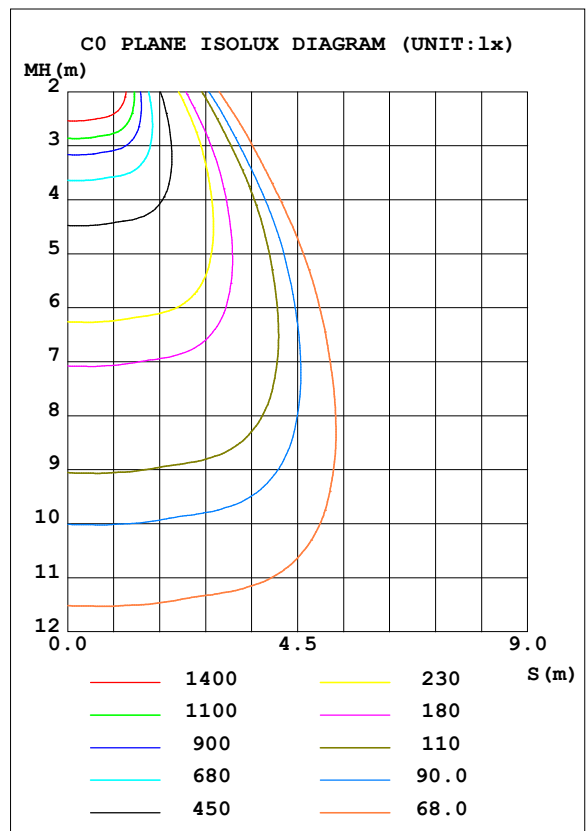
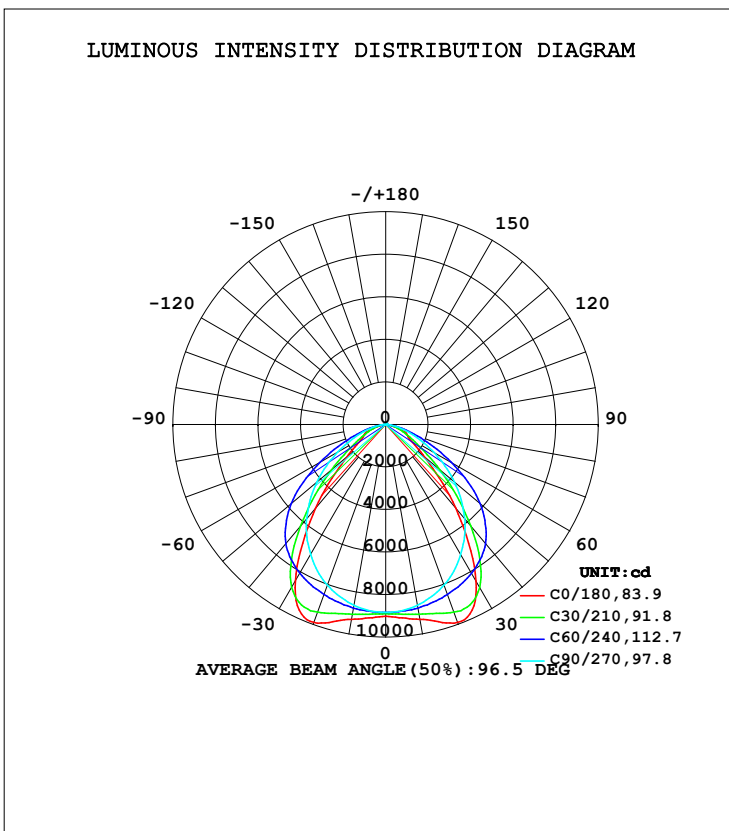


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 150.22 lm/W			
MODEL		I <sub>max</sub> (cd)	9909	S/MH (C0/180)	1.20
NOMINAL POWER (W)	150	LOR (%)	100.0	S/MH (C90/270)	1.19
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	21546	η UP, DN (C0-180)	0.5, 49.5
NOMINAL FLUX (lm)	21546.1	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.5, 49.5
LAMPS INSIDE	1	η up (%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	230	η down (%)	99.1	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

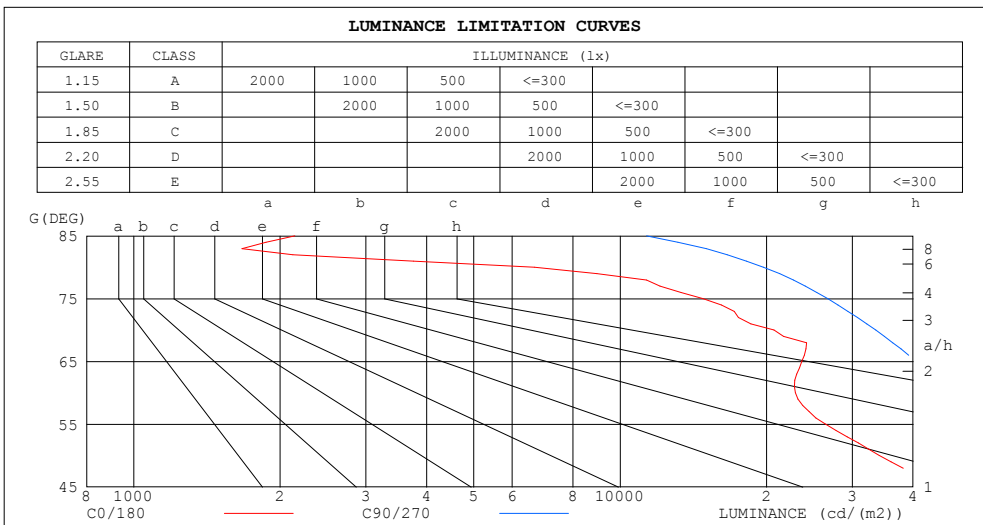
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	9310	8892	8631	8892	9310	8892	8631	8892	0- 10	850.1	850.1	3.95,3.95
20	9904	8931	8037	8931	9904	8931	8037	8931	10- 20	2533	3383	15.7,15.7
30	8494	8784	7055	8784	8494	8784	7055	8784	20- 30	4018	7401	34.3,34.3
40	5131	7295	5783	7295	5131	7295	5783	7295	30- 40	4596	11997	55.7,55.7
50	2410	4580	4234	4580	2410	4580	4234	4580	40- 50	4016	16013	74.3,74.3
60	1260	2232	2616	2232	1260	2232	2616	2232	50- 60	2836	18849	87.5,87.5
70	779.3	890.6	1261	890.6	779.3	890.6	1261	890.6	60- 70	1698	20547	95.4,95.4
80	127.4	167.2	376.4	167.2	127.4	167.2	376.4	167.2	70- 80	709.5	21257	98.7,98.7
90	4.698	7.529	8.543	7.529	4.698	7.529	8.543	7.529	80- 90	89.85	21347	99.1,99.1
100	7.701	12.30	14.49	12.30	7.701	12.30	14.49	12.30	90-100	9.655	21356	99.1,99.1
110	14.71	19.97	22.72	19.97	14.71	19.97	22.72	19.97	100-110	16.28	21373	99.2,99.2
120	24.50	28.79	31.76	28.79	24.50	28.79	31.76	28.79	110-120	23.58	21396	99.3,99.3
130	35.81	37.90	41.22	37.90	35.81	37.90	41.22	37.90	120-130	29.69	21426	99.4,99.4
140	46.22	47.28	50.28	47.28	46.22	47.28	50.28	47.28	130-140	33.12	21459	99.6,99.6
150	54.57	56.75	58.89	56.75	54.57	56.75	58.89	56.75	140-150	32.69	21492	99.7,99.7
160	63.60	65.74	66.19	65.74	63.60	65.74	66.19	65.74	150-160	28.08	21520	99.9,99.9
170	73.70	72.44	70.72	72.44	73.70	72.44	70.72	72.44	160-170	19.42	21539	100,100
180	78.13	75.99	73.57	75.99	78.13	75.99	73.57	75.99	170-180	7.025	21546	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2144	11325
80	6667	19707
75	14783	26705
70	20714	33510
65	23638	40634
60	22905	47555
55	26420	54068
50	34089	59878
45	46045	64699

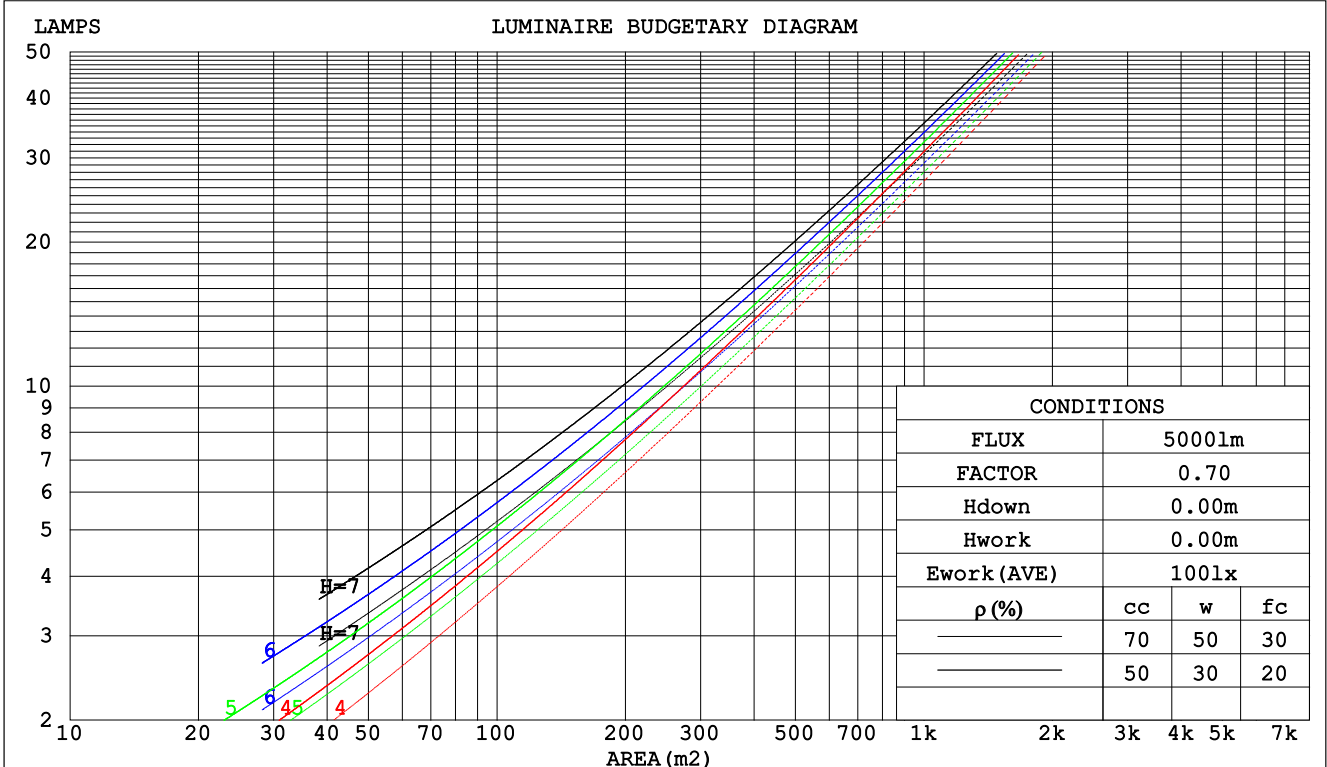
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	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						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	.99
1.0	1.06	1.03	.99	1.04	1.01	.98	.90	.97	.95	.96	.93	.91	.92	.90	.89	.87
2.0	.94	.89	.84	.93	.87	.83	.89	.84	.80	.86	.82	.79	.83	.79	.77	.75
3.0	.84	.77	.71	.83	.76	.71	.80	.74	.69	.77	.72	.68	.74	.70	.67	.65
4.0	.76	.68	.62	.74	.67	.61	.72	.65	.60	.69	.64	.59	.67	.62	.58	.56
5.0	.68	.60	.54	.67	.59	.54	.65	.58	.53	.63	.57	.52	.61	.56	.52	.50
6.0	.62	.54	.48	.61	.53	.47	.59	.52	.47	.57	.51	.46	.56	.50	.46	.44
7.0	.56	.48	.42	.55	.48	.42	.54	.47	.42	.52	.46	.42	.51	.45	.41	.39
8.0	.52	.44	.38	.51	.43	.38	.50	.43	.38	.48	.42	.37	.47	.41	.37	.35
9.0	.48	.40	.35	.47	.39	.34	.46	.39	.34	.45	.38	.34	.44	.38	.34	.32
10.0	.44	.36	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.40	.35	.31	.29



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm					
NAME: H20B-150W			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.: EVRAN			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	.259	.147	.047	.252	.144	.046	.238	.137	.044	.226	.130	.042	.214	.124	.040	
2.0	.251	.138	.042	.245	.135	.042	.233	.130	.040	.222	.125	.039	.212	.120	.038	
3.0	.237	.126	.038	.232	.124	.037	.221	.120	.036	.212	.116	.036	.203	.112	.035	
4.0	.223	.116	.034	.218	.114	.034	.209	.111	.033	.200	.107	.032	.192	.104	.032	
5.0	.209	.106	.031	.204	.105	.031	.196	.102	.030	.189	.100	.030	.181	.097	.029	
6.0	.196	.098	.028	.192	.097	.028	.185	.095	.028	.178	.092	.027	.171	.090	.027	
7.0	.184	.091	.026	.181	.090	.026	.174	.088	.025	.168	.086	.025	.162	.084	.025	
8.0	.173	.085	.024	.170	.084	.024	.164	.082	.023	.159	.080	.023	.153	.079	.023	
9.0	.163	.079	.022	.161	.078	.022	.155	.077	.022	.150	.075	.022	.146	.074	.021	
10.0	.155	.074	.021	.152	.073	.020	.147	.072	.020	.143	.071	.020	.138	.070	.020	

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	.198	.198	.198	.169	.169	.169	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.184	.164	.145	.157	.140	.125	.108	.097	.087	.062	.056	.050	.020	.018	.016	
2.0	.174	.139	.110	.149	.120	.095	.102	.083	.066	.059	.048	.039	.019	.016	.013	
3.0	.165	.121	.086	.142	.105	.075	.097	.073	.052	.056	.042	.031	.018	.014	.010	
4.0	.158	.108	.069	.135	.093	.060	.093	.065	.043	.054	.038	.025	.017	.012	.008	
5.0	.150	.097	.058	.129	.084	.050	.089	.059	.035	.052	.034	.021	.017	.011	.007	
6.0	.143	.088	.049	.123	.077	.043	.085	.054	.030	.049	.032	.018	.016	.010	.006	
7.0	.137	.081	.043	.118	.071	.037	.081	.050	.026	.047	.029	.016	.015	.010	.005	
8.0	.131	.076	.038	.113	.066	.033	.078	.046	.023	.045	.027	.014	.015	.009	.005	
9.0	.126	.071	.034	.108	.061	.029	.075	.043	.021	.044	.025	.012	.014	.008	.004	
10.0	.120	.067	.031	.104	.058	.027	.072	.041	.019	.042	.024	.011	.014	.008	.004	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm										
NAME: H20B-150W					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: EVRAN					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	13.3	14.7	13.6	14.9	15.1	17.0	18.4	17.3	18.6	18.8
3H	13.9	15.1	14.2	15.4	15.6	18.0	19.2	18.3	19.5	19.7
4H	14.0	15.2	14.3	15.4	15.7	18.3	19.4	18.6	19.7	20.0
6H	14.0	15.1	14.3	15.4	15.7	18.4	19.5	18.7	19.7	20.0
8H	13.9	15.0	14.3	15.3	15.6	18.3	19.4	18.7	19.7	20.0
12H	13.9	14.9	14.3	15.2	15.5	18.3	19.3	18.7	19.6	20.0
4H 2H	14.1	15.3	14.4	15.5	15.8	17.1	18.3	17.4	18.5	18.8
3H	14.6	15.7	15.0	16.0	16.3	18.3	19.3	18.6	19.6	19.9
4H	14.8	15.7	15.2	16.1	16.4	18.7	19.6	19.1	20.0	20.3
6H	14.8	15.6	15.2	16.0	16.4	18.9	19.8	19.3	20.1	20.5
8H	14.8	15.5	15.2	15.9	16.3	19.0	19.7	19.4	20.1	20.5
12H	14.7	15.4	15.2	15.8	16.2	19.0	19.7	19.4	20.0	20.5
8H 4H	15.0	15.7	15.4	16.1	16.5	18.6	19.4	19.1	19.8	20.2
6H	15.0	15.7	15.5	16.1	16.5	18.9	19.6	19.4	20.0	20.4
8H	15.0	15.5	15.5	16.0	16.4	19.0	19.6	19.5	20.0	20.5
12H	14.9	15.4	15.4	15.9	16.4	19.0	19.5	19.5	20.0	20.5
12H 4H	15.0	15.7	15.4	16.1	16.5	18.6	19.3	19.0	19.7	20.1
6H	15.0	15.6	15.5	16.0	16.5	18.9	19.5	19.4	19.9	20.4
8H	15.0	15.5	15.5	15.9	16.4	19.0	19.4	19.5	19.9	20.4
Variations with the observer position at spacings:										
S = 1.0H	+ 1.0 / - 1.3					+ 0.6 / - 0.7				
1.5H	+ 0.7 / - 1.2					+ 1.0 / - 1.3				
2.0H	+ 1.4 / - 1.7					+ 0.6 / - 1.8				

CIE Pub.117, 21546 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 10.7)

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	SUR.:	Shielding Angle:

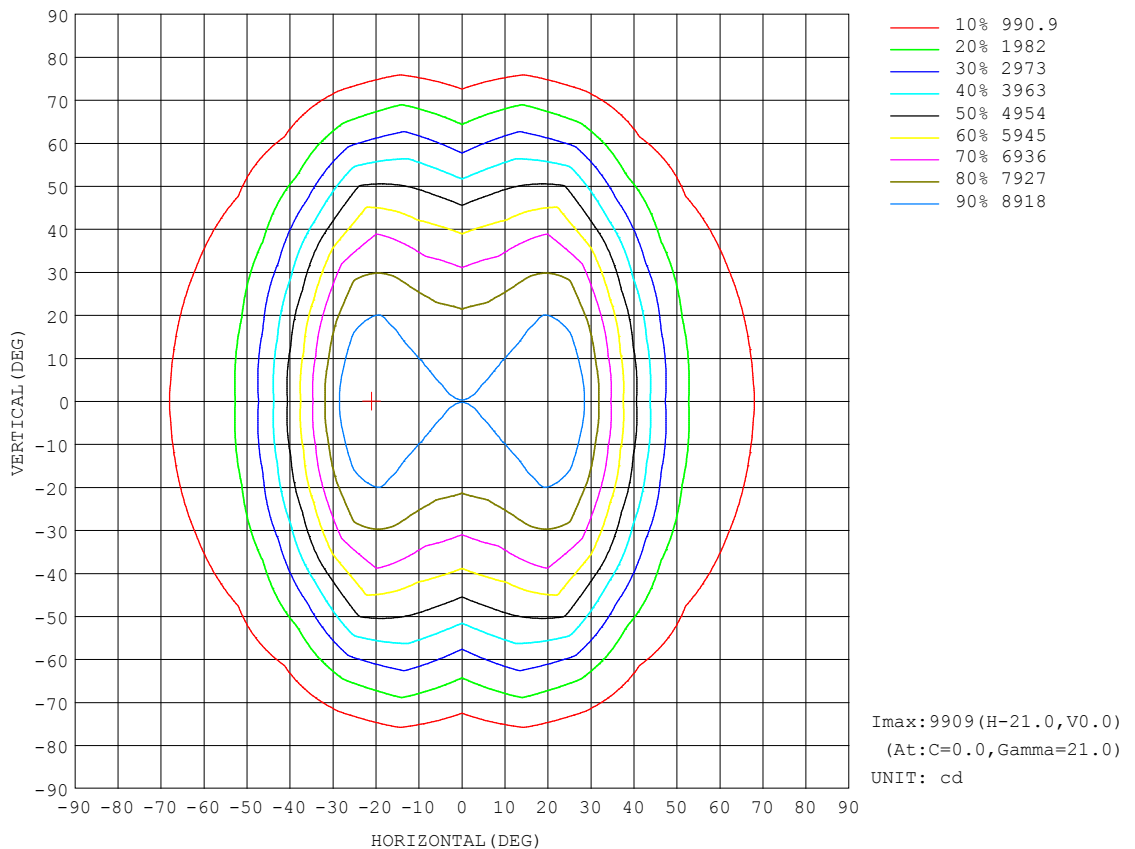
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	64	53	47	63	53	47	62	53	47	41
0.80	74	64	57	73	63	57	71	62	56	50
1.00	82	72	66	81	72	66	79	73	65	59
1.25	89	80	74	87	79	73	85	77	72	66
1.50	93	85	79	92	84	78	89	82	77	70
2.00	99	92	87	97	91	86	94	89	84	77
2.50	102	96	91	100	94	90	97	92	88	80
3.00	105	100	95	103	98	94	99	95	91	83
4.00	109	104	100	106	102	99	102	99	96	87
5.00	111	107	103	108	105	102	104	101	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	SUR.:	Shielding Angle:



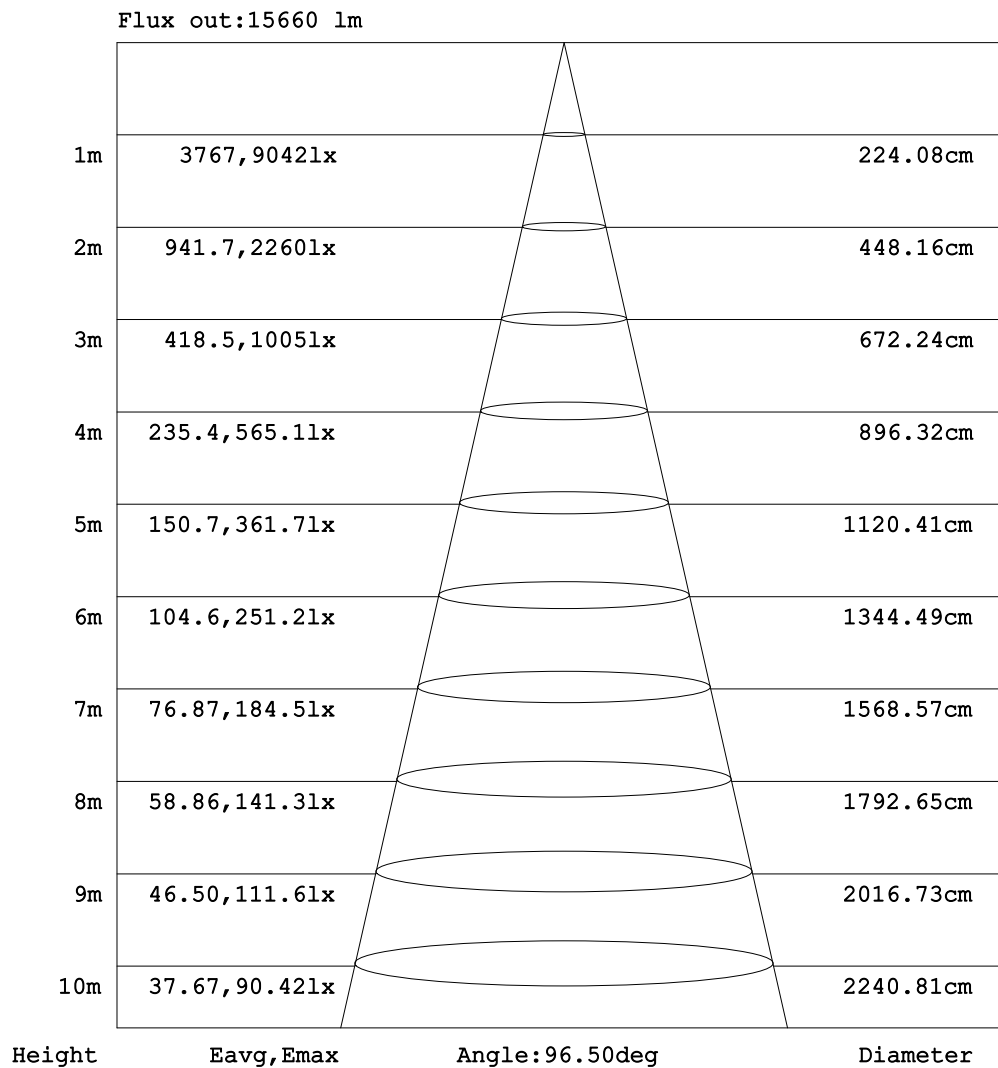
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:



AAI Figure

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	SUR.:	Shielding Angle:



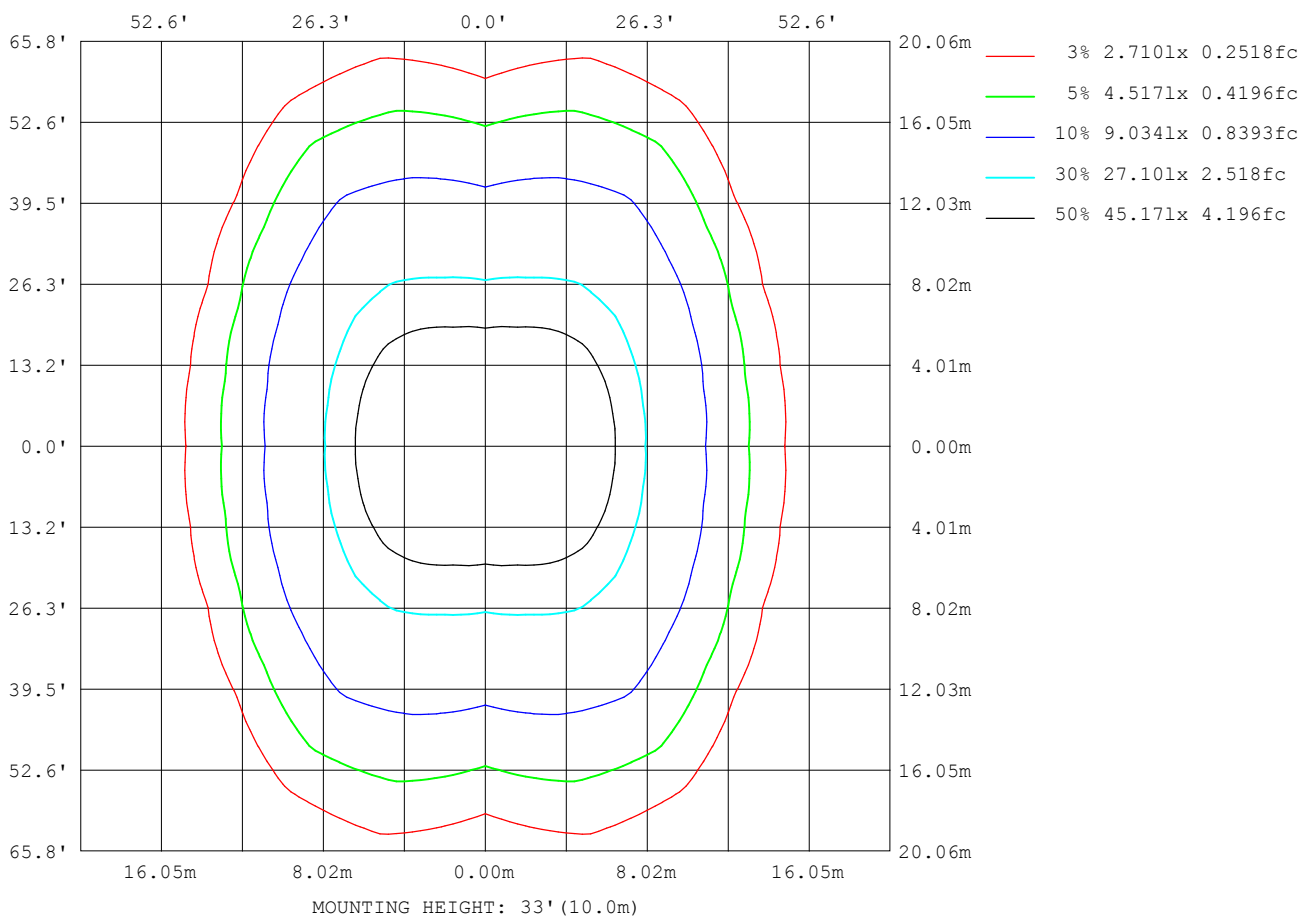
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

ISOLUX DIAGRAM

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	SUR.:	Shielding Angle:

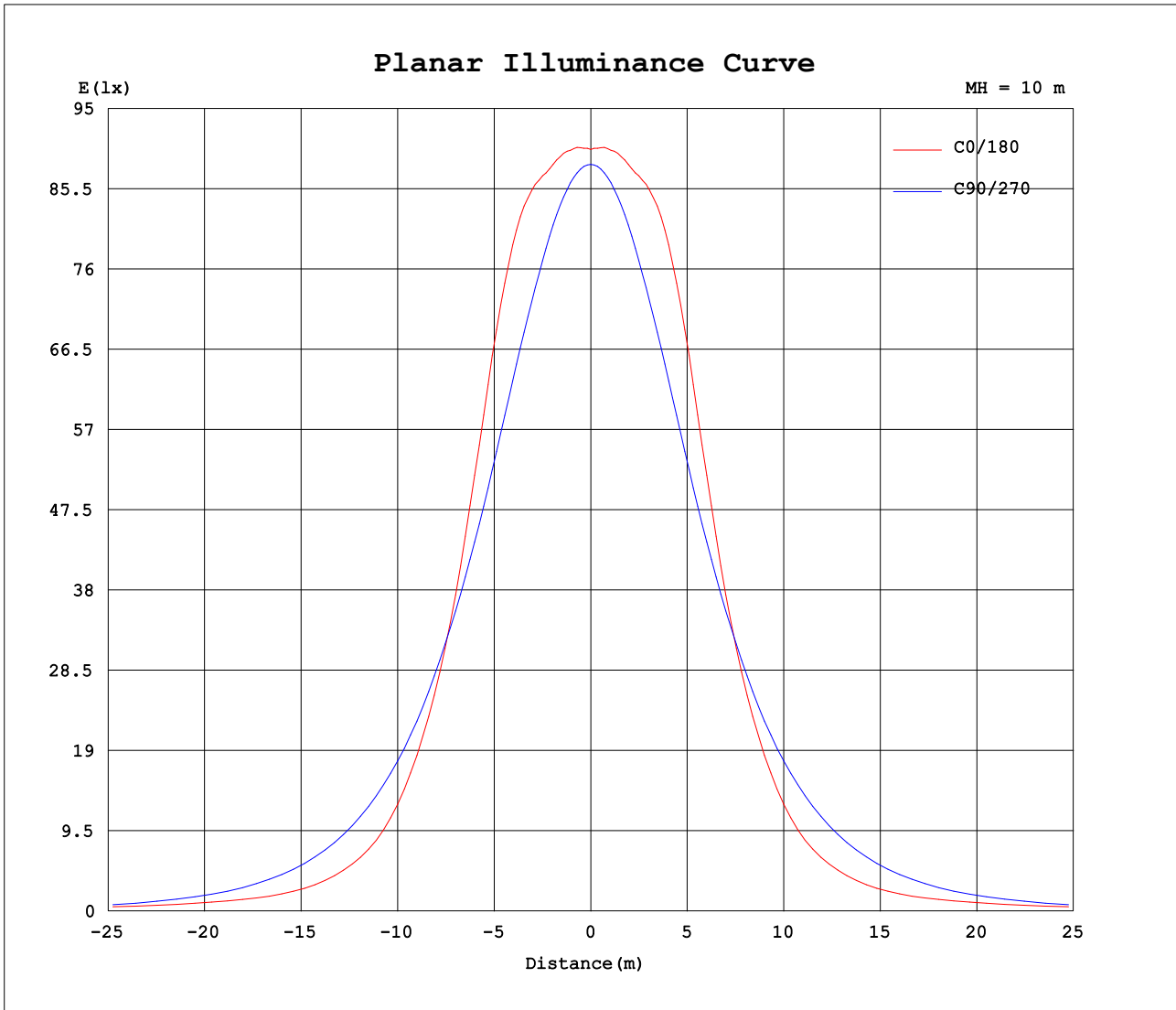
AvgL	cd/m2
L_0~180 (65) av	23638
L_0~180 (75) av	14783
L_0~180 (85) av	2144
L_90~270 (65) av	40634
L_90~270 (75) av	26705
L_90~270 (85) av	11325
L_45 (65) av	31093
L_45 (75) av	17204
L_45 (85) av	1896

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: QC  
 Test Date: 2019-05-29

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity: 53.0%  
 Test Distance: 10.380m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	9015	8910	8892	8842	8830	8835	8839	8835	8830	8842	8892	8910	9015	8910	8892	8842	8830	8835	8839
5	9130	8991	8959	8861	8815	8807	8786	8807	8815	8861	8959	8991	9130	8991	8959	8861	8815	8807	8786
10	9310	9162	9058	8892	8766	8671	8631	8671	8766	8892	9058	9162	9310	9162	9058	8892	8766	8671	8631
15	9601	9410	9193	8911	8646	8455	8370	8455	8646	8911	9193	9410	9601	9410	9193	8911	8646	8455	8370
20	9904	9677	9379	8931	8502	8185	8037	8185	8502	8931	9379	9677	9904	9677	9379	8931	8502	8185	8037
25	9639	9483	9372	8940	8316	7829	7600	7829	8316	8940	9372	9483	9639	9483	9372	8940	8316	7829	7600
30	8494	8562	8849	8784	8084	7379	7055	7379	8084	8784	8849	8562	8494	8562	8849	8784	8084	7379	7055
35	6813	7069	7717	8246	7751	6891	6468	6891	7751	8246	7717	7069	6813	7069	7717	8246	7751	6891	6468
40	5131	5415	6234	7295	7311	6339	5783	6339	7311	7295	6234	5415	5131	5415	6234	7295	7311	6339	5783
45	3581	3923	4704	6003	6635	5703	5032	5703	6635	6003	4704	3923	3581	3923	4704	6003	6635	5703	5032
50	2410	2641	3354	4580	5799	5048	4234	5048	5799	4580	3354	2641	2410	2641	3354	4580	5799	5048	4234
55	1667	1807	2246	3274	4734	4306	3411	4306	4734	3274	2246	1807	1667	1807	2246	3274	4734	4306	3411
60	1260	1281	1497	2232	3576	3531	2616	3531	3576	2232	1497	1281	1260	1281	1497	2232	3576	3531	2616
65	1099	1030	1025	1445	2491	2724	1889	2724	2491	1445	1025	1030	1099	1030	1025	1445	2491	2724	1889
70	779	747	725	891	1592	1917	1261	1917	1592	891	725	747	779	747	725	891	1592	1917	1261
75	421	401	374	490	913	1168	760	1168	913	490	374	401	421	401	374	490	913	1168	760
80	127	134	146	167	404	561	376	561	404	167	146	134	127	134	146	167	404	561	376
85	20.6	19.5	18.4	18.2	56.3	146	109	146	56.3	18.2	18.4	19.5	20.6	19.5	18.4	18.2	56.3	146	109
90	4.70	5.21	6.04	7.53	9.27	9.20	8.54	9.20	9.27	7.53	6.04	5.21	4.70	5.21	6.04	7.53	9.27	9.20	8.54
95	5.23	5.86	7.17	9.05	10.7	11.1	11.1	11.1	10.7	9.05	7.17	5.86	5.23	5.86	7.17	9.05	10.7	11.1	11.1
100	7.70	8.49	10.2	12.3	14.0	14.4	14.5	14.4	14.0	12.3	10.2	8.49	7.70	8.49	10.2	12.3	14.0	14.4	14.5
105	10.8	11.8	13.9	15.9	17.7	18.0	18.4	18.0	17.7	15.9	13.9	11.8	10.8	11.8	13.9	15.9	17.7	18.0	18.4
110	14.7	15.9	17.9	20.0	21.7	22.2	22.7	22.2	21.7	20.0	17.9	15.9	14.7	15.9	17.9	20.0	21.7	22.2	22.7
115	19.3	20.5	22.4	24.3	25.8	26.3	27.2	26.3	25.8	24.3	22.4	20.5	19.3	20.5	22.4	24.3	25.8	26.3	27.2
120	24.5	25.5	27.1	28.8	30.1	30.7	31.8	30.7	30.1	28.8	27.1	25.5	24.5	25.5	27.1	28.8	30.1	30.7	31.8
125	30.0	30.7	31.9	33.3	34.6	35.3	36.5	35.3	34.6	33.3	31.9	30.7	30.0	30.7	31.9	33.3	34.6	35.3	36.5
130	35.8	36.0	36.9	37.9	39.2	40.0	41.2	40.0	39.2	37.9	36.9	36.0	35.8	36.0	36.9	37.9	39.2	40.0	41.2
135	41.3	41.1	41.7	42.6	43.9	44.7	45.7	44.7	43.9	42.6	41.7	41.1	41.3	41.1	41.7	42.6	43.9	44.7	45.7
140	46.2	46.0	46.4	47.3	48.5	49.4	50.3	49.4	48.5	47.3	46.4	46.0	46.2	46.0	46.4	47.3	48.5	49.4	50.3
145	50.5	50.4	51.0	52.1	53.2	54.1	54.8	54.1	53.2	52.1	51.0	50.4	50.5	50.4	51.0	52.1	53.2	54.1	54.8
150	54.6	54.7	55.5	56.8	57.9	58.5	58.9	58.5	57.9	56.8	55.5	54.7	54.6	54.7	55.5	56.8	57.9	58.5	58.9
155	58.8	58.7	60.0	61.3	62.2	62.6	62.9	62.6	62.2	61.3	60.0	58.7	58.8	58.7	60.0	61.3	62.2	62.6	62.9
160	63.6	63.3	64.6	65.7	66.3	66.2	66.2	66.2	66.3	65.7	64.6	63.3	63.6	63.3	64.6	65.7	66.3	66.2	66.2
165	69.0	68.2	68.8	69.5	69.6	69.0	68.9	69.0	69.6	69.5	68.8	68.2	69.0	68.2	68.8	69.5	69.6	69.0	68.9
170	73.7	72.5	72.2	72.4	71.9	71.0	70.7	71.0	71.9	72.4	72.2	72.5	73.7	72.5	72.2	72.4	71.9	71.0	70.7
175	77.1	75.5	74.6	74.8	73.8	72.7	72.7	72.7	73.8	74.8	74.6	75.5	77.1	75.5	74.6	74.8	73.8	72.7	72.7
180	78.1	76.7	75.7	76.0	74.8	73.6	73.6	73.6	74.8	76.0	75.7	76.7	78.1	76.7	75.7	76.0	74.8	73.6	73.6

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:231.4V I:0.6359A P:143.4W PF:0.9746 Freq:49.99Hz Lamp Flux:21546.1x1 lm		
NAME: H20B-150W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: EVRAN	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	8835	8830	8842	8892	8910														
5	8807	8815	8861	8959	8991														
10	8671	8766	8892	9058	9162														
15	8455	8646	8911	9193	9410														
20	8185	8502	8931	9379	9677														
25	7829	8316	8940	9372	9483														
30	7379	8084	8784	8849	8562														
35	6891	7751	8246	7717	7069														
40	6339	7311	7295	6234	5415														
45	5703	6635	6003	4704	3923														
50	5048	5799	4580	3354	2641														
55	4306	4734	3274	2246	1807														
60	3531	3576	2232	1497	1281														
65	2724	2491	1445	1025	1030														
70	1917	1592	891	725	747														
75	1168	913	490	374	401														
80	561	404	167	146	134														
85	146	56.3	18.2	18.4	19.5														
90	9.20	9.27	7.53	6.04	5.21														
95	11.1	10.7	9.05	7.17	5.86														
100	14.4	14.0	12.3	10.2	8.49														
105	18.0	17.7	15.9	13.9	11.8														
110	22.2	21.7	20.0	17.9	15.9														
115	26.3	25.8	24.3	22.4	20.5														
120	30.7	30.1	28.8	27.1	25.5														
125	35.3	34.6	33.3	31.9	30.7														
130	40.0	39.2	37.9	36.9	36.0														
135	44.7	43.9	42.6	41.7	41.1														
140	49.4	48.5	47.3	46.4	46.0														
145	54.1	53.2	52.1	51.0	50.4														
150	58.5	57.9	56.8	55.5	54.7														
155	62.6	62.2	61.3	60.0	58.7														
160	66.2	66.3	65.7	64.6	63.3														
165	69.0	69.6	69.5	68.8	68.2														
170	71.0	71.9	72.4	72.2	72.5														
175	72.7	73.8	74.8	74.6	75.5														
180	73.6	74.8	76.0	75.7	76.7														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:



**Photometric Data Table [cd]**

33.0	8235	7719	7521	7719	8235	8505	7892	7103	6708	7103
36.0	7455	6729	6455	6729	7455	8103	7680	6788	6342	6788
39.0	6540	5735	5447	5735	6540	7525	7413	6458	5931	6458
42.0	5591	4805	4499	4805	5591	6794	7066	6090	5483	6090
45.0	4704	3923	3581	3923	4704	6003	6635	5703	5032	5703
48.0	3861	3099	2809	3099	3861	5162	6155	5311	4566	5311
51.0	3104	2440	2249	2440	3104	4297	5611	4899	4066	4899
54.0	2433	1950	1796	1950	2433	3507	4971	4455	3574	4455
57.0	1909	1561	1466	1561	1909	2832	4266	4004	3085	4004
60.0	1497	1281	1260	1281	1497	2232	3576	3531	2616	3531
63.0	1188	1109	1152	1109	1188	1720	2905	3053	2166	3053
66.0	956.5	997.3	1070	997.3	956.5	1320	2293	2562	1754	2562
69.0	778.1	871.8	853.9	871.8	778.1	985.7	1758	2077	1376	2077
72.0	577.9	571.7	594.7	571.7	577.9	717.5	1294	1604	1046	1604
75.0	374.4	401.4	420.9	401.4	374.4	489.8	912.8	1168	760.3	1168
78.0	218.5	244.3	259.2	244.3	218.5	263.7	601.6	779.8	519.3	779.8
81.0	93.99	76.14	64.72	76.14	93.99	127.5	299.9	461.6	312.6	461.6
84.0	19.71	20.34	21.52	20.34	19.71	30.04	100.5	217.7	151.1	217.7
87.0	15.57	15.88	16.48	15.88	15.57	15.32	14.67	39.72	42.76	39.72
90.0	6.042	5.207	4.698	5.207	6.042	7.529	9.271	9.200	8.543	9.200
93.0	6.191	5.043	4.451	5.043	6.191	7.918	9.525	9.962	9.895	9.962
96.0	7.715	6.336	5.671	6.336	7.715	9.656	11.31	11.75	11.73	11.75
99.0	9.528	7.921	7.158	7.921	9.528	11.60	13.29	13.67	13.77	13.67
102.0	11.59	9.728	8.863	9.728	11.59	13.72	15.43	15.79	16.01	15.79
105.0	13.85	11.82	10.83	11.82	13.85	15.93	17.70	18.02	18.41	18.02
108.0	16.27	14.21	13.08	14.21	16.27	18.32	20.11	20.49	20.98	20.49
111.0	18.79	16.77	15.56	16.77	18.79	20.80	22.57	22.99	23.60	22.99
114.0	21.47	19.54	18.32	19.54	21.47	23.39	25.02	25.49	26.29	25.49
117.0	24.25	22.46	21.33	22.46	24.25	26.08	27.54	28.10	29.00	28.10
120.0	27.08	25.47	24.50	25.47	27.08	28.79	30.13	30.73	31.76	30.73
123.0	29.98	28.56	27.79	28.56	29.98	31.45	32.77	33.44	34.57	33.44
126.0	32.92	31.72	31.20	31.72	32.92	34.19	35.51	36.23	37.41	36.23
129.0	35.88	34.94	34.65	34.94	35.88	36.96	38.28	39.05	40.28	39.05
132.0	38.84	38.09	38.08	38.09	38.84	39.77	41.10	41.84	43.04	41.84
135.0	41.74	41.12	41.31	41.12	41.74	42.57	43.90	44.66	45.75	44.66
138.0	44.56	44.06	44.31	44.06	44.56	45.38	46.66	47.51	48.43	47.51
141.0	47.29	46.91	47.12	46.91	47.29	48.25	49.44	50.35	51.19	50.35
144.0	50.04	49.58	49.71	49.58	50.04	51.16	52.30	53.19	53.89	53.19
147.0	52.85	52.16	52.12	52.16	52.85	53.98	55.16	55.96	56.46	55.96
150.0	55.54	54.66	54.57	54.66	55.54	56.75	57.89	58.55	58.89	58.55
153.0	58.13	57.03	57.07	57.03	58.13	59.44	60.50	61.01	61.29	61.01
156.0	60.90	59.63	59.71	59.63	60.90	62.20	63.06	63.39	63.56	63.39
159.0	63.66	62.39	62.58	62.39	63.66	64.87	65.51	65.52	65.56	65.52
162.0	66.38	65.23	65.73	65.23	66.38	67.43	67.72	67.46	67.40	67.46
165.0	68.81	68.15	68.95	68.15	68.81	69.54	69.57	69.03	68.89	69.03
168.0	70.97	70.93	72.00	70.93	70.97	71.39	71.06	70.26	70.05	70.26
171.0	72.71	73.21	74.51	73.21	72.71	72.92	72.32	71.34	71.10	71.34
174.0	74.21	75.14	76.65	75.14	74.21	74.41	73.53	72.48	72.43	72.48
177.0	75.06	76.07	77.90	76.07	75.06	75.36	74.22	73.08	73.01	73.08
180.0	75.66	76.73	78.13	76.73	75.66	75.99	74.77	73.64	73.57	73.64
G/C	300.0	315.0	330.0	345.0						
0.0	8830	8842	8892	8910						
3.0	8838	8854	8915	8948						
6.0	8807	8882	8979	9020						
9.0	8775	8889	9038	9124						
12.0	8714	8901	9107	9237						
15.0	8646	8911	9193	9410						
18.0	8573	8913	9320	9582						
21.0	8470	8936	9408	9686						
24.0	8367	8943	9405	9583						
27.0	8230	8926	9228	9222						
30.0	8084	8784	8849	8562						
33.0	7892	8505	8235	7719						
36.0	7680	8103	7455	6729						
39.0	7413	7525	6540	5735						
42.0	7066	6794	5591	4805						
45.0	6635	6003	4704	3923						
48.0	6155	5162	3861	3099						
51.0	5611	4297	3104	2440						
54.0	4971	3507	2433	1950						
57.0	4266	2832	1909	1561						
60.0	3576	2232	1497	1281						
63.0	2905	1720	1188	1109						
66.0	2293	1320	956.5	997.3						

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

v Range: 0 - 180DEG  
 v Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks:



## Photometric Data Table [cd]

69.0	1758	985.7	778.1	871.8
72.0	1294	717.5	577.9	571.7
75.0	912.8	489.8	374.4	401.4
78.0	601.6	263.7	218.5	244.3
81.0	299.9	127.5	93.99	76.14
84.0	100.5	30.04	19.71	20.34
87.0	14.67	15.32	15.57	15.88
90.0	9.271	7.529	6.042	5.207
93.0	9.525	7.918	6.191	5.043
96.0	11.31	9.656	7.715	6.336
99.0	13.29	11.60	9.528	7.921
102.0	15.43	13.72	11.59	9.728
105.0	17.70	15.93	13.85	11.82
108.0	20.11	18.32	16.27	14.21
111.0	22.57	20.80	18.79	16.77
114.0	25.02	23.39	21.47	19.54
117.0	27.54	26.08	24.25	22.46
120.0	30.13	28.79	27.08	25.47
123.0	32.77	31.45	29.98	28.56
126.0	35.51	34.19	32.92	31.72
129.0	38.28	36.96	35.88	34.94
132.0	41.10	39.77	38.84	38.09
135.0	43.90	42.57	41.74	41.12
138.0	46.66	45.38	44.56	44.06
141.0	49.44	48.25	47.29	46.91
144.0	52.30	51.16	50.04	49.58
147.0	55.16	53.98	52.85	52.16
150.0	57.89	56.75	55.54	54.66
153.0	60.50	59.44	58.13	57.03
156.0	63.06	62.20	60.90	59.63
159.0	65.51	64.87	63.66	62.39
162.0	67.72	67.43	66.38	65.23
165.0	69.57	69.54	68.81	68.15
168.0	71.06	71.39	70.97	70.93
171.0	72.32	72.92	72.71	73.21
174.0	73.53	74.41	74.21	75.14
177.0	74.22	75.36	75.06	76.07
180.0	74.77	75.99	75.66	76.73

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:QC  
 Test Date:2019-05-29

v Range: 0 - 180DEG  
 v Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:53.0%  
 Test Distance:10.380m [K=1.0000]  
 Remarks: