

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity (Luminaire orientation as tested.)	279.8 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
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Beam Spread	At 10% of Imax	155.7V x 180.0H
	At 50% of Imax	114.1V x 150.6H
	At 90% of Imax	54.1V x 59.8H

Beam Flux	Total	994.9 lumens per klm.
	To 10% of Imax	991.9 lumens per klm.
	To 50% of Imax	805.1 lumens per klm.
	To 90% of Imax	212.1 lumens per klm.

Upward LOR	0.0 %
Downward LOR	99.5 %

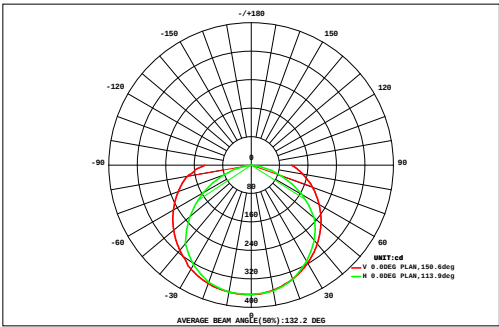
Luminaire Efficiency(Light Output Ratio)	100.0 %
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H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-07-15

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:221.1V I:0.2145A P:28.40W PF:0.5988 Lamp Flux:1300.44x1 lm		
NAME: 8.02.019.0065 LLS-OP-W30A-L12-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240700034
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:



DATA OF LAMP		Eff:45.80lm/W	
MODEL	LLS-OP-W30A-L12-S	Imax(cd)	363.9
NOMINAL POWER(W)	28	AVAILABILITY(%)	99.9
RATED VOLTAGE(V)	222	Avai. FLUX(lm)	1299
NOMINAL FLUX(lm)	1300.44	LOR(%)	100.0
LAMPS INSIDE	1	TOTAL FLUX(lm)	1300
TEST VOLTAGE(V)	221.1	θ @50%(H,V)	151,114DEG

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	0.49	1.52	2.58	3.53	4.02	3.95	3.44	2.62	1.86	1.82	2.38	2.97	3.31	3.27	2.82	2.02	1.17	0.37	44.1	43.9
70	0.41	1.30	2.30	3.34	4.08	4.44	4.46	4.24	3.98	3.90	3.97	4.00	3.83	3.37	2.68	1.85	1.03	0.31	53.5	53.5
60	0.41	1.37	2.48	3.69	4.74	5.52	5.96	6.13	6.11	6.01	5.81	5.43	4.80	3.95	3.00	2.02	1.09	0.32	68.8	68.8
50	0.43	1.44	2.65	4.00	5.27	6.36	7.20	7.69	7.85	7.72	7.30	6.57	5.60	4.50	3.33	2.18	1.15	0.33	81.6	81.6
40	0.44	1.49	2.79	4.27	5.73	7.02	8.04	8.71	8.98	8.86	8.33	7.45	6.30	4.99	3.63	2.33	1.21	0.34	90.9	90.9
30	0.44	1.54	2.91	4.48	6.08	7.56	8.77	9.59	9.95	9.85	9.24	8.22	6.90	5.41	3.88	2.46	1.26	0.35	98.9	98.9
20	0.45	1.58	3.00	4.64	6.34	7.96	9.33	10.3	10.7	10.6	9.96	8.81	7.34	5.70	4.06	2.55	1.29	0.35	105	105
10	0.45	1.60	3.05	4.72	6.46	8.14	9.57	10.5	11.0	10.9	10.3	9.04	7.52	5.83	4.13	2.59	1.31	0.36	107	107
0	0.42	1.58	3.06	4.72	6.46	8.13	9.57	10.5	11.0	11.0	10.3	9.10	7.57	5.87	4.17	2.62	1.32	0.36	108	108
-10	0.34	1.50	3.02	4.69	6.42	8.05	9.44	10.4	10.8	10.8	10.1	8.94	7.44	5.78	4.11	2.58	1.30	0.31	106	106
-20	0.26	1.30	2.83	4.45	6.10	7.64	8.98	9.87	10.3	10.2	9.60	8.54	7.14	5.57	3.98	2.52	1.19	0.26	101	101
-30	0.28	1.02	2.55	4.16	5.67	7.09	8.25	9.03	9.35	9.26	8.73	7.81	6.56	5.16	3.73	2.34	1.03	0.29	92.3	92.3
-40	0.31	0.95	2.07	3.81	5.17	6.39	7.31	7.83	7.96	7.82	7.44	6.77	5.83	4.68	3.45	2.05	1.01	0.30	81.1	81.1
-50	0.33	0.96	1.82	3.22	4.59	5.48	5.95	6.03	5.93	5.79	5.60	5.29	4.81	4.08	3.07	1.84	1.01	0.29	66.1	66.1
-60	0.32	0.97	1.63	2.69	3.84	4.33	4.40	4.14	3.81	3.67	3.72	3.77	3.66	3.34	2.59	1.71	0.96	0.29	49.8	49.8
-70	0.32	0.94	1.48	2.32	3.14	3.18	2.95	2.35	1.73	1.58	1.93	2.36	2.62	2.62	2.13	1.55	0.88	0.27	34.4	34.0
-80	0.16	0.45	0.69	1.02	1.32	1.28	0.98	0.57	0.17	0.11	0.37	0.71	0.96	1.06	0.91	0.70	0.40	0.13	12.0	11.2
-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	6.25	21.5	40.9	63.7	85.4	103	115	121	122	120	115	106	92.2	75.2	55.7	35.9	18.6	5.23	1300	---
Φ a	6.25	21.5	40.9	63.7	85.4	103	115	120	121	119	115	106	92.2	75.2	55.7	35.9	18.6	5.23	---	1299

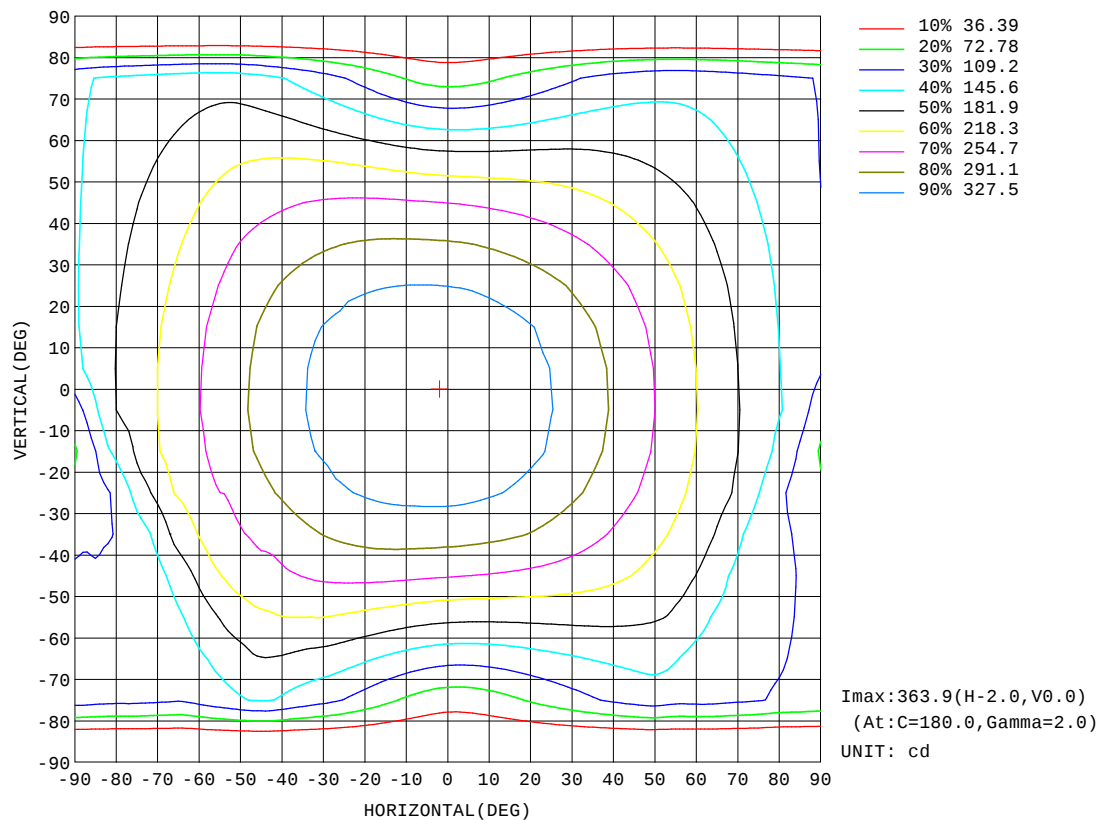
one-half-peak spread: U:56.8,D:57.8 , L:78.4,R:73.0 NEMA Beam Type: Type 7

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-07-15

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:221.1V I:0.2145A P:28.40W PF:0.5988 Lamp Flux:1300.44x1 lm		
NAME: 8.02.019.0065 LLS-OP-W30A-L12-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240700034
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

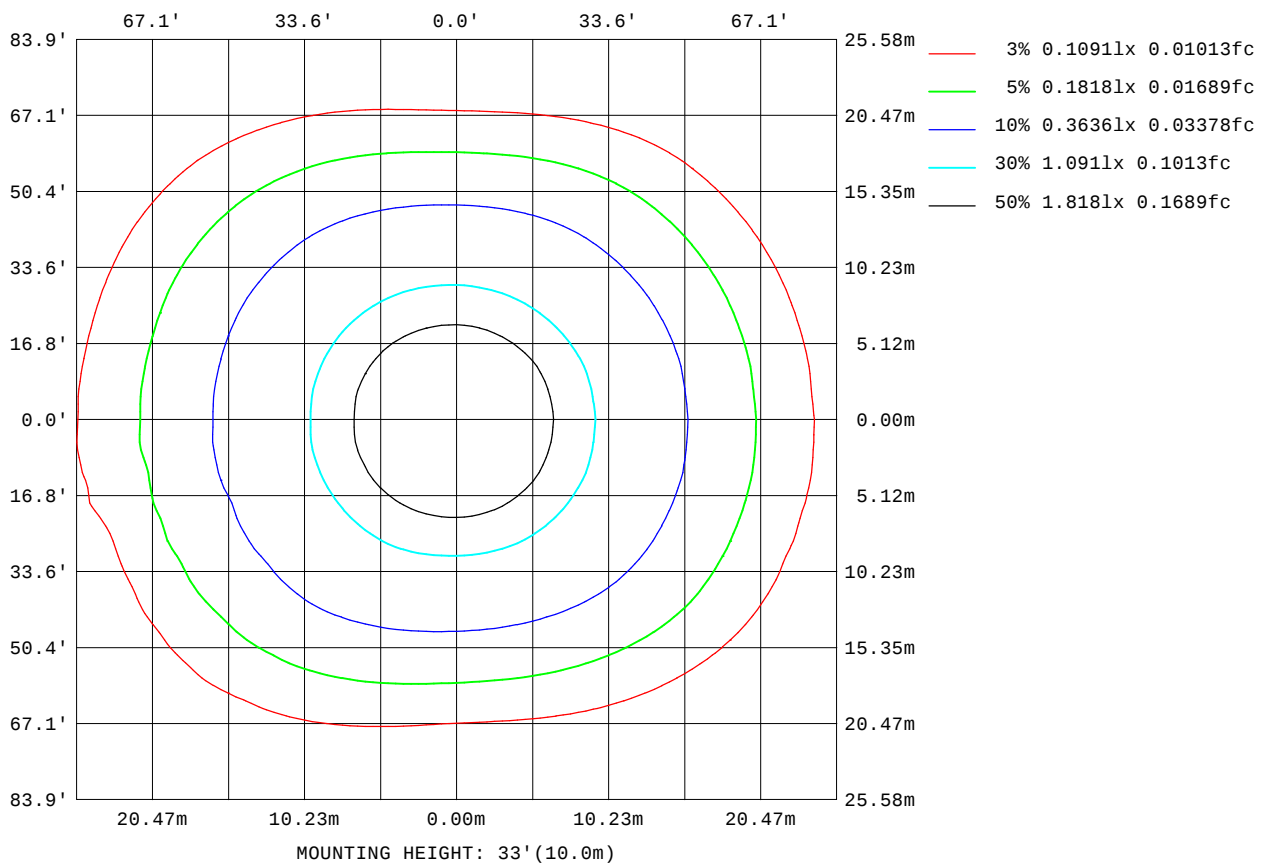


H(β) Range: -90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature: 28.0DEG
Operators: QC1
Test Date: 2024-07-15

V(B) Range: -80 - 80DEG
V(B) Interval: 5.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity: 83%
Test Distance: 8.300m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:221.1V I:0.2145A P:28.40W PF:0.5988 Lamp Flux:1300.44x1 lm		
NAME: 8.02.019.0065 LLS-OP-W30A-L12-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240700034
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

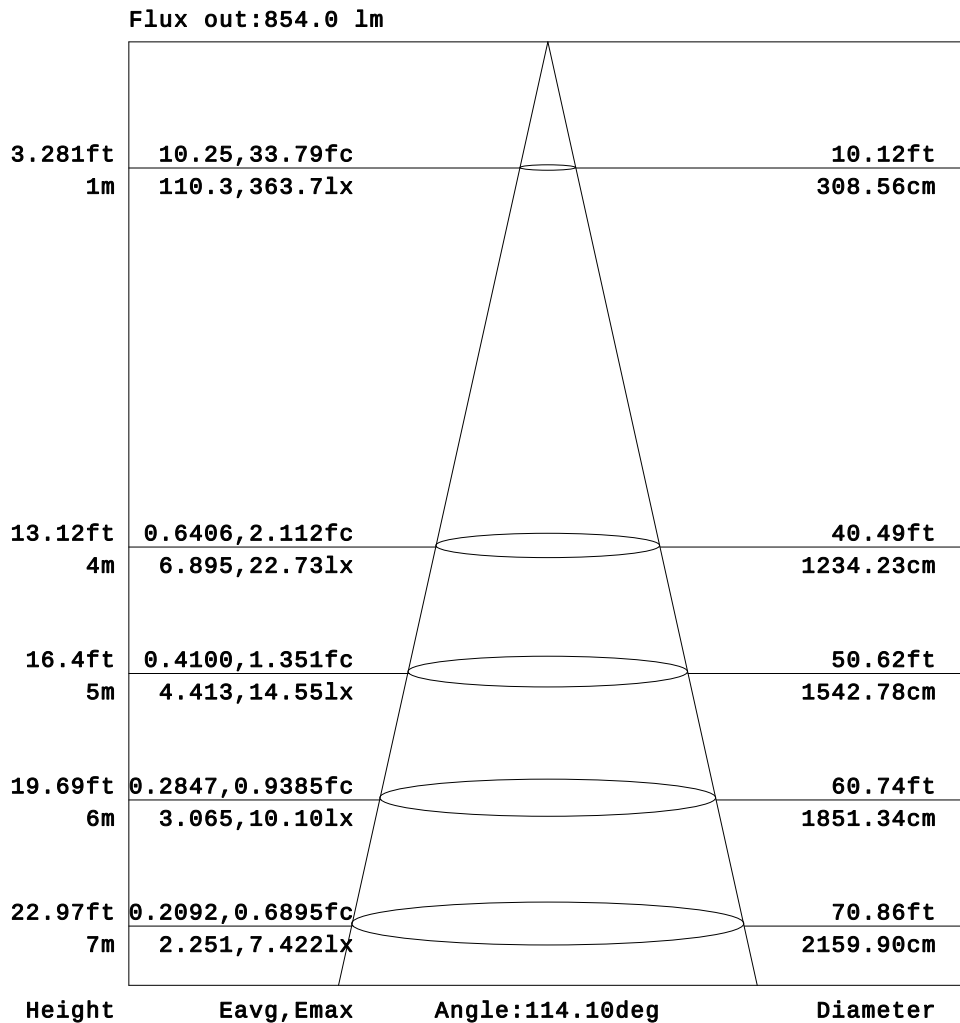


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-07-15

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

AAI Figure

Test:U:221.1V I:0.2145A P:28.40W PF:0.5988 Lamp Flux:1300.44x1 lm		
NAME: 8.02.019.0065 LLS-OP-W30A-L12-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240700034
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

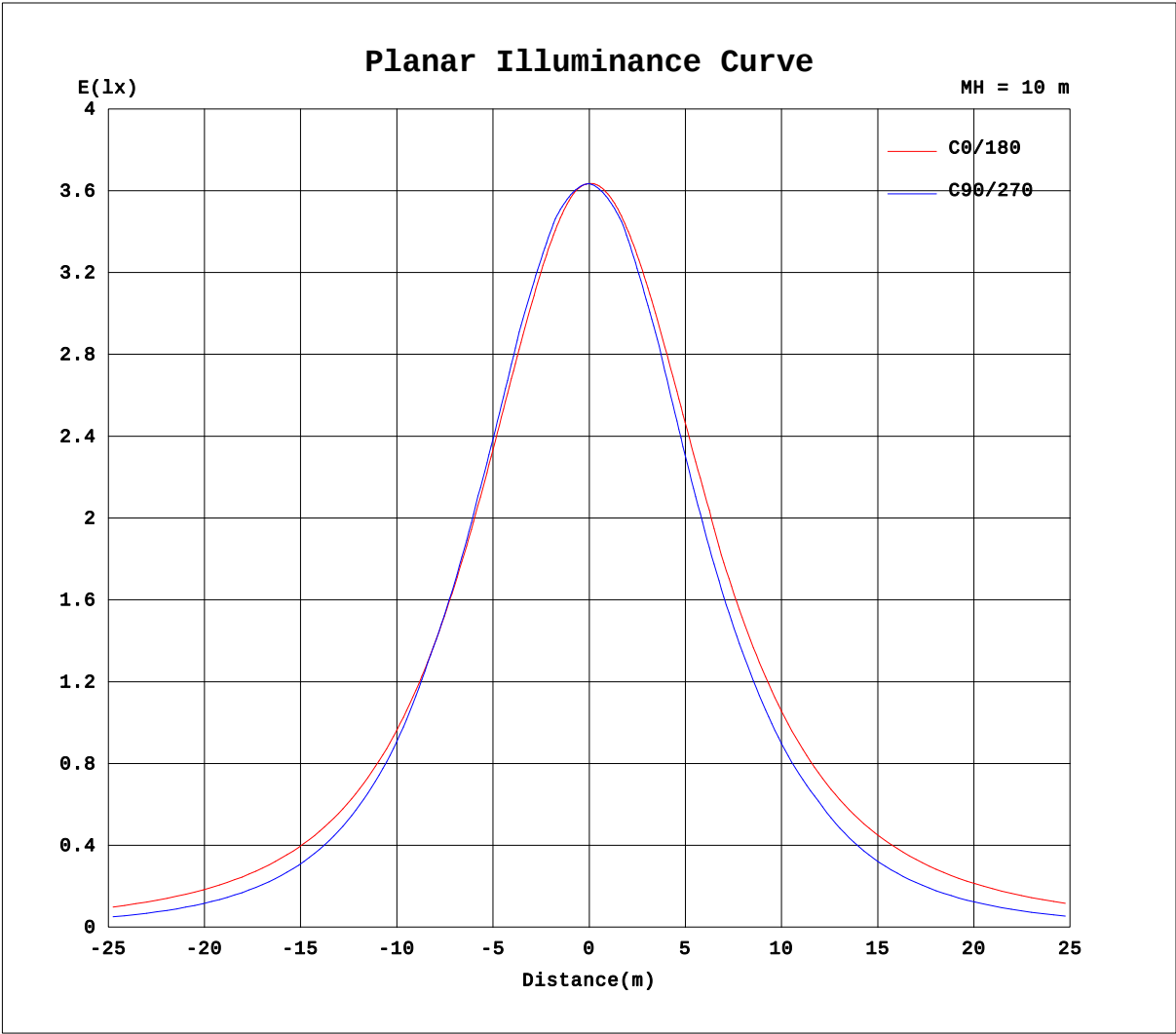


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-07-15

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
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Test Date:2024-07-15

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.1V I:0.2145A P:28.40W PF:0.5988 Lamp Flux:1300.44x1 lm		
NAME: 8.02.019.0065 LLS-OP-W30A-L12-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:20240700034
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	127	122	118	116	112	109	114	123	129	132	125	112	97.8	83.5	68.8	52.8	37.8	25.3	18.5
-75	126	122	119	119	116	113	122	133	143	148	141	129	120	108	94.8	80.9	68.0	57.4	51.5
-70	125	122	121	122	119	117	130	143	157	165	157	147	142	133	121	109	98.1	89.4	84.6
-65	126	122	123	123	121	124	140	155	169	181	179	172	168	160	150	141	132	125	121
-60	128	121	124	124	123	131	150	167	180	197	201	198	194	187	180	173	166	160	157
-55	126	122	124	123	125	140	162	184	202	213	218	219	219	215	210	204	199	195	192
-50	124	122	124	122	126	149	174	200	224	229	235	240	243	242	239	236	232	229	226
-45	117	114	119	120	135	161	190	217	234	241	248	256	261	263	264	264	262	259	257
-40	110	105	113	118	143	173	206	234	244	253	261	272	279	285	289	291	291	290	288
-35	97.7	103	112	127	157	197	220	240	251	264	274	284	292	299	304	307	308	307	306
-30	85.9	99.9	110	135	170	220	235	247	259	275	286	296	305	313	318	322	324	325	325
-25	82.3	97.5	118	161	192	222	238	255	268	283	295	306	315	325	331	335	336	338	338
-20	78.7	95.1	126	187	213	223	240	263	277	291	304	315	325	337	343	347	349	351	351
-15	68.3	108	154	190	216	231	248	267	282	296	309	321	331	341	348	352	355	357	357
-10	58.0	122	182	194	219	238	255	272	287	302	315	327	338	346	353	358	361	363	363
-5	94.7	140	182	197	219	237	254	270	286	300	314	326	338	347	354	358	362	363	363
0	131	159	182	201	219	236	253	269	284	299	312	324	338	347	354	359	362	364	364
5	133	162	183	201	218	236	253	269	284	299	312	325	337	346	353	357	360	362	362
10	135	165	184	201	218	236	252	269	284	299	313	325	336	344	351	356	359	360	360
15	138	164	182	199	216	233	249	265	280	294	307	319	328	337	344	348	351	352	351
20	140	164	180	196	213	229	245	261	276	289	302	312	321	330	337	341	343	343	342
25	140	162	178	194	209	225	241	256	270	282	293	303	311	318	323	326	328	328	327
30	139	161	176	191	206	221	236	250	264	275	285	293	300	305	309	312	313	312	312
35	139	160	174	188	202	216	230	244	256	266	274	281	287	291	294	296	296	295	294
40	139	158	171	185	198	211	225	237	248	256	263	269	273	277	279	279	279	278	276
45	139	157	169	181	193	205	218	229	238	245	250	254	257	259	260	259	258	256	254
50	139	155	166	177	188	199	210	220	228	233	237	240	241	242	241	239	237	234	232
55	138	153	163	173	183	193	202	211	217	220	221	221	219	216	212	208	204	201	199
60	138	152	160	168	177	186	194	202	206	207	205	202	196	190	184	178	172	167	165
65	138	150	157	164	171	179	185	191	193	190	185	179	171	163	154	145	137	131	129
70	138	149	155	161	166	171	177	180	180	173	165	156	146	135	124	113	103	95.4	92.2
75	138	146	152	156	160	163	166	167	165	157	147	136	123	110	96.5	83.1	70.9	61.8	58.0
80	137	143	148	151	153	155	156	154	150	140	128	115	101	85.2	69.4	53.7	39.2	28.2	23.9
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:28.0DEG
 Operators:QC1
 Test Date:2024-07-15

$V(\beta)$ Range:-80 - 80DEG
 $V(\beta)$ Interval: 5.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
 Humidity:83%
 Test Distance:8.300m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.1V I:0.2145A P:28.40W PF:0.5988 Lamp Flux:1300.44x1 lm																	
NAME: 8.02.019.0065 LLS-OP-W30A-L12-S									TYPE:LED						WEIGHT:		
DIM.:									SPEC.:						SERIAL No.:20240700034		
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	20.1	28.0	38.9	51.0	63.5	75.6	87.2	97.8	107	112	108	113	113	108	105	100	99.8	99.4
-75	52.3	58.0	66.6	76.4	86.6	96.6	106	115	123	127	121	122	120	115	112	105	102	99.2
-70	84.5	88.1	94.3	102	110	118	125	132	138	143	133	130	128	123	119	109	105	99.0
-65	120	122	126	131	137	142	147	152	155	157	148	137	133	127	122	113	105	99.2
-60	156	157	158	161	164	167	169	171	172	172	163	144	138	131	125	117	106	99.3
-55	190	190	190	191	191	192	192	191	189	185	176	156	142	134	126	118	106	98.3
-50	224	223	221	220	219	217	214	211	205	197	189	169	146	137	128	120	106	97.3
-45	255	253	250	247	243	238	232	225	217	208	197	181	157	138	128	119	106	95.1
-40	286	283	279	274	268	260	250	240	229	218	206	193	168	138	127	118	107	93.0
-35	304	301	296	290	282	273	263	251	239	226	213	199	179	153	129	115	105	89.7
-30	323	319	313	306	297	287	275	262	249	235	220	205	190	167	131	112	102	86.3
-25	336	331	325	318	308	297	285	271	257	242	226	210	194	174	147	117	94.7	79.1
-20	348	344	337	329	319	308	295	280	265	249	233	215	198	182	163	122	87.1	71.9
-15	355	350	343	335	323	311	298	283	268	252	235	217	200	182	164	135	104	67.7
-10	361	356	349	340	327	315	301	286	271	254	237	219	201	183	166	149	121	63.5
-5	361	356	349	340	328	316	302	288	272	255	237	220	202	184	165	148	126	88.5
0	362	357	350	341	330	318	304	289	273	256	238	220	202	184	165	147	130	113
5	360	355	348	339	327	315	301	286	270	253	236	218	200	182	164	147	130	113
10	358	353	346	337	323	311	298	283	268	251	234	216	198	180	163	146	129	113
15	349	344	337	329	317	306	293	279	264	248	231	214	196	179	161	145	128	112
20	341	336	329	321	311	300	288	274	260	244	228	211	194	178	160	143	127	112
25	325	320	314	307	298	288	276	264	251	236	221	206	190	174	158	142	127	112
30	309	305	299	292	285	275	265	254	242	229	215	200	185	170	155	140	126	111
35	292	288	283	277	270	261	252	242	231	220	207	194	180	166	152	138	124	111
40	274	270	266	261	255	248	239	231	221	210	199	188	175	162	149	136	123	110
45	252	249	246	242	237	231	224	217	209	200	191	180	169	157	145	133	121	110
50	230	228	226	223	219	214	209	203	197	190	182	173	163	152	141	130	119	109
55	198	197	197	197	196	195	192	188	183	178	172	165	156	147	137	127	118	109
60	165	166	168	170	173	175	175	173	170	167	162	157	150	141	133	125	116	108
65	129	132	136	141	146	151	154	156	156	155	153	149	143	136	129	122	115	108
70	93.4	97.8	104	112	119	127	133	139	143	144	144	142	137	131	126	120	114	108
75	60.5	67.2	76.1	85.9	95.8	105	114	122	128	132	134	132	129	125	120	116	112	108
80	27.6	36.7	48.0	60.2	72.3	83.9	95.0	105	113	120	123	123	120	118	115	112	110	107
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:28.0DEG
 Operators:QC1
 Test Date:2024-07-15

V(β) Range:-80 - 80DEG
 V(β) Interval: 5.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.275
 Humidity:83%
 Test Distance:8.300m [K=1.0000]
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