

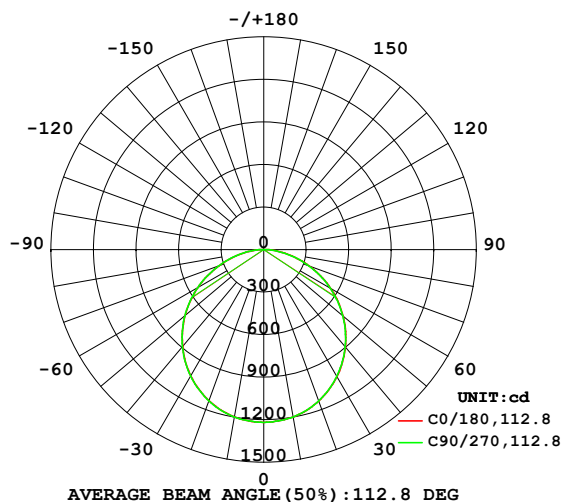
LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.1V I:0.1491A P:33.70W PF:0.9415 Lamp Flux:3511.83x1 lm		
NAME: MRS SPIN 600_NA_WHT_250mA_3000K CRI80		
MFR.: DARKON		

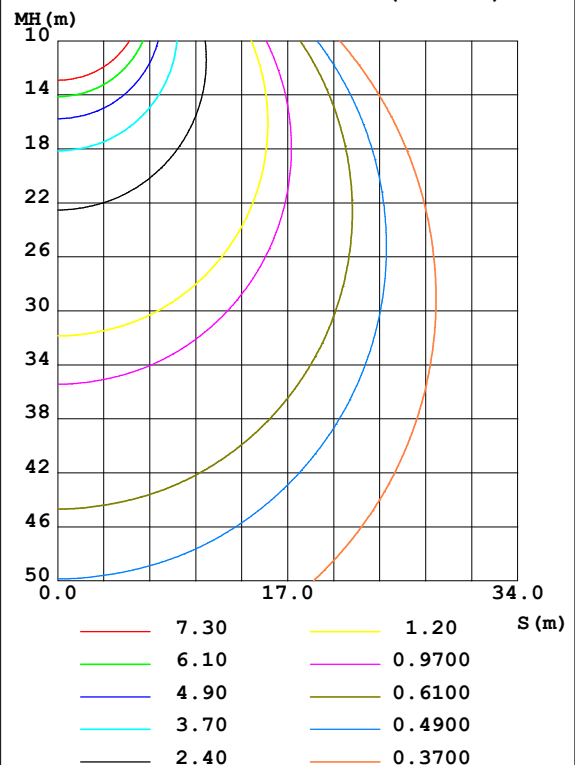
CLE Quadra

DATA OF LAMP		PHOTOMETRIC DATA Eff: 104.21 lm/W			
MODEL: 261mm 1200lm 830 ADV		Imax(cd)	1218	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)	3511.8	η UP,DN(C0-180)	0.0,50.1
NOMINAL FLUX(lm)	3511.83	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.9
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: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:03 July 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.892m [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	1198	1199	1198	1198	1198	1197	1199	1198	0- 10	115.3	115.3	3.28,3.28
20	1136	1136	1135	1133	1133	1133	1135	1136	10- 20	330.7	446.0	12.7,12.7
30	1034	1033	1032	1030	1029	1030	1031	1033	20- 30	501.2	947.2	27,27
40	896.6	896.0	894.1	891.5	891.0	891.1	893.2	895.7	30- 40	604.5	1552	44.2,44.2
50	731.1	730.2	728.0	725.0	724.4	724.6	726.8	729.9	40- 50	627.5	2179	62.1,62.1
60	543.6	542.6	540.2	537.2	536.1	536.5	538.7	542.2	50- 60	568.0	2747	78.2,78.2
70	344.2	343.2	340.8	337.5	336.4	336.8	339.2	342.8	60- 70	435.6	3183	90.6,90.6
80	151.6	150.7	148.5	145.4	144.4	145.1	147.1	150.2	70- 80	255.4	3438	97.9,97.9
90	2.696	2.226	1.287	0.9792	1.027	1.012	1.016	1.724	80- 90	73.52	3512	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		

Conical surface Flux(90deg): 1867.8 lm

%lum = 53.2%

%lamp = 53.2%

Conical surface Flux(120deg): 2747.2 lm

%lum = 78.2%

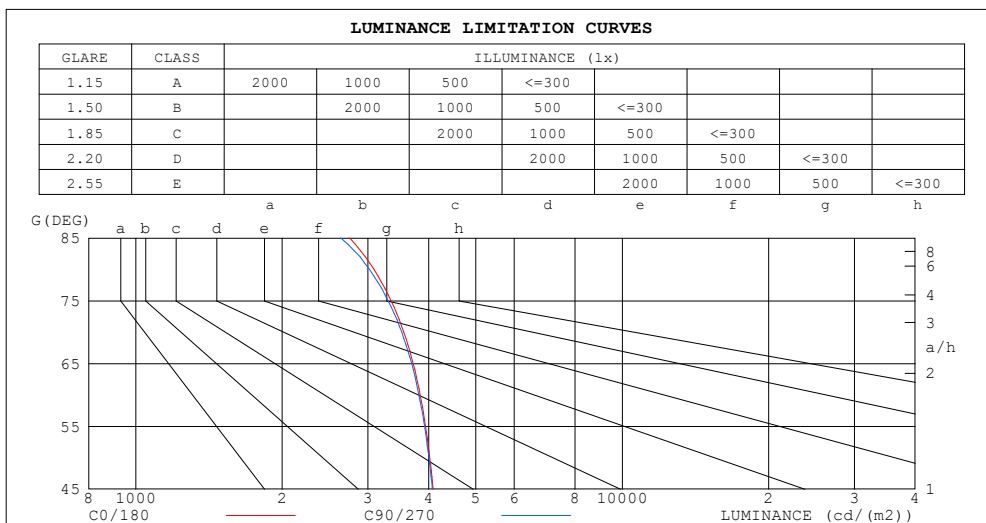
%lamp = 78.2%

C Range: 0 - 360DEG
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Temperature:25.3DEG
Operators:JEFF
Test Date:03 July 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.892m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:240.1V I:0.1491A P:33.70W PF:0.9415 Lamp Flux:3511.83x1 lm		
NAME: MRS SPIN 600_NA_WHT_250mA_3000K CRI80		
MFR.: DARKON		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	2753	2639
80	3087	3023
75	3349	3303
70	3557	3523
65	3717	3691
60	3844	3820
55	3942	3923
50	4021	4005
45	4085	4072

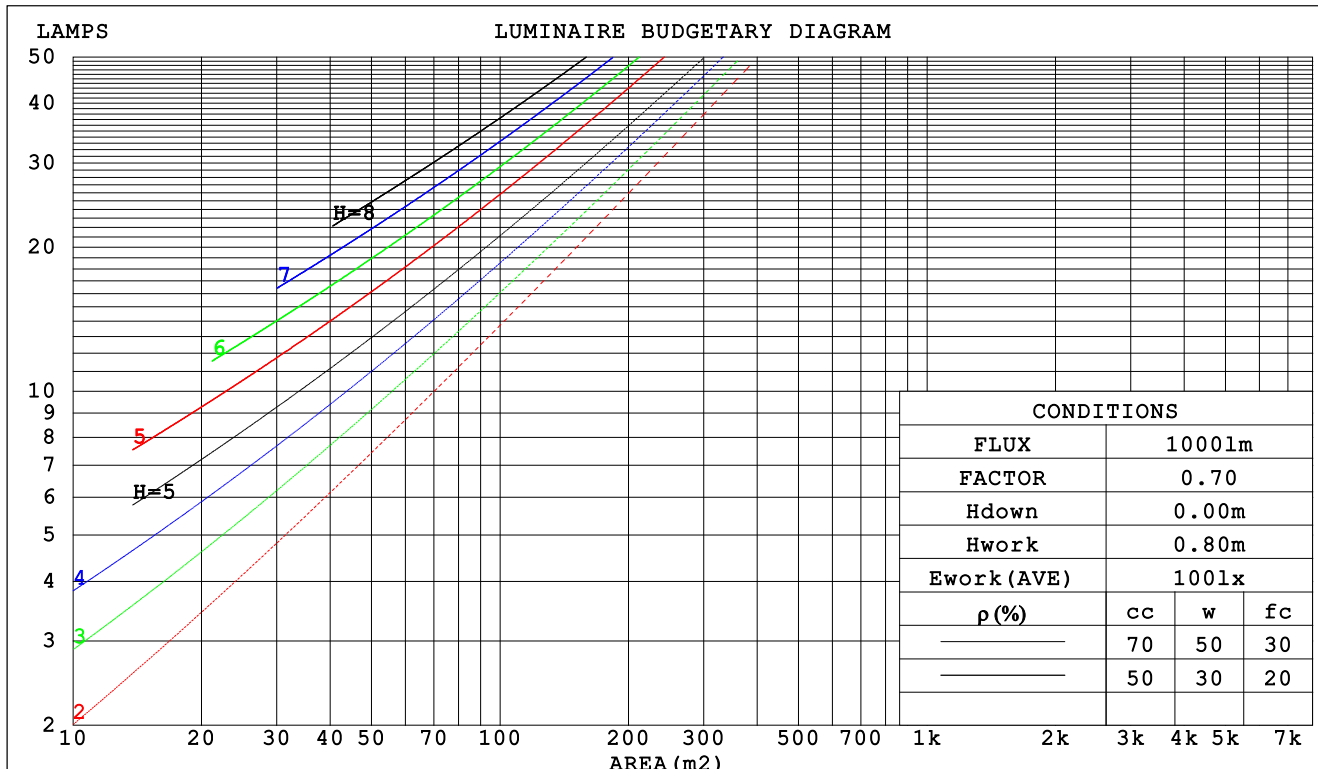
C Range: 0 - 360DEG
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Test Speed: HIGH
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γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.892m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.1V I:0.1491A P:33.70W PF:0.9415 Lamp Flux:3511.83x1 lm		
NAME: MRS SPIN 600_NA_WHT_250mA_3000K CRI80		
MFR.: DARKON		

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			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	.00
1.0	1.04	.99	.95	1.01	.97	.94	.97	.94	.91	.93	.91	.88	.90	.87	.85	.83
2.0	.90	.83	.77	.88	.82	.76	.85	.79	.75	.81	.77	.73	.78	.75	.71	.69
3.0	.79	.71	.64	.77	.70	.64	.74	.68	.62	.72	.66	.61	.69	.64	.60	.58
4.0	.70	.61	.54	.69	.60	.54	.66	.59	.53	.64	.57	.52	.62	.56	.52	.49
5.0	.62	.53	.47	.61	.53	.46	.59	.52	.46	.57	.51	.45	.55	.50	.45	.43
6.0	.56	.47	.41	.55	.47	.40	.53	.46	.40	.52	.45	.40	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.35	.47	.40	.35	.46	.40	.35	.33
8.0	.46	.38	.32	.46	.38	.32	.44	.37	.32	.43	.36	.31	.42	.36	.31	.29
9.0	.43	.34	.29	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.26	.24



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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.892m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:240.1V I:0.1491A P:33.70W PF:0.9415 Lamp Flux:3511.83x1 lm											
NAME: MRS SPIN 600_NA_WHT_250mA_3000K CRI80											
MFR.: DARKON											

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	.314	.178	.056	.307	.175	.056	.293	.168	.054	.281	.162	.052	.270	.156	.050		
2.0	.294	.161	.049	.288	.159	.049	.276	.154	.048	.265	.149	.047	.255	.144	.046		
3.0	.272	.145	.043	.266	.143	.043	.256	.139	.042	.246	.135	.041	.237	.131	.041		
4.0	.251	.130	.038	.246	.129	.038	.236	.125	.037	.228	.122	.037	.220	.120	.036		
5.0	.231	.118	.034	.227	.117	.034	.219	.114	.034	.211	.112	.033	.204	.109	.033		
6.0	.214	.108	.031	.211	.106	.031	.203	.104	.030	.197	.102	.030	.190	.100	.030		
7.0	.200	.099	.028	.196	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027		
8.0	.186	.091	.026	.183	.090	.025	.177	.089	.025	.172	.087	.025	.167	.086	.025		
9.0	.175	.084	.024	.172	.084	.023	.167	.082	.023	.162	.081	.023	.157	.080	.023		
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.152	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.181	.156	.134	.154	.134	.115	.106	.092	.080	.061	.053	.046	.019	.017	.015	
2.0	.173	.132	.098	.148	.114	.084	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.165	.114	.074	.141	.099	.064	.097	.069	.045	.056	.040	.027	.018	.013	.009	
4.0	.157	.101	.058	.135	.087	.050	.093	.061	.036	.054	.036	.021	.017	.012	.007	
5.0	.150	.091	.047	.129	.078	.041	.089	.055	.029	.051	.032	.017	.017	.010	.006	
6.0	.143	.082	.039	.123	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.003	
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: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:03 July 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.892m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:240.1V I:0.1491A P:33.70W PF:0.9415 Lamp Flux:3511.83x1 lm										
NAME: MRS SPIN 600_NA_WHT_250mA_3000K CRI80										
MFR.: DARKON										
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	17.7	19.2	17.9	19.4	19.6	17.6	19.2	17.9	19.4	19.6
3H	19.2	20.6	19.5	20.9	21.1	19.2	20.6	19.5	20.8	21.1
4H	19.9	21.2	20.2	21.5	21.7	19.8	21.2	20.1	21.4	21.7
6H	20.3	21.6	20.7	21.9	22.2	20.3	21.6	20.6	21.8	22.1
8H	20.5	21.7	20.8	22.0	22.3	20.4	21.7	20.8	21.9	22.2
12H	20.6	21.8	20.9	22.1	22.4	20.5	21.7	20.9	22.0	22.3
4H 2H	18.3	19.6	18.6	19.9	20.1	18.3	19.6	18.6	19.9	20.1
3H	20.0	21.2	20.4	21.5	21.8	20.0	21.2	20.4	21.5	21.8
4H	20.8	21.9	21.2	22.2	22.5	20.8	21.8	21.1	22.2	22.5
6H	21.4	22.4	21.8	22.7	23.1	21.4	22.3	21.8	22.7	23.0
8H	21.6	22.5	22.0	22.9	23.3	21.6	22.5	22.0	22.8	23.2
12H	21.8	22.6	22.2	23.0	23.4	21.7	22.5	22.1	22.9	23.3
8H 4H	21.1	22.0	21.5	22.3	22.7	21.1	21.9	21.5	22.3	22.7
6H	21.8	22.6	22.3	23.0	23.4	21.8	22.5	22.2	23.0	23.4
8H	22.2	22.8	22.6	23.2	23.7	22.1	22.8	22.6	23.2	23.6
12H	22.4	23.0	22.9	23.4	23.9	22.3	22.9	22.8	23.3	23.8
12H 4H	21.1	21.9	21.5	22.3	22.7	21.1	21.9	21.5	22.3	22.7
6H	21.9	22.6	22.4	23.0	23.5	21.9	22.5	22.3	23.0	23.4
8H	22.3	22.8	22.7	23.3	23.8	22.2	22.8	22.7	23.2	23.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 3512 lm Total Lamp Luminous Flux. (8log(F/F0) = 4.4)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JEFF
Test Date:03 July 2023

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295
Humidity:65.0%
Test Distance:7.892m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.1V I:0.1491A P:33.70W PF:0.9415 Lamp Flux:3511.83x1 lm		
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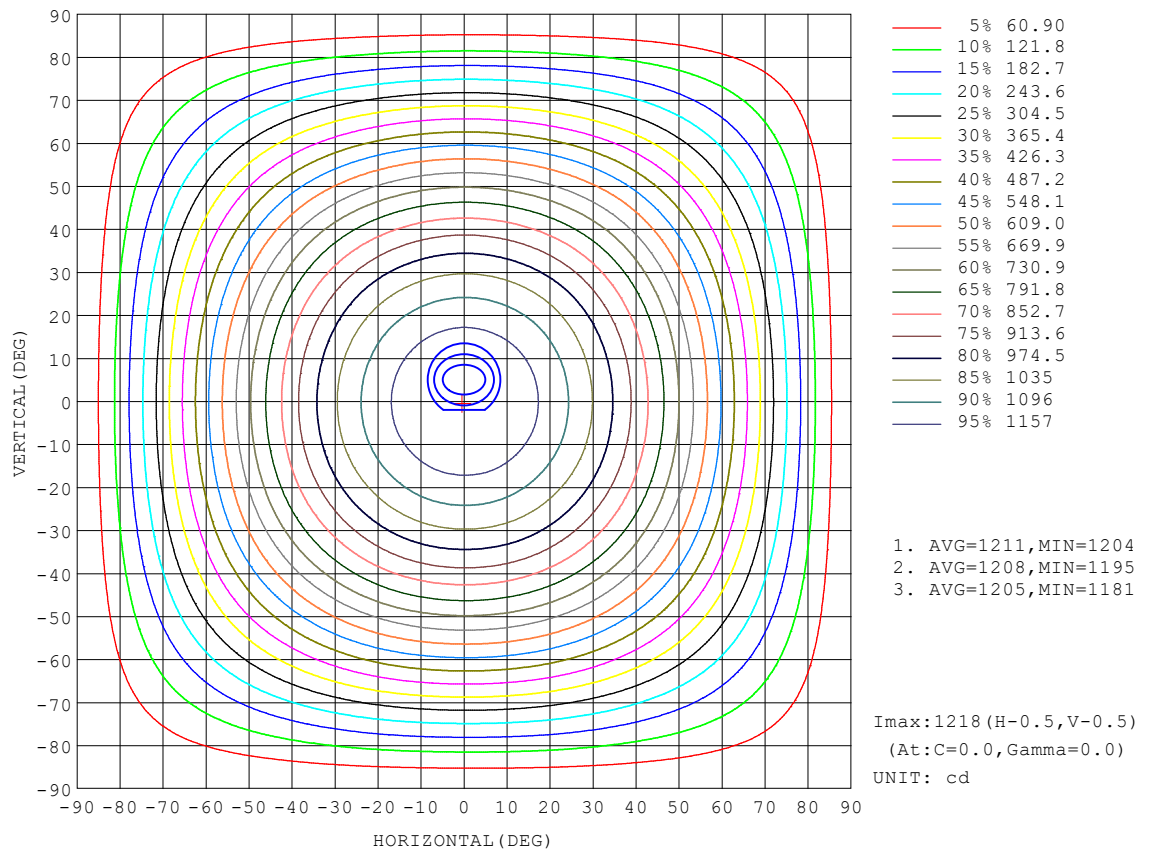
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	57	46	39	57	45	39	55	45	38	32
0.80	67	56	48	66	55	48	64	54	48	41
1.00	76	65	57	75	64	57	72	65	56	49
1.25	83	72	65	81	72	65	79	70	64	56
1.50	88	78	71	86	77	70	83	75	69	62
2.00	95	86	80	93	85	79	89	83	77	69
2.50	99	91	85	97	89	84	93	87	82	74
3.00	102	95	90	100	94	88	96	91	86	78
4.00	106	100	96	104	99	94	99	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		

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ISOCANDELA DIAGRAM

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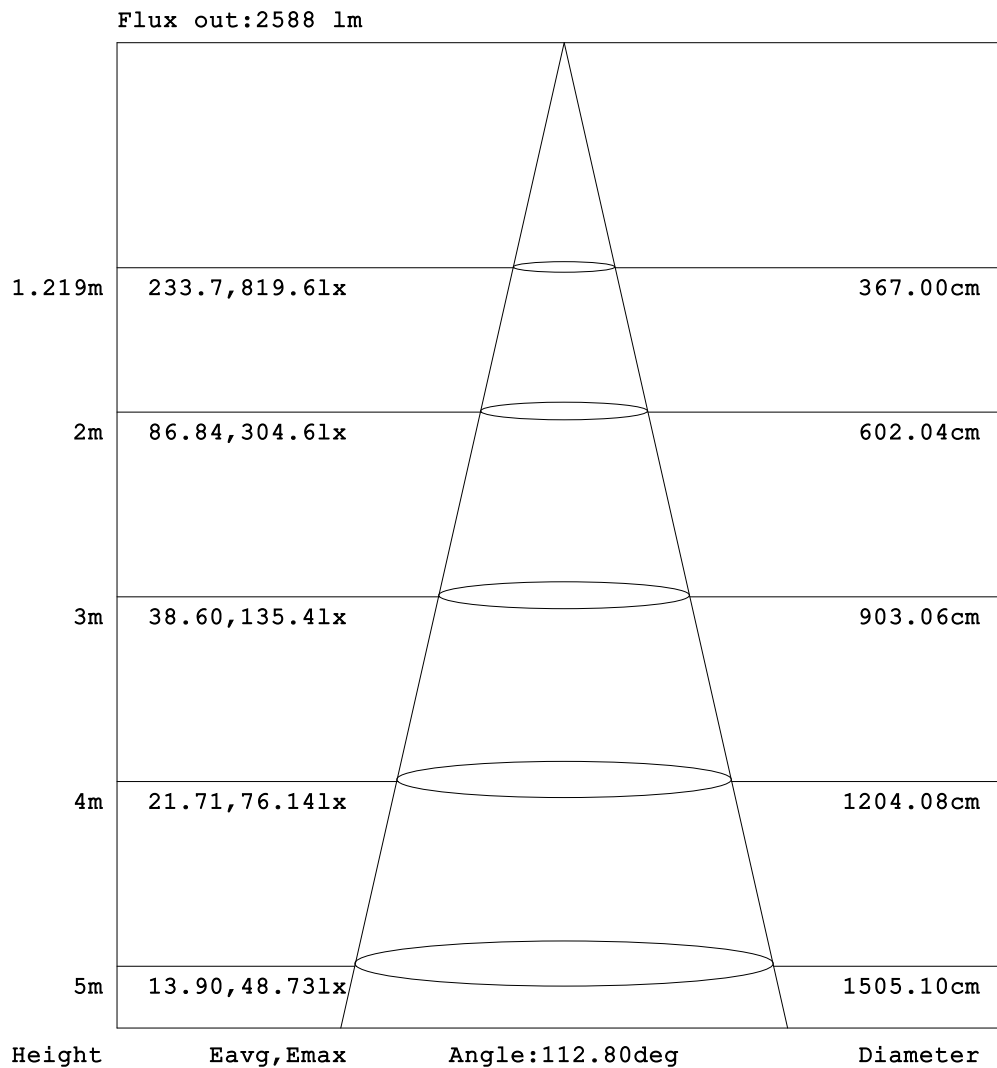


C Range: 0 - 360DEG
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Remarks:

AAI Figure

Test:U:240.1V I:0.1491A P:33.70W PF:0.9415 Lamp Flux:3511.83x1 lm		
NAME: MRS SPIN 600_NA_WHT_250mA_3000K CRI80		
MFR.: DARKON		



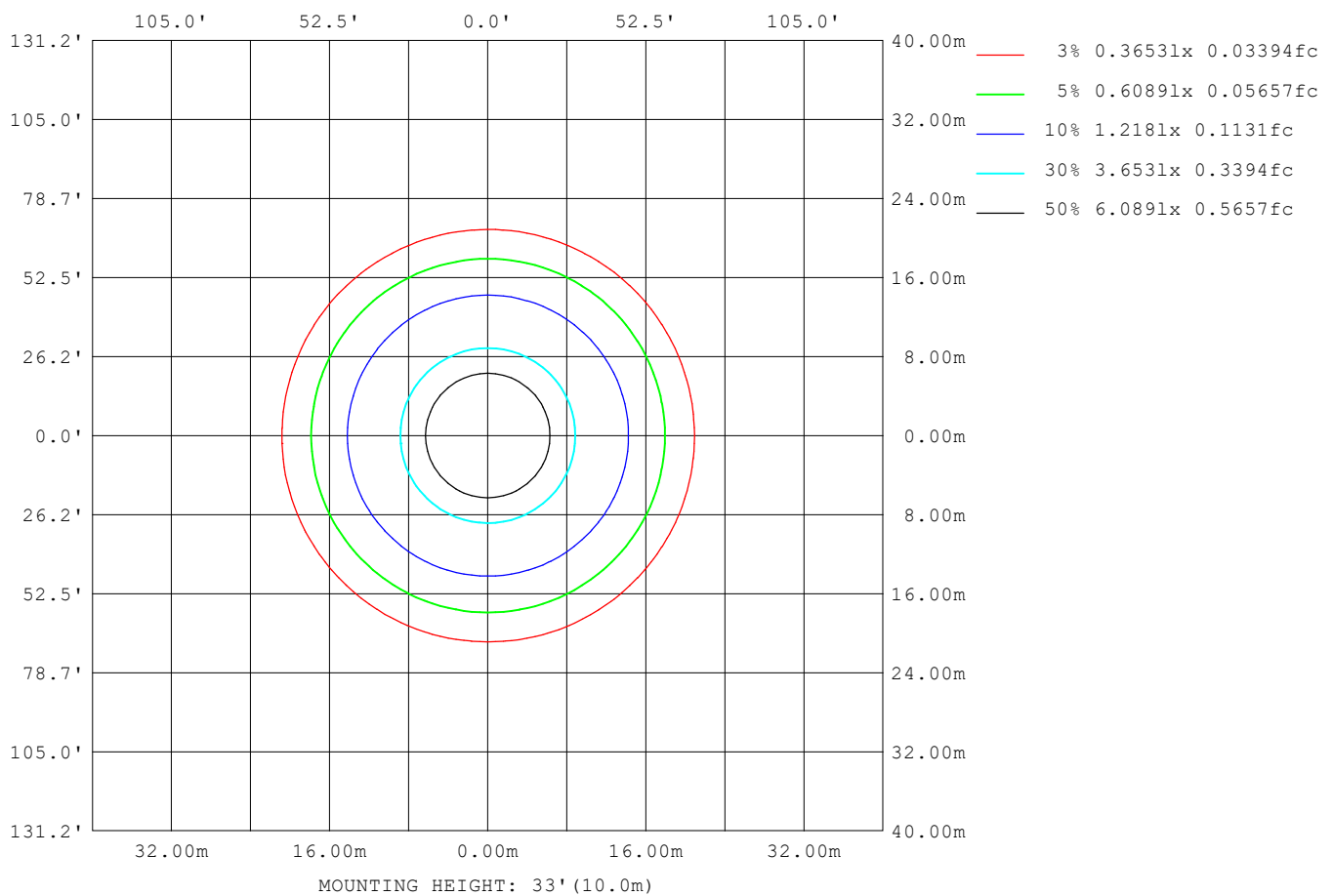
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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γ Interval: 1.0DEG
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Humidity: 65.0%
Test Distance: 7.892m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:240.1V I:0.1491A P:33.70W PF:0.9415 Lamp Flux:3511.83x1 lm		
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γ Range: 0 - 90DEG
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Humidity:65.0%
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Remarks:

LED Avg.L Report

Test:U:240.1V I:0.1491A P:33.70W PF:0.9415 Lamp Flux:3511.83x1 lm		
NAME: MRS SPIN 600_NA_WHT_250mA_3000K CRI80		
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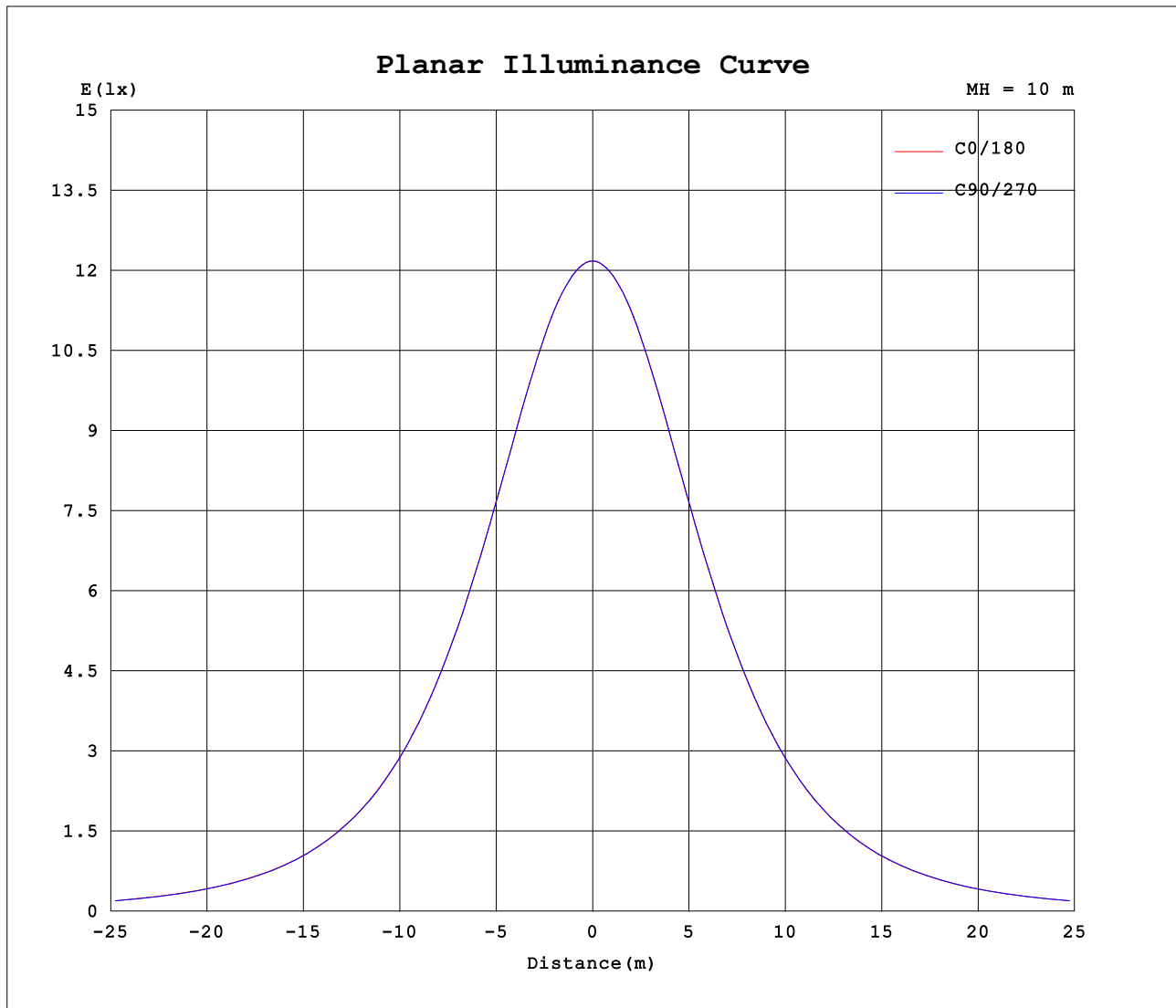
AvgL	cd/m2
L_0~180 (65) av	3686
L_0~180 (75) av	3298
L_0~180 (85) av	2622
L_90~270 (65) av	3683
L_90~270 (75) av	3295
L_90~270 (85) av	2614
L_45 (65) av	3685
L_45 (75) av	3297
L_45 (85) av	2618

Standard: GB/T 29293-2012

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Remarks:

Planar Illuminance Curve



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