

Floodlight Summary:

Report based on lamp delivering 1000 lumens.

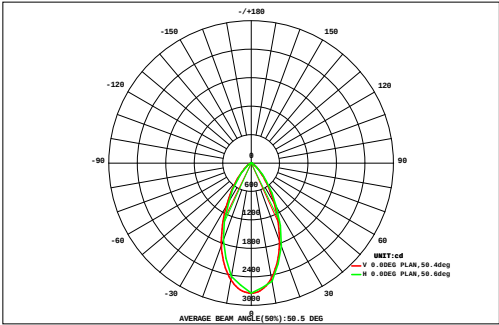
Maximum Intensity (Luminaire orientation as tested.)		1188.6 cd per klm. 0.0 degrees vertical 0.0 degrees horizontal
Beam Spread	At 10% of Imax	93.3V x 91.6H
	At 50% of Imax	50.6V x 50.4H
	At 90% of Imax	20.3V x 20.5H
Beam Flux	Total	999.8 lumens per klm.
	To 10% of Imax	903.0 lumens per klm.
	To 50% of Imax	509.9 lumens per klm.
	To 90% of Imax	97.6 lumens per klm.
Upward LOR		0.0 %
Downward LOR		100.0 %
Luminaire Efficiency(Light Output Ratio)		100.0 %

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-08-26

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:221.4V I:0.1448A P:19.08W PF:0.5954 Lamp Flux:2305.51x1 lm		
NAME: 8.03.011.0105 40° SP-EA-R195A-9P-S	TYPE:LED	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:2024080120
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:



DATA OF LAMP		Eff:120.82lm/W	
MODEL	SP-EA-R195A-9P-S	Imax(cd)	2740
NOMINAL POWER(W)	20	AVAILABILITY(%)	90.4
RATED VOLTAGE(V)	222	Avai. FLUX(lm)	2084
NOMINAL FLUX(lm)	2305.51	LOR(%)	100.0
LAMPS INSIDE	1	TOTAL FLUX(lm)	2306
TEST VOLTAGE(V)	221.4	θ @50%(H,V)	50,51DEG

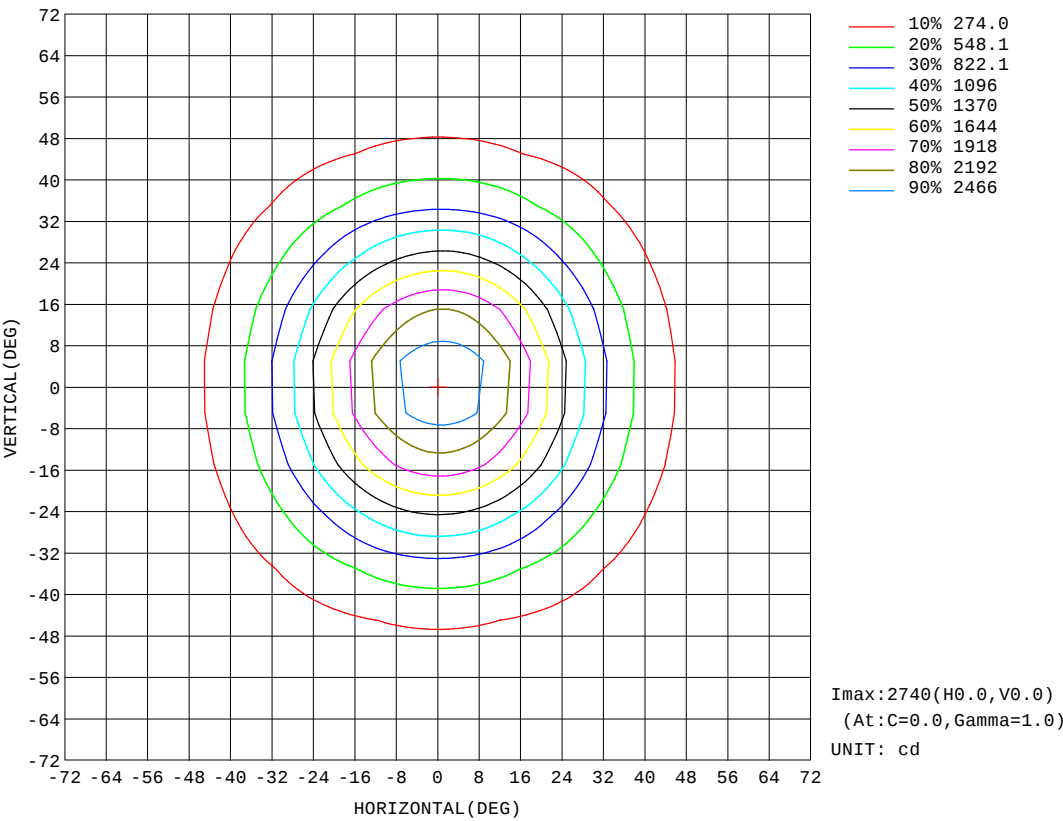
AREA FLUX DIAGRAM																		UNIT:lm	Φ t	Φ a
72	0.00	0.00	0.01	0.02	0.07	0.20	0.32	0.40	0.44	0.43	0.39	0.30	0.19	0.06	0.02	0.01	0.00	0.00	2.86	0.00
64	0.00	0.00	0.11	0.31	0.55	0.81	1.07	1.27	1.37	1.36	1.25	1.05	0.79	0.53	0.28	0.09	0.00	0.00	10.9	0.00
56	0.00	0.08	0.29	0.64	1.11	1.70	2.30	2.82	3.13	3.13	2.81	2.29	1.69	1.13	0.65	0.30	0.08	0.00	24.2	0.00
48	0.02	0.19	0.53	1.09	1.95	3.13	4.55	5.86	6.65	6.66	5.88	4.58	3.20	2.01	1.13	0.55	0.20	0.02	48.2	23.7
40	0.06	0.33	0.83	1.76	3.29	5.59	8.52	11.3	12.9	12.9	11.1	8.38	5.53	3.22	1.71	0.80	0.31	0.05	88.6	74.7
32	0.11	0.44	1.15	2.60	5.21	9.33	14.5	19.4	22.5	22.5	19.2	14.2	9.03	4.97	2.47	1.12	0.43	0.10	149	139
24	0.14	0.55	1.47	3.45	7.39	13.7	21.9	30.0	35.2	35.4	30.1	21.7	13.4	7.18	3.38	1.44	0.55	0.14	227	219
	0.16	0.61	1.68	4.10	9.06	17.3	28.2	38.8	45.4	46.0	39.7	28.7	17.5	9.23	4.22	1.74	0.65	0.18	293	285
	0.18	0.66	1.84	4.59	10.2	19.7	32.3	44.2	51.5	52.0	45.0	32.7	19.8	10.3	4.65	1.88	0.69	0.19	332	325
	0.19	0.71	1.94	4.85	10.7	20.4	33.1	44.6	51.4	51.4	44.0	31.7	19.0	9.81	4.42	1.78	0.65	0.17	331	323
	0.17	0.64	1.75	4.25	9.26	17.5	28.2	38.5	44.6	44.4	38.1	27.5	16.7	8.78	4.01	1.66	0.62	0.16	287	279
	0.13	0.54	1.41	3.28	6.97	12.9	20.5	28.1	32.8	32.7	27.8	20.4	12.8	6.94	3.31	1.43	0.55	0.14	213	204
-24	0.09	0.42	1.08	2.40	4.83	8.67	13.5	18.2	21.2	21.2	18.2	13.6	8.77	4.92	2.48	1.14	0.45	0.11	141	131
-32	0.05	0.30	0.79	1.68	3.12	5.28	7.87	10.3	11.7	11.7	10.2	7.73	5.19	3.06	1.66	0.81	0.32	0.06	81.8	67.6
-40	0.02	0.20	0.53	1.09	1.88	2.89	4.07	5.13	5.67	5.58	4.89	3.82	2.69	1.72	1.01	0.49	0.18	0.02	41.9	12.4
-48	0.00	0.07	0.27	0.58	0.99	1.46	1.91	2.30	2.53	2.52	2.29	1.91	1.46	1.00	0.59	0.28	0.07	0.00	20.2	0.00
-56	0.00	0.00	0.08	0.25	0.47	0.72	0.96	1.15	1.25	1.25	1.16	0.98	0.75	0.51	0.27	0.09	0.02	0.00	9.91	0.00
-64	0.00	0.00	0.01	0.05	0.10	0.20	0.31	0.38	0.41	0.41	0.38	0.31	0.22	0.11	0.05	0.02	0.00	0.00	2.95	0.00
-72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-72	-64	-56	-48	-40	-32	-24	-16	HORIZONTAL(DEG)	16	24	32	40	48	56	64	72			
Φ t	1.32	5.75	15.8	37.0	77.2	141	224	303	351	351	302	222	139	75.5	36.3	15.6	5.77	1.34	2305	---
Φ a	0.00	0.00	0.00	15.9	62.4	128	212	290	338	338	290	210	125	60.4	15.0	0.00	0.00	0.00	---	2084

one-half-peak spread: U:24.8,D:26.2 , L:26.1,R:24.7 NEMA Beam Type: Type 5

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:28.0DEG
Operators:QC1
Test Date:2024-08-26
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:

ISOCANDELA DIAGRAM

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DIM.:	SPEC.:	SERIAL No.:2024080120
MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

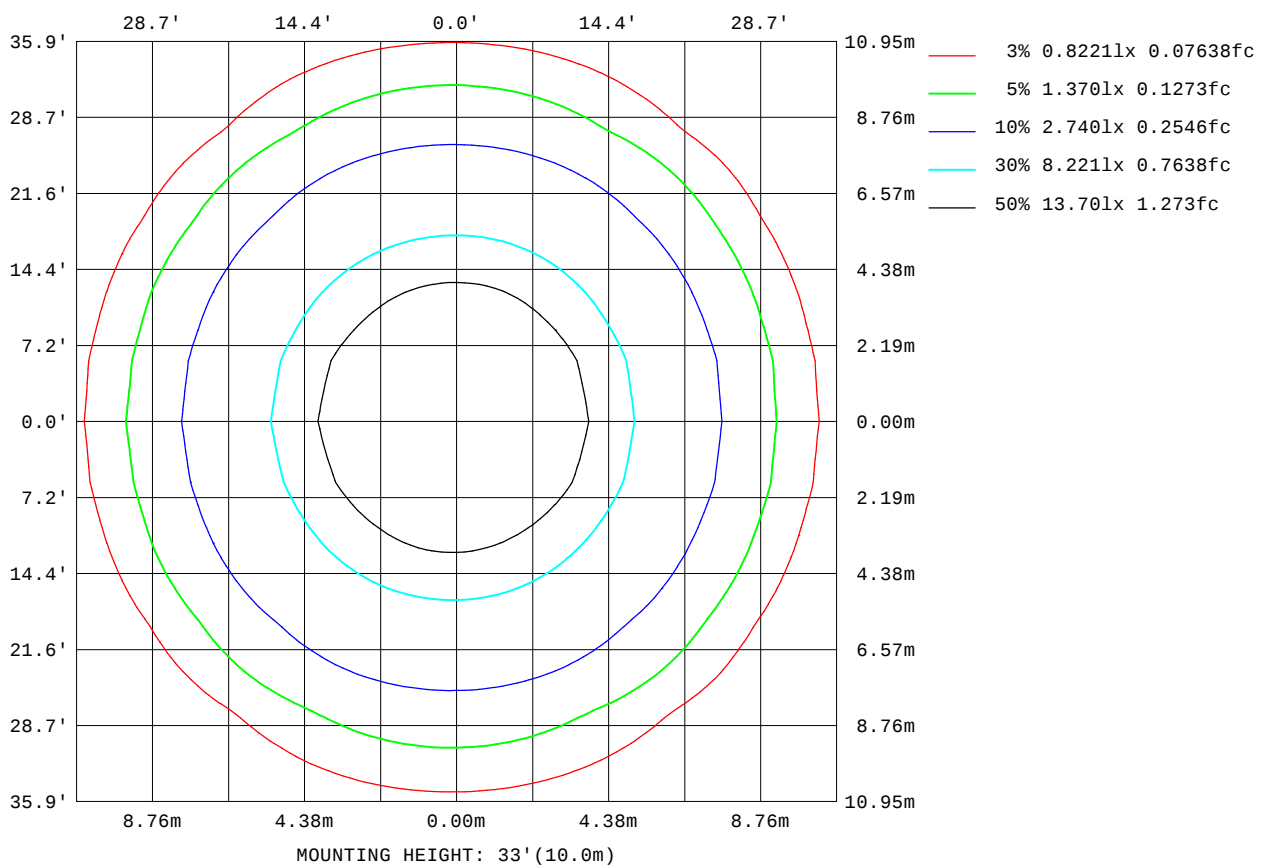


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Remarks:

ISOLUX DIAGRAM

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MFR.: TPK OPTOELECTRONIC TECH CO., LTD	SUR.:	PROTECTION ANGLE:

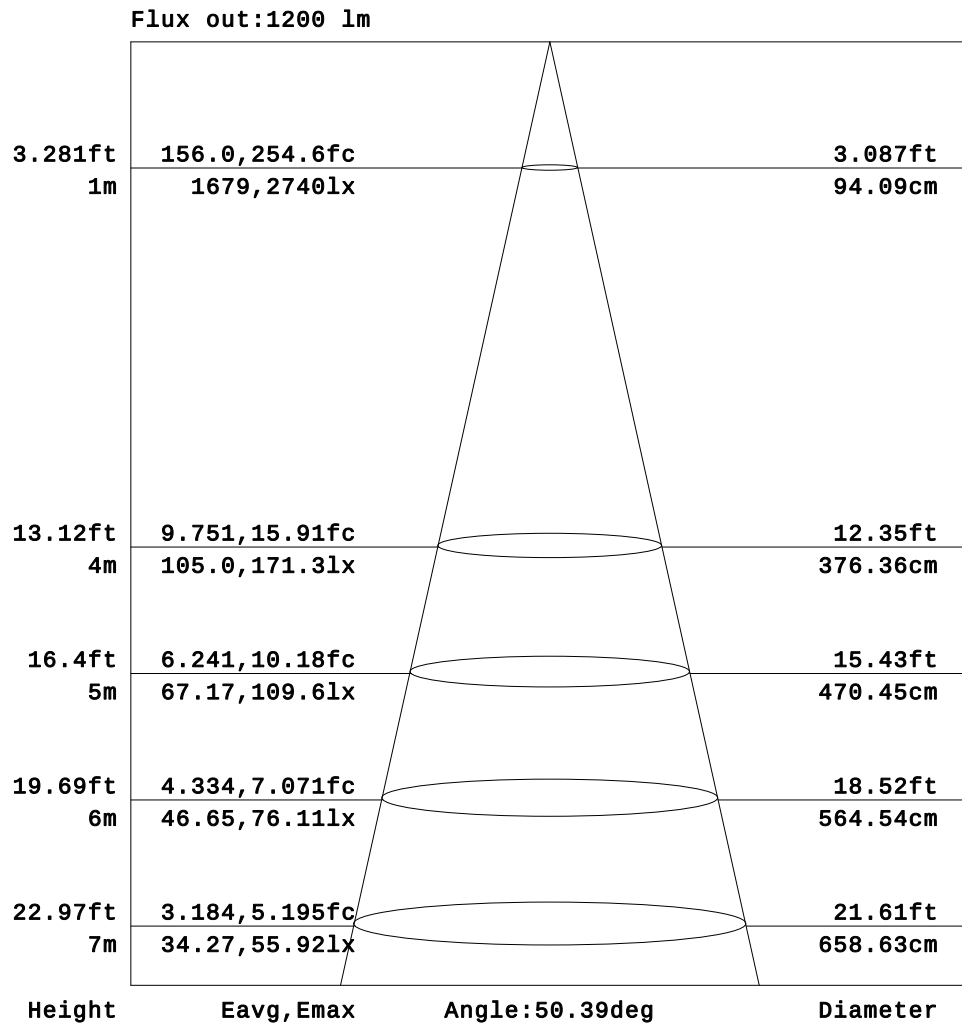


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Remarks:

AAI Figure

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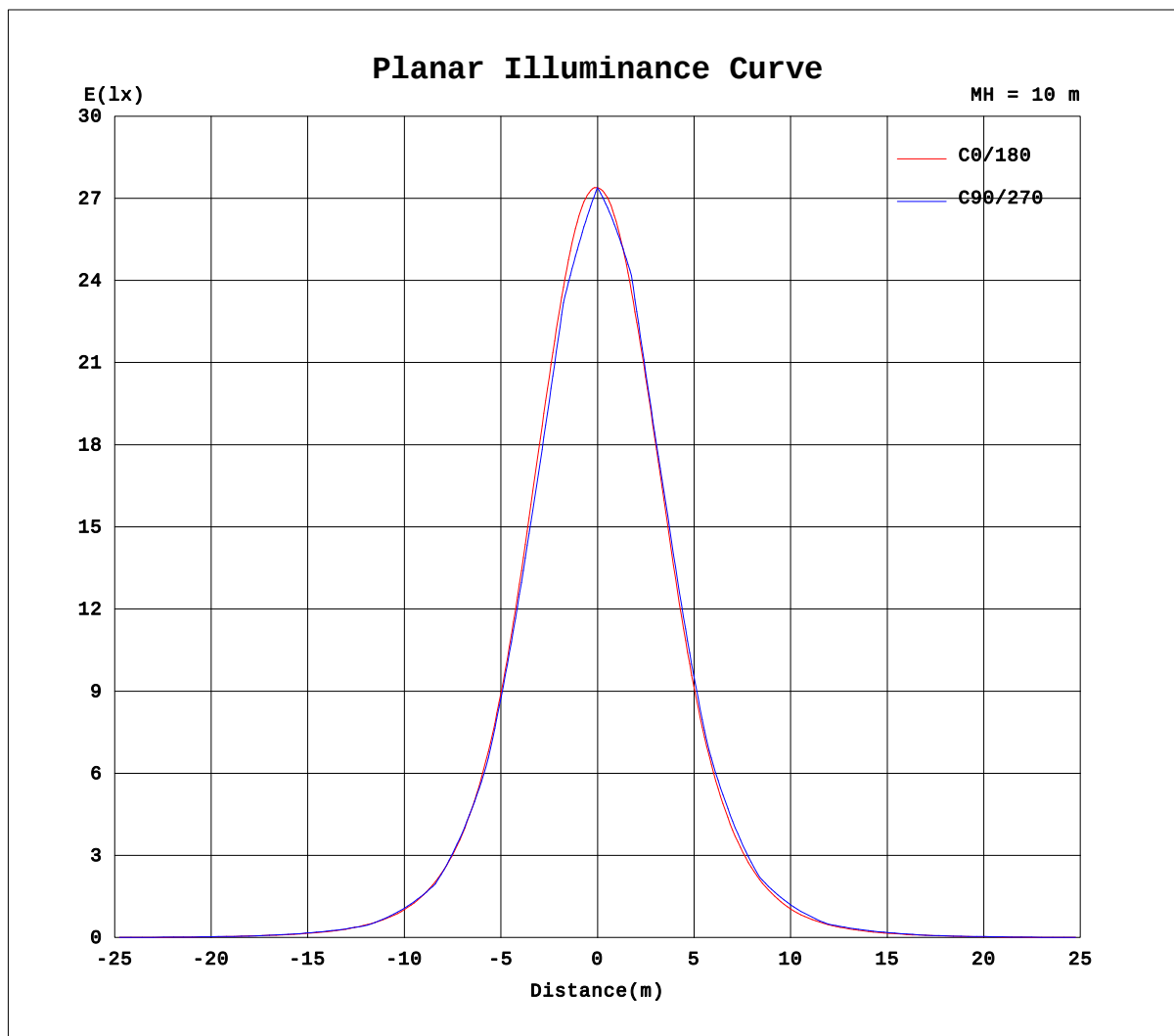


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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Operators:QC1
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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



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Humidity:83%
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Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

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DIM.:	SPEC.:	SERIAL No.:2024080120
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	2.17	3.87	5.19	6.17	6.84	7.19	7.21
-70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.42	5.06	8.33	10.8	12.7	13.9	14.4	14.4
-65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	4.27	8.00	11.8	16.0	21.7	26.9	31.6	35.2	37.8	39.2	39.7
-60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.03	10.00	17.5	25.1	32.9	40.5	47.5	54.0	58.9	62.4	64.4	65.0
-55	0.00	0.00	0.00	0.00	0.00	0.00	4.02	10.2	19.7	30.2	41.5	54.3	67.4	80.0	92.3	103	112	117	119
-50	0.00	0.00	0.00	0.00	0.00	0.52	10.1	21.1	33.3	47.2	62.8	81.0	99.4	118	135	152	164	172	174
-45	0.00	0.00	0.00	0.00	0.00	4.49	15.6	29.1	45.2	65.1	88.9	117	149	183	220	255	283	301	307
-40	0.00	0.00	0.00	0.00	0.00	11.7	26.2	43.2	64.3	92.0	125	165	212	264	318	370	410	434	440
-35	0.00	0.00	0.00	0.00	1.22	13.8	30.3	50.4	77.2	113	161	220	296	382	473	561	633	681	699
-30	0.00	0.00	0.00	0.00	5.60	22.2	41.8	67.2	103	151	217	304	414	537	663	783	879	941	957
-25	0.00	0.00	0.00	0.00	5.51	23.2	44.4	73.0	114	173	257	372	518	689	872	1051	1202	1304	1342
-20	0.00	0.00	0.00	0.00	12.2	32.0	56.8	93.0	145	223	340	494	688	914	1154	1384	1575	1694	1725
-15	0.00	0.00	0.00	0.00	10.2	30.3	55.5	92.9	149	233	360	536	762	1031	1326	1616	1852	2014	2077
-10	0.00	0.00	0.00	0.01	15.7	37.7	66.8	111	180	286	444	660	938	1266	1618	1952	2210	2376	2428
-5	0.00	0.00	0.00	0.00	12.7	34.2	62.2	105	170	273	432	650	935	1279	1659	2017	2304	2502	2582
0	0.00	0.00	0.00	0.23	17.7	40.5	71.9	120	195	315	497	744	1061	1442	1852	2210	2496	2681	2740
5	0.00	0.00	0.00	0.00	12.8	34.3	62.3	105	172	275	436	658	948	1299	1689	2053	2345	2546	2633
10	0.00	0.00	0.00	0.02	16.0	37.8	67.0	112	183	290	454	678	966	1309	1682	2025	2290	2465	2532
15	0.00	0.00	0.00	0.00	10.6	30.5	55.9	93.8	152	238	370	553	790	1074	1387	1691	1942	2115	2193
20	0.00	0.00	0.00	0.00	12.7	32.2	57.4	94.5	150	230	352	516	721	962	1220	1465	1675	1812	1859
25	0.00	0.00	0.00	0.00	6.39	23.8	44.9	74.2	117	179	268	391	546	730	928	1120	1288	1406	1456
30	0.00	0.00	0.00	0.00	6.63	23.0	42.4	68.6	106	158	230	323	441	575	716	847	958	1030	1054
35	0.00	0.00	0.00	0.00	1.81	14.9	31.3	51.8	79.7	118	169	233	316	411	514	611	694	751	774
40	0.00	0.00	0.00	0.00	0.66	12.9	27.5	44.9	67.0	95.8	132	175	226	287	353	411	457	486	493
45	0.00	0.00	0.00	0.00	0.00	5.39	17.2	31.0	47.7	68.6	94.1	124	160	199	242	281	313	334	343
50	0.00	0.00	0.00	0.00	0.00	2.04	12.0	23.4	35.9	50.9	67.7	87.0	108	129	148	165	180	188	192
55	0.00	0.00	0.00	0.00	0.00	0.27	4.95	12.2	22.1	33.4	45.7	59.2	73.6	87.9	101	113	123	129	131
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.89	12.6	20.8	28.8	37.1	44.9	52.3	58.9	64.5	68.4	70.5	71.0
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.74	5.48	9.57	13.6	18.6	24.6	30.2	35.1	39.0	41.9	43.4	43.8
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.61	6.57	10.1	13.0	15.0	16.2	16.7	16.7
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	2.90	4.73	6.24	7.31	7.99	8.30	8.34
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	0.00	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
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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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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-75	7.08	6.76	6.25	5.44	4.26	2.69	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-70	14.1	13.3	12.2	10.5	7.94	4.69	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-65	39.2	37.8	35.4	32.1	28.0	23.1	17.7	13.0	9.04	5.15	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-60	63.9	61.4	57.5	52.2	46.2	39.4	32.1	24.4	16.5	8.80	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-55	118	113	104	93.9	82.3	70.0	57.5	45.0	33.3	22.4	12.7	5.52	0.67	0.00	0.00	0.00	0.00	0.00
-50	170	161	147	131	113	95.5	77.7	60.8	45.6	32.0	19.7	8.97	0.21	0.00	0.00	0.00	0.00	0.00
-45	301	284	257	224	189	154	121	93.5	69.9	49.5	32.7	18.6	6.73	0.17	0.00	0.00	0.00	0.00
-40	427	397	354	303	250	199	153	116	85.5	59.6	39.5	23.1	9.51	0.00	0.00	0.00	0.00	0.00
-35	684	637	567	482	393	307	229	168	120	83.7	55.8	34.3	17.5	3.75	0.00	0.00	0.00	0.00
-30	926	852	748	625	500	382	278	198	139	95.5	62.5	38.2	19.5	4.10	0.00	0.00	0.00	0.00
-25	1308	1209	1062	887	704	534	386	270	183	122	79.9	49.4	27.1	9.78	0.00	0.00	0.00	0.00
-20	1661	1515	1310	1075	838	623	444	302	200	130	83.6	50.7	27.2	9.15	0.00	0.00	0.00	0.00
-15	2030	1884	1654	1368	1069	792	562	381	248	159	101	62.4	34.8	14.5	0.05	0.00	0.00	0.00
-10	2357	2173	1890	1539	1183	861	599	401	255	161	101	61.3	33.4	12.9	0.00	0.00	0.00	0.00
-5	2538	2365	2083	1722	1333	976	682	456	293	184	114	69.8	39.0	16.9	0.18	0.00	0.00	0.00
0	2672	2461	2141	1749	1331	962	663	438	279	174	106	64.1	34.8	13.5	0.00	0.00	0.00	0.00
5	2593	2415	2126	1755	1356	992	692	462	296	185	114	69.8	39.0	16.9	0.16	0.00	0.00	0.00
10	2463	2270	1974	1601	1227	890	617	411	261	164	102	61.6	33.5	12.9	0.00	0.00	0.00	0.00
15	2157	2004	1757	1445	1124	829	585	395	256	163	103	62.7	34.9	14.5	0.03	0.00	0.00	0.00
20	1807	1652	1423	1158	896	661	468	316	208	133	84.8	51.2	27.4	9.07	0.00	0.00	0.00	0.00
25	1430	1325	1160	963	760	572	411	284	191	126	81.4	50.0	27.3	9.78	0.00	0.00	0.00	0.00
30	1024	940	823	685	545	414	298	210	145	98.3	63.7	38.7	19.6	3.99	0.00	0.00	0.00	0.00
35	759	707	627	530	429	333	247	178	126	86.6	57.2	34.8	17.8	3.71	0.00	0.00	0.00	0.00
40	478	444	395	334	273	215	165	123	89.4	61.8	40.7	23.5	9.80	0.00	0.00	0.00	0.00	0.00
45	335	316	285	246	206	166	131	99.0	73.2	51.5	33.8	19.3	7.08	0.15	0.00	0.00	0.00	0.00
50	186	176	161	142	123	103	83.0	64.4	47.8	33.5	20.7	9.73	0.31	0.00	0.00	0.00	0.00	0.00
55	129	123	114	102	89.0	75.2	61.5	47.9	35.2	23.8	13.6	5.93	0.83	0.00	0.00	0.00	0.00	0.00
60	69.8	66.9	62.6	56.9	49.9	42.4	34.5	26.1	17.8	9.91	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65	43.3	41.6	38.9	35.2	30.5	25.1	19.4	13.9	9.73	5.72	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70	16.3	15.4	14.0	11.9	9.09	5.61	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	8.19	7.80	7.16	6.18	4.86	3.17	1.29	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	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:28.0DEG
Operators:QC1
Test Date:2024-08-26

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: