

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

Maximum Intensity (Luminaire orientation as tested.)	264.7 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
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Beam Spread	At 10% of Imax	151.1V x 180.0H
	At 50% of Imax	110.4V x 161.8H
	At 90% of Imax	54.4V x 107.2H

Beam Flux	Total	995.5 lumens per klm.
	To 10% of Imax	992.5 lumens per klm.
	To 50% of Imax	843.0 lumens per klm.
	To 90% of Imax	327.3 lumens per klm.

Upward LOR	0.0 %
Downward LOR	99.6 %

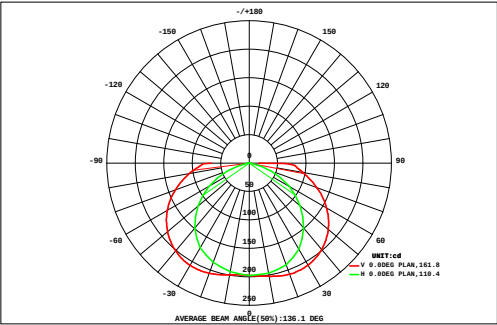
Luminaire Efficiency(Light Output Ratio)	100.0 %
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H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-11-26

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.354
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.00V I:0.6013A P:14.43W PF:1.000 Freq:0Hz Lamp Flux:788.02x1 lm		
NAME: 8.02.040.0002 LLS-OP-W20A-L10-S	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:202411080
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	Shielding Angle:



DATA OF LAMP		Eff:54.61lm/W	
MODEL	LLS-OP-W20A-L10-S	Imax(cd)	208.6
NOMINAL POWER(W)	14	AVAILABILITY(%)	99.9
RATED VOLTAGE(V)	24	Avai. FLUX(lm)	786.9
NOMINAL FLUX(lm)	788.02	LOR(%)	100.0
LAMPS INSIDE	1	TOTAL FLUX(lm)	788.0
TEST VOLTAGE(V)	24	θ @50%(H,V)	162,110DEG

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	0.28	0.83	1.32	1.68	1.86	1.81	1.53	1.07	0.62	0.69	1.23	1.75	2.04	2.06	1.84	1.42	0.88	0.29	23.2	22.9
70	0.23	0.71	1.24	1.73	2.13	2.37	2.38	2.18	1.92	1.96	2.29	2.53	2.55	2.31	1.89	1.34	0.76	0.23	30.7	30.7
60	0.23	0.76	1.40	2.09	2.71	3.16	3.36	3.29	3.09	3.11	3.36	3.47	3.31	2.88	2.25	1.51	0.81	0.24	41.0	41.0
50	0.23	0.80	1.55	2.41	3.23	3.87	4.22	4.27	4.13	4.12	4.29	4.29	3.98	3.36	2.54	1.65	0.85	0.24	50.0	50.0
40	0.23	0.84	1.67	2.64	3.61	4.40	4.90	5.04	4.96	4.95	5.04	4.93	4.48	3.72	2.76	1.77	0.90	0.24	57.1	57.1
30	0.23	0.86	1.76	2.80	3.85	4.73	5.31	5.54	5.51	5.47	5.50	5.32	4.78	3.94	2.92	1.87	0.93	0.25	61.6	61.6
20	0.23	0.88	1.81	2.91	4.00	4.93	5.56	5.82	5.82	5.77	5.77	5.55	4.98	4.09	3.03	1.93	0.96	0.25	64.3	64.3
10	0.23	0.88	1.83	2.96	4.08	5.04	5.70	5.99	6.00	5.94	5.92	5.69	5.09	4.18	3.09	1.97	0.98	0.26	65.9	65.9
0	0.21	0.88	1.84	2.97	4.10	5.07	5.74	6.03	6.04	5.98	5.96	5.72	5.12	4.20	3.11	1.98	0.98	0.25	66.2	66.2
-10	0.16	0.84	1.80	2.92	4.04	4.99	5.65	5.94	5.94	5.88	5.86	5.64	5.05	4.15	3.07	1.96	0.97	0.22	65.1	65.1
-20	0.12	0.72	1.72	2.81	3.89	4.82	5.44	5.68	5.64	5.58	5.59	5.42	4.88	4.02	2.98	1.91	0.91	0.18	62.3	62.3
-30	0.11	0.57	1.55	2.62	3.63	4.46	4.98	5.14	5.03	4.96	5.04	4.95	4.52	3.77	2.83	1.81	0.80	0.19	57.0	57.0
-40	0.13	0.50	1.32	2.36	3.23	3.88	4.25	4.30	4.14	4.08	4.22	4.23	3.94	3.37	2.59	1.64	0.73	0.20	49.1	49.1
-50	0.16	0.47	1.09	2.01	2.68	3.17	3.39	3.34	3.12	3.07	3.27	3.38	3.25	2.86	2.26	1.40	0.72	0.20	39.8	39.8
-60	0.16	0.46	0.90	1.60	2.11	2.38	2.43	2.25	1.97	1.94	2.20	2.44	2.49	2.30	1.88	1.19	0.66	0.20	29.6	29.6
-70	0.17	0.45	0.75	1.22	1.57	1.60	1.44	1.12	0.77	0.74	1.08	1.48	1.73	1.74	1.49	0.99	0.58	0.19	19.1	18.7
-80	0.08	0.22	0.33	0.50	0.61	0.53	0.38	0.16	0.02	0.01	0.15	0.41	0.59	0.67	0.60	0.40	0.25	0.09	5.99	5.64
-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	3.21	11.7	23.9	38.2	51.3	61.2	66.7	67.2	64.7	64.2	66.8	67.2	62.8	53.7	41.1	26.7	13.7	3.73	788	---
Φ a	3.20	11.7	23.9	38.2	51.3	61.2	66.6	66.9	64.4	63.9	66.6	67.2	62.8	53.7	41.1	26.7	13.7	3.73	---	787

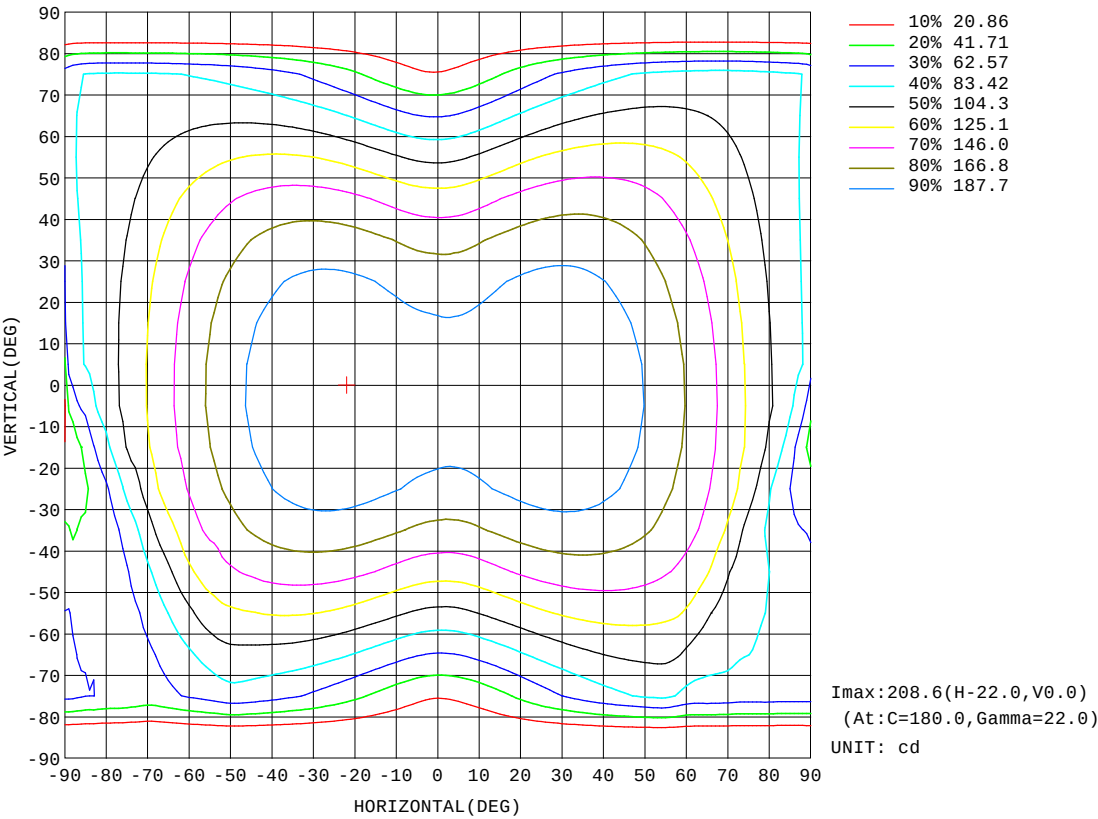
one-half-peak spread: U:55.4,D:55.5 , L:57.4,R:55.0 NEMA Beam Type: Type 7

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-11-26

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.354
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.6013A P:14.43W PF:1.000 Freq:0Hz Lamp Flux:788.02x1 lm		
NAME: 8.02.040.0002 LLS-OP-W20A-L10-S	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:202411080
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	Shielding Angle:

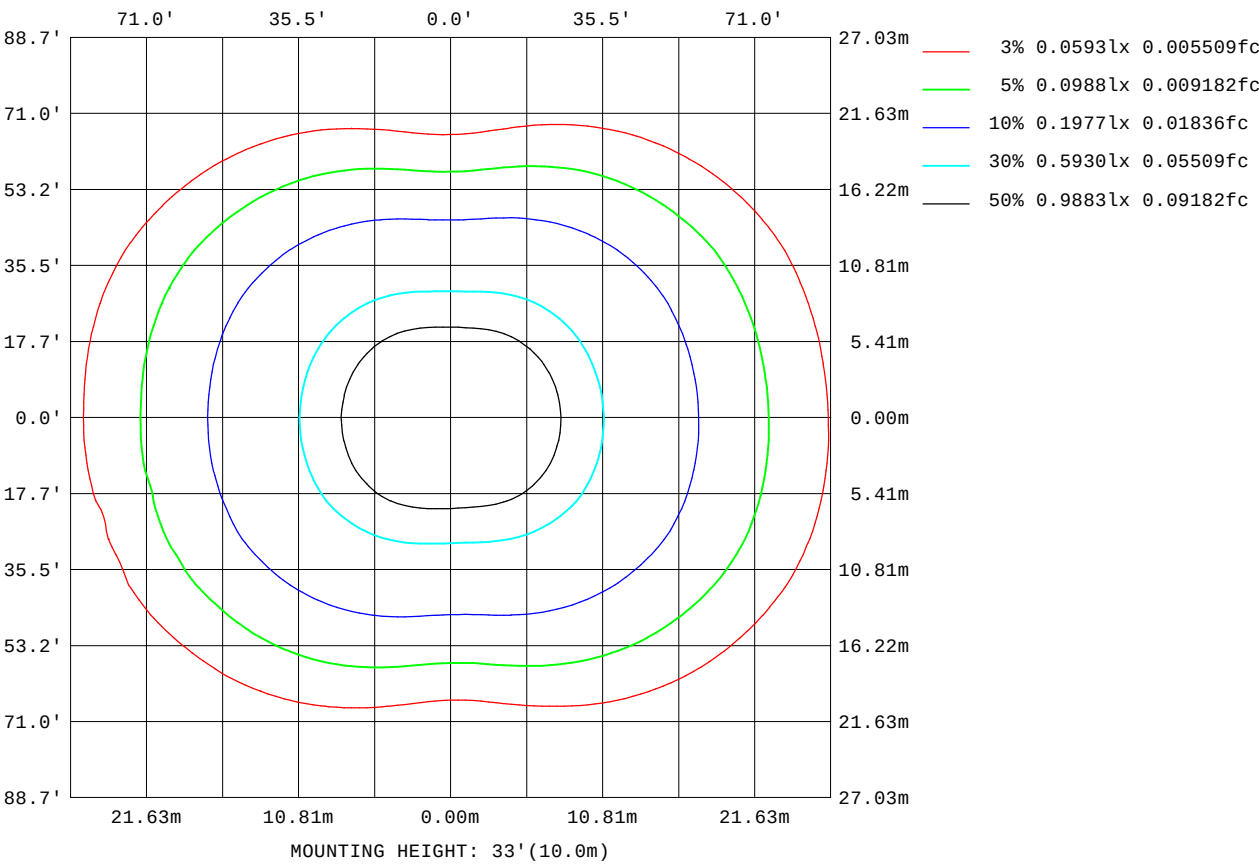


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Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-11-26

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.354
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

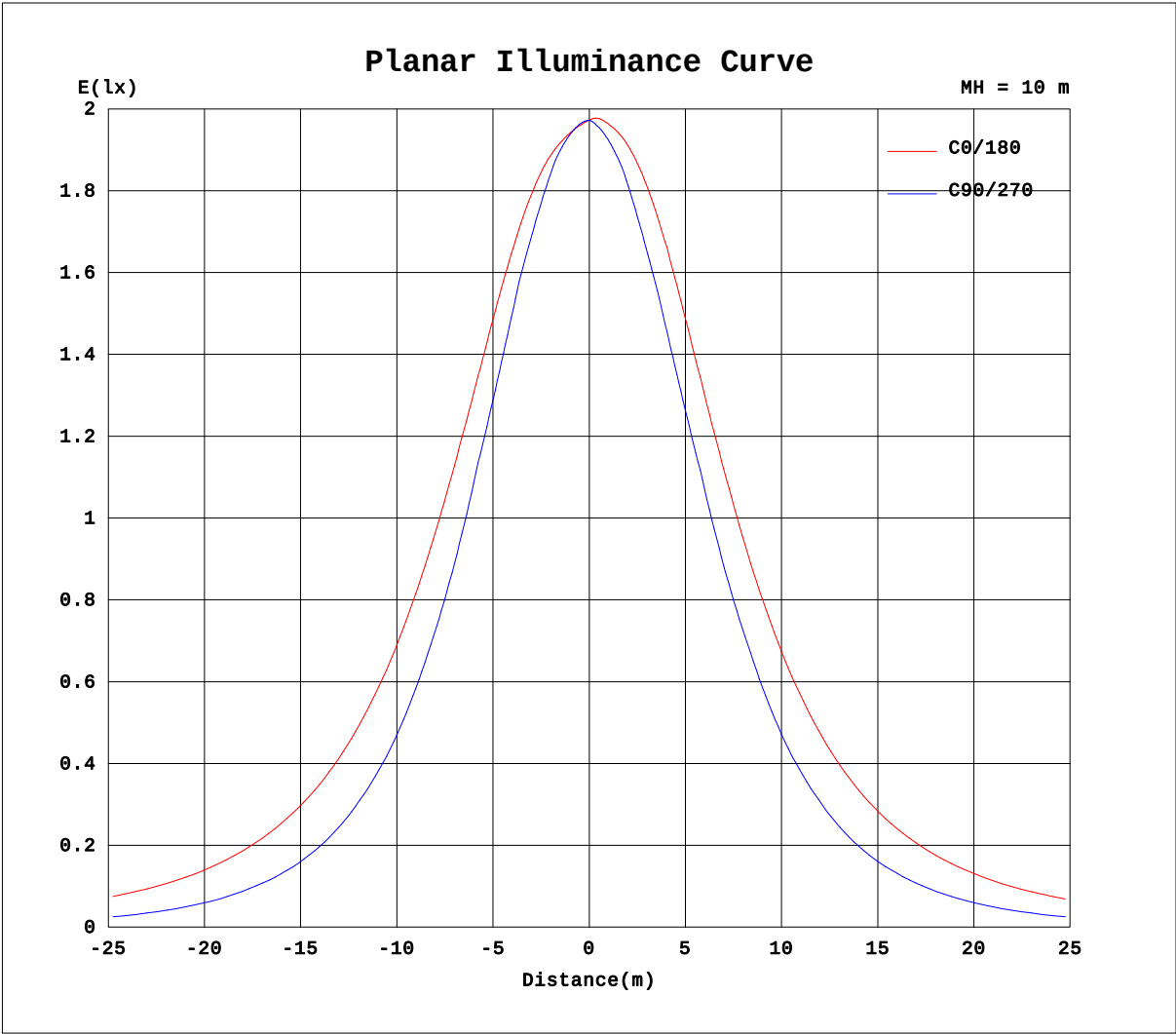
Test:U:24.00V I:0.6013A P:14.43W PF:1.000 Freq:0Hz Lamp Flux:788.02x1 lm		
NAME: 8.02.040.0002 LLS-OP-W20A-L10-S	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:202411080
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	Shielding Angle:



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H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-11-26

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.354
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

Planar Illuminance Curve

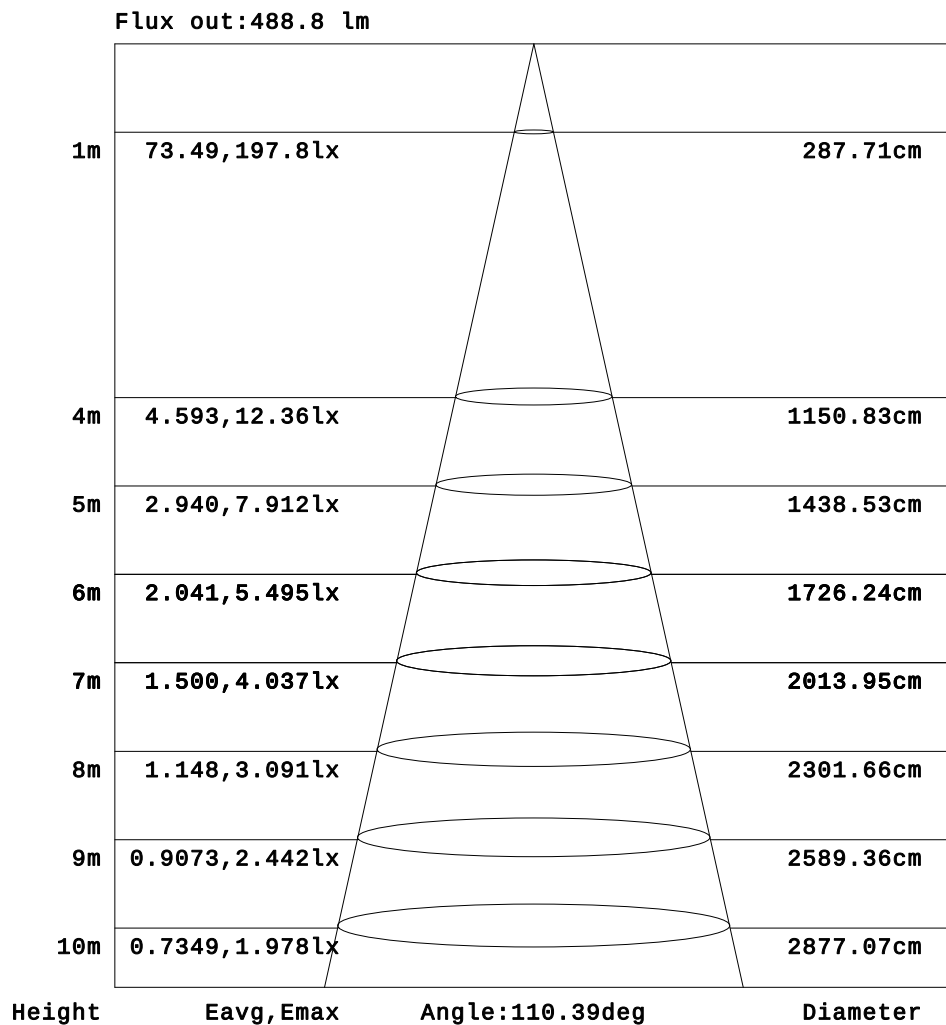


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
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Test Date:2024-11-26

V(B) Range:-80 - 80DEG
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Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.354
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Remarks:

AAI Figure

Test:U:24.00V I:0.6013A P:14.43W PF:1.000 Freq:0Hz Lamp Flux:788.02x1 lm		
NAME: 8.02.040.0002 LLS-OP-W20A-L10-S	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:202411080
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	Shielding 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: 2024-11-26

V(B) Range: -80 - 80DEG
V(B) Interval: 5.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.354
Humidity: 83%
Test Distance: 8.300m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.6013A P:14.43W PF:1.000 Freq:0Hz Lamp Flux:788.02x1 lm		
NAME: 8.02.040.0002 LLS-OP-W20A-L10-S	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:202411080
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	Shielding 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	68.6	64.3	59.1	57.6	52.4	53.8	58.3	61.2	65.7	62.4	56.6	50.1	43.5	35.9	27.9	19.6	12.0	5.42	2.71	
-75	67.8	63.0	60.2	58.0	53.6	58.4	64.7	70.3	76.1	73.7	69.5	64.7	59.3	52.8	45.8	38.3	31.0	24.8	22.1	
-70	67.0	61.8	61.3	58.4	54.8	63.0	71.2	79.3	86.6	85.0	82.3	79.4	75.2	69.8	63.7	57.0	50.1	44.2	41.4	
-65	65.8	62.2	60.6	58.1	58.9	69.6	80.5	91.3	98.5	98.3	97.1	95.6	92.3	87.9	82.4	76.2	69.7	64.0	61.3	
-60	64.6	62.6	59.9	57.7	63.0	76.1	89.8	103	110	112	112	112	110	106	101	95.4	89.3	83.8	81.2	
-55	62.9	60.5	58.5	57.4	68.1	83.7	100	115	122	124	126	127	125	123	118	113	107	102	99.2	
-50	61.2	58.3	57.2	57.2	73.1	91.2	111	127	133	137	141	142	141	139	136	131	125	120	117	
-45	57.6	53.4	52.5	61.0	79.6	101	122	135	143	149	153	155	155	154	150	146	140	136	133	
-40	54.0	48.4	47.8	64.9	86.1	110	133	143	154	161	166	168	169	168	165	161	156	151	149	
-35	44.7	43.5	50.7	70.8	95.4	120	138	150	160	168	174	178	180	180	177	174	169	164	162	
-30	35.4	38.5	53.7	76.8	105	129	143	156	167	176	183	188	191	191	189	186	182	177	175	
-25	29.9	39.4	59.6	88.7	113	133	147	160	171	180	188	193	196	197	195	193	189	185	183	
-20	24.3	40.2	65.5	101	121	137	152	164	176	185	192	198	201	202	201	199	196	192	190	
-15	21.3	45.9	77.8	105	123	139	154	167	178	187	195	200	203	205	204	202	198	195	193	
-10	18.3	51.7	90.2	110	126	141	156	169	180	190	197	202	206	207	207	205	201	198	196	
-5	17.7	67.6	93.1	110	126	142	156	169	181	190	198	203	206	208	207	205	202	199	197	
0	17.2	83.5	95.9	111	127	142	157	170	181	191	198	204	207	208	208	205	202	199	197	
5	38.3	84.2	96.0	110	126	142	156	169	180	189	197	202	205	207	206	203	200	197	196	
10	59.4	84.9	96.1	110	126	141	155	168	179	188	196	201	204	205	204	202	198	195	194	
15	60.2	84.7	96.1	110	125	140	154	166	177	186	193	198	201	201	200	198	194	191	190	
20	61.0	84.4	96.1	109	124	138	152	164	174	183	190	195	197	198	197	194	190	187	185	
25	61.8	84.6	95.3	108	122	136	148	160	170	178	185	189	192	192	191	188	184	180	179	
30	62.5	84.7	94.5	107	120	133	145	156	166	174	180	184	186	186	185	181	177	174	172	
35	63.8	84.8	93.7	105	117	129	140	151	160	167	172	176	177	177	174	171	166	162	161	
40	65.1	84.9	92.9	103	114	125	136	145	153	160	165	168	168	167	164	160	155	151	149	
45	66.6	85.0	91.5	101	110	120	129	137	144	150	153	155	155	153	149	145	139	135	134	
50	68.0	85.0	90.1	98.2	106	115	123	130	135	139	141	142	141	139	135	129	124	119	118	
55	69.1	85.2	89.4	95.9	102	109	115	120	124	126	127	127	125	122	117	112	106	101	99.6	
60	70.2	85.4	88.6	93.5	98.2	103	107	110	112	113	113	112	109	105	99.9	93.9	87.8	82.8	81.4	
65	71.1	85.5	87.6	90.6	93.6	96.4	98.3	99.6	100.0	99.5	98.1	95.5	91.8	86.9	81.1	74.6	68.0	62.9	61.4	
70	72.1	85.6	86.6	87.8	89.1	89.9	89.9	89.4	88.0	86.0	83.0	79.3	74.5	68.8	62.3	55.2	48.3	42.9	41.4	
75	72.4	84.0	85.5	85.5	85.1	84.4	82.7	80.8	77.9	74.2	69.8	64.4	58.4	51.6	44.3	36.5	29.2	23.5	22.0	
80	72.6	82.4	84.4	83.1	81.1	78.9	75.6	72.3	67.8	62.4	56.5	49.5	42.2	34.4	26.2	17.8	10.1	4.09	2.53	
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	

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H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-11-26

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.354
Humidity:83%
Test Distance:8.300m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.6013A P:14.43W PF:1.000 Freq:0Hz Lamp Flux:788.02x1 lm		
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SPEC.:	DIM.:	SERIAL No.:202411080
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	Shielding 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	4.69	9.89	18.7	28.5	38.1	46.9	55.0	62.4	69.0	74.4	76.5	66.1	67.3	65.7	67.7	69.9	71.8	73.0
-75	23.9	29.2	36.9	45.6	54.4	62.5	69.8	76.1	81.5	85.6	87.4	78.0	76.3	75.0	73.0	73.5	72.3	72.6
-70	43.2	48.4	55.1	62.8	70.7	78.1	84.5	89.9	94.0	96.9	98.4	89.9	85.3	84.2	78.3	77.0	72.8	72.1
-65	62.8	67.9	74.4	81.4	88.5	94.7	100	104	107	109	109	101	91.2	88.7	83.6	78.2	74.3	71.3
-60	82.4	87.4	93.6	100	106	111	116	119	120	121	120	112	97.1	93.2	88.9	79.4	75.9	70.5
-55	100	105	111	117	122	127	130	132	133	132	129	123	107	96.3	90.7	81.7	75.1	69.5
-50	118	122	128	134	139	142	145	146	145	143	139	134	117	99.3	92.4	84.0	74.4	68.5
-45	134	137	143	149	153	156	158	158	156	153	148	141	127	106	92.1	83.5	72.1	66.5
-40	149	153	158	163	167	170	171	170	167	163	156	147	137	112	91.8	83.0	69.8	64.6
-35	162	165	170	175	179	181	181	179	175	169	161	152	141	122	98.1	80.3	68.0	60.9
-30	175	178	182	187	190	191	190	187	182	175	167	157	145	132	104	77.6	66.2	57.2
-25	182	185	189	193	196	197	195	192	186	179	170	160	148	134	113	85.1	62.7	50.3
-20	190	193	196	200	202	202	200	196	190	183	174	163	150	136	121	92.5	59.2	43.5
-15	193	195	199	202	204	204	202	198	193	185	176	164	152	137	122	99.9	71.7	34.4
-10	196	198	202	205	207	207	205	201	195	187	178	166	153	139	123	107	84.1	25.3
-5	196	199	202	205	207	207	205	201	195	187	178	166	153	138	123	107	87.9	45.9
0	197	199	203	206	208	208	206	201	195	187	178	166	153	138	122	107	91.6	66.6
5	195	197	201	204	206	206	204	200	194	186	177	165	152	138	122	106	91.4	71.0
10	193	196	199	203	205	205	203	199	193	185	176	164	151	137	121	106	91.1	75.5
15	189	192	196	199	201	201	200	196	190	182	173	162	149	135	120	105	90.6	75.7
20	185	188	192	196	198	198	196	193	187	180	170	159	147	133	119	104	90.1	76.0
25	179	182	186	190	192	193	191	188	183	176	167	156	144	131	117	103	89.6	75.9
30	173	176	180	184	187	188	187	184	179	172	163	153	141	128	115	102	89.1	75.8
35	162	165	170	175	178	179	179	177	172	166	158	148	137	125	112	99.9	88.3	75.9
40	151	155	160	165	169	171	172	170	166	160	152	143	133	121	110	98.3	87.6	76.0
45	135	140	146	151	156	158	159	159	156	151	145	137	128	118	107	96.8	87.2	76.3
50	119	124	131	137	142	145	147	148	146	143	138	131	123	114	105	95.4	86.9	76.6
55	102	107	114	120	126	130	133	134	134	132	128	123	117	109	102	93.7	86.4	77.0
60	83.9	89.8	96.8	104	110	115	118	121	121	121	119	116	111	105	98.5	92.0	85.9	77.4
65	64.2	70.4	78.0	85.5	92.3	98.1	103	106	108	109	109	107	104	101	95.8	90.8	85.8	78.0
70	44.4	51.1	59.1	67.2	74.7	81.3	86.8	91.3	94.6	96.9	98.1	98.3	97.7	96.1	93.2	89.6	85.8	78.6
75	25.4	32.4	40.8	49.5	57.7	65.2	71.8	77.4	82.1	85.8	88.5	90.3	91.3	91.4	90.2	88.2	85.6	79.1
80	6.30	13.7	22.6	31.8	40.8	49.1	56.7	63.5	69.5	74.6	78.8	82.4	85.0	86.7	87.3	86.9	85.4	79.7
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
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:2024-11-26

V(B) Range:-80 - 80DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.354
 Humidity:83%
 Test Distance:8.300m [K=1.0000]
 Remarks: