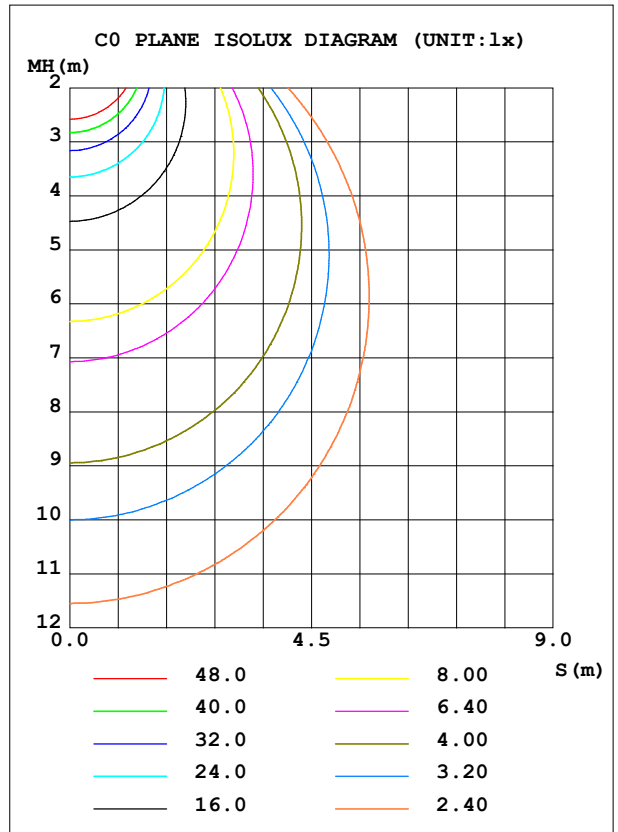
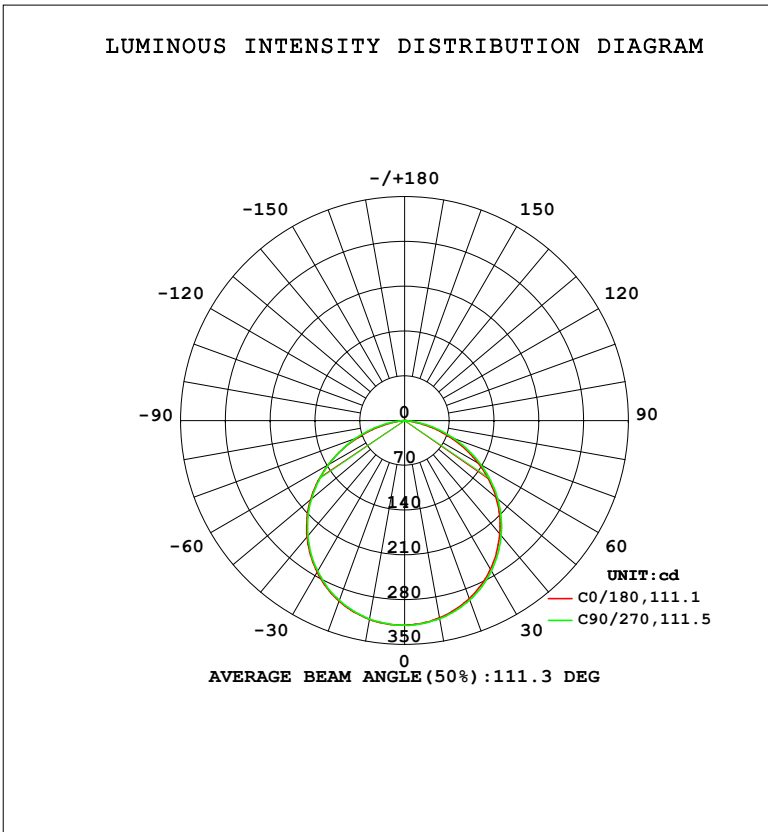


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 75.21 lm/W
MODEL	ASD-JBRB-MV-4D12WH	I _{max} (cd)	320.1	S/MH (C0/180)	1.27	
NOMINAL POWER (W)	12	LOR (%)	100.0	S/MH (C90/270)	1.26	
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	886.32	η UP, DN (C0-180)	0.0, 50.0	
NOMINAL FLUX (lm)	886.32	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 50.0	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	120	η down (%)	100.0	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.3 °C
 Operators:
 Test Date: 2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

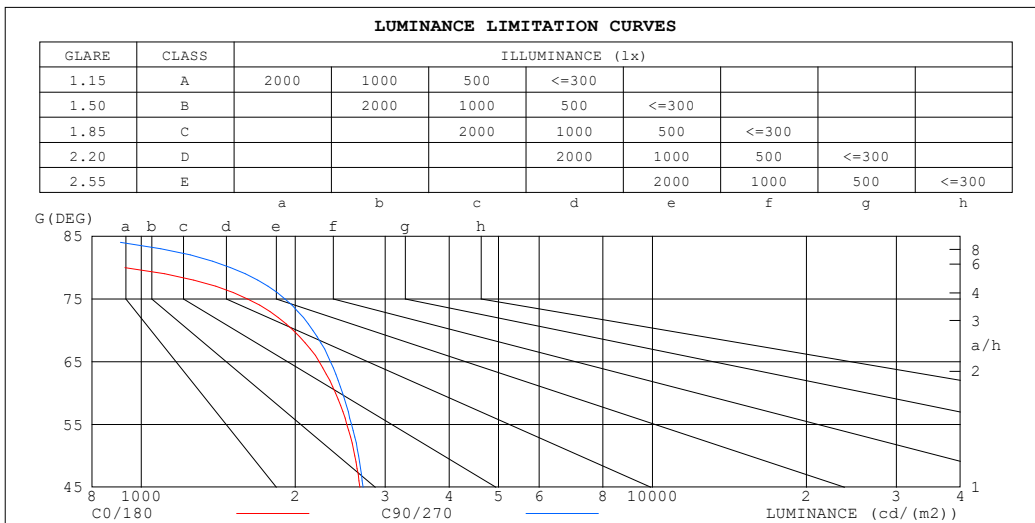
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	312.9	313.8	314.7	315.5	315.4	315.2	315.0	314.0	0- 10	30.28	30.28	3.42,3.42
20	296.0	296.8	298.2	299.8	300.1	299.5	298.8	297.5	10- 20	86.88	117.2	13.2,13.2
30	268.4	269.4	271.5	272.9	273.6	272.1	271.9	270.5	20- 30	131.9	249.1	28.1,28.1
40	231.4	233.1	234.8	236.2	237.4	235.9	235.6	234.0	30- 40	159.0	408.0	46,46
50	186.6	188.7	190.2	191.0	191.8	190.5	189.9	188.6	40- 50	164.5	572.5	64.6,64.6
60	133.1	136.1	137.6	137.2	137.5	137.1	137.0	135.7	50- 60	146.2	718.7	81.1,81.1
70	75.21	79.53	82.39	79.84	77.53	79.80	81.49	79.24	60- 70	106.9	825.7	93.2,93.2
80	17.90	23.17	28.85	23.59	19.63	22.45	28.51	23.59	70- 80	53.77	879.4	99.2,99.2
90	0.2843	0.3082	0.3455	0.3144	0.1983	0.1973	0.2223	0.1942	80- 90	6.891	886.3	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.3 °C
 Operators:
 Test Date:2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K 90	DIM.:	SERIAL No.:
MFR.: ASD	SUR.:	Shielding Angle:



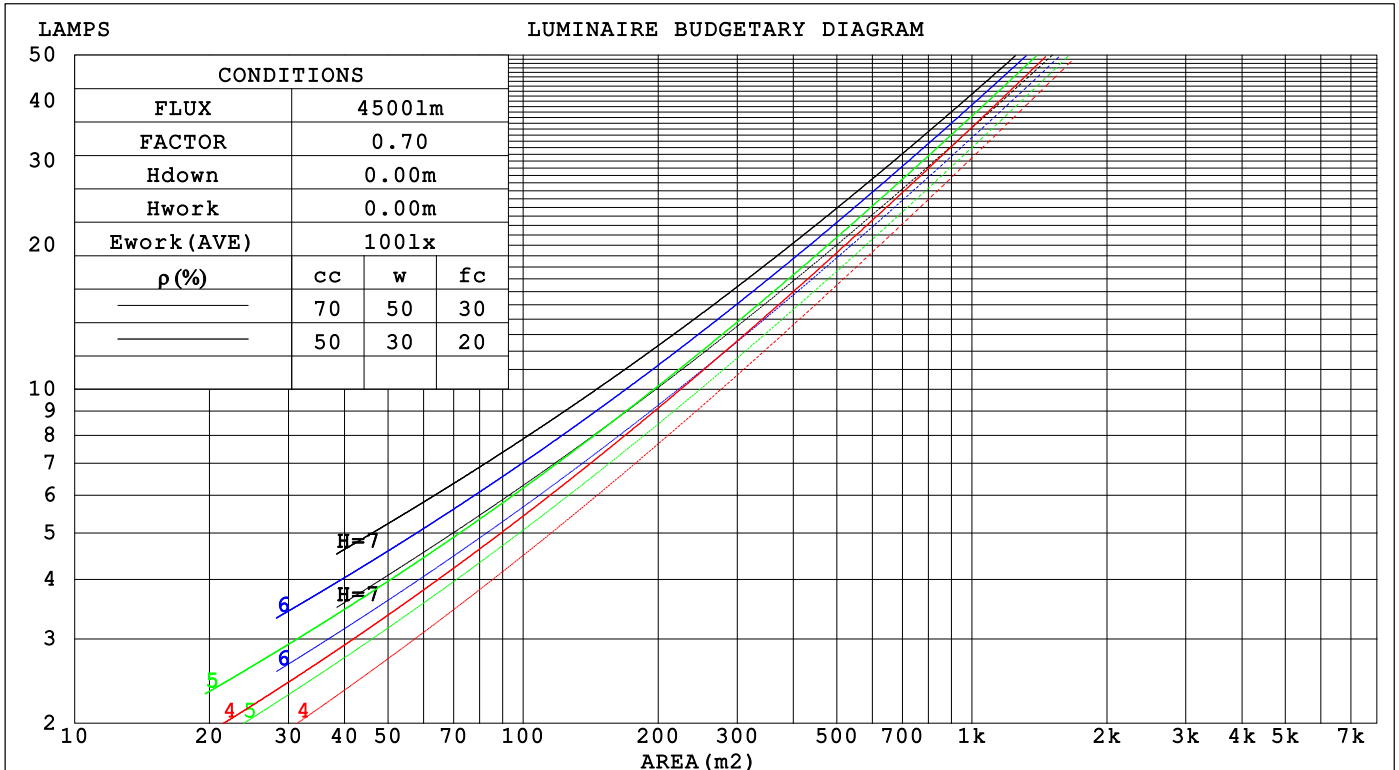
C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.3°C
 Operators:
 Test Date: 2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K 90	DIM.:	SERIAL No.:
MFR.: ASD	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	1.02	1.02	1.02	1.00
1.0	1.05	1.01	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.79	.90	.84	.78	.86	.81	.77	.83	.79	.75	.80	.76	.73	.71
3.0	.80	.72	.66	.79	.71	.65	.76	.70	.64	.73	.68	.63	.71	.66	.62	.60
4.0	.71	.63	.56	.70	.62	.56	.67	.60	.55	.65	.59	.54	.63	.58	.53	.51
5.0	.64	.55	.48	.63	.54	.48	.60	.53	.47	.58	.52	.47	.57	.51	.46	.44
6.0	.57	.48	.42	.56	.48	.42	.55	.47	.42	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.39	.33	.45	.38	.33	.44	.37	.33	.43	.37	.32	.31
9.0	.44	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.3°C
 Operators:
 Test Date:2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz		
UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K 90	DIM.:	SERIAL No.:
MFR.: ASD	SUR.:	Shielding Angle:

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.293	.167	.053	.286	.163	.052	.273	.157	.050	.261	.150	.048	.250	.145	.047	
2.0	.281	.154	.047	.275	.152	.047	.264	.147	.046	.253	.142	.044	.243	.137	.043	
3.0	.263	.140	.042	.258	.138	.042	.247	.134	.041	.238	.130	.040	.229	.127	.039	
4.0	.244	.127	.037	.239	.125	.037	.230	.122	.036	.222	.119	.036	.214	.116	.035	
5.0	.227	.115	.033	.222	.114	.033	.214	.112	.033	.207	.109	.032	.200	.107	.032	
6.0	.211	.106	.030	.207	.105	.030	.200	.102	.030	.193	.100	.029	.187	.098	.029	
7.0	.197	.097	.028	.193	.096	.027	.187	.094	.027	.181	.093	.027	.175	.091	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.087	.025	.170	.086	.025	.165	.085	.025	
9.0	.173	.083	.023	.170	.083	.023	.165	.081	.023	.160	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.074	.021	

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.034	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.3°C
 Operators:
 Test Date:2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K 90	DIM.:	SERIAL No.:
MFR.: ASD	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	16.5	18.0	16.8	18.2	18.4	16.7	18.2	16.9	18.4	18.6
3H	17.8	19.2	18.1	19.4	19.7	18.1	19.5	18.4	19.7	19.9
4H	18.2	19.6	18.5	19.8	20.1	18.6	19.9	18.9	20.2	20.4
6H	18.4	19.6	18.7	19.9	20.2	18.9	20.1	19.2	20.4	20.7
8H	18.4	19.6	18.7	19.8	20.1	18.9	20.1	19.3	20.4	20.7
12H	18.3	19.5	18.7	19.7	20.1	18.9	20.1	19.3	20.4	20.7
4H 2H	17.1	18.4	17.4	18.7	18.9	17.2	18.5	17.5	18.8	19.0
3H	18.6	19.7	18.9	20.0	20.3	18.8	20.0	19.2	20.2	20.6
4H	19.1	20.1	19.5	20.5	20.8	19.4	20.5	19.8	20.8	21.1
6H	19.3	20.2	19.7	20.6	21.0	19.8	20.7	20.2	21.1	21.5
8H	19.3	20.2	19.7	20.5	20.9	19.9	20.8	20.3	21.1	21.5
12H	19.3	20.0	19.7	20.4	20.8	19.9	20.7	20.3	21.1	21.5
8H 4H	19.3	20.1	19.7	20.5	20.9	19.6	20.5	20.0	20.8	21.2
6H	19.6	20.3	20.0	20.7	21.1	20.1	20.8	20.5	21.2	21.6
8H	19.6	20.2	20.0	20.6	21.1	20.2	20.8	20.7	21.3	21.7
12H	19.6	20.1	20.0	20.5	21.0	20.2	20.8	20.7	21.2	21.7
12H 4H	19.3	20.1	19.7	20.5	20.9	19.6	20.4	20.0	20.8	21.2
6H	19.6	20.2	20.1	20.6	21.1	20.1	20.7	20.5	21.1	21.6
8H	19.6	20.1	20.1	20.6	21.1	20.2	20.7	20.7	21.2	21.7

Variations with the observer position at spacings(CIE Pub.117):		
S = 1.0H	+ 0.2 / - 0.3	+ 0.2 / - 0.2
1.5H	+ 0.2 / - 0.4	+ 0.2 / - 0.4
2.0H	+ 0.3 / - 0.3	+ 0.2 / - 0.3

CIE Pub.117, 886.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -0.4)
 Area: 0.111111 m2

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.3°C
 Operators:
 Test Date:2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K 90	DIM.:	SERIAL No.:
MFR.: ASD	SUR.:	Shielding Angle:

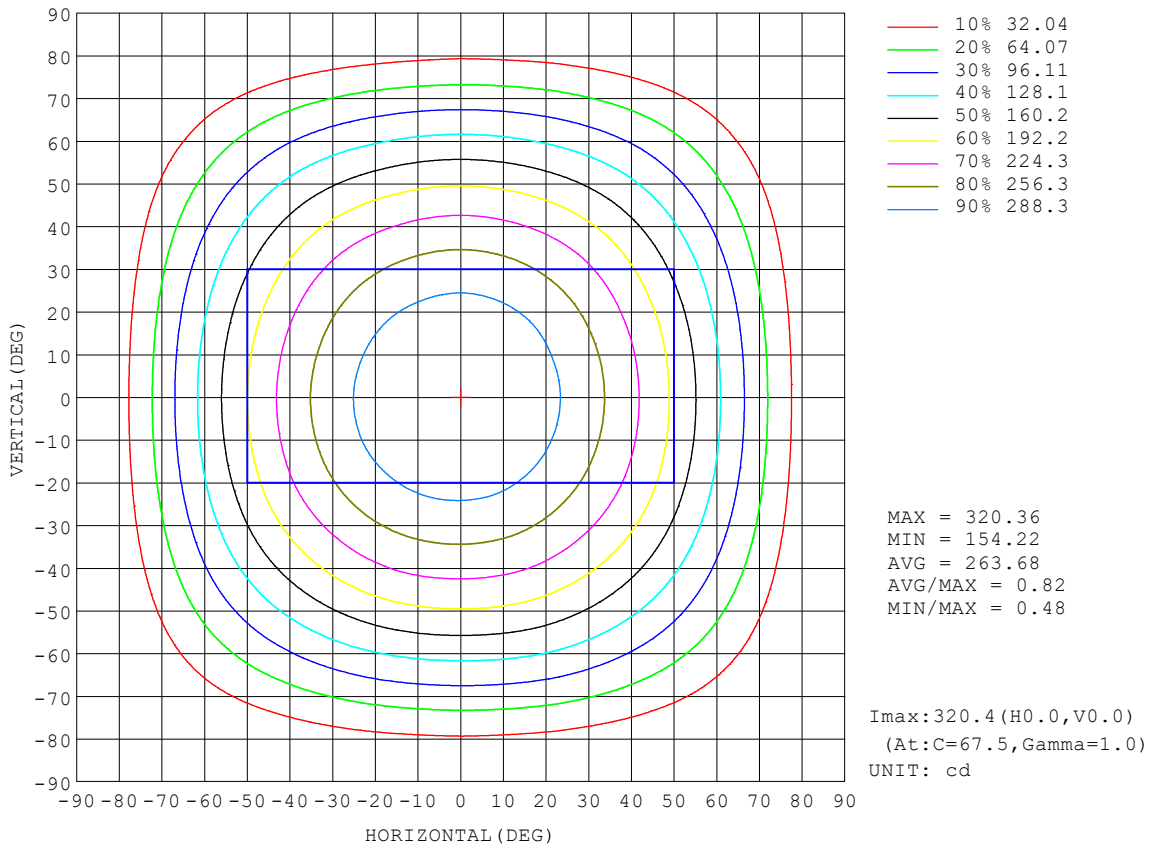
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	47	40	57	46	40	56	46	40	33
0.80	68	57	50	67	57	50	66	56	49	42
1.00	77	66	59	76	65	59	74	67	58	51
1.25	84	74	67	83	73	66	80	72	66	59
1.50	89	79	73	87	79	72	84	77	71	64
2.00	96	88	81	94	86	81	91	84	79	72
2.50	100	92	86	98	91	86	94	88	84	76
3.00	103	96	91	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.3°C
 Operators:
 Test Date:2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K 90	DIM.:	SERIAL No.:
MFR.: ASD	SUR.:	Shielding Angle:

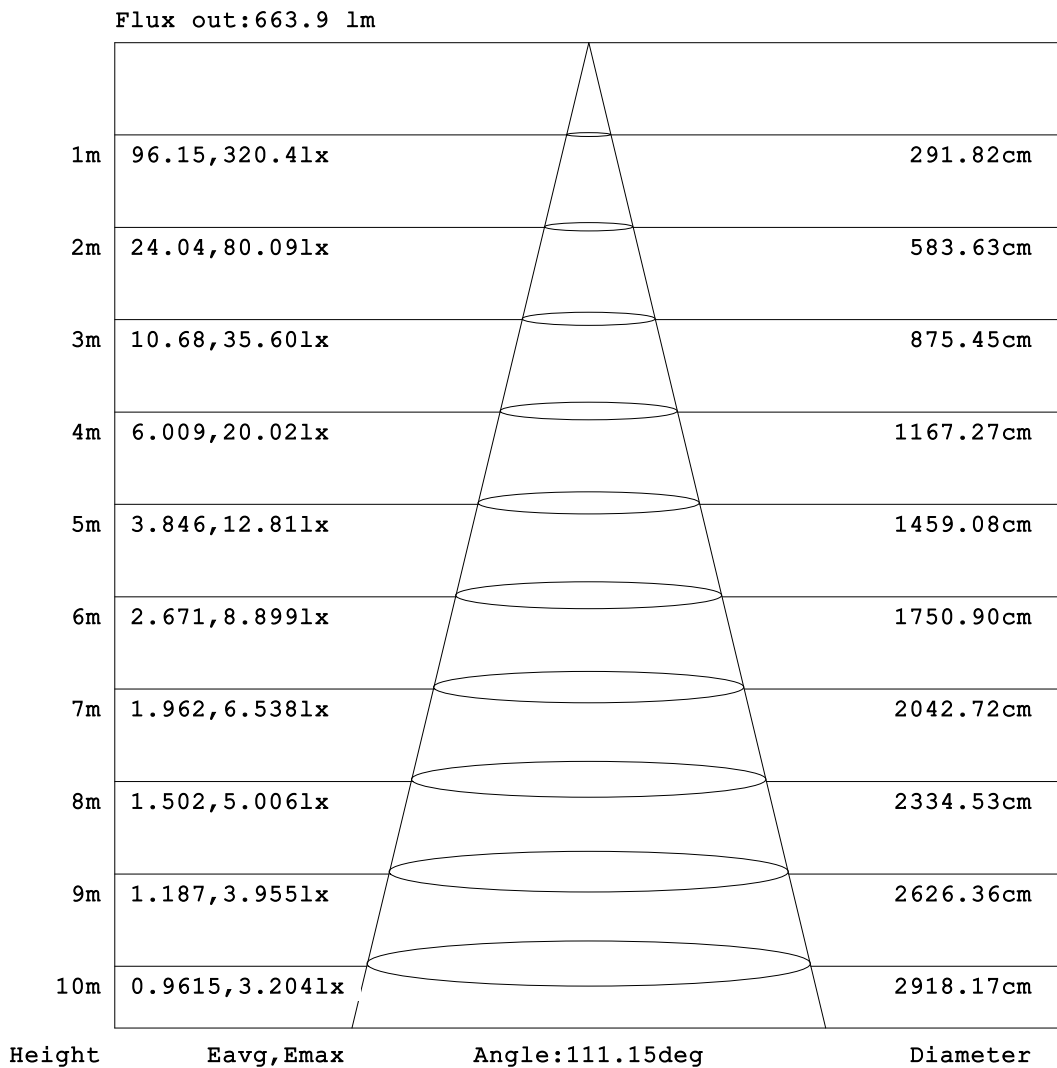


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.3°C
 Operators:
 Test Date: 2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

AAI Figure

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K 90	DIM.:	SERIAL No.:
MFR.: ASD	SUR.:	Shielding Angle:



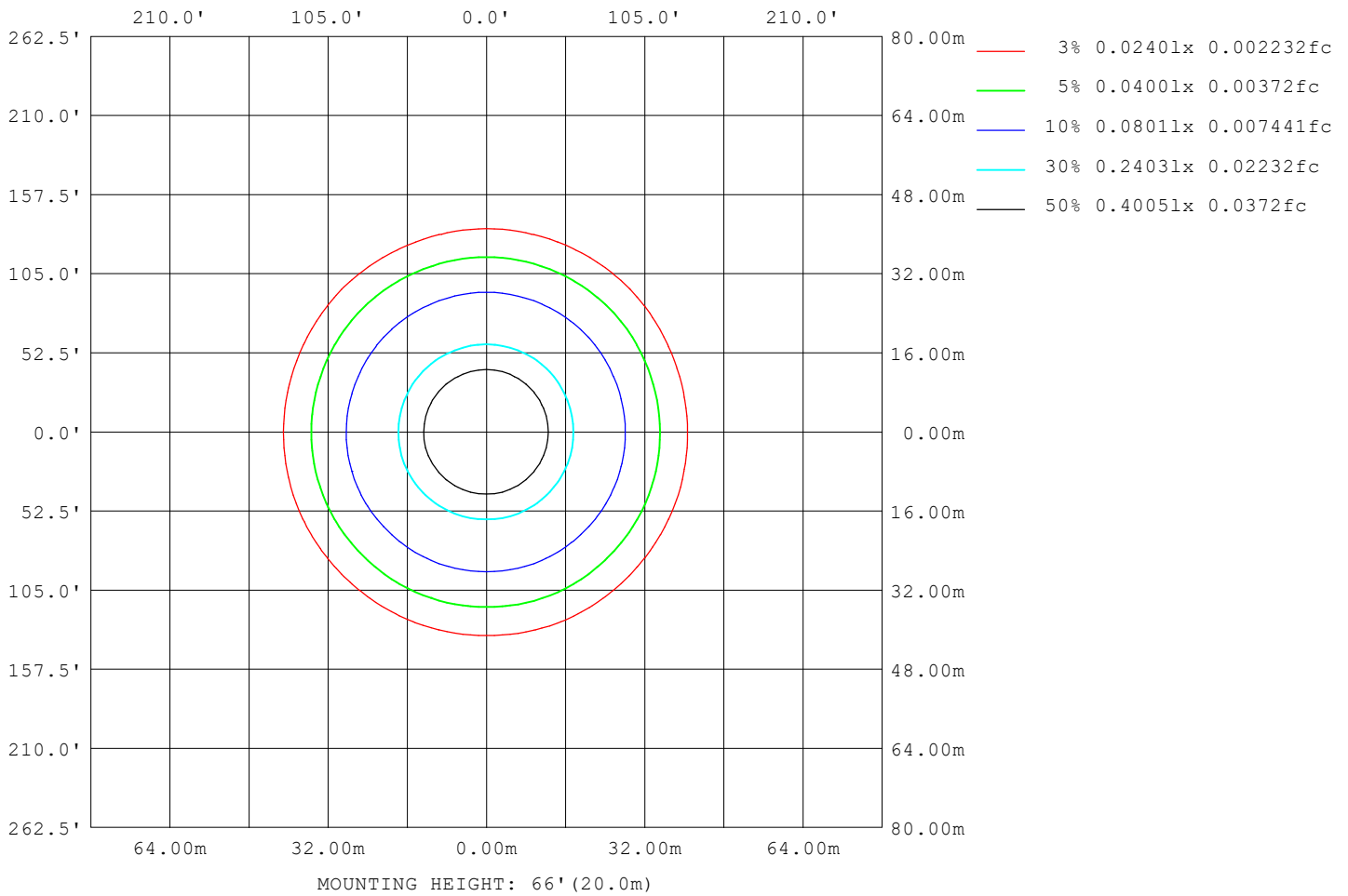
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.3°C
Operators:
Test Date:2024-01-18

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
Humidity:65.0%
Test Distance:3.080m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K 90	DIM.:	SERIAL No.:
MFR.: ASD	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.3 °C
 Operators:
 Test Date: 2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:119.82V I:0.0992A P:11.784W PF:0.9917 Freq:59.98Hz UTHDi:0.00% ITHDi:0.00% KDisp:0 Lamp Flux:886.32x1 lm		
NAME: ASD-JBRB-MV-4D12WH	TYPE:	WEIGHT:
SPEC.: 5000K 90	DIM.:	SERIAL No.:
MFR.: ASD	SUR.:	Shielding Angle:

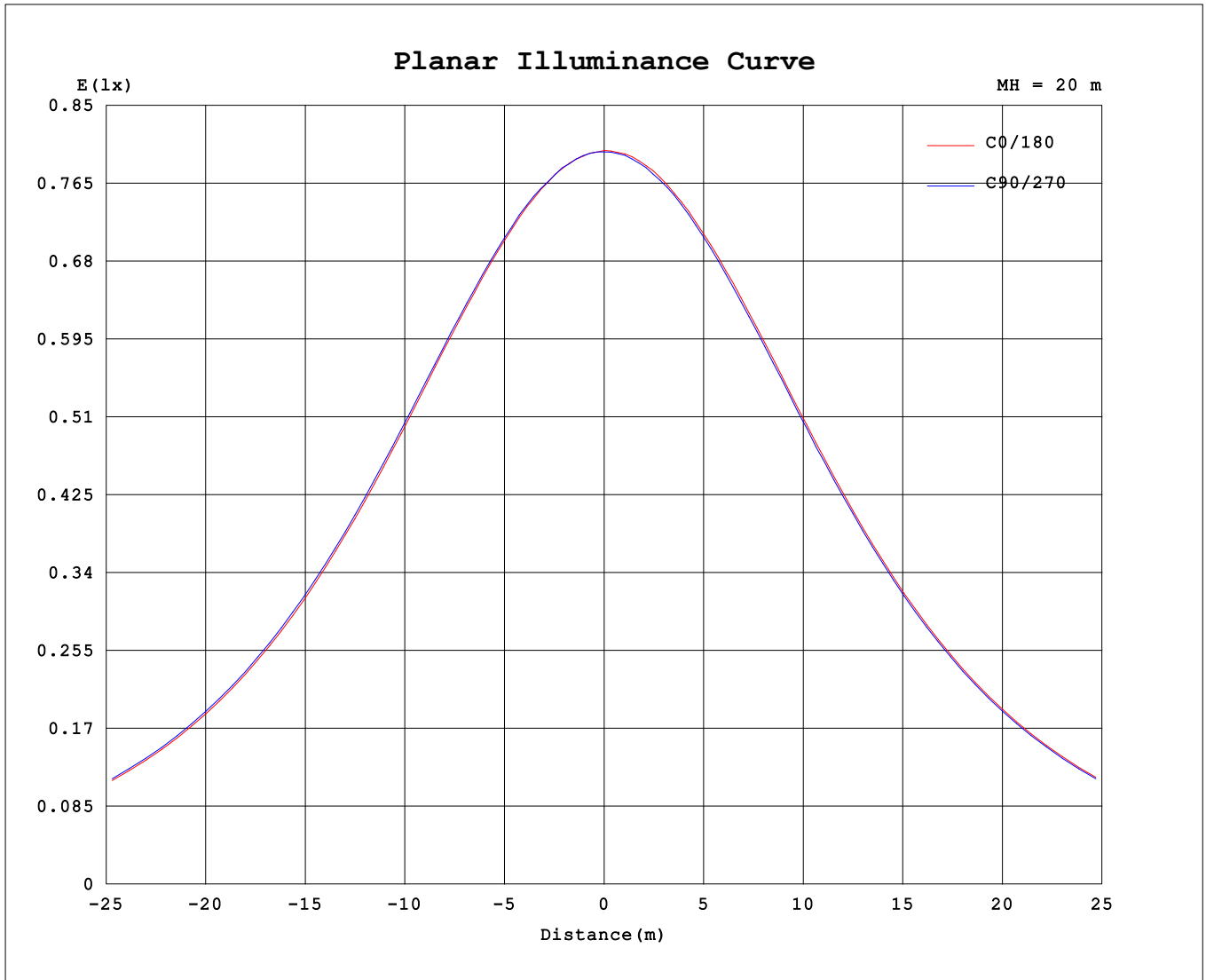
AvgL	cd/m2
L_0~180 (65) av	2261
L_0~180 (75) av	1634
L_0~180 (85) av	168
L_90~270 (65) av	2335
L_90~270 (75) av	1901
L_90~270 (85) av	618
L_45 (65) av	2303
L_45 (75) av	1764
L_45 (85) av	219

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.3℃
 Operators:
 Test Date:2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity:65.0%
 Test Distance:3.080m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.3 °C
 Operators:
 Test Date: 2024-01-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.00.460
 Humidity: 65.0%
 Test Distance: 3.080m [K=1.0000]
 Remarks:

