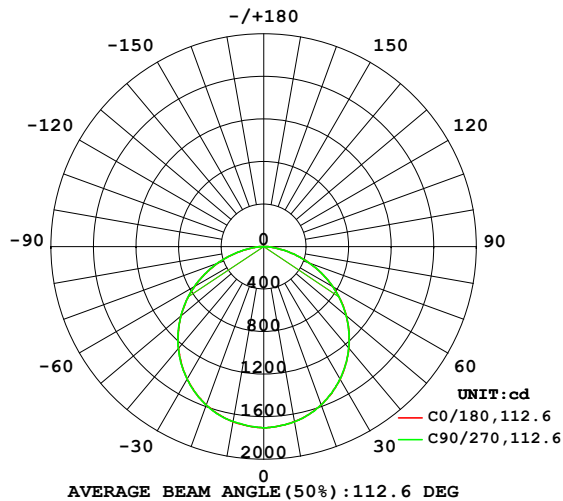


LUMINAIRE PHOTOMETRIC TEST REPORT

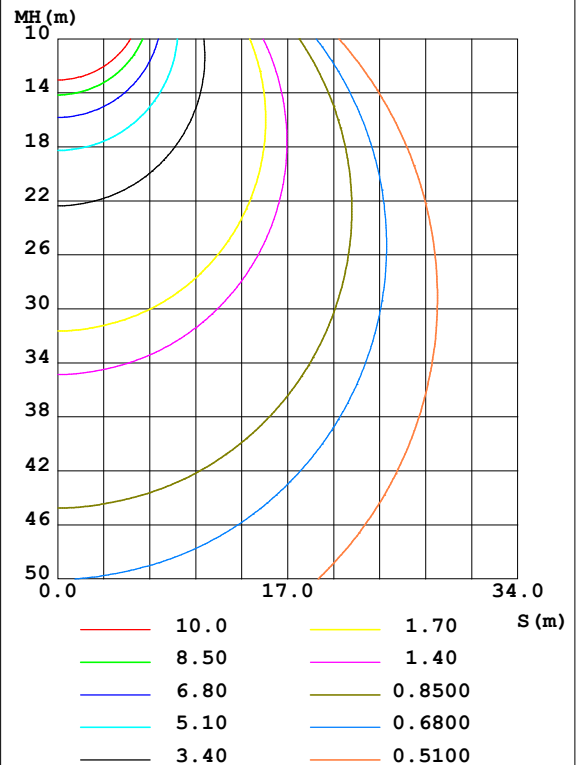
Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm		
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 94.16 lm/W			
CLE SHALIMONDE32 522mm 1750lm 940 EXC		Imax(cd)	1704	S/MH(C0/180)	1.26
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	4853.3	η UP,DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	4853.3	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.1
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [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
5	1692	1694	1693	1690	1692	1692	1691	1692	0- 5	40.58	40.58	0.84,0.84
10	1671	1670	1672	1671	1672	1671	1670	1673	5- 10	120.3	160.9	3.31,3.31
15	1635	1634	1636	1636	1636	1637	1637	1637	10- 15	196.2	357.1	7.36,7.36
20	1582	1581	1582	1583	1584	1584	1586	1585	15- 20	265.3	622.4	12.8,12.8
25	1517	1516	1517	1516	1517	1519	1520	1519	20- 25	325.2	947.7	19.5,19.5
30	1438	1436	1437	1437	1439	1440	1441	1440	25- 30	374.1	1322	27.2,27.2
35	1347	1346	1346	1347	1348	1350	1351	1349	30- 35	410.4	1732	35.7,35.7
40	1246	1244	1244	1245	1248	1250	1250	1248	35- 40	433.0	2165	44.6,44.6
45	1135	1133	1133	1134	1137	1138	1139	1137	40- 45	441.3	2607	53.7,53.7
50	1014	1012	1013	1014	1017	1019	1019	1017	45- 50	434.8	3041	62.7,62.7
55	885.3	883.2	883.5	884.8	888.6	889.4	889.8	887.9	50- 55	413.6	3455	71.2,71.2
60	749.1	746.6	746.9	749.0	752.1	753.8	753.8	751.6	55- 60	378.4	3833	79,79
65	606.4	604.1	604.2	606.6	609.3	611.3	611.3	608.9	60- 65	330.2	4164	85.8,85.8
70	459.8	457.7	458.1	459.9	462.9	465.2	464.7	462.2	65- 70	270.6	4434	91.4,91.4
75	314.0	312.4	312.9	314.1	316.6	319.4	319.0	316.4	70- 75	202.7	4637	95.5,95.5
80	178.5	178.3	178.8	178.4	180.3	183.5	183.5	180.5	75- 80	131.8	4769	98.3,98.3
85	70.50	70.53	70.46	69.39	70.24	73.33	73.86	71.74	80- 85	66.67	4835	99.6,99.6
90	1.430	1.399	1.396	1.388	1.250	1.288	1.355	1.333	85- 90	18.03	4853	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 2606.5 lm

%lum = 53.7%

%lamp = 53.7%

Conical surface Flux(120deg): 3833.4 lm

%lum = 79.0%

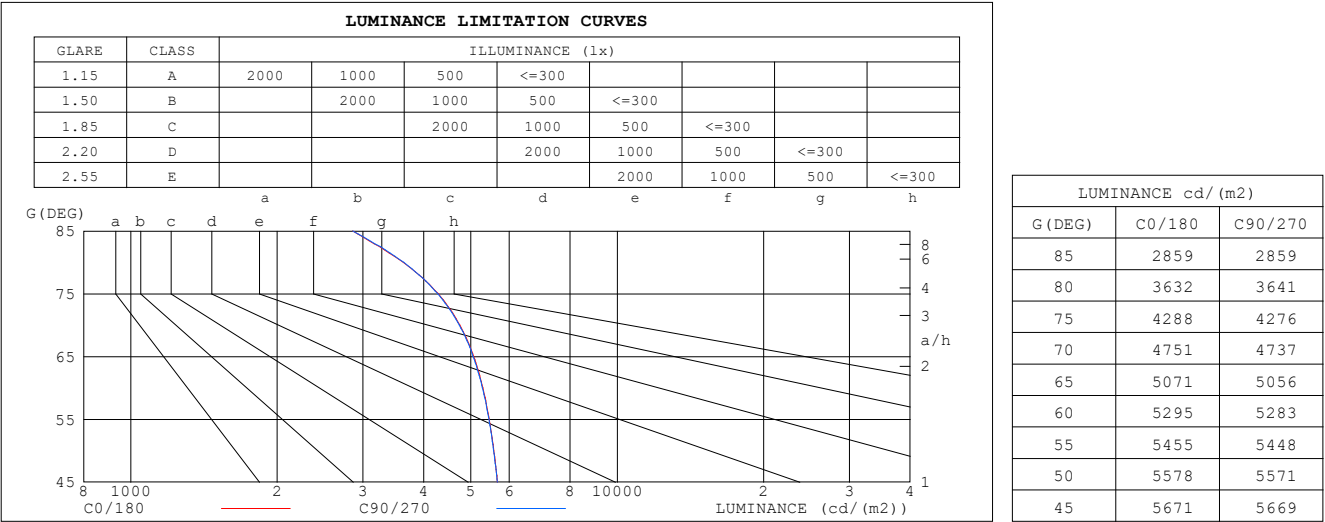
%lamp = 79.0%

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm		
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



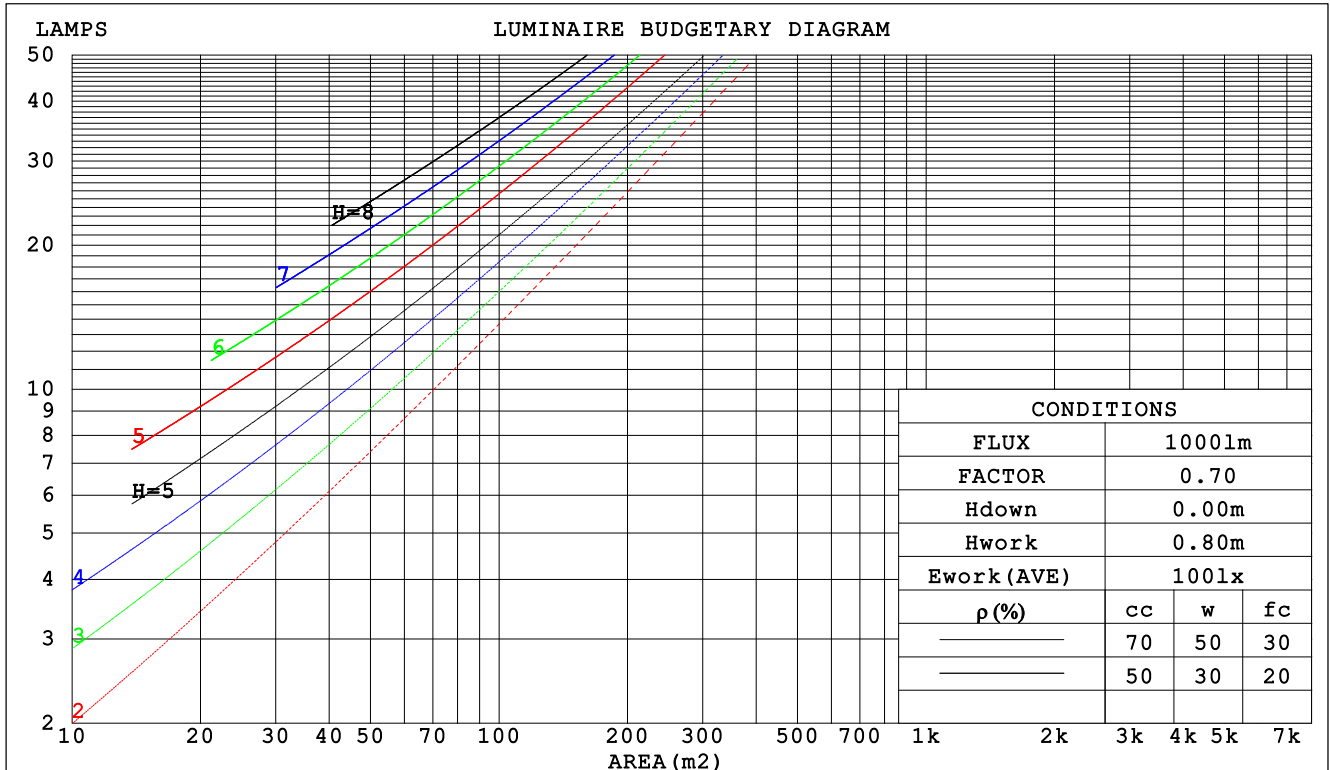
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm		
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	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	Coefficients of Utilization(CU)															
RCR:Room Cavity Ratio																
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	1.04	.00	.96	1.02	.98	.94	.97	.94	.91	.94	.91	.88	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.82	.77	.85	.80	.75	.82	.77	.73	.79	.75	.72	.70
3.0	.79	.71	.65	.78	.70	.64	.75	.68	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.70	.61	.55	.69	.61	.54	.66	.59	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.46	.58	.51	.46	.56	.50	.45	.43
6.0	.56	.47	.41	.56	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.28	.27
10.0	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm		
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	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	.308	.175	.055	.301	.172	.055	.288	.165	.053	.276	.159	.051	.264	.153	.049		
2.0	.291	.159	.049	.285	.157	.048	.273	.152	.047	.262	.147	.046	.252	.143	.045		
3.0	.270	.143	.043	.264	.141	.043	.254	.137	.042	.244	.134	.041	.235	.130	.040		
4.0	.249	.129	.038	.244	.128	.038	.235	.125	.037	.226	.122	.037	.218	.119	.036		
5.0	.230	.117	.034	.226	.116	.034	.218	.113	.033	.210	.111	.033	.203	.109	.033		
6.0	.214	.107	.031	.210	.106	.030	.202	.104	.030	.196	.102	.030	.189	.100	.030		
7.0	.199	.098	.028	.195	.097	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027		
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025		
9.0	.174	.084	.024	.171	.083	.023	.166	.082	.023	.161	.081	.023	.157	.080	.023		
10.0	.164	.078	.022	.161	.078	.022	.156	.077	.022	.152	.076	.021	.148	.074	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.134	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.098	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.074	.141	.099	.064	.097	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.157	.101	.058	.135	.087	.051	.093	.061	.036	.054	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm										
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:1		
MFR.: DARKON					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	18.8	20.3	19.0	20.5	20.7	18.8	20.3	19.0	20.5	20.7
3H	20.3	21.7	20.6	21.9	22.1	20.3	21.7	20.6	21.9	22.1
4H	20.8	22.2	21.1	22.4	22.7	20.8	22.2	21.1	22.4	22.7
6H	21.2	22.5	21.5	22.7	23.0	21.2	22.5	21.5	22.7	23.0
8H	21.3	22.5	21.6	22.8	23.1	21.3	22.5	21.6	22.8	23.1
12H	21.3	22.5	21.7	22.8	23.1	21.3	22.5	21.7	22.8	23.1
4H 2H	19.4	20.7	19.7	21.0	21.2	19.4	20.7	19.7	21.0	21.2
3H	21.0	22.2	21.4	22.5	22.8	21.0	22.2	21.4	22.5	22.8
4H	21.7	22.8	22.1	23.1	23.5	21.7	22.8	22.1	23.1	23.4
6H	22.2	23.2	22.6	23.5	23.9	22.2	23.2	22.6	23.5	23.9
8H	22.4	23.2	22.8	23.6	24.0	22.4	23.2	22.8	23.6	24.0
12H	22.4	23.3	22.9	23.6	24.1	22.4	23.3	22.9	23.6	24.0
8H 4H	22.0	22.9	22.4	23.2	23.6	22.0	22.8	22.4	23.2	23.6
6H	22.6	23.3	23.0	23.7	24.2	22.6	23.3	23.0	23.7	24.2
8H	22.8	23.5	23.3	23.9	24.3	22.8	23.5	23.3	23.9	24.3
12H	23.0	23.5	23.4	24.0	24.4	23.0	23.5	23.4	24.0	24.4
12H 4H	22.0	22.8	22.4	23.2	23.6	22.0	22.8	22.4	23.2	23.6
6H	22.6	23.3	23.1	23.7	24.2	22.6	23.3	23.1	23.7	24.2
8H	22.9	23.4	23.4	23.9	24.4	22.9	23.4	23.4	23.9	24.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 4853 lm Total Lamp Luminous Flux. (8log(F/F0) = 5.5)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm		
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

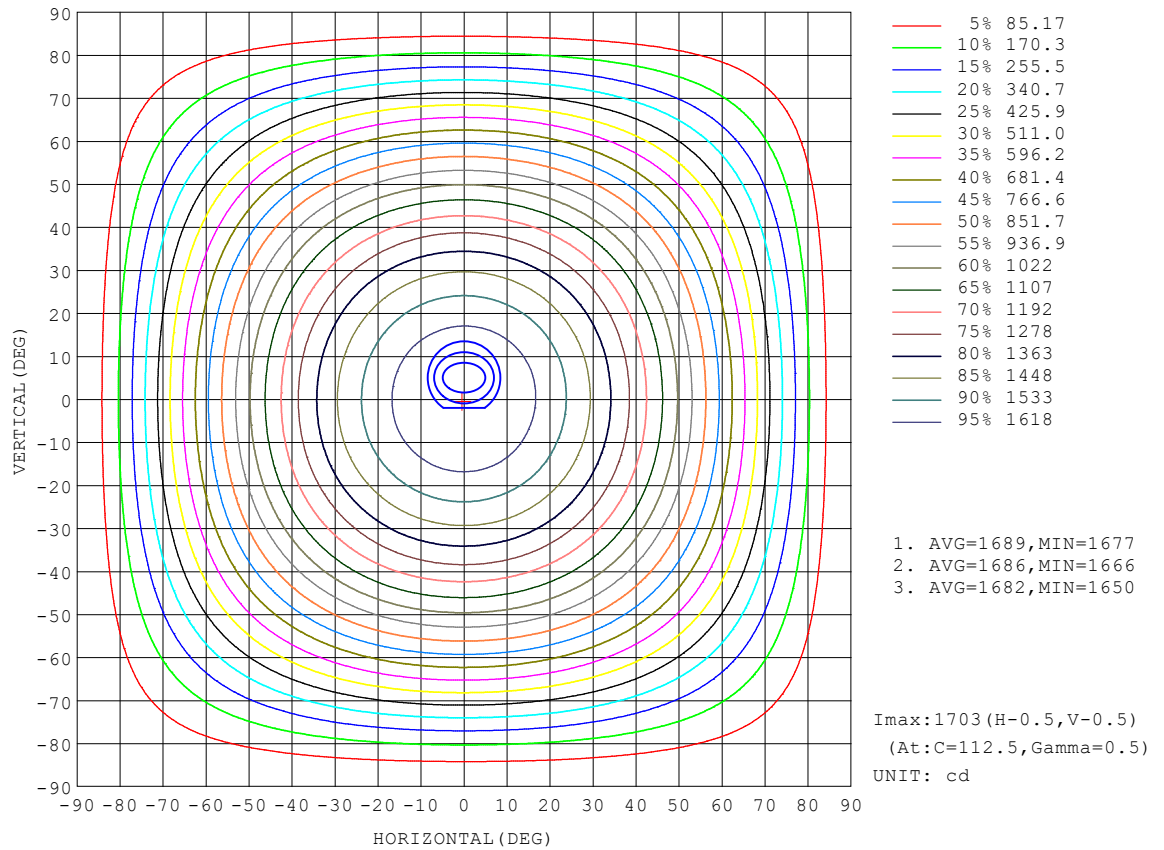
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	55	48	65	55	48	41
1.00	76	65	58	75	64	57	73	66	57	50
1.25	83	73	65	82	72	65	79	70	64	57
1.50	88	78	71	86	77	71	83	76	70	62
2.00	95	86	80	93	85	79	90	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	87	78
4.00	106	101	96	104	99	95	100	95	92	83
5.00	109	104	100	106	102	98	102	98	95	86
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: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm		
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

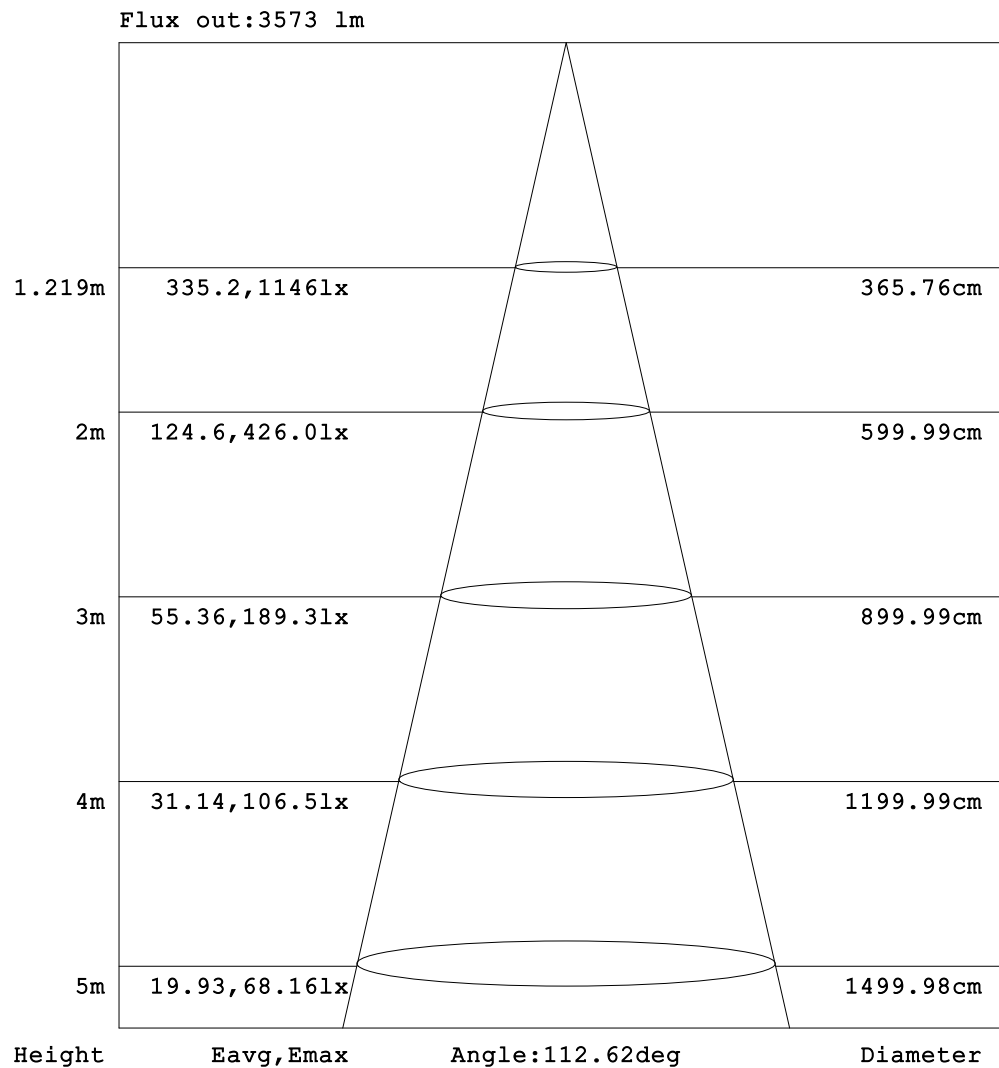


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

AAI Figure

Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm		
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



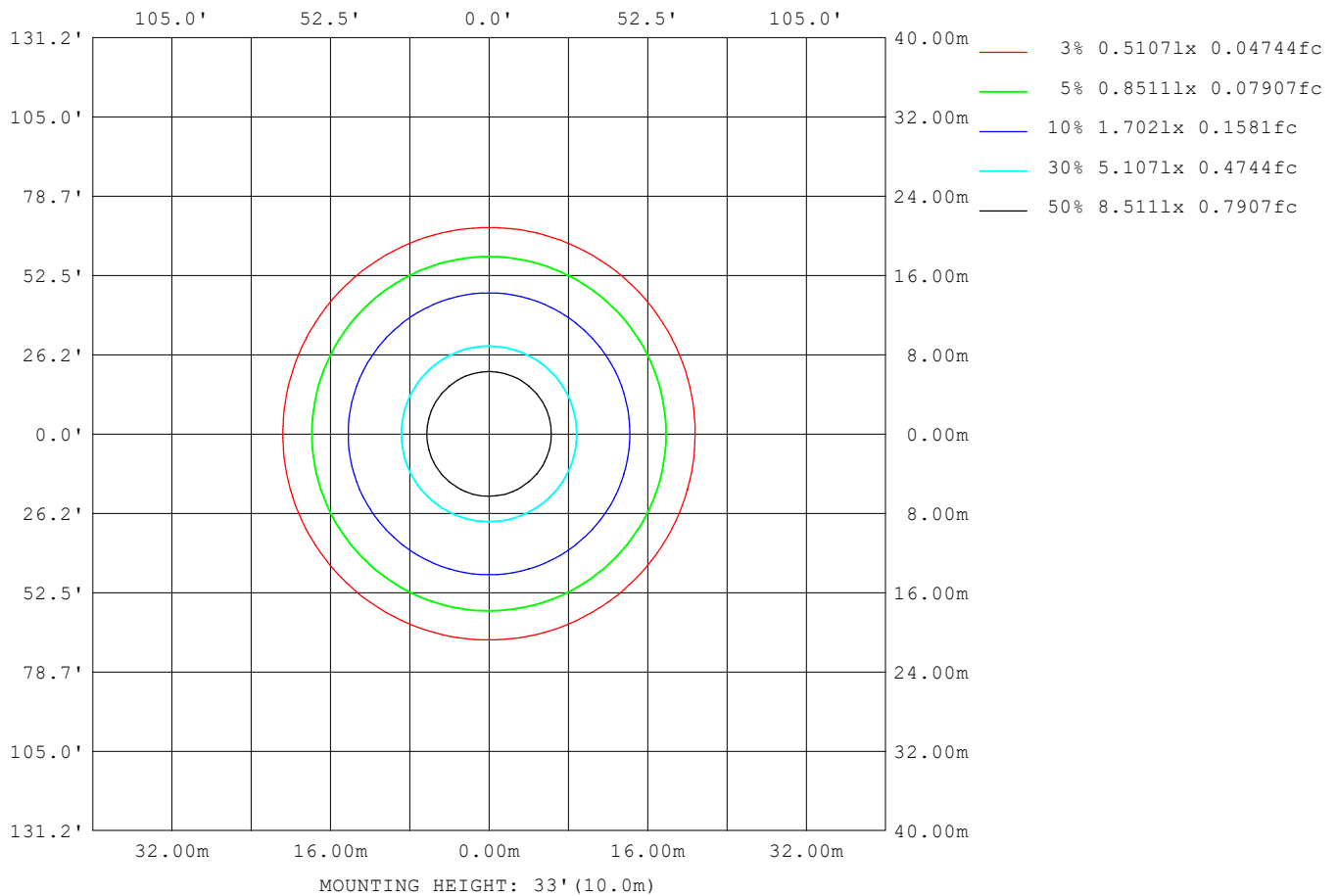
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm		
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:240.0V I:0.2236A P:51.54W PF:0.9601 Lamp Flux:4853.3x1 lm		
NAME: MRS SPIN 600_NA_WHT_350mA_4000K CRI90	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:1
MFR.: DARKON	SUR.:	Shielding Angle:

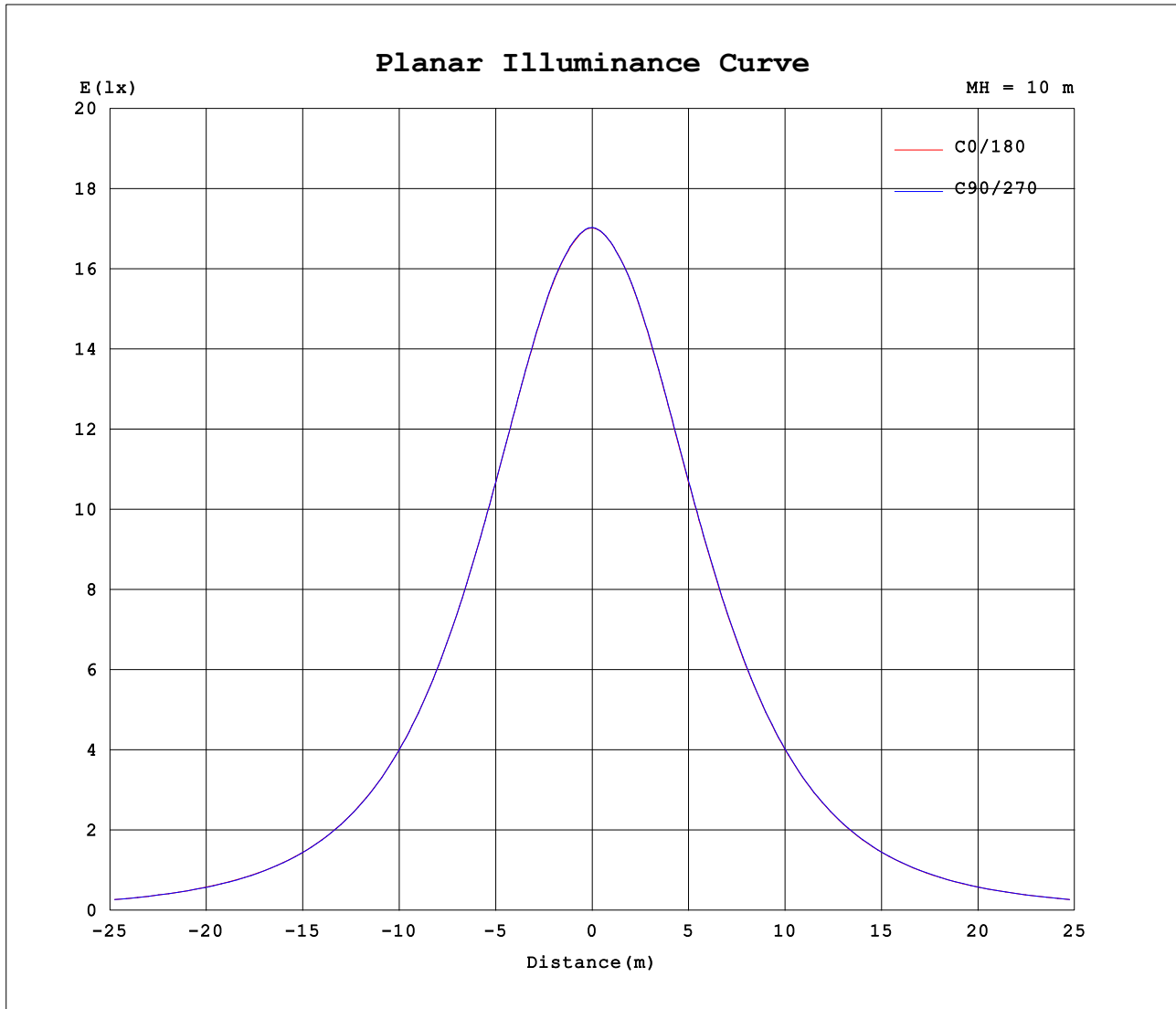
AvgL	cd/m2
L_0~180 (65) av	5086
L_0~180 (75) av	4307
L_0~180 (85) av	2855
L_90~270 (65) av	5085
L_90~270 (75) av	4316
L_90~270 (85) av	2928
L_45 (65) av	5085
L_45 (75) av	4312
L_45 (85) av	2891

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:JEFF
Test Date:03 June 2025

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: JEFF
Test Date: 03 June 2025

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity: 65.0%
Test Distance: 7.888m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.888m [K=1.0000]
Remarks:

```