

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity (Luminaire orientation as tested.)	293.2 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
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Beam Spread	At 10% of Imax	153.6V x 180.0H
	At 50% of Imax	109.6V x 144.7H
	At 90% of Imax	46.9V x 59.8H

Beam Flux	Total	995.2 lumens per klm.
	To 10% of Imax	991.9 lumens per klm.
	To 50% of Imax	775.7 lumens per klm.
	To 90% of Imax	183.7 lumens per klm.

Upward LOR	0.0 %
Downward LOR	99.5 %

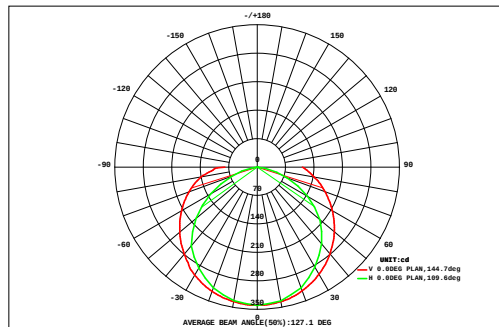
Luminaire Efficiency(Light Output Ratio)	100.0 %
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H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:27.1DEG
Operators:QC1
Test Date:2023-12-14

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:61%
Test Distance:8.300m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.00V I:1.294A P:31.05W PF:1.000 Lamp Flux:1158.85x1 lm		
NAME: 8.02.039.0002 LLS-OP-D50-L12-DMX	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2023120017
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:



DATA OF LAMP		Eff:37.32lm/W	
MODELLS-OP-D50-L12-DMX	Imax(cd)	339.8	
NOMINAL POWER(W)	32	AVAILABILITY(%)	99.9
RATED VOLTAGE(V)	24	Avai. FLUX(lm)	1157
NOMINAL FLUX(lm)	1158.85	LOR(%)	100.0
LAMPS INSIDE	1	TOTAL FLUX(lm)	1159
TEST VOLTAGE(V)	24.0	θ @50%(H,V)	145, 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	0.37	1.19	2.05	2.86	3.31	3.33	2.95	2.30	1.63	1.55	2.11	2.74	3.14	3.15	2.73	2.04	1.20	0.39	39.0	38.7
70	0.31	1.04	1.87	2.71	3.39	3.79	3.84	3.65	3.41	3.37	3.51	3.65	3.57	3.18	2.56	1.82	1.04	0.32	47.0	47.0
60	0.32	1.10	2.05	3.05	3.95	4.69	5.14	5.29	5.29	5.26	5.17	4.94	4.44	3.72	2.87	1.97	1.09	0.33	60.7	60.7
50	0.33	1.17	2.22	3.37	4.49	5.46	6.21	6.67	6.86	6.82	6.53	6.00	5.23	4.27	3.20	2.12	1.14	0.33	72.4	72.4
40	0.34	1.22	2.36	3.65	4.96	6.15	7.11	7.74	8.05	8.02	7.63	6.92	5.94	4.76	3.49	2.26	1.19	0.34	82.1	82.1
30	0.35	1.25	2.46	3.86	5.33	6.71	7.87	8.68	9.09	9.07	8.60	7.73	6.55	5.18	3.74	2.38	1.23	0.34	90.4	90.4
20	0.35	1.28	2.53	4.02	5.60	7.13	8.45	9.38	9.87	9.86	9.34	8.35	7.01	5.48	3.92	2.47	1.25	0.35	96.6	96.6
10	0.34	1.28	2.56	4.09	5.73	7.34	8.72	9.70	10.2	10.2	9.68	8.64	7.22	5.62	4.00	2.51	1.27	0.35	99.5	99.5
0	0.31	1.26	2.54	4.06	5.69	7.30	8.69	9.68	10.2	10.2	9.69	8.65	7.25	5.66	4.03	2.52	1.28	0.34	99.4	99.4
-10	0.26	1.16	2.43	3.92	5.50	7.03	8.35	9.32	9.85	9.87	9.38	8.41	7.05	5.51	3.94	2.49	1.25	0.30	96.0	96.0
-20	0.20	0.98	2.19	3.58	5.04	6.45	7.70	8.62	9.13	9.19	8.76	7.89	6.69	5.28	3.81	2.43	1.15	0.25	89.3	89.3
-30	0.20	0.82	1.93	3.26	4.55	5.80	6.89	7.68	8.14	8.22	7.88	7.13	6.09	4.85	3.56	2.25	1.01	0.28	80.5	80.5
-40	0.21	0.76	1.62	2.85	3.96	5.00	5.88	6.49	6.83	6.93	6.72	6.22	5.42	4.40	3.28	1.99	0.99	0.30	69.8	69.8
-50	0.21	0.72	1.45	2.43	3.39	4.13	4.60	4.82	4.97	5.05	5.06	4.97	4.59	3.88	2.93	1.80	0.99	0.30	56.3	56.3
-60	0.21	0.70	1.30	2.02	2.83	3.13	3.09	2.99	2.99	3.08	3.31	3.53	3.57	3.29	2.53	1.67	0.96	0.29	41.5	41.5
-70	0.21	0.67	1.16	1.71	2.27	2.22	1.86	1.41	1.18	1.29	1.78	2.30	2.61	2.65	2.15	1.52	0.88	0.28	28.2	27.5
-80	0.10	0.33	0.54	0.76	0.93	0.85	0.58	0.26	0.06	0.09	0.41	0.76	1.00	1.10	0.94	0.68	0.40	0.14	9.91	9.18
-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	4.63	16.9	33.3	52.2	70.9	86.5	97.9	105	108	108	106	98.8	87.4	72.0	53.7	34.9	18.3	5.23	1159	---
Φ a	4.63	16.9	33.3	52.2	70.9	86.5	97.8	104	107	108	105	98.8	87.4	72.0	53.7	34.9	18.3	5.23	---	1157

one-half-peak spread: U:54.4,D:55.7 , L:73.8,R:71.8

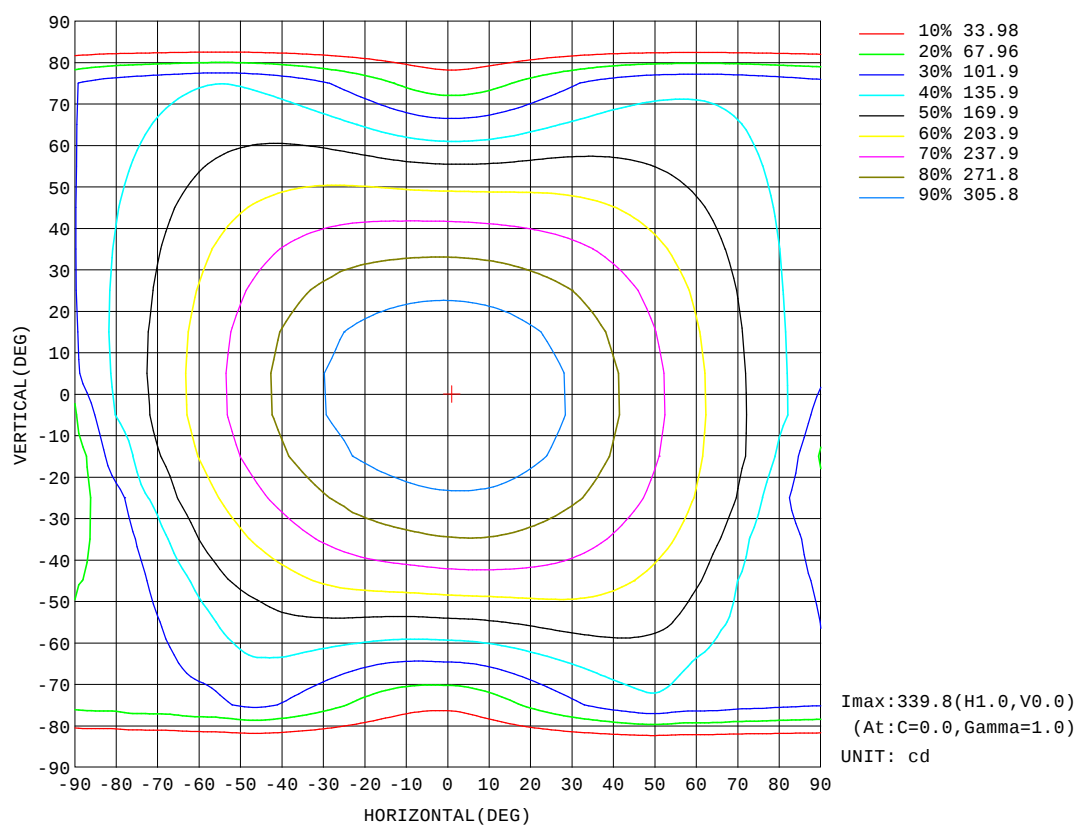
NEMA Beam Type: Type 7

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:27.1DEG
Operators:QC1
Test Date:2023-12-14

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:61%
Test Distance:8.300m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:1.294A P:31.05W PF:1.000 Lamp Flux:1158.85x1 lm		
NAME: 8.02.039.0002 LLS-OP-D50-L12-DMX	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2023120017
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

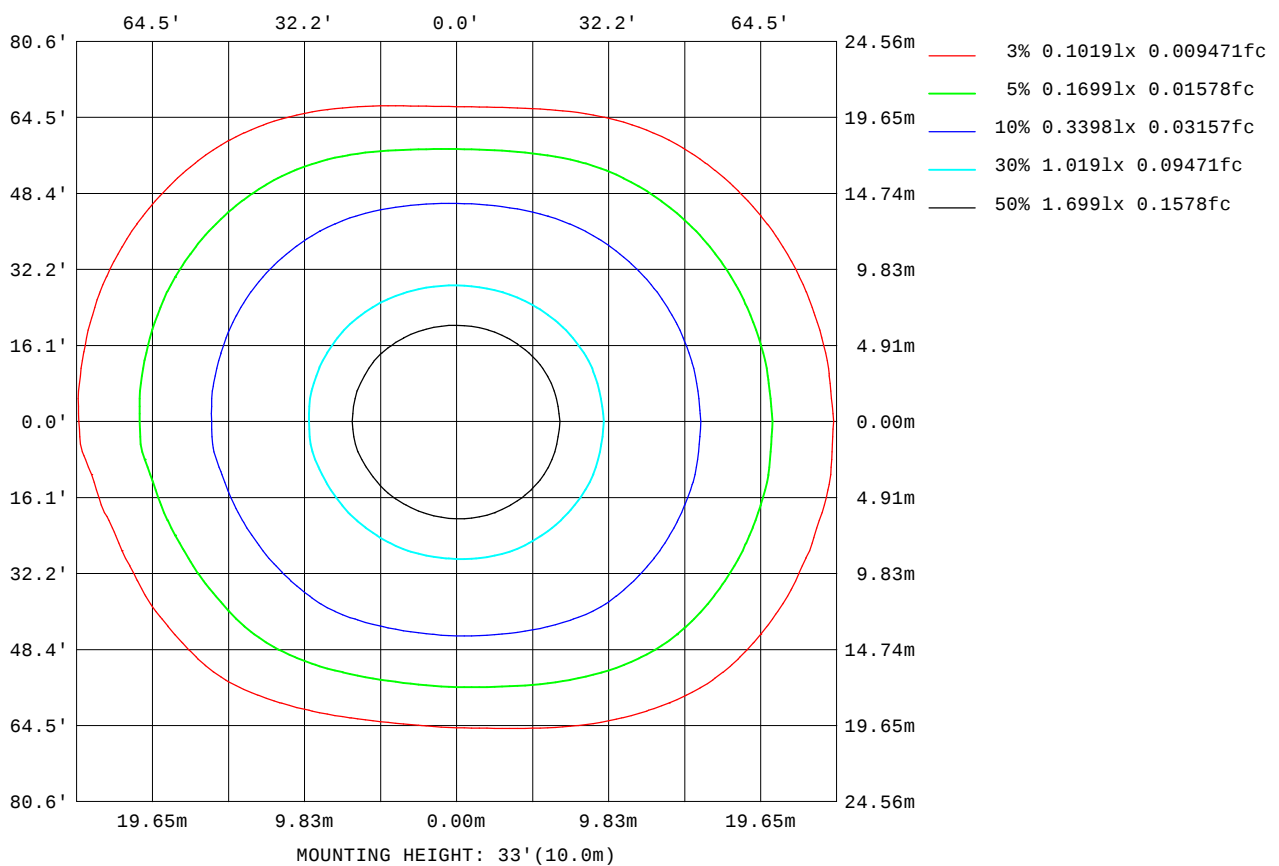


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:27.1DEG
Operators:QC1
Test Date:2023-12-14

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:61%
Test Distance:8.300m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:1.294A P:31.05W PF:1.000 Lamp Flux:1158.85x1 lm		
NAME: 8.02.039.0002 LLS-OP-D50-L12-DMX	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2023120017
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

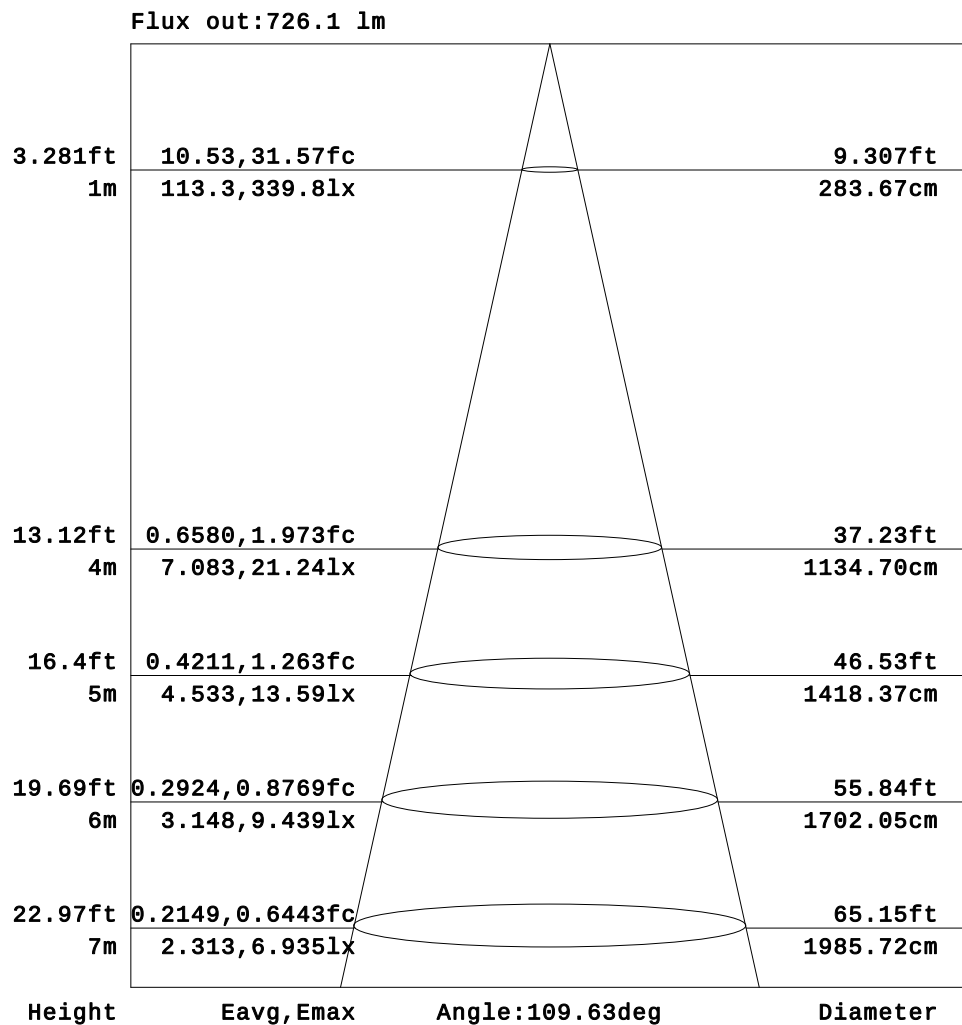


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:27.1DEG
Operators:QC1
Test Date:2023-12-14

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:61%
Test Distance:8.300m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:1.294A P:31.05W PF:1.000 Lamp Flux:1158.85x1 lm		
NAME: 8.02.039.0002 LLS-OP-D50-L12-DMX	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2023120017
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

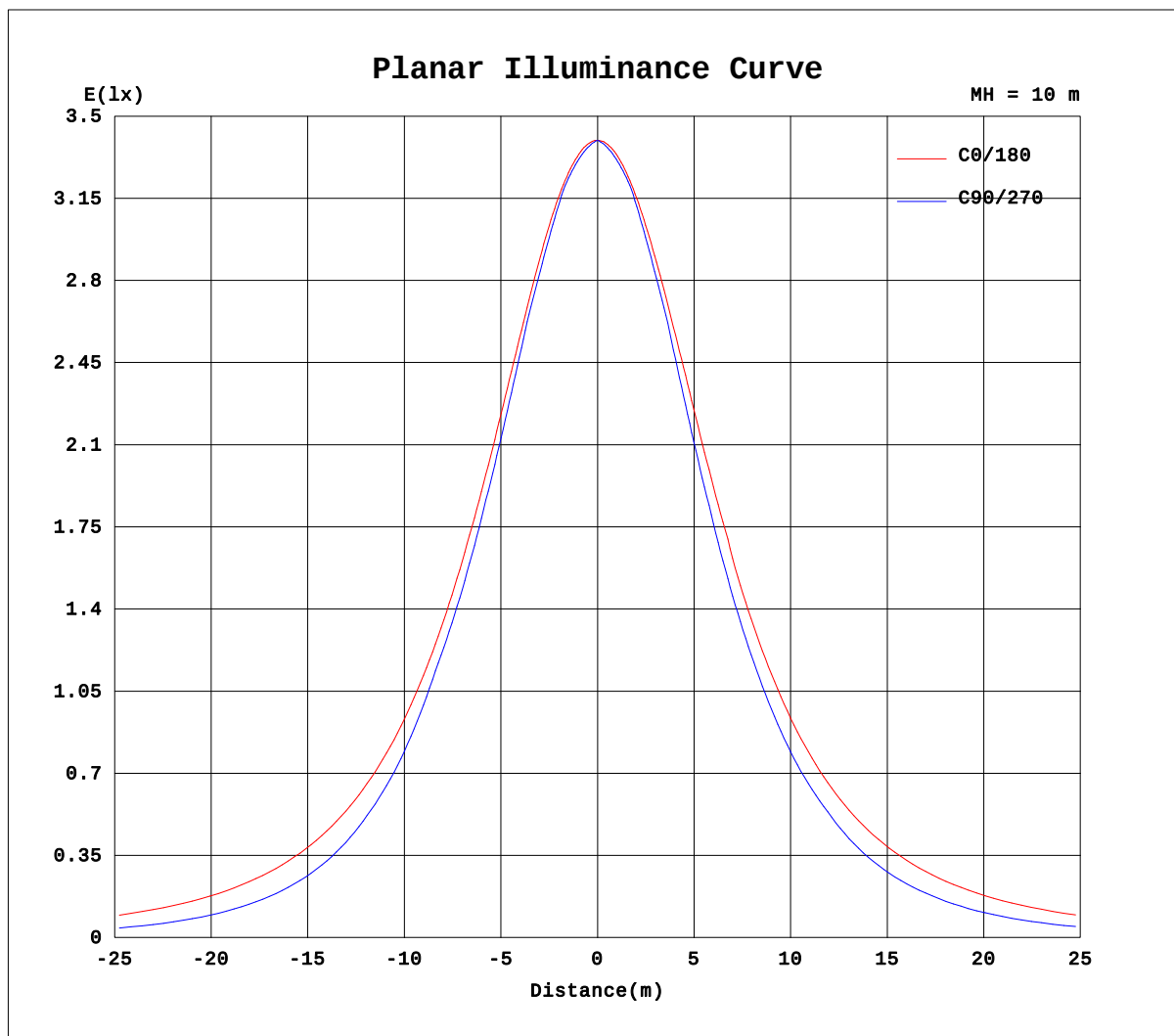


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:27.1DEG
Operators:QC1
Test Date:2023-12-14

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:61%
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:27.1DEG
Operators:QC1
Test Date:2023-12-14

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:61%
Test Distance:8.300m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:1.294A P:31.05W PF:1.000 Lamp Flux:1158.85x1 lm		
NAME: 8.02.039.0002 LLS-OP-D50-L12-DMX	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2023120017
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	77.4	78.8	79.4	85.1	84.1	84.7	89.3	89.7	94.1	95.2	86.4	75.9	64.0	51.2	38.8	28.2	19.0	13.0	11.5
-75	76.6	79.3	80.0	85.5	86.6	90.1	95.1	97.5	105	108	100	90.8	80.2	69.3	58.8	49.8	43.2	39.7	39.4
-70	75.7	79.9	80.6	86.0	89.2	95.5	101	105	116	120	114	106	96.4	87.3	78.8	71.4	67.3	66.4	67.2
-65	74.4	78.9	82.3	88.1	92.4	102	107	116	128	132	131	126	119	112	106	102	98.8	98.5	99.5
-60	73.1	77.8	84.1	90.1	95.7	108	114	126	140	145	148	146	142	138	134	132	130	131	132
-55	71.4	75.5	85.6	90.9	100	113	123	139	152	157	163	165	166	165	164	163	162	163	164
-50	69.6	73.3	87.1	91.6	105	119	132	153	163	170	178	184	189	193	194	194	194	195	197
-45	65.1	73.0	85.6	93.8	111	126	145	164	175	184	193	200	207	213	216	219	221	223	225
-40	60.5	72.8	84.0	96.0	117	132	159	175	187	197	207	217	225	232	239	244	248	251	253
-35	57.4	72.5	84.5	104	124	148	170	186	198	211	222	232	241	249	256	261	265	268	270
-30	54.3	72.3	85.0	111	131	164	182	196	210	224	236	247	257	265	273	278	282	285	287
-25	53.3	72.8	93.3	123	145	171	189	205	220	234	247	259	269	278	287	292	297	300	302
-20	52.3	73.4	102	135	159	178	196	213	229	244	258	270	281	290	301	306	311	315	316
-15	47.9	83.3	117	144	168	186	205	222	238	253	267	280	291	301	310	316	321	324	325
-10	43.4	93.3	133	153	176	195	214	231	247	263	277	290	302	311	319	325	330	333	334
-5	61.7	103	137	157	177	196	214	232	248	264	278	292	304	314	322	328	333	336	337
0	80.0	113	140	160	179	197	215	232	249	265	280	294	307	317	325	331	336	339	340
5	85.0	119	141	161	179	198	215	233	249	265	279	293	305	315	323	329	333	336	337
10	89.9	125	142	161	180	198	216	233	250	265	279	292	303	313	320	326	330	333	334
15	93.8	125	142	160	178	196	213	229	245	260	273	285	296	306	313	318	322	324	325
20	97.8	125	142	159	176	193	210	226	241	254	267	278	288	299	305	310	313	315	316
25	98.9	125	141	157	174	190	206	220	234	247	258	269	277	286	291	295	298	299	300
30	100.0	125	140	156	171	187	201	215	228	239	250	259	266	272	277	280	282	284	284
35	100.0	124	138	153	168	182	196	208	220	230	239	246	253	257	261	263	264	265	265
40	99.9	123	137	150	164	178	190	202	212	220	228	234	239	242	244	246	246	246	246
45	100	122	134	147	160	172	183	193	201	208	214	219	222	225	226	226	225	225	224
50	100	121	132	143	155	166	176	184	191	196	201	204	206	207	207	206	204	203	202
55	99.7	119	129	139	149	159	168	175	180	184	186	188	188	186	183	180	176	174	173
60	99.3	117	126	135	143	152	160	165	169	171	172	171	169	165	159	154	148	145	143
65	99.8	116	124	131	138	145	151	155	157	158	156	152	147	140	133	125	118	113	111
70	100	114	121	127	133	138	143	146	146	144	140	133	125	116	106	96.8	88.1	81.6	78.7
75	100.0	110	118	122	126	130	134	136	134	130	123	115	105	94.5	83.4	72.3	61.9	53.7	49.7
80	99.7	107	114	118	120	123	125	125	122	115	106	95.9	84.9	73.1	60.6	47.8	35.6	25.7	20.8
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

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:27.1DEG
 Operators:QC1
 Test Date:2023-12-14

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 $V(\beta)$ Interval: 5.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
 Humidity:61%
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 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:1.294A P:31.05W PF:1.000 Lamp Flux:1158.85x1 lm		
NAME: 8.02.039.0002 LLS-OP-D50-L12-DMX	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2023120017
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

H(°) \ V(°)	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	16.4	26.7	39.1	52.2	65.2	77.6	89.3	100	110	116	112	111	110	105	105	104	104	104
-75	43.1	51.4	61.9	73.4	84.8	95.8	106	116	124	129	122	119	118	113	111	108	106	104
-70	69.7	76.0	84.7	94.5	104	114	123	131	138	142	133	127	126	121	118	113	108	104
-65	101	106	113	121	129	136	143	149	153	154	145	133	130	125	120	115	109	103
-60	133	137	141	147	153	159	164	167	168	165	157	140	135	129	123	118	110	103
-55	165	168	171	175	179	182	183	183	180	176	168	152	139	132	125	119	109	102
-50	198	199	201	203	205	205	203	198	192	186	180	164	143	135	126	121	109	101
-45	226	226	226	226	224	222	217	211	204	196	188	175	153	136	125	118	107	97.9
-40	254	254	252	249	244	238	231	224	215	206	196	185	162	137	125	116	106	95.2
-35	271	270	268	264	258	252	244	235	225	215	203	191	173	149	126	113	103	90.7
-30	288	287	283	279	273	265	256	246	235	223	210	197	184	161	128	110	100	86.1
-25	302	301	297	292	285	277	267	256	244	231	217	202	188	168	143	114	92.9	78.3
-20	316	315	310	304	297	288	278	266	252	238	223	207	192	176	158	118	85.8	70.6
-15	325	323	318	312	304	294	282	269	256	241	225	209	192	176	159	130	99.2	63.6
-10	333	331	326	319	311	301	286	273	259	244	228	211	193	176	160	143	113	56.6
-5	336	333	329	321	313	302	289	276	261	246	229	212	194	177	160	143	120	83.9
0	339	336	331	324	315	304	292	278	264	248	231	213	196	178	161	143	127	111
5	336	333	328	321	312	302	289	275	261	245	228	211	194	176	159	142	126	111
10	333	330	325	318	310	300	285	272	258	242	226	209	192	175	158	142	126	111
15	324	321	316	310	302	292	280	267	253	239	223	207	190	173	157	141	125	111
20	315	312	308	301	294	284	274	262	249	235	220	204	188	172	156	139	125	111
25	299	296	292	287	280	272	263	252	240	227	213	199	184	169	154	139	124	111
30	283	281	277	272	266	259	251	242	231	220	207	194	180	166	152	138	124	111
35	264	262	259	255	251	245	238	230	221	211	199	187	175	162	149	136	124	111
40	245	244	241	238	235	230	225	218	210	202	192	181	170	158	147	135	123	111
45	223	222	221	219	217	214	210	204	198	191	183	174	164	154	144	133	122	111
50	202	201	201	200	199	197	194	191	186	181	174	167	159	150	141	131	121	111
55	173	173	175	177	178	179	178	176	173	170	165	159	153	146	138	129	120	111
60	144	146	149	154	158	161	162	161	160	158	155	152	147	141	134	127	119	112
65	112	115	120	127	133	139	144	147	148	148	147	145	142	137	131	125	119	112
70	79.8	84.4	91.6	100	109	118	126	132	135	137	138	138	136	133	128	123	118	112
75	51.4	57.9	67.1	77.5	88.1	98.4	108	117	123	127	129	130	129	127	124	120	116	112
80	23.1	31.4	42.5	54.8	67.2	79.2	90.6	101	110	117	120	122	123	122	119	117	114	111
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

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:27.1DEG
 Operators:QC1
 Test Date:2023-12-14

$V(\beta)$ Range:-80 - 80DEG
 $V(\beta)$ Interval: 5.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
 Humidity:61%
 Test Distance:8.300m [K=1.0000]
 Remarks: