	0.13	4.79	38.4	101	157	410	739	820	837	860	904	939	926	938	955
-30	0.00	0.00	0.00	0.00	0.27	8.96	55.8	117	192	601	835	858	890	908	967	998	990	1003	1017
-25	0.00	0.00	0.00	0.00	0.19	14.2	75.6	133	312	699	860	894	925	956	1009	1028	1022	1042	1060
-20	0.00	0.00	0.00	0.00	0.11	19.5	95.4	148	432	798	884	929	961	1004	1051	1057	1054	1080	1103
-15	0.00	0.00	0.00	0.00	1.03	24.3	103	167	514	827	895	943	979	1017	1068	1081	1084	1111	1130
-10	0.00	0.00	0.00	0.00	1.95	29.1	112	186	597	856	905	957	996	1030	1086	1106	1114	1142	1156
-5	0.00	0.00	0.00	0.00	2.76	36.9	117	210	655	867	906	962	1000	1043	1095	1108	1120	1148	1157
0	0.00	0.00	0.00	0.00	3.56	44.8	122	235	713	878	908	967	1004	1057	1103	1111	1125	1154	1159
5	0.00	0.00	0.00	0.00	3.20	41.7	119	224	693	868	899	957	993	1044	1089	1094	1107	1136	1140
10	0.00	0.00	0.00	0.00	2.83	38.6	117	214	674	859	889	946	983	1032	1074	1077	1089	1117	1122
15	0.00	0.00	0.00	0.00	1.75	33.2	111	191	613	827	865	915	951	999	1042	1046	1056	1084	1089
20	0.00	0.00	0.00	0.00	0.66	27.9	105	168	552	795	842	885	920	965	1010	1015	1023	1051	1057
25	0.00	0.00	0.00	0.00	0.33	20.6	90.5	144	421	731	809	841	873	911	956	964	967	992	998
30	0.00	0.00	0.00	0.00	0.00	13.3	75.7	121	290	667	776	797	826	856	903	913	911	934	940
35	0.00	0.00	0.00	0.00	0.00	8.23	55.3	104	208	528	711	749	774	799	836	852	843	863	872
40	0.00	0.00	0.00	0.00	0.00	3.11	34.9	87.5	126	390	646	702	722	742	769	792	776	792	805
45	0.00	0.00	0.00	0.00	0.00	1.56	19.9	64.6	101	248	467	625	661	673	691	719	706	716	731
50	0.00	0.00	0.00	0.00	0.00	0.00	4.92	41.6	76.8	107	288	548	599	605	613	646	636	639	658
55	0.00	0.00	0.00	0.00	0.00	0.00	2.46	21.4	53.0	80.6	178	322	493	548	538	560	562	553	576
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	29.2	54.6	68.4	96.2	387	491	464	473	488	466	493
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	14.6	29.4	43.6	66.1	210	267	347	382	375	358	381
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.11	18.8	36.0	33.6	42.9	231	291	262	249	268
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.06	9.42	18.0	16.9	24.3	117	148	138	157	164
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	5.64	3.05	5.46	14.0	64.1	59.7
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:24.0DEG
Operators:QC1
Test Date:2024-03-25

V(β) Range:-80 - 80DEG
V(β) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:40%
Test Distance:8.300m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:1.243A P:29.82W PF:1.000 Lamp Flux:2890.05x1 lm		
NAME: 8.02.038.0017 LLS-WZB-W40-L9-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240100040
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

Table--2																	UNIT: cd	
H(DEG) V(DEG)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-80	67.6	68.9	11.0	9.07	8.26	9.12	9.51	28.2	19.0	10.6	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-75	180	173	142	174	105	29.3	23.8	31.6	26.0	33.3	20.2	9.24	0.00	0.00	0.00	0.00	0.00	0.00
-70	293	278	274	340	201	49.5	38.1	35.1	32.9	56.0	40.2	18.5	0.00	0.00	0.00	0.00	0.00	0.00
-65	375	373	356	391	326	260	196	90.1	47.1	53.7	51.3	41.3	12.3	1.14	0.00	0.00	0.00	0.00
-60	458	468	438	441	451	470	353	145	61.2	51.4	62.3	64.0	24.6	2.27	0.00	0.00	0.00	0.00
-55	572	584	565	546	536	538	496	359	212	75.1	64.4	66.4	45.3	10.6	0.00	0.00	0.00	0.00
-50	686	699	693	651	621	607	638	573	363	98.7	66.4	68.8	66.1	18.9	0.00	0.00	0.00	0.00
-45	781	788	787	744	703	682	677	648	503	262	88.0	70.2	76.5	33.1	1.91	0.00	0.00	0.00
-40	875	876	882	837	785	758	717	723	643	426	110	71.6	86.9	47.4	3.82	0.00	0.00	0.00
-35	935	934	936	900	848	812	767	748	686	529	235	84.3	80.3	64.7	11.3	0.00	0.00	0.00
-30	995	992	989	963	911	866	818	774	730	633	360	96.9	73.7	82.1	18.8	0.00	0.00	0.00
-25	1039	1033	1030	1003	947	898	853	796	763	673	440	120	75.9	87.3	24.9	0.01	0.00	0.00
-20	1084	1075	1072	1044	982	931	888	818	796	713	520	143	78.1	92.6	31.0	0.01	0.00	0.00
-15	1111	1098	1095	1070	1013	953	905	842	814	728	549	177	81.0	93.5	33.1	0.29	0.00	0.00
-10	1137	1122	1119	1096	1044	975	923	866	833	743	578	212	83.9	94.4	35.2	0.57	0.00	0.00
-5	1139	1126	1121	1097	1043	976	925	863	830	740	573	206	82.5	93.3	32.7	0.29	0.00	0.00
0	1141	1130	1122	1097	1043	977	927	860	826	736	567	199	81.0	92.2	30.2	0.01	0.00	0.00
5	1122	1111	1102	1076	1023	959	910	843	812	725	553	188	79.2	91.0	29.0	0.01	0.00	0.00
10	1103	1092	1081	1055	1004	942	894	826	797	713	538	177	77.5	89.9	27.8	0.00	0.00	0.00
15	1071	1063	1051	1025	971	914	865	800	776	690	498	152	74.4	85.7	24.1	0.00	0.00	0.00
20	1038	1033	1022	995	939	885	836	773	756	667	458	127	71.3	81.5	20.3	0.00	0.00	0.00
25	981	978	970	942	890	840	792	746	711	612	371	105	70.0	73.0	16.2	0.00	0.00	0.00
30	923	923	919	890	842	794	748	720	666	557	283	83.4	68.8	64.5	12.1	0.00	0.00	0.00
35	857	856	852	817	772	733	691	675	610	456	188	73.3	74.8	52.3	7.92	0.00	0.00	0.00
40	791	789	786	745	703	671	633	630	555	355	93.1	63.2	80.8	40.1	3.75	0.00	0.00	0.00
45	719	721	712	670	637	605	593	559	430	221	73.8	62.4	69.1	29.4	1.87	0.00	0.00	0.00
50	648	653	639	595	571	538	552	488	306	86.7	54.4	61.5	57.3	18.6	0.00	0.00	0.00	0.00
55	562	570	544	513	496	483	442	317	178	63.2	52.7	55.9	40.0	9.95	0.00	0.00	0.00	0.00
60	475	487	450	431	421	428	333	146	50.5	39.7	51.0	50.3	22.7	1.28	0.00	0.00	0.00	0.00
65	368	365	344	353	309	246	182	86.2	37.4	42.9	40.6	32.5	11.3	0.64	0.00	0.00	0.00	0.00
70	261	243	239	276	196	63.5	31.2	26.3	24.2	46.2	30.2	14.6	0.00	0.00	0.00	0.00	0.00	0.00
75	157	162	126	140	101	34.1	18.8	23.3	19.9	25.4	15.1	7.28	0.00	0.00	0.00	0.00	0.00	0.00
80	53.7	79.8	14.2	5.31	5.47	4.66	6.33	20.2	15.7	4.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:24.0DEG
Operators:QC1
Test Date:2024-03-25

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:40%
Test Distance:8.300m [K=1.0000]
Remarks: