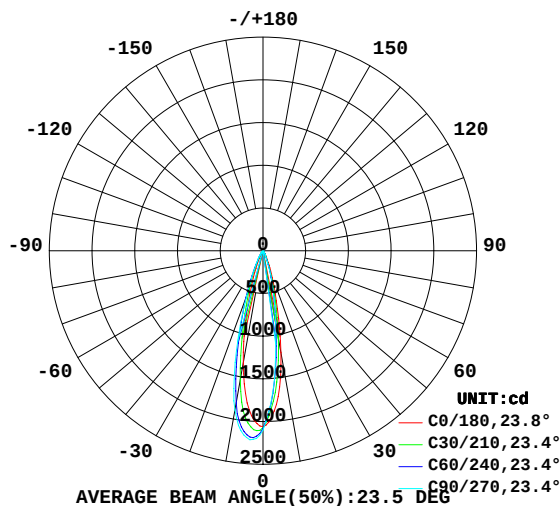


LUMINAIRE PHOTOMETRIC TEST REPORT

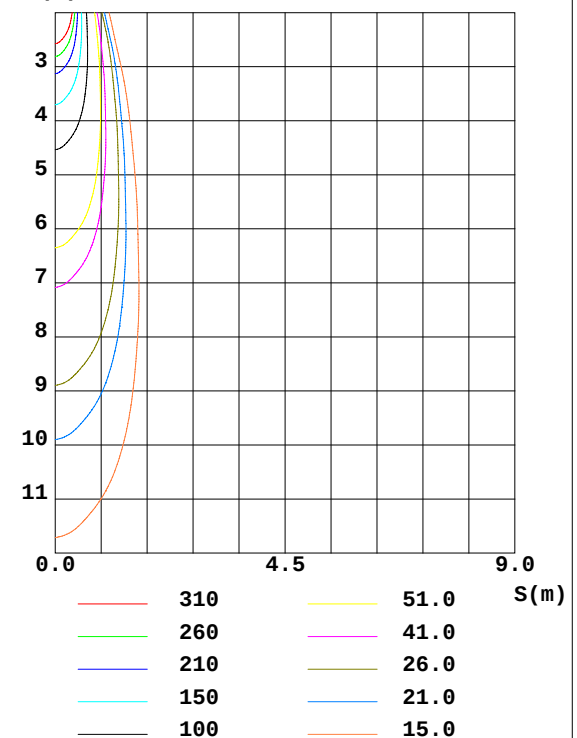
NAME:CL-Spot92-R 3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 32.91 lm/W			
MODEL		I _{max} (cd)	2220	S/MH(C0/180)	0.39
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	0.28
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	481.83	η UP, DN(C0-180)	0.2, 37.6
NOMINAL FLUX(lm)	481.829	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1, 62.0
LAMPS INSIDE	1	η up(%)	0.4	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	24	η down(%)	99.6	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:tang
Test Date:2022-04-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.100m [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	1210	951.4	854.4	1029	1336	1681	1892	1595	0- 10	159.5	159.5	33.1, 33.1
20	292.7	213.7	200.6	233.0	324.3	537.8	557.0	479.8	10- 20	203.7	363.2	75.4, 75.4
30	65.42	55.62	45.39	57.92	71.05	102.5	116.6	88.64	20- 30	78.04	441.2	91.6, 91.6
40	21.73	16.27	12.43	17.83	21.17	30.23	29.87	27.79	30- 40	26.51	467.8	97.1, 97.1
50	4.796	4.064	2.437	4.109	4.761	6.874	7.078	6.430	40- 50	8.705	476.5	98.9, 98.9
60	1.592	1.253	0.6033	1.300	1.630	2.456	1.753	2.310	50- 60	2.689	479.1	99.4, 99.4
70	0.3406	0.1158	0	0.1417	0.3104	0.5945	0.4394	0.5662	60- 70	0.8479	480.0	99.6, 99.6
80	0	0	0	0	0	0.0025	0	0.0024	70- 80	0.0925	480.1	99.6, 99.6
90	0	0	0	0	0	0	0	0	80- 90	0.0000	480.1	99.6, 99.6
100	0	0	0	0	0	0	0	0	90-100	0	480.1	99.6, 99.6
110	0	0	0	0	0	0	0	0	100-110	0	480.1	99.6, 99.6
120	0	0	0	0	0	0	0	0	110-120	0	480.1	99.6, 99.6
130	0	0.0001	0	0.0000	0	0	0	0	120-130	0.0000	480.1	99.6, 99.6
140	0.1364	0.2454	0.2695	0.2077	0.1183	0.0379	0	0.0519	130-140	0.0299	480.1	99.6, 99.6
150	0.7636	1.052	1.167	0.9556	0.6947	0.4816	0.4101	0.5288	140-150	0.2403	480.4	99.7, 99.7
160	1.905	2.206	2.318	2.105	1.780	1.484	1.391	1.553	150-160	0.5787	480.9	99.8, 99.8
170	2.628	2.704	2.770	2.728	2.601	2.440	2.387	2.485	160-170	0.6345	481.6	99.9, 99.9
180	2.789	2.754	2.784	2.810	2.794	2.756	2.784	2.808	170-180	0.2563	481.8	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT: lm		

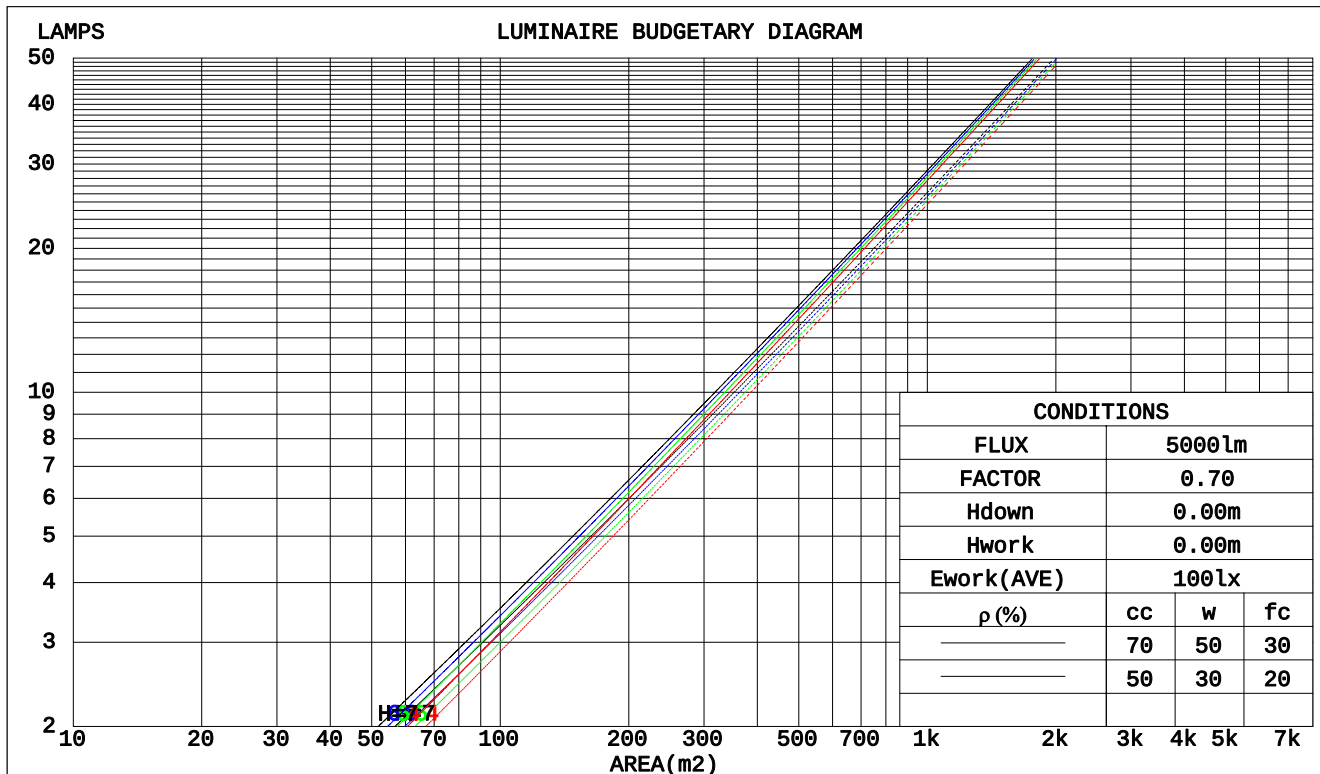
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: tang
Test Date: 2022-04-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.100m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION 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						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	1.13	1.11	1.09	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.98	.98	.96
2.0	1.07	1.04	1.01	1.05	1.03	1.00	1.02	.99	.98	.99	.97	.96	.96	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.95	.98	.95	.93	.96	.94	.92	.94	.92	.90	.89
4.0	.98	.94	.91	.97	.93	.90	.95	.92	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.90	.87	.93	.89	.86	.91	.88	.85	.90	.87	.85	.88	.86	.84	.83
6.0	.91	.86	.83	.90	.86	.83	.88	.85	.82	.87	.84	.82	.86	.83	.81	.80
7.0	.87	.83	.80	.87	.83	.80	.86	.82	.79	.85	.81	.79	.84	.81	.79	.77
8.0	.84	.80	.77	.84	.80	.77	.83	.79	.77	.82	.79	.76	.81	.78	.76	.75
9.0	.82	.78	.75	.81	.77	.75	.81	.77	.74	.80	.76	.74	.79	.76	.74	.73
10.0	.79	.75	.72	.79	.75	.72	.78	.75	.72	.78	.74	.72	.77	.74	.72	.71



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: tang
Test Date: 2022-04-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.100m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION 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	.142	.080	.025	.135	.077	.024	.122	.070	.022	.111	.064	.020	.100	.058	.019		
2.0	.132	.072	.022	.126	.070	.021	.116	.064	.020	.106	.060	.019	.097	.055	.017		
3.0	.123	.066	.020	.119	.064	.019	.110	.060	.018	.102	.056	.017	.094	.052	.016		
4.0	.116	.060	.018	.112	.059	.017	.105	.055	.017	.098	.052	.016	.091	.050	.015		
5.0	.109	.056	.016	.106	.054	.016	.100	.052	.015	.094	.050	.015	.088	.047	.014		
6.0	.104	.052	.015	.101	.051	.015	.095	.049	.014	.090	.047	.014	.085	.045	.013		
7.0	.099	.049	.014	.096	.048	.014	.091	.046	.013	.087	.044	.013	.083	.043	.013		
8.0	.094	.046	.013	.092	.045	.013	.088	.044	.012	.084	.042	.012	.080	.041	.012		
9.0	.090	.043	.012	.088	.043	.012	.084	.042	.012	.081	.040	.012	.077	.039	.011		
10.0	.086	.041	.011	.084	.041	.011	.081	.040	.011	.078	.039	.011	.075	.038	.011		

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	.193	.193	.193	.165	.165	.165	.113	.113	.113	.065	.065	.065	.021	.021	.021		
1.0	.171	.160	.150	.147	.138	.129	.100	.095	.090	.058	.055	.052	.018	.018	.017		
2.0	.154	.135	.120	.132	.117	.104	.090	.081	.072	.052	.047	.042	.017	.015	.014		
3.0	.139	.116	.098	.119	.100	.085	.082	.070	.059	.047	.041	.035	.015	.013	.011		
4.0	.127	.101	.081	.109	.087	.070	.075	.061	.050	.043	.036	.029	.014	.012	.010		
5.0	.117	.089	.068	.100	.077	.059	.069	.054	.042	.040	.031	.025	.013	.010	.008		
6.0	.108	.079	.058	.093	.068	.050	.064	.048	.036	.037	.028	.021	.012	.009	.007		
7.0	.100	.071	.050	.086	.061	.043	.060	.043	.031	.035	.025	.018	.011	.008	.006		
8.0	.094	.064	.043	.081	.055	.038	.056	.039	.027	.033	.023	.016	.011	.008	.005		
9.0	.088	.058	.038	.076	.051	.033	.053	.036	.024	.031	.021	.014	.010	.007	.005		
10.0	.084	.054	.034	.072	.047	.029	.050	.033	.021	.029	.019	.012	.009	.006	.004		

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:tang
Test Date:2022-04-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.100m [K=1.0000]
Remarks:

Uncorrected UGR Table

NAME: spot92-R-3000k-RA90-30D						TYPE:					WEIGHT:				
DIM.:						SPEC.:					SERIAL No.:				
MFR.: VD						SUR.:					PROTECTION 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	-4.1	-3.4	-3.9	-3.3	-3.1	-5.7	-5.1	-5.5	-4.9	-4.7					
3H	-4.2	-3.6	-4.0	-3.4	-3.2	-5.9	-5.2	-5.6	-5.1	-4.9					
4H	-4.3	-3.7	-4.0	-3.5	-3.3	-6.0	-5.4	-5.7	-5.1	-4.9					
6H	-4.4	-3.8	-4.1	-3.6	-3.3	-6.0	-5.5	-5.8	-5.2	-5.0					
8H	-4.4	-3.9	-4.1	-3.6	-3.4	-6.1	-5.5	-5.8	-5.3	-5.0					
12H	-4.5	-4.0	-4.2	-3.7	-3.4	-6.1	-5.6	-5.8	-5.3	-5.1					
4H 2H	-4.3	-3.7	-4.0	-3.5	-3.3	-5.9	-5.3	-5.6	-5.1	-4.9					
3H	-4.4	-3.9	-4.1	-3.6	-3.4	-6.1	-5.5	-5.7	-5.3	-5.0					
4H	-4.5	-4.1	-4.2	-3.8	-3.4	-6.2	-5.7	-5.8	-5.4	-5.1					
6H	-4.6	-4.2	-4.3	-3.9	-3.5	-6.3	-5.8	-5.9	-5.5	-5.2					
8H	-4.7	-4.3	-4.3	-3.9	-3.6	-6.3	-5.9	-5.9	-5.6	-5.2					
12H	-4.7	-4.4	-4.3	-4.0	-3.6	-6.4	-6.0	-6.0	-5.6	-5.2					
8H 4H	-4.7	-4.3	-4.3	-3.9	-3.6	-6.3	-5.9	-5.9	-5.6	-5.2					
6H	-4.8	-4.5	-4.4	-4.1	-3.7	-6.4	-6.1	-6.0	-5.7	-5.3					
8H	-4.9	-4.6	-4.4	-4.2	-3.7	-6.5	-6.2	-6.0	-5.8	-5.3					
12H	-4.9	-4.7	-4.5	-4.2	-3.8	-6.6	-6.3	-6.1	-5.9	-5.4					
12H 4H	-4.7	-4.4	-4.3	-4.0	-3.6	-6.4	-6.0	-6.0	-5.6	-5.2					
6H	-4.9	-4.6	-4.4	-4.2	-3.7	-6.5	-6.2	-6.0	-5.8	-5.3					
8H	-4.9	-4.7	-4.5	-4.2	-3.8	-6.6	-6.3	-6.1	-5.9	-5.4					
Variations with the observer position at spacings:															
S = 1.0H	+ 3.8 / - 7.6					+ 2.9 / - 9.1									
1.5H	+ 5.6 / - 6.2					+ 4.9 / - 6.6									
2.0H	+ 5.8 / - 6.6					+ 4.2 / - 7.2									

CIE Pub.117 Corrected 481.8 lm Total Lamp Luminous Flux.(8log(F/F0) = -2.5)

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:tang
Test Date:2022-04-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.100m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

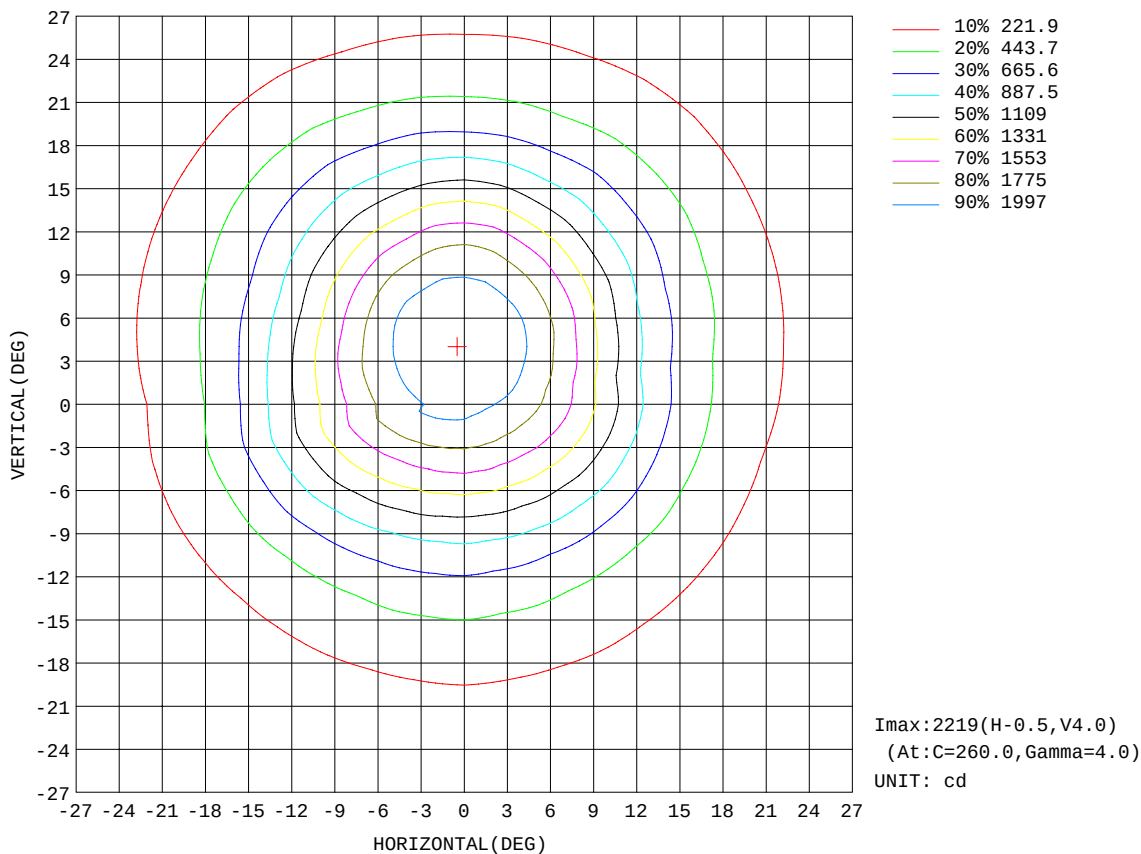
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	90	84	80	89	84	80	88	83	80	77
0.80	97	91	88	96	91	88	95	91	87	84
1.00	101	96	92	100	95	92	98	95	91	88
1.25	105	100	97	103	99	96	102	98	95	91
1.50	107	103	100	106	102	99	104	100	98	94
2.00	109	105	103	108	104	102	105	102	100	95
2.50	111	107	105	109	106	104	106	104	102	96
3.00	112	109	107	111	108	105	107	105	103	97
4.00	114	112	110	112	110	108	109	107	105	98
5.00	115	113	112	113	112	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: tang
Test Date: 2022-04-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.100m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

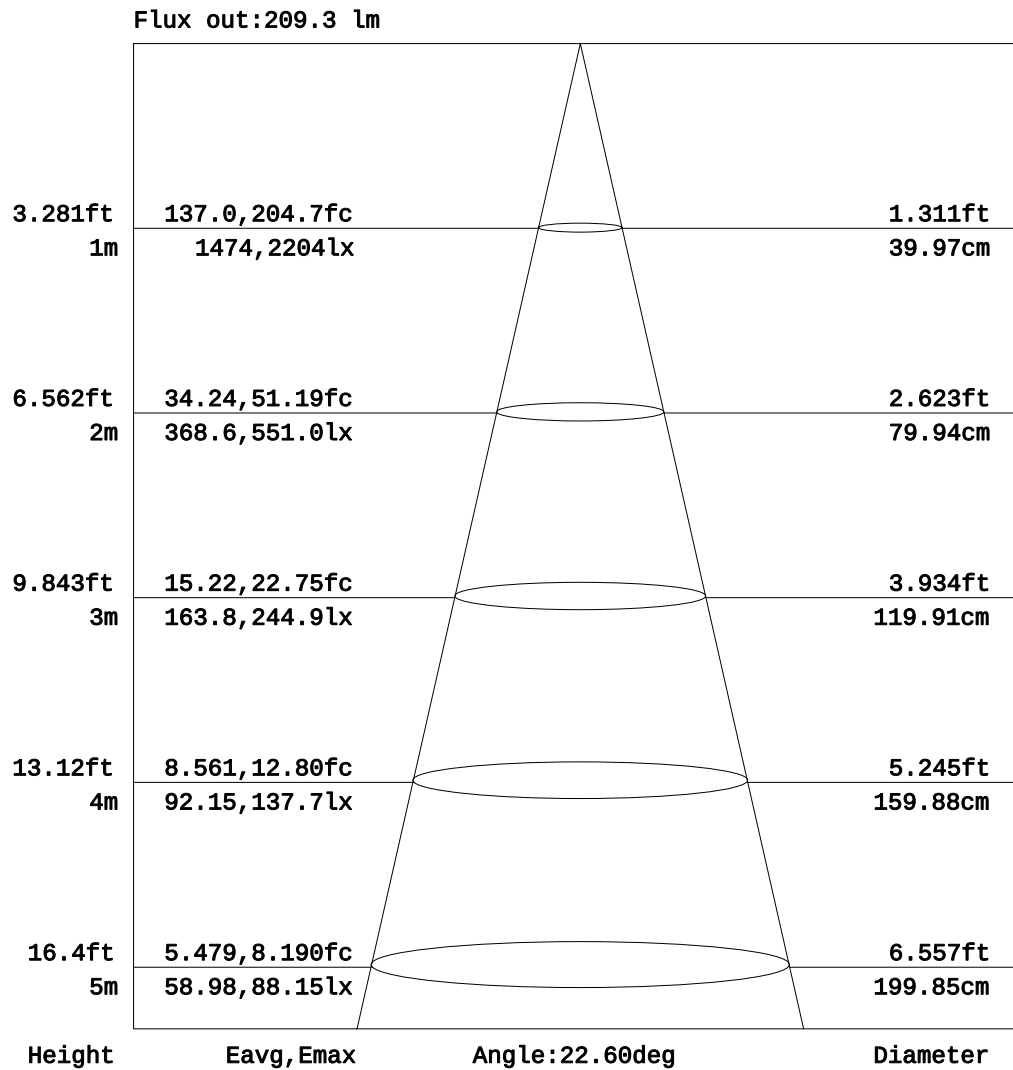


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: tang
Test Date: 2022-04-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.100m [K=1.0000]
Remarks:

AAI Figure

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:



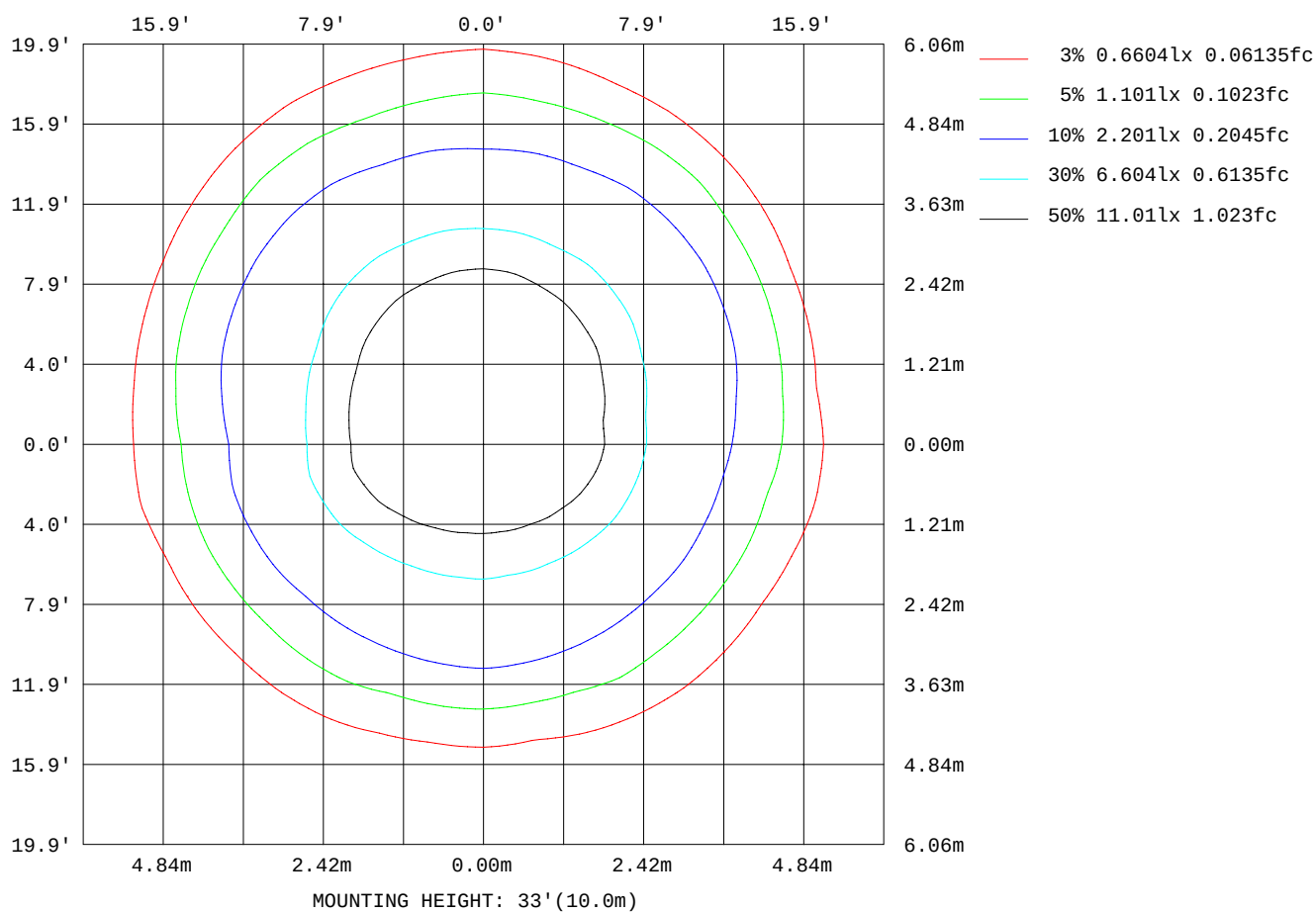
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:tang
Test Date:2022-04-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.100m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: tang
Test Date: 2022-04-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.100m [K=1.0000]
Remarks:

Average Luminance Table(CIBSE)

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	481.829	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.1	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G	C plane(deg)																		
deg	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	50	45	41	39	41	41	38	32	25	22	24	29	36	41	43	43	44	47	51
60	32	28	25	24	25	25	24	19	15	12	14	17	23	25	27	26	27	29	33
65	19	16	15	13	15	14	14	10	8	5	7	9	13	14	16	14	15	17	19
70	10	6	5	3	4	3	3	1	1	0	1	0	3	3	5	4	6	7	9
75	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum calculated	specified maximum	maximum measured	specified maximum
Category 1	55 to 90	51	200	---	500
Category 2	65 to 90	19	200	---	500
Category 3	75 to 90	1	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:tang
Test Date:2022-04-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.100m [K=1.0000]
Remarks:

Average Luminance Table(CIBSE)

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	481.829	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.1	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G	C plane(deg)																		
deg	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	50	45	41	39	41	41	38	32	25	22	24	29	36	41	43	43	44	47	51
60	32	28	25	24	25	25	24	19	15	12	14	17	23	25	27	26	27	29	33
65	19	16	15	13	15	14	14	10	8	5	7	9	13	14	16	14	15	17	19
70	10	6	5	3	4	3	3	1	1	0	1	0	3	3	5	4	6	7	9
75	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	51	1000	1500	200	500
65 to 90	19	1000	1500	200	500

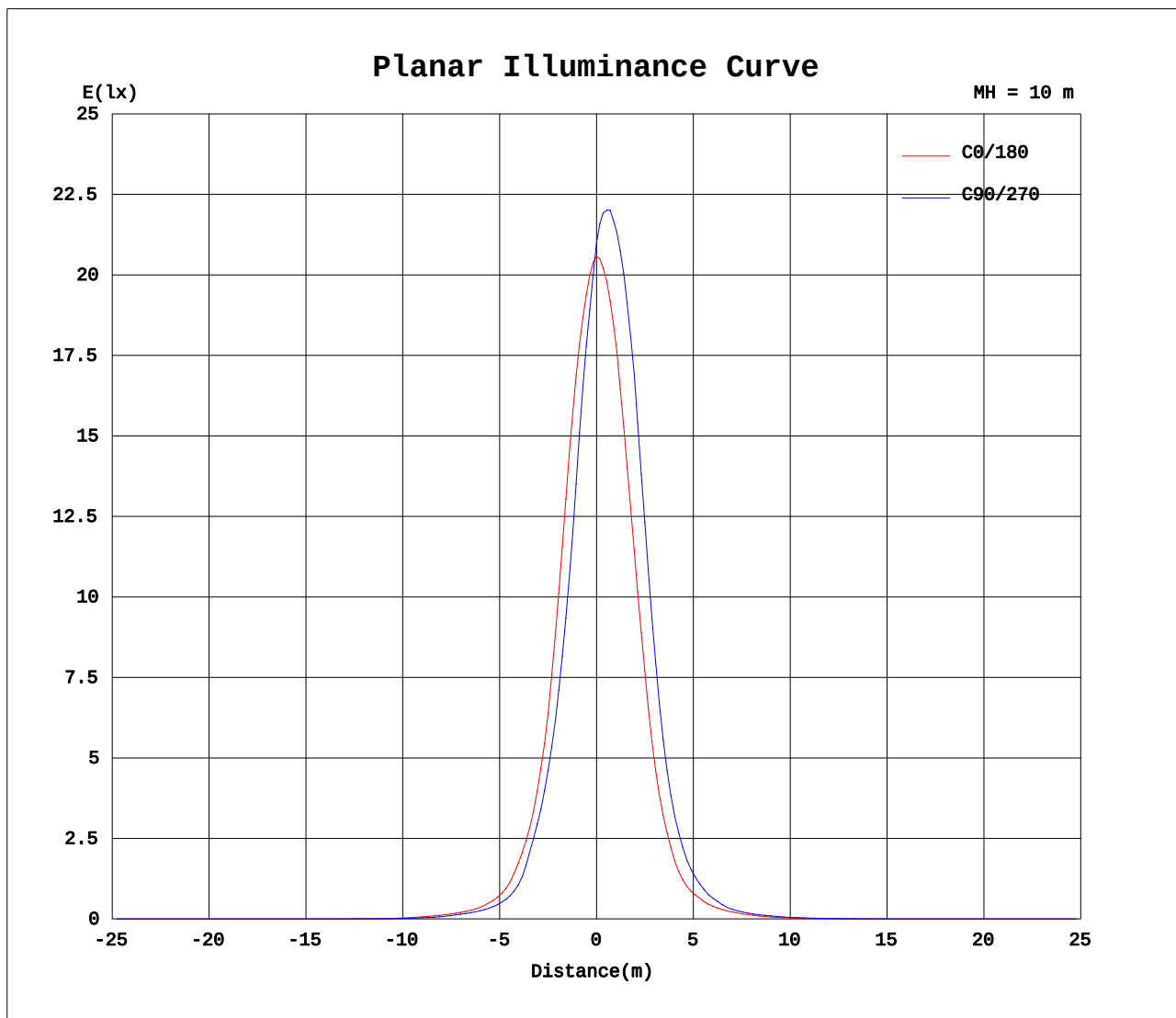
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

The luminaire satisfies the specified luminance criteria for
Negative Software with Type I & II Screen(Good to Moderate treatment).

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:tang
Test Date:2022-04-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.100m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: tang
Test Date: 2022-04-08

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.100m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(°) γ (°)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	2058	2061	2064	2071	2071	2081	2080	2090	2088	2097	2095	2103	2099	2105	2101	2104	2100	2097	2058
5	1806	1757	1707	1664	1605	1571	1537	1532	1516	1527	1527	1554	1575	1629	1674	1748	1808	1875	1868
10	1210	1163	1101	1044	972	931	883	862	841	854	852	881	915	994	1065	1173	1253	1342	1336
15	607	575	544	512	473	451	433	436	429	445	441	453	458	493	538	610	664	730	726
20	293	262	244	230	219	209	205	196	193	201	197	201	215	225	241	272	296	325	324
25	128	118	107	100	96.6	95.5	91.7	87.0	81.3	83.2	83.3	87.5	96.7	103	105	113	121	131	136
30	65.4	62.8	59.2	58.5	56.2	55.0	51.0	47.8	45.5	45.4	45.2	47.3	50.3	56.0	59.8	63.6	66.1	70.1	71.0
35	38.0	36.1	32.6	31.4	31.0	31.5	31.0	28.9	26.5	27.5	27.4	28.3	30.2	32.6	33.8	34.5	35.9	39.7	40.2
40	21.7	19.2	17.3	16.7	16.1	16.5	15.7	14.5	13.0	12.4	12.4	14.1	16.2	18.0	17.7	18.1	19.1	19.7	21.2
45	9.58	8.37	7.80	7.58	6.99	6.77	6.15	5.44	5.19	5.42	5.27	5.26	5.77	6.57	7.08	7.94	8.29	8.93	9.51
50	4.80	4.46	4.08	4.03	4.08	4.05	3.74	3.21	2.65	2.44	2.52	2.98	3.53	4.00	4.22	4.31	4.27	4.55	4.76
55	2.84	2.57	2.34	2.26	2.33	2.32	2.18	1.82	1.46	1.24	1.37	1.68	2.07	2.33	2.46	2.47	2.53	2.71	2.90
60	1.59	1.39	1.26	1.18	1.25	1.25	1.21	0.96	0.76	0.60	0.69	0.87	1.13	1.26	1.34	1.30	1.35	1.47	1.63
65	0.82	0.68	0.62	0.55	0.62	0.60	0.60	0.44	0.34	0.23	0.31	0.38	0.55	0.61	0.66	0.61	0.65	0.71	0.81
70	0.34	0.22	0.18	0.10	0.14	0.09	0.11	0.02	0.03	0.00	0.03	0.01	0.11	0.12	0.17	0.14	0.22	0.25	0.31
75	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.05	0.02	0.09	0.05	0.10	0.06	0.11	0.05	0.07	0.03	0.09	0.04	0.09	0.02	0.05	0.00	0.03	0.01
140	0.14	0.20	0.17	0.25	0.22	0.27	0.25	0.31	0.25	0.27	0.22	0.28	0.22	0.25	0.17	0.20	0.13	0.14	0.12
145	0.37	0.45	0.45	0.52	0.53	0.60	0.59	0.65	0.61	0.63	0.58	0.60	0.54	0.54	0.45	0.44	0.36	0.35	0.33
150	0.76	0.87	0.89	0.99	1.01	1.09	1.10	1.16	1.14	1.17	1.11	1.11	1.03	1.01	0.90	0.87	0.76	0.73	0.69
155	1.32	1.44	1.47	1.58	1.61	1.69	1.70	1.77	1.74	1.77	1.71	1.71	1.63	1.59	1.48	1.43	1.31	1.27	1.20
160	1.91	2.02	2.05	2.14	2.16	2.25	2.24	2.31	2.28	2.32	2.26	2.26	2.18	2.16	2.05	2.02	1.89	1.86	1.78
165	2.39	2.48	2.47	2.55	2.54	2.61	2.59	2.65	2.61	2.66	2.61	2.63	2.55	2.56	2.48	2.47	2.39	2.36	2.28
170	2.63	2.70	2.67	2.72	2.68	2.72	2.69	2.75	2.71	2.77	2.73	2.78	2.72	2.75	2.70	2.73	2.67	2.69	2.60
175	2.72	2.77	2.72	2.76	2.71	2.76	2.72	2.77	2.75	2.78	2.78	2.80	2.79	2.80	2.77	2.82	2.77	2.83	2.74
180	2.79	2.79	2.77	2.77	2.75	2.76	2.77	2.77	2.78	2.78	2.79	2.79	2.80	2.81	2.81	2.82	2.84	2.86	2.79

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: tang
Test Date: 2022-04-08

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.100m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: spot92-R-3000k-RA90-30D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: VD	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C(°)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
γ (°)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	2061	2064	2071	2071	2081	2080	2090	2088	2097	2095	2103	2099	2105	2101	2104	2100	2097		
5	1922	1972	2024	2080	2121	2163	2187	2203	2194	2178	2162	2139	2095	2039	1973	1924	1851		
10	1393	1471	1535	1633	1729	1810	1852	1893	1892	1867	1805	1736	1646	1544	1411	1315	1212		
15	765	818	871	970	1048	1120	1153	1193	1199	1173	1099	1049	960	883	775	703	624		
20	365	415	459	515	560	586	574	572	557	548	526	531	499	460	402	366	316		
25	154	182	207	233	259	270	255	254	247	248	244	247	237	213	180	157	137		
30	74.8	80.6	88.5	97.8	107	113	112	114	117	112	104	100	92.5	84.7	75.5	69.8	64.1		
35	41.8	43.2	46.9	51.8	54.8	57.4	58.1	58.0	55.5	55.6	54.3	52.8	49.4	47.0	42.7	39.5	37.2		
40	22.7	23.8	26.2	29.4	31.1	32.8	32.4	31.0	29.9	30.1	29.7	30.8	29.3	26.3	23.1	22.5	21.9		
45	10.5	11.6	12.3	14.1	15.9	18.0	17.5	16.5	15.4	15.6	16.4	17.1	14.3	12.8	11.0	10.7	9.45		
50	5.11	5.49	6.02	6.78	6.97	7.06	6.95	7.25	7.08	7.17	6.86	6.63	6.59	6.26	5.59	5.15	4.86		
55	3.13	3.37	3.63	4.09	4.37	4.46	4.09	3.54	3.21	3.32	3.75	4.20	4.15	3.84	3.38	3.06	2.87		
60	1.79	1.87	2.05	2.34	2.57	2.68	2.44	2.02	1.75	1.84	2.19	2.47	2.43	2.19	1.87	1.64	1.60		
65	0.93	0.92	1.03	1.17	1.37	1.41	1.30	1.03	0.89	0.92	1.17	1.30	1.29	1.11	0.95	0.82	0.83		
70	0.40	0.39	0.47	0.53	0.66	0.66	0.63	0.48	0.44	0.42	0.57	0.61	0.64	0.49	0.43	0.32	0.35		
75	0.06	0.02	0.08	0.09	0.20	0.19	0.21	0.12	0.14	0.10	0.19	0.16	0.18	0.07	0.06	0.00	0.03		
80	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
140	0.06	0.09	0.03	0.07	0.01	0.05	0.00	0.04	0.00	0.05	0.00	0.06	0.02	0.08	0.05	0.11	0.08		
145	0.26	0.27	0.20	0.23	0.16	0.20	0.14	0.19	0.15	0.20	0.16	0.21	0.19	0.26	0.24	0.33	0.32		
150	0.60	0.59	0.51	0.52	0.45	0.47	0.41	0.45	0.41	0.46	0.43	0.50	0.49	0.57	0.58	0.67	0.70		
155	1.10	1.07	0.97	0.96	0.90	0.90	0.84	0.87	0.84	0.89	0.88	0.94	0.95	1.03	1.07	1.18	1.22		
160	1.67	1.64	1.54	1.53	1.44	1.45	1.40	1.42	1.39	1.44	1.42	1.50	1.50	1.60	1.63	1.75	1.79		
165	2.18	2.17	2.08	2.07	2.00	2.02	1.96	1.98	1.94	2.00	1.98	2.05	2.05	2.14	2.17	2.26	2.28		
170	2.52	2.53	2.44	2.47	2.41	2.44	2.39	2.44	2.39	2.44	2.40	2.47	2.45	2.52	2.51	2.59	2.58		
175	2.68	2.70	2.64	2.68	2.63	2.68	2.63	2.69	2.65	2.70	2.66	2.71	2.69	2.73	2.70	2.77	2.74		
180	2.79	2.79	2.75	2.76	2.76	2.77	2.77	2.78	2.78	2.79	2.79	2.80	2.80	2.81	2.82	2.84	2.85		

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