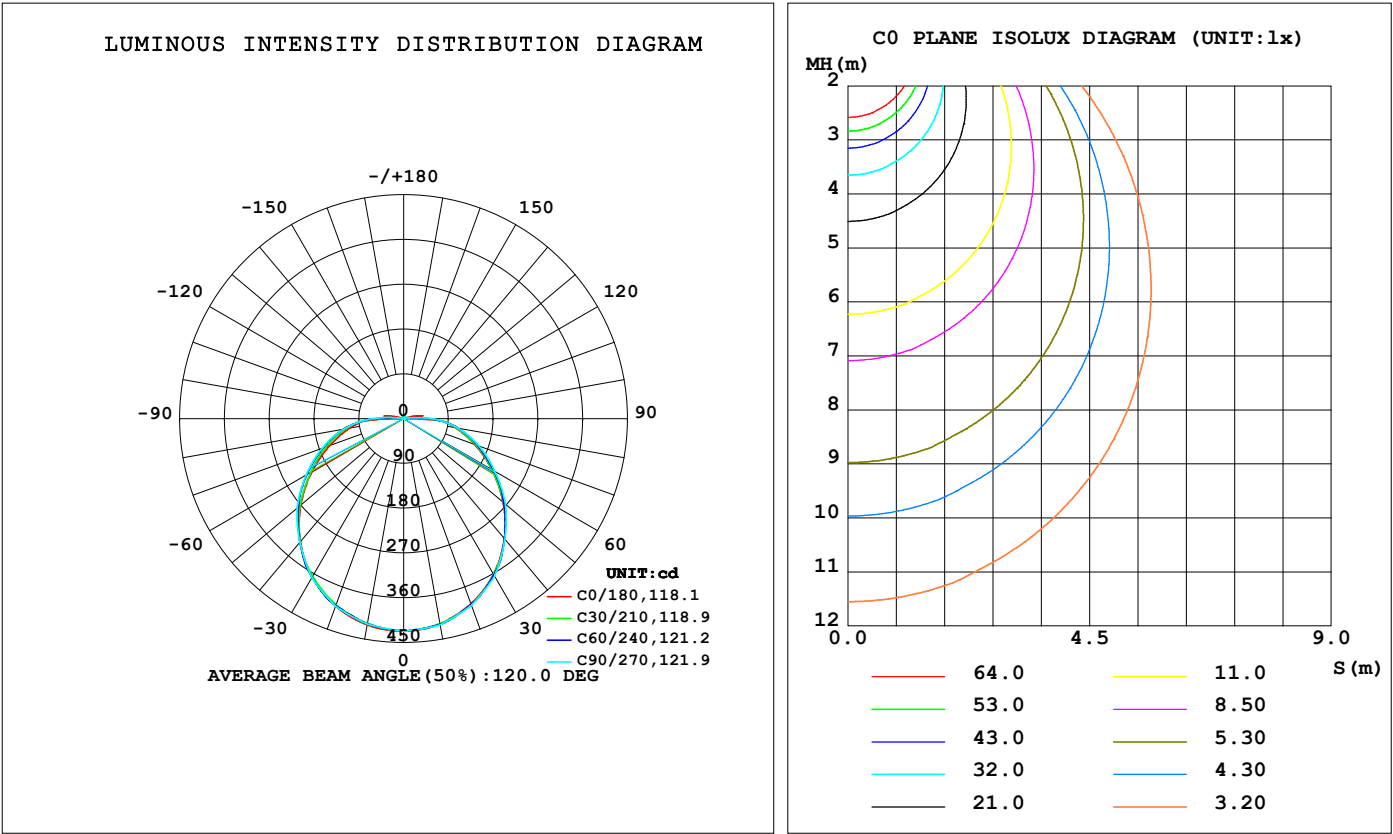


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 105.71 lm/W
MODEL	ABH14R2TW 4000K	Imax (cd)	427.0	S/MH (C0/180)	1.28	
NOMINAL POWER(W)	13.9	LOR (%)	100.0	S/MH (C90/270)	1.28	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1461.2	η UP,DN (C0-180)	1.5,47.8	
NOMINAL FLUX(lm)	1461.21	CIE CLASS	DIRECT	η UP,DN (C180-360)	1.6,49.1	
LAMPS INSIDE	1	η up (%)	3.1	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	230	η down (%)	96.9	CIBSE SHR MAX	1.35	



H(β) Range:-90 - 90DEG

H(β) Interval: 1.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:

Test Date:2023-09-05

V(B) Range:-180 - 180DEG

V(B) Interval: 5.0DEG

Humidity:65.0%

Test Distance:9.782m [K=1.0000]

Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	420.0	418.8	420.9	419.4	420.9	417.4	419.3	417.5	0- 10	40.32	40.32	2.76,2.76
20	395.8	396.7	398.9	398.1	400.7	398.1	401.1	396.7	10- 20	115.7	156.0	10.7,10.7
30	361.0	362.3	365.6	365.8	367.4	368.0	369.0	364.7	20- 30	176.6	332.6	22.8,22.8
40	314.8	317.0	316.4	322.2	322.9	325.3	324.4	320.4	30- 40	215.0	547.6	37.5,37.5
50	260.6	261.2	267.2	266.6	269.7	272.7	279.8	267.6	40- 50	227.3	774.9	53,53
60	204.6	207.9	211.1	212.9	212.0	221.8	225.7	216.9	50- 60	215.8	990.7	67.8,67.8
70	151.8	155.9	161.0	160.1	158.1	169.7	174.1	165.0	60- 70	185.8	1176	80.5,80.5
80	105.5	110.1	110.9	112.6	109.8	121.1	122.5	117.8	70- 80	145.4	1322	90.5,90.5
90	0.9787	49.93	56.06	50.77	0.8260	55.63	61.77	53.76	80- 90	93.63	1416	96.9,96.9
100	36.28	2.511	1.215	2.383	33.92	3.462	1.047	2.710	90-100	29.28	1445	98.9,98.9
110	2.681	1.556	1.416	1.615	1.531	1.826	1.357	1.583	100-110	6.962	1452	99.4,99.4
120	2.203	1.838	1.617	2.435	3.632	2.436	1.667	2.046	110-120	2.103	1454	99.5,99.5
130	2.206	1.941	1.908	2.367	2.583	2.094	1.833	2.081	120-130	2.286	1456	99.7,99.7
140	2.062	2.073	2.199	2.274	2.131	2.071	1.999	2.004	130-140	1.622	1458	99.8,99.8
150	2.263	2.295	2.490	2.492	2.318	2.317	2.221	2.188	140-150	1.375	1459	99.9,99.9
160	2.492	2.486	2.782	2.583	2.491	2.444	2.443	2.387	150-160	1.108	1460	99.9,99.9
170	2.651	2.616	2.724	2.628	2.574	2.580	2.537	2.539	160-170	0.7196	1461	100,100
180	2.665	2.665	2.665	2.665	2.631	2.631	2.631	2.631	170-180	0.2499	1461	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 661.22 lm

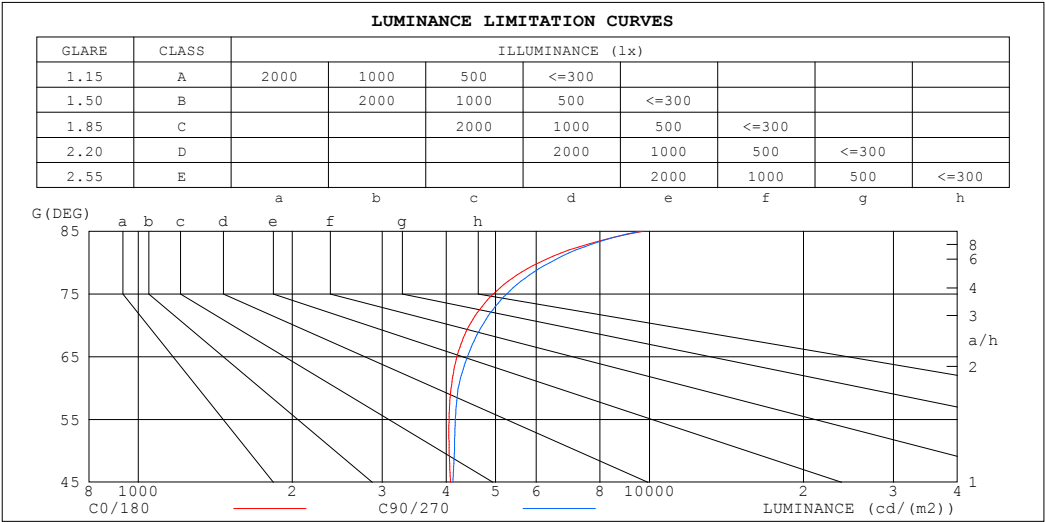
%lum = 45.3%  
%lamp = 45.3%

Conical surface Flux(120deg): 990.71 lm

%lum = 67.8%  
%lamp = 67.8%

LUMINANCE LIMITATION CURVES

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	9735	9578
80	6077	6387
75	4948	5253
70	4440	4708
65	4199	4403
60	4092	4223
55	4053	4170
50	4054	4157
45	4079	4126

H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks:

## WEC AND CCEC

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.374	.213	.067	.366	.209	.066	.350	.201	.064	.336	.194	.062	.323	.187	.060	
2.0	.330	.181	.055	.323	.178	.055	.309	.172	.053	.296	.166	.052	.285	.161	.051	
3.0	.296	.157	.047	.289	.155	.047	.277	.150	.046	.266	.146	.045	.255	.141	.044	
4.0	.267	.139	.041	.262	.137	.040	.251	.133	.040	.241	.129	.039	.231	.126	.038	
5.0	.244	.124	.036	.239	.123	.036	.229	.119	.035	.220	.116	.035	.211	.113	.034	
6.0	.224	.112	.032	.219	.111	.032	.211	.108	.031	.202	.105	.031	.195	.103	.030	
7.0	.207	.102	.029	.203	.101	.029	.195	.099	.028	.188	.096	.028	.181	.094	.028	
8.0	.192	.094	.026	.188	.093	.026	.181	.091	.026	.175	.089	.026	.169	.087	.025	
9.0	.179	.087	.024	.176	.086	.024	.169	.084	.024	.163	.082	.023	.158	.080	.023	
10.0	.168	.080	.022	.165	.080	.022	.159	.078	.022	.154	.076	.022	.148	.075	.021	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.214	.214	.214	.183	.183	.183	.125	.125	.125	.072	.072	.072	.023	.023	.023	
1.0	.209	.180	.153	.179	.154	.132	.122	.106	.091	.070	.061	.053	.023	.020	.017	
2.0	.202	.156	.118	.173	.134	.102	.118	.093	.071	.068	.054	.042	.022	.017	.014	
3.0	.194	.139	.095	.166	.120	.082	.114	.083	.058	.066	.049	.034	.021	.016	.011	
4.0	.186	.126	.080	.159	.109	.070	.110	.076	.049	.063	.044	.029	.020	.014	.010	
5.0	.178	.116	.070	.153	.100	.061	.105	.070	.043	.061	.041	.025	.020	.013	.008	
6.0	.170	.107	.062	.146	.093	.054	.101	.065	.038	.059	.038	.023	.019	.013	.008	
7.0	.163	.101	.057	.140	.087	.049	.097	.061	.035	.056	.036	.021	.018	.012	.007	
8.0	.156	.095	.053	.135	.082	.046	.093	.058	.033	.054	.034	.019	.018	.011	.006	
9.0	.150	.090	.049	.129	.078	.043	.089	.055	.031	.052	.032	.018	.017	.011	.006	
10.0	.144	.086	.047	.124	.074	.041	.086	.052	.029	.050	.031	.017	.016	.010	.006	

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks:

## UGR(Unified Glare Rating) Table

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	16.0	17.6	16.3	17.8	18.1	16.2	17.7	16.5	18.0	18.3
3H	18.0	19.4	18.3	19.7	20.1	18.2	19.7	18.6	20.0	20.3
4H	19.0	20.4	19.4	20.7	21.1	19.3	20.7	19.7	21.0	21.3
6H	20.1	21.4	20.5	21.7	22.1	20.4	21.7	20.8	22.0	22.4
8H	20.7	21.9	21.1	22.3	22.7	21.0	22.2	21.4	22.6	22.9
12H	21.3	22.6	21.7	22.9	23.3	21.6	22.8	22.0	23.1	23.5
4H 2H	16.8	18.1	17.1	18.5	18.8	16.9	18.2	17.2	18.6	18.9
3H	19.0	20.2	19.4	20.5	20.9	19.2	20.4	19.6	20.7	21.1
4H	20.2	21.3	20.6	21.7	22.1	20.4	21.5	20.8	21.9	22.3
6H	21.4	22.4	21.9	22.9	23.3	21.7	22.7	22.1	23.1	23.6
8H	22.1	23.1	22.6	23.5	24.0	22.4	23.3	22.8	23.7	24.2
12H	22.9	23.8	23.4	24.2	24.7	23.1	23.9	23.5	24.4	24.9
8H 4H	20.7	21.6	21.1	22.1	22.5	20.9	21.8	21.3	22.3	22.7
6H	22.2	23.0	22.7	23.5	24.0	22.4	23.3	22.9	23.7	24.2
8H	23.1	23.8	23.6	24.3	24.8	23.3	24.0	23.8	24.5	25.0
12H	24.1	24.7	24.6	25.2	25.8	24.2	24.8	24.7	25.3	25.9
12H 4H	20.8	21.7	21.3	22.1	22.6	21.0	21.9	21.5	22.3	22.8
6H	22.4	23.2	23.0	23.7	24.2	22.7	23.4	23.2	23.9	24.4
8H	23.4	24.0	23.9	24.6	25.1	23.6	24.2	24.1	24.7	25.3
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1461 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.3)  
Area: 0.1 m2

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks:

## UTILIZATION FACTORS TABLE

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

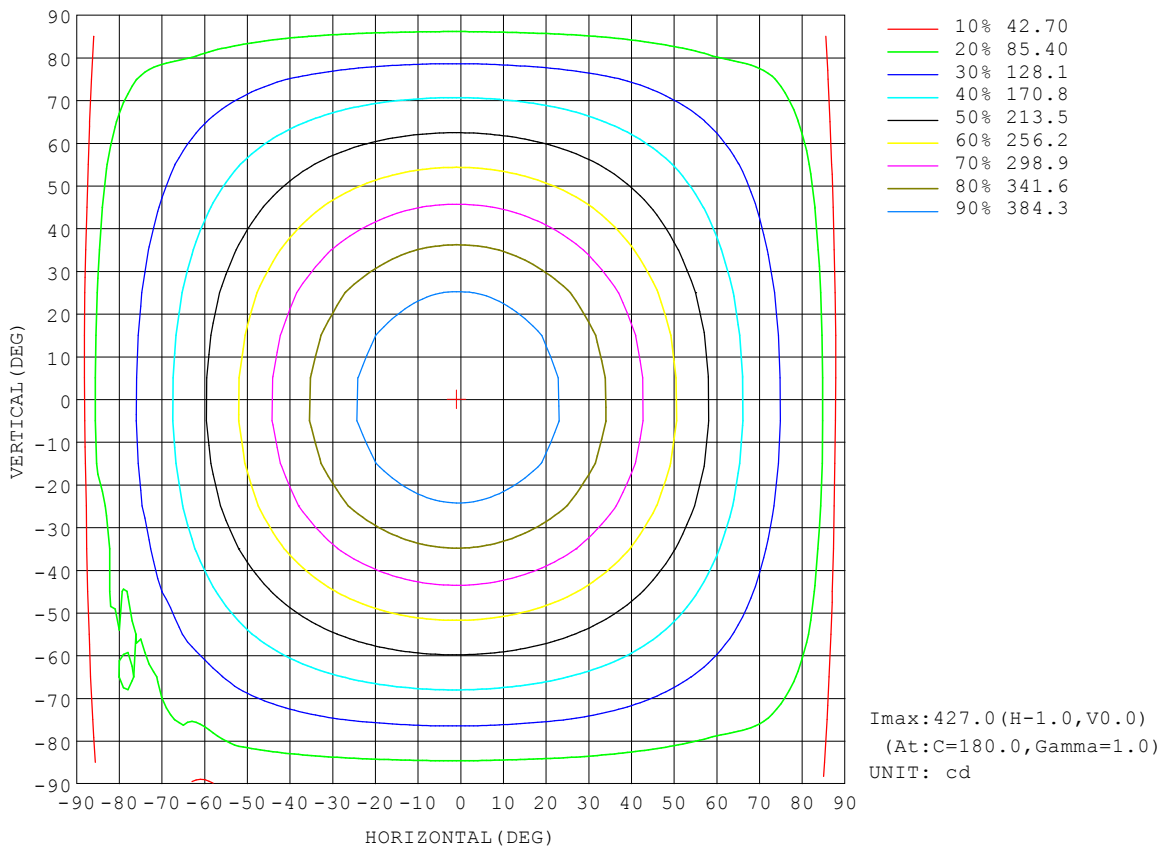
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	54	41	34	53	41	34	51	41	34	27
0.80	63	51	43	62	50	43	60	49	42	35
1.00	71	59	51	70	58	51	67	60	50	42
1.25	78	66	58	76	65	58	73	64	57	49
1.50	83	72	64	81	71	63	78	69	62	54
2.00	90	80	72	88	79	72	84	76	70	61
2.50	94	85	78	92	84	77	88	81	75	65
3.00	98	90	83	95	88	82	91	85	79	70
4.00	102	95	89	100	93	88	95	89	85	75
5.00	105	99	94	102	97	92	97	93	89	78
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

$H(\beta)$  Range:-90 - 90DEG  
 $H(\beta)$  Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:  
 Test Date:2023-09-05

$V(B)$  Range:-180 - 180DEG  
 $V(B)$  Interval: 5.0DEG  
 Humidity:65.0%  
 Test Distance:9.782m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

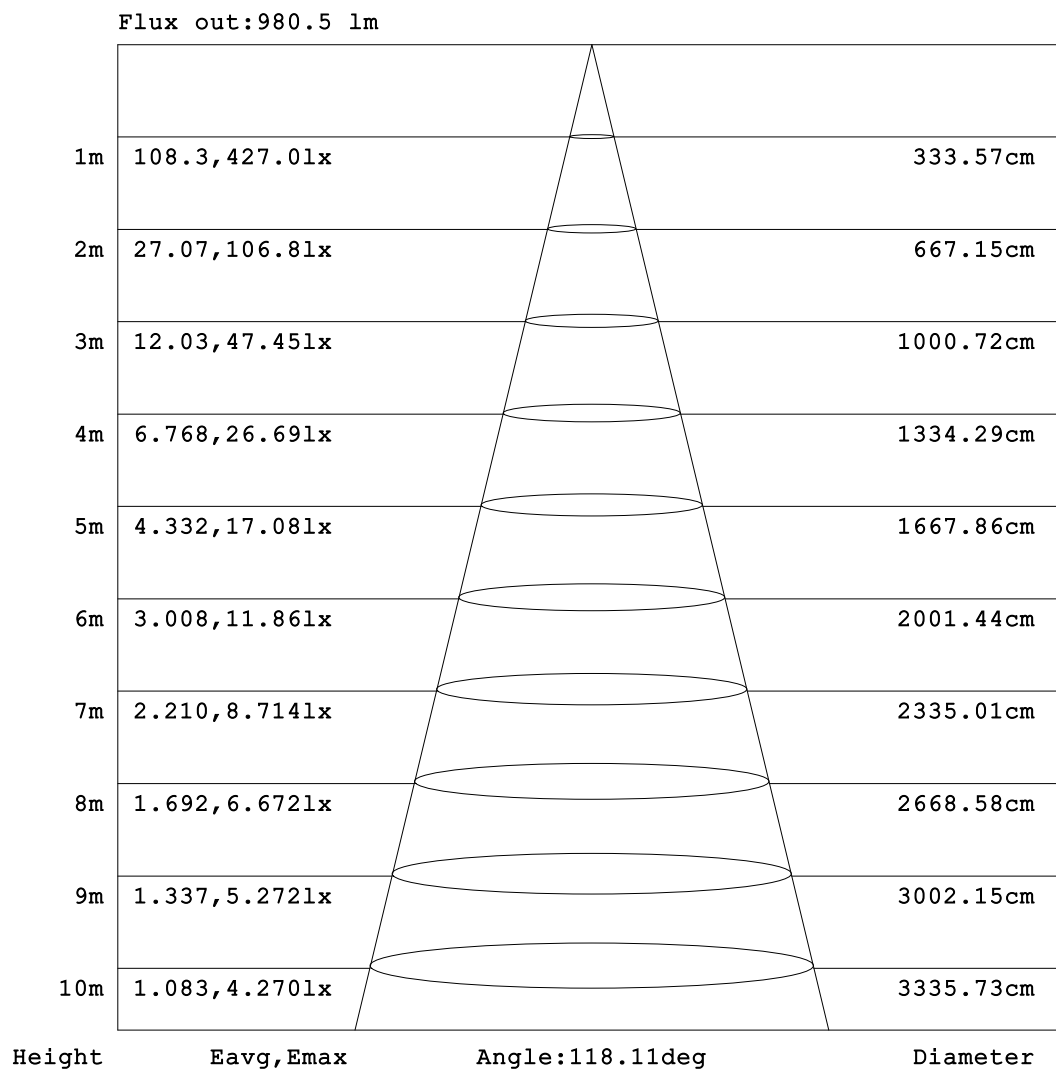


H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks:

## AAI Figure

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



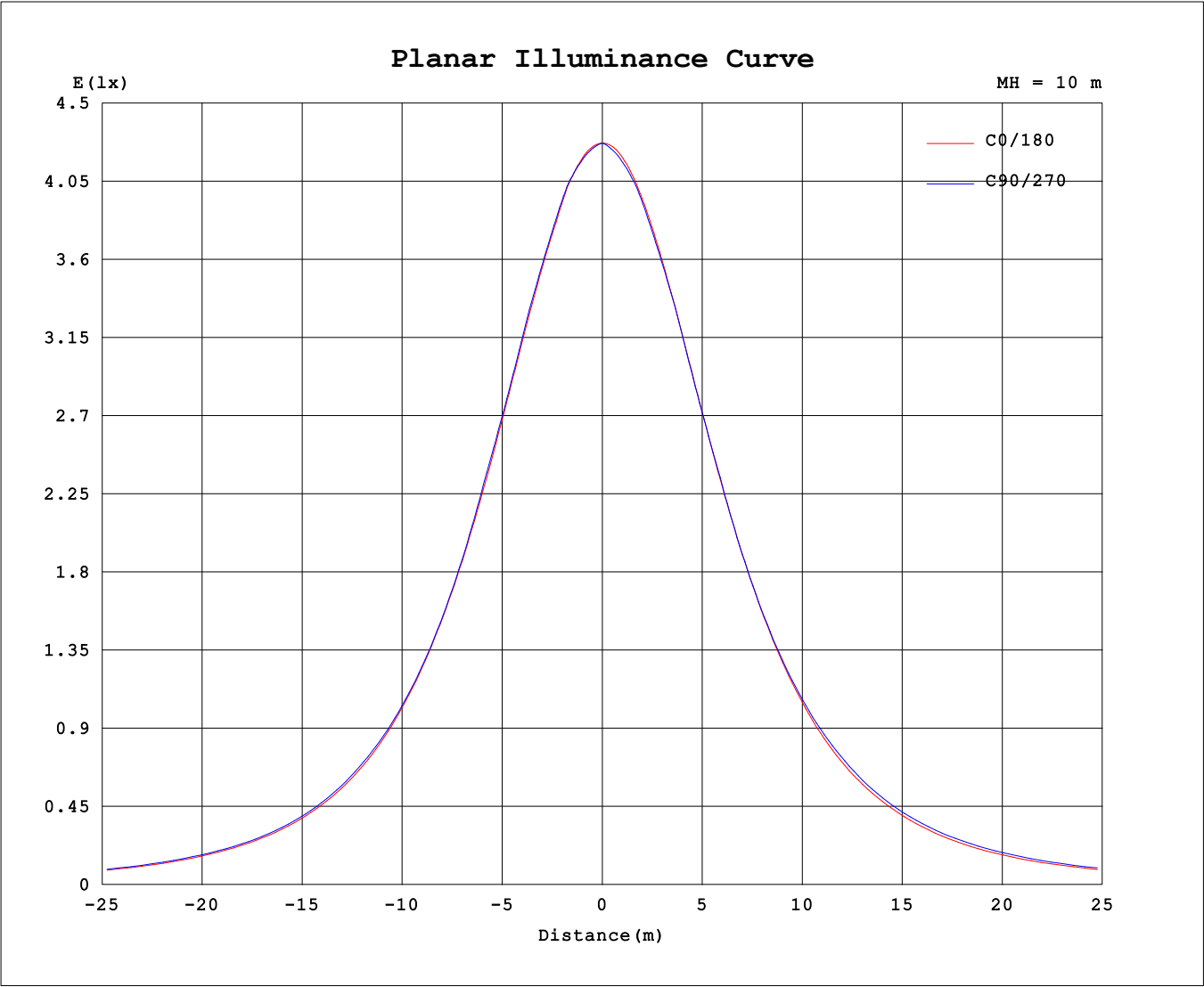
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.471  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks:



Planar Illuminance Curve



H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1																	UNIT: cd		
<div>C (DEG) γ (DEG)</div>	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427
5	425	425	425	424	424	424	424	424	424	424	424	424	424	424	424	424	424	424	424
10	420	419	419	419	418	418	418	418	418	419	419	419	420	420	420	420	421	421	421
15	408	408	408	408	408	408	409	410	411	411	410	410	410	410	410	410	410	410	410
20	396	395	395	395	396	397	398	397	397	397	397	397	397	397	398	398	398	399	399
25	380	379	379	380	382	382	381	381	381	381	382	382	382	382	382	382	382	382	382
30	361	360	361	362	362	362	362	362	363	362	362	362	363	363	364	364	365	365	366
35	339	339	339	341	340	340	341	340	340	340	341	342	342	341	341	341	341	341	341
40	315	314	315	316	315	316	316	316	316	317	316	316	315	315	315	316	316	316	316
45	288	288	290	289	290	289	289	290	289	289	289	289	289	289	290	290	291	291	292
50	261	261	262	261	261	261	262	261	261	261	262	262	263	264	265	265	266	267	267
55	232	233	233	234	233	234	233	233	233	234	235	236	237	237	238	238	238	239	239
60	205	204	205	205	206	205	205	206	207	208	208	209	209	209	210	210	210	211	211
65	177	177	178	178	178	178	179	180	181	181	181	182	183	183	184	185	185	186	186
70	152	152	152	152	152	154	154	155	155	156	157	158	158	159	159	160	160	161	161
75	128	128	128	128	129	130	130	131	132	133	133	134	135	135	135	135	135	136	136
80	106	106	106	107	107	108	108	109	110	110	110	111	111	111	111	111	111	111	111
85	84.8	85.2	86.0	86.4	86.8	87.1	87.2	85.0	83.9	83.2	82.9	82.8	82.8	82.9	82.9	82.9	83.1	83.4	83.5
90	0.98	41.6	67.7	67.7	61.1	51.5	44.6	47.3	48.7	49.9	51.1	52.2	52.9	53.8	54.5	55.0	55.5	56.0	56.1
95	1.94	8.58	16.0	50.2	38.4	17.8	1.91	9.74	13.6	16.7	19.4	21.5	23.0	24.7	26.1	27.1	28.0	28.6	28.6
100	36.3	36.4	34.3	36.7	33.0	19.2	7.39	4.23	2.81	2.51	2.20	1.83	1.13	1.06	1.08	1.14	1.23	1.42	1.21
105	17.6	17.2	18.5	18.4	18.8	17.1	9.79	3.04	2.05	1.99	1.86	1.74	1.27	1.21	1.22	1.25	1.33	1.47	1.32
110	2.68	2.87	4.00	4.21	4.56	7.20	4.77	1.63	1.43	1.56	1.61	1.73	1.42	1.36	1.35	1.37	1.43	1.52	1.42
115	1.57	1.54	1.67	1.71	1.67	2.31	2.34	2.55	2.04	1.61	1.65	1.76	1.57	1.50	1.49	1.48	1.53	1.57	1.52
120	2.20	2.25	2.43	2.55	2.52	2.54	3.58	3.28	2.34	1.84	1.89	1.75	1.66	1.63	1.62	1.60	1.62	1.62	1.62
125	3.40	3.33	3.32	3.14	2.70	3.11	3.45	3.07	2.32	1.98	1.87	1.80	1.77	1.76	1.75	1.75	1.76	1.77	1.76
130	2.21	2.25	2.18	2.06	2.19	2.47	2.49	2.32	2.14	1.94	1.89	1.88	1.89	1.89	1.90	1.89	1.90	1.91	1.91
135	1.96	1.96	1.95	1.94	1.93	2.06	2.10	2.05	1.99	1.96	1.98	2.00	2.03	2.04	2.04	2.04	2.05	2.06	2.05
140	2.06	2.04	2.03	2.02	2.02	2.01	2.05	2.03	2.05	2.07	2.08	2.11	2.13	2.15	2.17	2.18	2.18	2.21	2.20
145	2.15	2.13	2.11	2.11	2.12	2.11	2.13	2.19	2.17	2.16	2.21	2.21	2.25	2.25	2.25	2.27	2.27	2.29	2.34
150	2.26	2.24	2.24	2.25	2.26	2.26	2.25	2.25	2.30	2.30	2.31	2.35	2.34	2.34	2.36	2.36	2.36	2.37	2.49
155	2.37	2.36	2.35	2.35	2.35	2.37	2.37	2.37	2.38	2.44	2.45	2.43	2.42	2.44	2.46	2.45	2.45	2.45	2.64
160	2.49	2.48	2.47	2.47	2.47	2.48	2.49	2.49	2.49	2.49	2.48	2.49	2.52	2.54	2.54	2.54	2.54	2.53	2.78
165	2.59	2.58	2.57	2.56	2.56	2.55	2.54	2.54	2.54	2.55	2.57	2.58	2.57	2.57	2.57	2.57	2.57	2.57	2.75
170	2.65	2.64	2.64	2.63	2.63	2.63	2.62	2.62	2.61	2.62	2.61	2.61	2.61	2.61	2.60	2.60	2.60	2.62	2.72
175	2.67	2.66	2.66	2.66	2.65	2.65	2.65	2.65	2.64	2.64	2.64	2.64	2.64	2.64	2.63	2.63	2.64	2.67	2.69
180	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67

H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--2																UNIT: cd				
C (DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	
0	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	
5	424	424	424	424	424	424	424	424	424	424	425	425	425	425	425	425	425	426	425	
10	421	421	421	421	421	421	420	420	419	419	419	419	419	419	419	420	420	421	420	
15	410	410	410	411	411	410	410	410	411	411	411	410	410	410	410	411	412	412	411	
20	399	399	399	399	399	398	398	398	398	398	399	400	399	399	399	399	400	401	399	
25	382	383	383	383	383	384	384	385	384	383	383	384	384	384	384	384	384	386	384	
30	366	366	366	366	366	365	365	365	366	367	366	365	365	366	366	366	366	367	366	
35	341	342	342	343	344	345	346	345	345	345	345	345	345	345	346	345	345	346	344	
40	317	317	317	318	318	319	320	321	322	322	321	322	322	321	322	322	321	323	321	
45	292	292	292	292	293	293	293	293	294	295	297	296	296	296	296	297	296	297	295	
50	267	268	267	267	267	267	267	266	267	267	268	269	269	269	268	269	268	270	268	
55	239	240	240	240	240	241	241	240	239	239	239	240	241	241	241	240	240	241	240	
60	211	212	212	212	212	213	213	213	213	212	212	211	212	213	212	212	212	212	212	
65	186	186	186	186	186	186	186	186	186	186	186	185	184	184	185	185	185	184	184	
70	161	161	161	161	161	161	161	160	160	160	160	159	159	158	158	158	158	158	158	
75	136	136	136	136	137	137	137	136	136	136	135	134	134	134	133	133	133	133	134	
80	111	111	111	112	112	112	113	113	113	112	111	107	106	103	97.6	94.7	110	110	110	
85	83.6	83.6	83.5	83.5	83.6	83.7	84.0	84.4	84.9	85.6	84.4	77.8	80.6	80.9	79.9	88.5	84.6	88.1	88.6	
90	56.2	55.9	55.4	54.9	54.3	53.5	52.7	52.0	50.8	49.0	46.5	39.3	47.7	58.0	67.9	69.4	46.2	0.83	49.3	
95	28.7	28.2	27.3	26.3	24.9	23.2	21.5	19.7	16.8	12.4	9.14	1.74	15.9	36.5	49.6	21.1	12.5	3.80	15.2	
100	1.48	1.39	1.21	1.11	1.05	1.08	1.43	2.19	2.38	1.58	3.02	6.27	16.8	30.6	35.5	33.7	34.6	33.9	35.2	
105	1.51	1.46	1.33	1.26	1.23	1.29	1.54	2.06	1.98	1.45	1.86	7.10	14.7	16.1	14.9	15.0	13.7	13.6	14.5	
110	1.54	1.53	1.45	1.41	1.40	1.50	1.66	2.08	1.62	1.44	1.85	3.35	5.87	4.20	2.66	3.25	1.83	1.53	2.16	
115	1.57	1.59	1.57	1.55	1.57	1.69	1.81	2.09	1.92	2.14	2.98	3.37	2.70	2.15	2.34	2.43	2.20	2.07	2.23	
120	1.60	1.65	1.67	1.69	1.71	1.79	1.90	2.13	2.43	2.58	3.44	4.88	4.24	3.49	4.17	4.20	3.78	3.63	3.68	
125	1.72	1.76	1.78	1.80	1.82	1.86	1.98	2.13	2.42	2.80	3.38	3.70	3.87	3.68	3.59	3.85	3.93	3.72	4.01	
130	1.85	1.87	1.90	1.91	1.94	1.96	2.04	2.17	2.37	2.55	2.71	2.80	2.80	2.65	2.61	2.70	2.71	2.58	2.74	
135	1.97	1.99	2.01	2.02	2.05	2.07	2.10	2.18	2.27	2.34	2.40	2.40	2.29	2.19	2.21	2.25	2.26	2.19	2.21	
140	2.10	2.11	2.12	2.14	2.16	2.19	2.21	2.24	2.27	2.30	2.31	2.29	2.24	2.22	2.20	2.19	2.20	2.13	2.13	
145	2.22	2.22	2.23	2.25	2.27	2.30	2.33	2.35	2.37	2.38	2.37	2.35	2.32	2.31	2.30	2.28	2.26	2.22	2.21	
150	2.34	2.34	2.35	2.36	2.38	2.40	2.43	2.47	2.49	2.51	2.48	2.45	2.43	2.41	2.38	2.36	2.34	2.32	2.30	
155	2.46	2.45	2.46	2.48	2.49	2.51	2.53	2.56	2.56	2.55	2.54	2.52	2.50	2.47	2.46	2.45	2.45	2.43	2.41	
160	2.64	2.57	2.56	2.57	2.57	2.57	2.58	2.58	2.58	2.59	2.58	2.56	2.55	2.54	2.54	2.53	2.53	2.49	2.48	
165	2.71	2.60	2.59	2.59	2.59	2.60	2.60	2.60	2.61	2.61	2.61	2.61	2.62	2.63	2.63	2.64	2.65	2.55	2.54	
170	2.72	2.65	2.62	2.62	2.62	2.62	2.62	2.63	2.63	2.63	2.63	2.63	2.64	2.64	2.65	2.65	2.65	2.57	2.57	
175	2.69	2.69	2.68	2.66	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.66	2.66	2.66	2.66	2.65	2.65	
180	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.63	2.63	

H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--3																		UNIT: cd	
<div>C (DEG) γ (DEG)</div>	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427
5	425	425	424	424	424	424	424	424	424	424	423	423	423	423	423	423	423	423	423
10	419	419	418	418	418	417	417	417	418	418	419	419	419	419	419	419	419	419	419
15	410	410	409	409	409	409	410	409	409	409	409	410	410	411	410	410	410	410	410
20	398	398	398	398	398	398	398	398	398	399	399	400	400	401	401	401	401	401	401
25	383	383	383	383	383	383	384	385	386	386	386	386	386	385	385	385	385	385	385
30	365	365	365	365	366	367	369	368	368	368	368	368	369	369	369	369	369	369	368
35	344	344	344	345	347	347	347	347	348	349	348	348	348	347	347	347	347	346	346
40	321	321	321	324	323	324	325	325	325	324	324	325	325	325	325	325	324	324	324
45	295	295	297	298	298	299	299	299	299	300	300	301	302	302	302	302	302	302	301
50	268	269	270	271	272	271	272	273	274	275	276	278	279	279	280	280	280	279	279
55	240	242	242	243	243	244	245	247	249	251	252	252	253	253	253	253	253	252	252
60	212	213	215	215	216	218	220	222	223	224	224	225	226	226	226	226	226	225	225
65	186	186	187	188	190	193	194	195	196	197	198	199	199	200	200	200	200	200	199
70	159	160	161	164	166	167	169	170	171	172	173	173	174	174	174	174	174	174	173
75	134	135	138	140	141	143	144	145	146	147	148	148	148	148	148	148	148	148	148
80	111	113	115	116	117	119	120	121	122	122	123	123	123	123	123	123	122	122	122
85	90.1	91.3	92.6	93.7	94.7	93.1	92.4	92.1	91.9	91.8	91.9	92.0	92.1	92.1	92.1	92.2	92.1	91.9	91.6
90	70.5	65.6	57.0	48.8	49.6	52.7	54.2	55.6	56.8	57.6	58.6	59.6	60.5	61.0	61.4	61.7	61.8	61.5	61.1
95	28.1	45.7	27.4	7.51	5.20	12.4	16.2	19.3	21.7	23.5	25.4	27.3	28.8	29.9	30.7	31.2	31.4	31.1	30.6
100	34.8	35.8	29.1	14.2	8.05	4.72	4.00	3.46	2.61	1.58	1.04	0.99	0.99	0.99	0.98	0.97	1.05	0.99	0.96
105	15.1	14.7	16.0	14.4	6.88	2.50	2.63	2.54	2.33	1.69	1.28	1.22	1.20	1.19	1.18	1.14	1.20	1.19	1.17
110	3.21	2.45	4.05	5.69	3.24	1.87	1.56	1.83	2.27	1.81	1.50	1.44	1.41	1.39	1.38	1.29	1.36	1.40	1.38
115	2.56	2.33	2.25	3.02	3.63	3.06	2.21	2.03	2.27	1.97	1.71	1.66	1.63	1.60	1.58	1.45	1.51	1.59	1.59
120	3.97	4.18	3.90	4.63	5.02	3.54	2.63	2.44	2.17	1.93	1.80	1.79	1.78	1.77	1.77	1.59	1.67	1.78	1.78
125	4.07	3.91	3.92	4.00	3.78	3.41	2.72	2.32	2.03	1.87	1.84	1.84	1.84	1.84	1.82	1.68	1.75	1.84	1.84
130	2.76	2.68	2.66	2.78	2.76	2.60	2.36	2.09	1.95	1.88	1.88	1.91	1.90	1.89	1.88	1.78	1.83	1.89	1.90
135	2.20	2.18	2.09	2.21	2.27	2.23	2.11	2.02	1.96	1.93	1.95	1.96	1.96	1.95	1.94	1.89	1.92	1.95	1.95
140	2.13	2.13	2.12	2.11	2.14	2.13	2.09	2.07	2.06	2.04	2.06	2.05	2.03	2.02	2.01	2.00	2.00	2.00	2.01
145	2.19	2.18	2.19	2.19	2.20	2.21	2.19	2.19	2.17	2.18	2.16	2.15	2.14	2.13	2.12	2.11	2.11	2.11	2.12
150	2.29	2.28	2.28	2.30	2.30	2.32	2.32	2.32	2.29	2.27	2.27	2.25	2.25	2.24	2.23	2.22	2.22	2.22	2.23
155	2.40	2.39	2.38	2.38	2.38	2.39	2.39	2.39	2.39	2.38	2.37	2.36	2.36	2.35	2.34	2.33	2.33	2.33	2.33
160	2.48	2.47	2.47	2.46	2.45	2.45	2.45	2.44	2.44	2.44	2.45	2.45	2.46	2.45	2.45	2.44	2.44	2.44	2.44
165	2.53	2.52	2.51	2.51	2.50	2.49	2.49	2.49	2.50	2.51	2.52	2.51	2.50	2.50	2.50	2.49	2.49	2.49	2.48
170	2.57	2.57	2.57	2.58	2.58	2.59	2.59	2.58	2.57	2.57	2.56	2.56	2.55	2.55	2.55	2.54	2.54	2.53	2.53
175	2.64	2.64	2.63	2.63	2.63	2.62	2.62	2.61	2.61	2.61	2.61	2.60	2.60	2.60	2.59	2.59	2.58	2.58	2.58
180	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63

H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: ABH14R2TW 4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--4																UNIT: cd			
<div>C (DEG) γ (DEG)</div>	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	427	427	427	427	427	427	427	427	427	427	427	427	427	427	427				
5	423	423	423	423	423	423	423	423	423	424	424	424	424	425	425				
10	419	419	418	418	418	418	417	417	417	417	418	418	418	419	419				
15	410	410	409	409	409	409	409	409	409	408	407	407	407	407	408				
20	400	400	399	398	398	397	397	396	396	397	396	395	395	395	395				
25	384	384	384	384	384	384	383	382	381	380	380	380	379	379	379				
30	368	367	366	366	365	365	365	365	364	362	361	361	361	360	360				
35	346	346	345	345	345	344	343	343	343	342	340	340	340	338	338				
40	323	322	322	321	321	320	320	319	318	318	318	316	315	314	314				
45	300	299	298	297	296	295	294	293	293	292	291	291	289	289	287				
50	278	276	275	273	271	269	268	266	265	265	263	263	262	261	260				
55	251	250	249	248	247	244	242	240	238	236	236	235	235	233	232				
60	224	223	222	221	220	218	217	214	212	209	208	207	206	205	204				
65	198	197	196	195	193	192	190	189	187	184	182	180	179	179	177				
70	173	172	171	170	168	167	165	163	162	160	158	155	153	153	152				
75	147	147	146	145	144	143	141	139	138	136	135	133	130	129	128				
80	122	122	121	121	120	119	118	117	115	114	112	110	109	107	106				
85	91.4	91.2	90.8	90.4	90.0	89.8	89.6	89.8	90.4	92.0	91.1	89.8	88.3	87.1	85.6				
90	60.5	59.8	58.9	57.6	56.5	55.3	53.8	52.1	50.3	46.7	51.6	59.7	66.4	69.0	44.6				
95	29.7	28.5	26.9	25.0	23.0	20.9	18.1	14.6	10.5	1.84	14.6	34.1	48.2	21.0	10.4				
100	0.97	0.98	1.00	1.04	1.57	2.25	2.71	2.97	4.13	7.03	17.7	31.7	36.9	35.2	36.8				
105	1.18	1.19	1.23	1.29	1.69	1.90	2.06	2.11	2.57	8.54	16.2	18.0	17.6	18.3	17.8				
110	1.39	1.39	1.44	1.53	1.82	1.76	1.58	1.37	1.63	4.16	6.58	4.32	3.94	4.18	3.41				
115	1.60	1.59	1.65	1.75	1.99	2.02	1.69	2.15	2.91	2.79	2.62	1.82	1.94	2.05	1.73				
120	1.78	1.75	1.78	1.83	1.93	2.16	2.05	2.60	3.70	4.46	3.46	3.04	2.88	2.83	2.46				
125	1.83	1.83	1.83	1.86	1.90	2.02	2.22	2.62	3.49	3.95	3.85	3.45	3.85	3.70	3.46				
130	1.89	1.89	1.89	1.90	1.91	1.95	2.08	2.30	2.55	2.75	2.77	2.60	2.53	2.53	2.43				
135	1.94	1.95	1.96	1.95	1.96	1.95	2.00	2.05	2.13	2.17	2.10	1.99	2.04	2.05	2.02				
140	2.00	2.01	2.04	2.03	2.03	2.04	2.00	2.03	2.02	2.01	1.98	1.99	2.00	2.00	2.02				
145	2.12	2.11	2.11	2.14	2.10	2.11	2.13	2.08	2.07	2.08	2.06	2.06	2.07	2.09	2.11				
150	2.24	2.23	2.20	2.21	2.24	2.19	2.19	2.21	2.22	2.17	2.16	2.17	2.19	2.20	2.21				
155	2.34	2.35	2.34	2.30	2.31	2.32	2.32	2.28	2.28	2.29	2.30	2.31	2.31	2.32	2.33				
160	2.44	2.44	2.44	2.44	2.40	2.38	2.39	2.39	2.40	2.41	2.39	2.39	2.41	2.42	2.44				
165	2.49	2.49	2.49	2.49	2.49	2.49	2.48	2.47	2.47	2.47	2.48	2.49	2.50	2.51	2.53				
170	2.53	2.53	2.53	2.54	2.54	2.54	2.54	2.54	2.55	2.55	2.55	2.56	2.57	2.57	2.58				
175	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.59	2.59	2.59	2.60	2.60	2.61	2.61	2.61				
180	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63				

H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:  
Test Date:2023-09-05

V(B) Range:-180 - 180DEG  
V(B) Interval: 5.0DEG  
  
Humidity:65.0%  
Test Distance:9.782m [K=1.0000]  
Remarks: