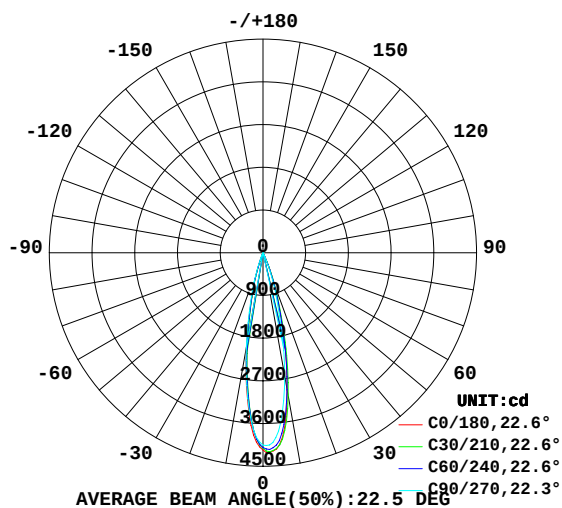


LUMINAIRE PHOTOMETRIC TEST REPORT

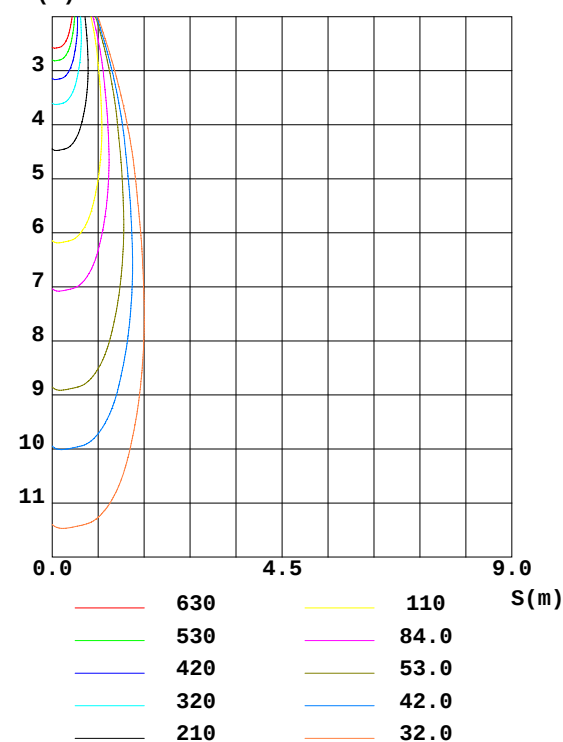
NAME:CL-Spot50-SQ 10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 65.61 lm/W			
MODEL		Imax(cd)	4212	S/MH(C0/180)	0.42
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.40
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	688.10	η UP, DN(C0-180)	0.2, 54.2
NOMINAL FLUX(lm)	688.1	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.2, 45.4
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:VD
Test Date:2021-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.000m [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	2946	3017	2643	2082	2005	1889	2031	2615	0- 10	305.1	305.1	44.3, 44.3
20	646.3	690.0	534.8	283.3	218.1	194.1	267.4	515.7	10- 20	327.1	632.2	91.9, 91.9
30	17.30	17.80	15.13	10.58	9.713	8.920	10.10	14.96	20- 30	47.56	679.7	98.8, 98.8
40	3.235	3.272	2.748	2.119	1.965	1.881	2.108	2.807	30- 40	3.772	683.5	99.3, 99.3
50	1.024	0.9956	0.8204	0.7042	0.6598	0.6605	0.7530	0.9082	40- 50	1.112	684.6	99.5, 99.5
60	0.4454	0.4175	0.3484	0.3051	0.2657	0.3004	0.3672	0.3991	50- 60	0.4887	685.1	99.6, 99.6
70	0.1059	0.0826	0.0273	0.0048	0	0.0024	0.0233	0.0687	60- 70	0.1965	685.3	99.6, 99.6
80	0	0	0	0	0	0	0	0	70- 80	0.0059	685.3	99.6, 99.6
90	0	0	0	0	0	0	0	0	80- 90	0	685.3	99.6, 99.6
100	0	0	0	0	0	0	0	0	90-100	0	685.3	99.6, 99.6
110	0	0	0	0	0	0	0	0	100-110	0	685.3	99.6, 99.6
120	0	0	0	0	0	0	0	0	110-120	0	685.3	99.6, 99.6
130	0	0	0	0	0	0	0	0	120-130	0	685.3	99.6, 99.6
140	0	0	0.0003	0.0002	0.1889	0.1813	0.0913	0.0140	130-140	0.0076	685.3	99.6, 99.6
150	0.7692	0.7454	0.9098	1.312	1.429	1.462	1.228	0.8559	140-150	0.2811	685.6	99.6, 99.6
160	2.869	2.809	3.030	3.525	3.557	3.583	3.315	2.842	150-160	0.9426	686.5	99.8, 99.8
170	4.605	4.543	4.560	4.622	4.698	4.569	4.435	4.344	160-170	1.114	687.7	99.9, 99.9
180	4.950	4.839	4.720	4.663	4.945	4.833	4.697	4.661	170-180	0.4422	688.1	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

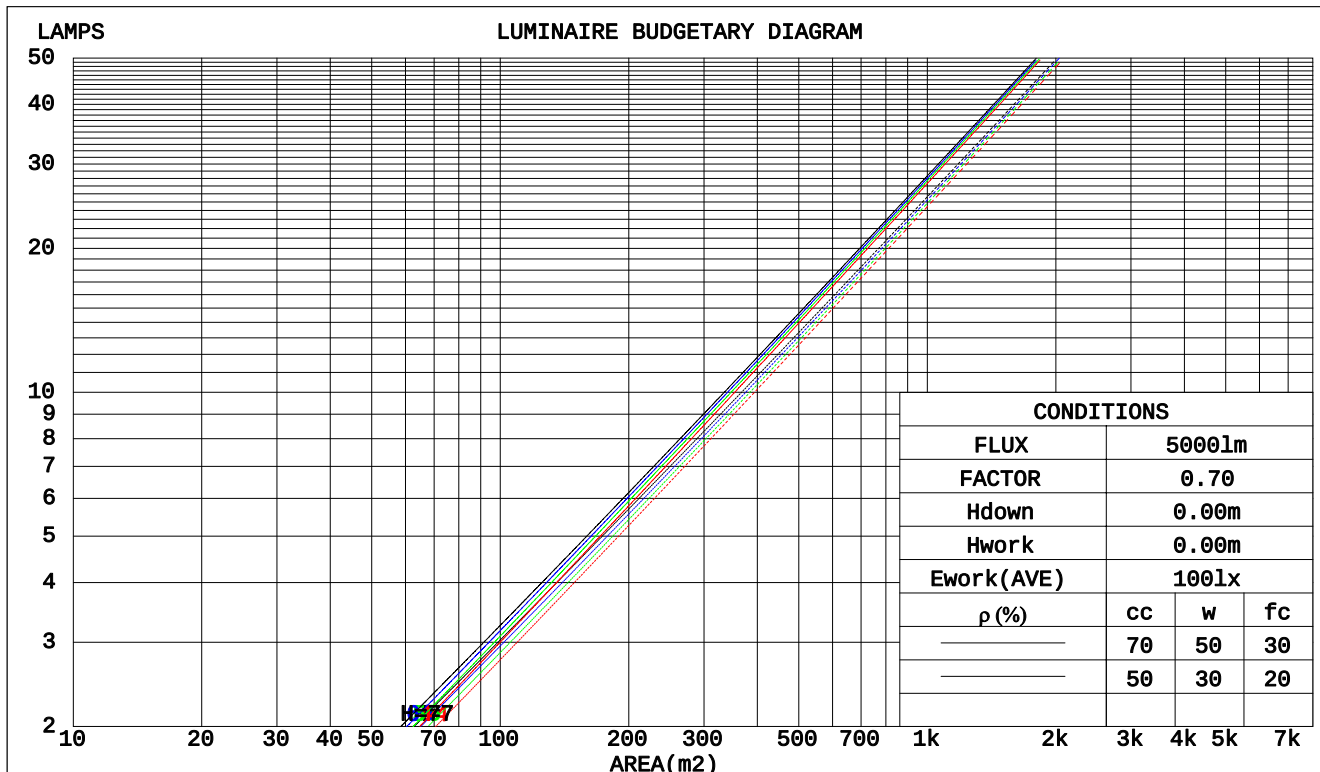
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:VD
Test Date:2021-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.000m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	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	1.12	1.10	1.11	1.10	1.08	1.07	1.06	1.05	1.04	1.03	1.02	1.00	.99	.99	.97
2.0	1.09	1.06	1.04	1.07	1.05	1.03	1.04	1.02	1.00	1.01	.00	.98	.98	.97	.96	.95
3.0	1.05	1.02	.99	1.04	1.01	.98	1.01	.99	.97	.99	.97	.95	.97	.95	.94	.93
4.0	1.01	.98	.95	1.00	.97	.95	.98	.96	.94	.97	.94	.93	.95	.93	.92	.90
5.0	.98	.95	.92	.98	.94	.92	.96	.93	.91	.95	.92	.90	.93	.91	.89	.88
6.0	.96	.92	.89	.95	.92	.89	.94	.91	.89	.93	.90	.88	.91	.89	.87	.87
7.0	.93	.90	.87	.93	.89	.87	.92	.89	.86	.91	.88	.86	.90	.87	.86	.85
8.0	.91	.87	.85	.91	.87	.85	.90	.87	.84	.89	.86	.84	.88	.86	.84	.83
9.0	.89	.85	.83	.89	.85	.83	.88	.85	.83	.87	.84	.82	.86	.84	.82	.81
10.0	.87	.84	.81	.87	.83	.81	.86	.83	.81	.85	.83	.81	.85	.82	.81	.80



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: VD
Test Date: 2021-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.000m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	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	.125	.071	.023	.119	.068	.021	.106	.061	.019	.094	.054	.017	.084	.049	.016		
2.0	.115	.063	.019	.109	.060	.019	.099	.055	.017	.089	.050	.016	.081	.046	.014		
3.0	.106	.056	.017	.101	.054	.016	.093	.050	.015	.085	.046	.014	.077	.043	.013		
4.0	.098	.051	.015	.095	.050	.015	.087	.046	.014	.081	.043	.013	.075	.041	.012		
5.0	.092	.047	.014	.089	.046	.013	.083	.043	.013	.077	.041	.012	.072	.038	.012		
6.0	.087	.044	.012	.084	.042	.012	.079	.040	.012	.074	.038	.011	.069	.037	.011		
7.0	.082	.041	.012	.080	.040	.011	.075	.038	.011	.071	.036	.011	.067	.035	.010		
8.0	.078	.038	.011	.076	.037	.011	.072	.036	.010	.068	.035	.010	.065	.033	.010		
9.0	.074	.036	.010	.073	.035	.010	.069	.034	.010	.066	.033	.009	.063	.032	.009		
10.0	.071	.034	.009	.070	.034	.009	.066	.033	.009	.064	.032	.009	.061	.031	.009		

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	.194	.194	.194	.165	.165	.165	.113	.113	.113	.065	.065	.065	.021	.021	.021		
1.0	.171	.161	.152	.146	.138	.131	.100	.095	.091	.057	.055	.053	.018	.018	.017		
2.0	.152	.136	.123	.130	.117	.106	.089	.081	.074	.051	.047	.043	.016	.015	.014		
3.0	.136	.116	.101	.117	.100	.087	.080	.070	.061	.046	.041	.036	.015	.013	.012		
4.0	.123	.101	.084	.105	.087	.073	.072	.061	.051	.042	.036	.030	.013	.012	.010		
5.0	.112	.088	.071	.096	.076	.062	.066	.053	.044	.038	.031	.026	.012	.010	.009		
6.0	.102	.078	.061	.088	.068	.053	.061	.047	.037	.035	.028	.022	.011	.009	.007		
7.0	.095	.070	.052	.081	.060	.046	.056	.042	.032	.033	.025	.019	.011	.008	.006		
8.0	.088	.063	.046	.076	.054	.040	.052	.038	.028	.030	.023	.017	.010	.007	.006		
9.0	.082	.057	.040	.071	.049	.035	.049	.035	.025	.028	.021	.015	.009	.007	.005		
10.0	.077	.052	.036	.066	.045	.031	.046	.032	.022	.027	.019	.013	.009	.006	.004		

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:VD
Test Date:2021-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.000m [K=1.0000]
Remarks:

Uncorrected UGR Table

NAME: Spot50-SQ-10W-3000K-24D-90RA					TYPE:					WEIGHT:				
DIM.:					SPEC.:					SERIAL No.:				
MFR.:					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					-15.5	-14.9	-15.3	-14.8	-14.6	-16.1	-15.6	-15.9	-15.4	-15.3
3H					-15.6	-15.0	-15.3	-14.8	-14.6	-16.2	-15.7	-16.0	-15.5	-15.3
4H					-15.6	-15.1	-15.4	-14.9	-14.7	-16.3	-15.8	-16.0	-15.6	-15.4
6H					-15.7	-15.2	-15.4	-15.0	-14.8	-16.4	-15.9	-16.1	-15.7	-15.4
8H					-15.8	-15.3	-15.5	-15.0	-14.8	-16.4	-16.0	-16.1	-15.7	-15.4
12H					-15.8	-15.4	-15.5	-15.1	-14.8	-16.5	-16.0	-16.2	-15.8	-15.5
4H 2H					-15.6	-15.1	-15.4	-14.9	-14.7	-16.2	-15.7	-16.0	-15.5	-15.3
3H					-15.7	-15.2	-15.4	-15.0	-14.7	-16.3	-15.9	-16.0	-15.6	-15.3
4H					-15.8	-15.4	-15.4	-15.1	-14.8	-16.4	-16.0	-16.1	-15.7	-15.4
6H					-15.9	-15.5	-15.5	-15.2	-14.8	-16.5	-16.2	-16.2	-15.8	-15.5
8H					-15.9	-15.6	-15.6	-15.3	-14.9	-16.6	-16.2	-16.2	-15.9	-15.5
12H					-16.0	-15.7	-15.6	-15.3	-14.9	-16.6	-16.3	-16.2	-15.9	-15.6
8H 4H					-15.9	-15.6	-15.6	-15.2	-14.9	-16.6	-16.2	-16.2	-15.9	-15.5
6H					-16.1	-15.8	-15.6	-15.4	-15.0	-16.7	-16.4	-16.3	-16.0	-15.6
8H					-16.1	-15.9	-15.7	-15.5	-15.0	-16.8	-16.5	-16.3	-16.1	-15.6
12H					-16.2	-16.0	-15.7	-15.5	-15.1	-16.8	-16.6	-16.4	-16.2	-15.7
12H 4H					-16.0	-15.7	-15.6	-15.3	-14.9	-16.6	-16.3	-16.2	-15.9	-15.6
6H					-16.1	-15.9	-15.7	-15.5	-15.0	-16.8	-16.5	-16.3	-16.1	-15.6
8H					-16.2	-16.0	-15.7	-15.5	-15.1	-16.8	-16.6	-16.4	-16.2	-15.7
Variations with the observer position at spacings:														
S = 1.0H					+ 2.7 / - 4.6					+ 2.2 / - 5.3				
1.5H					+ 4.3 / - 3.8					+ 3.7 / - 3.7				
2.0H					+ 3.4 / - 2.9					+ 3.3 / - 2.9				

CIE Pub.117 Corrected 688.1 lm Total Lamp Luminous Flux.(8log(F/F0) = -1.3)

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:VD
Test Date:2021-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.000m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

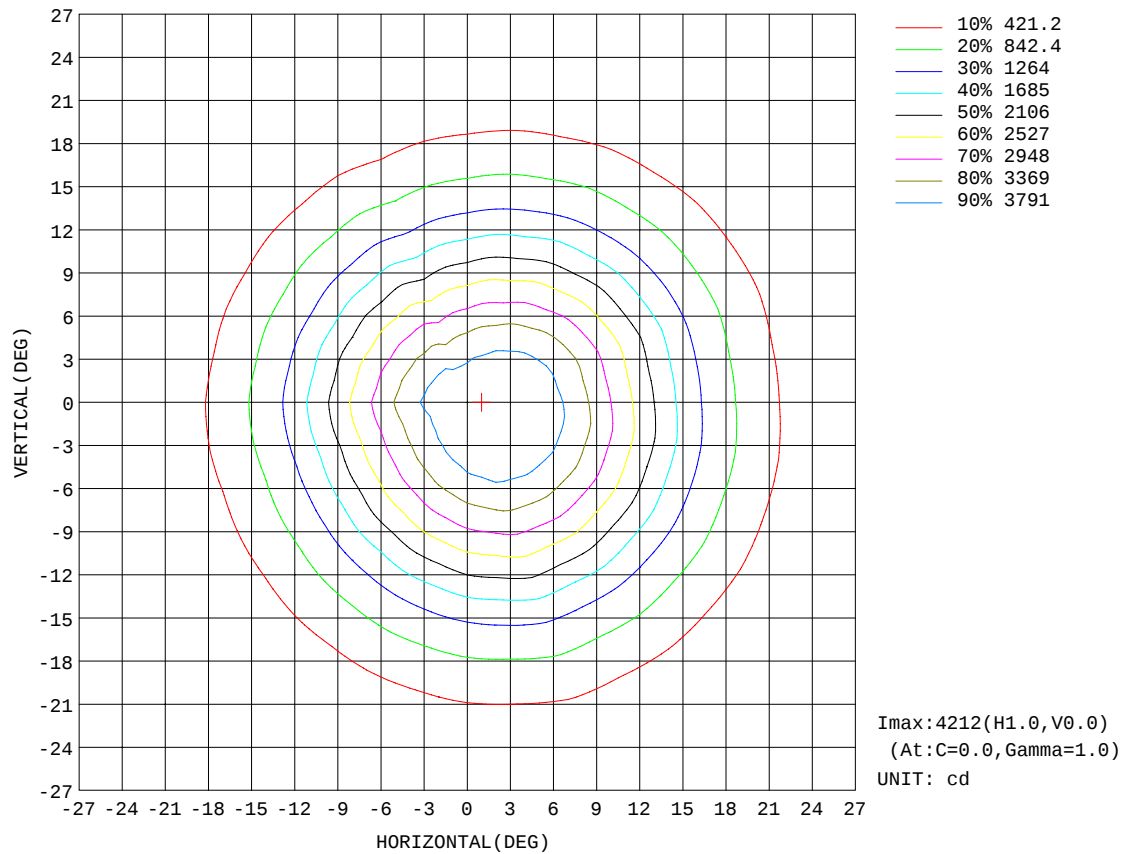
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	91	86	82	91	85	82	90	85	82	79
0.80	98	93	90	97	93	90	96	92	89	86
1.00	102	97	94	101	96	93	99	96	93	89
1.25	105	101	98	104	100	97	102	99	96	92
1.50	108	103	101	106	103	100	104	101	99	95
2.00	110	106	103	108	105	102	106	103	101	96
2.50	111	108	105	110	107	104	107	104	102	97
3.00	113	110	107	111	108	106	107	105	104	97
4.00	114	112	110	112	110	109	109	107	106	99
5.00	116	114	112	114	112	110	110	108	107	100
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: VD
Test Date: 2021-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 γ Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.000m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

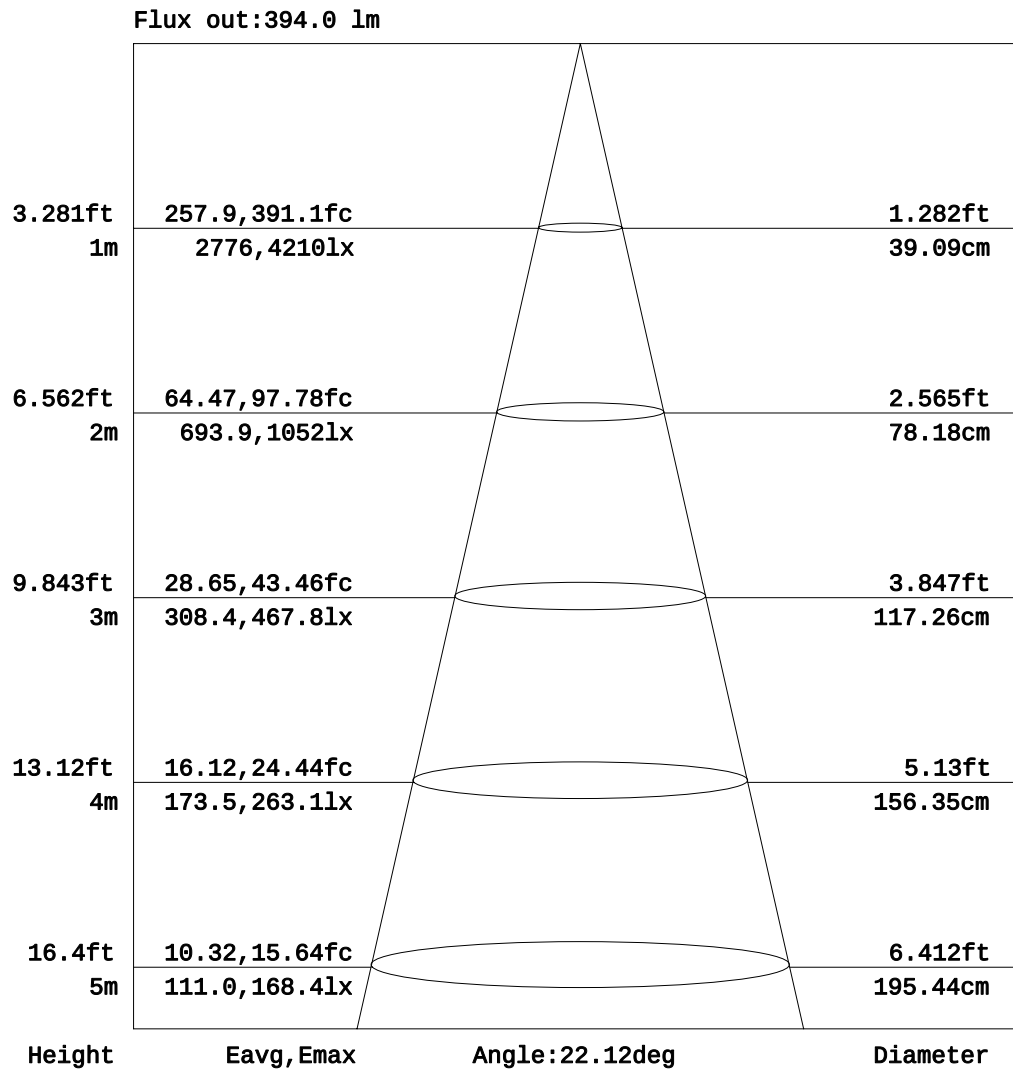


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: VD
Test Date: 2021-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.000m [K=1.0000]
Remarks:

AAI Figure

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



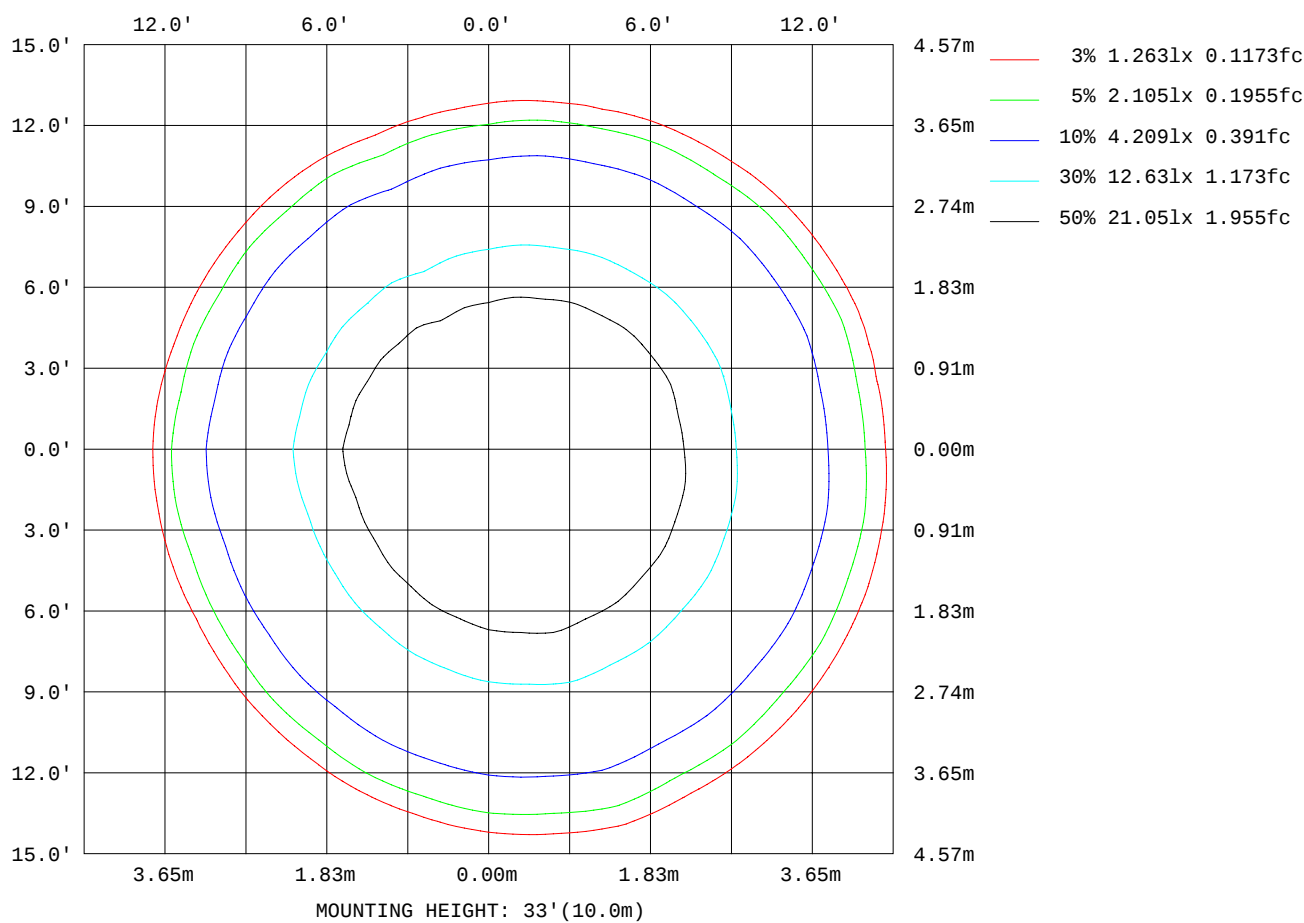
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: VD
Test Date: 2021-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.000m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: VD
Test Date: 2021-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.000m [K=1.0000]
Remarks:

Average Luminance Table(CIBSE)

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	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	688.1	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 deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	12	11	12	11	11	10	11	10	10	9	9	8	9	8	8	7	8	7	7
60	9	8	9	8	9	8	9	8	8	7	8	6	7	6	6	5	6	5	5
65	7	6	7	6	7	6	7	6	6	5	5	4	5	3	4	3	4	3	3
70	3	2	3	2	3	2	3	2	3	1	2	1	1	0	0	0	0	0	0
75	0	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	12	200	---	500
Category 2	65 to 90	7	200	---	500
Category 3	75 to 90	0	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:VD
Test Date:2021-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.000m [K=1.0000]
Remarks:

Average Luminance Table(CIBSE)

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	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	688.1	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 deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	12	11	12	11	11	10	11	10	10	9	9	8	9	8	8	7	8	7	7
60	9	8	9	8	9	8	9	8	8	7	8	6	7	6	6	5	6	5	5
65	7	6	7	6	7	6	7	6	6	5	5	4	5	3	4	3	4	3	3
70	3	2	3	2	3	2	3	2	3	1	2	1	1	0	0	0	0	0	0
75	0	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	12	1000	1500	200	500
65 to 90	7	1000	1500	200	500

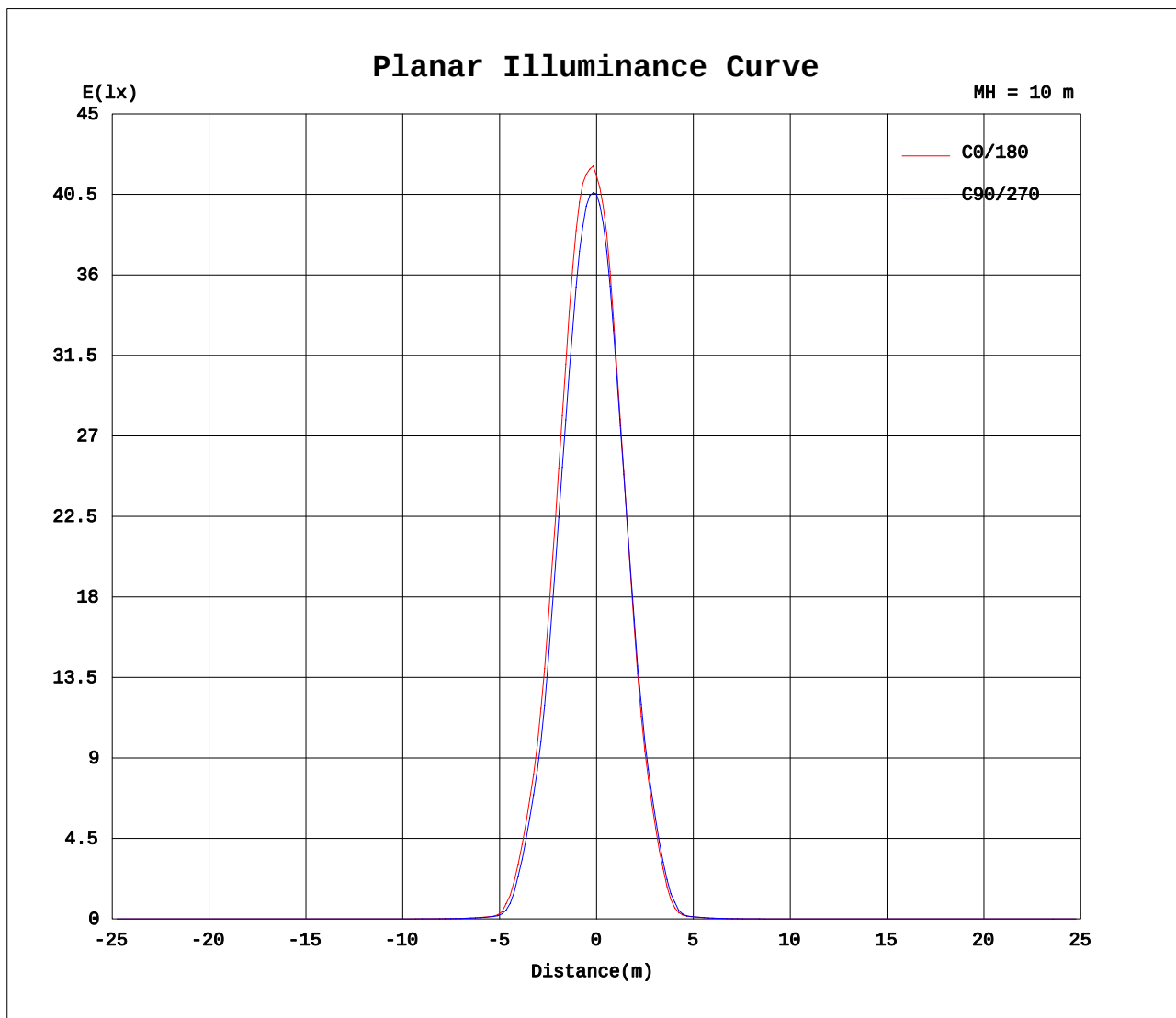
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

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:VD
Test Date:2021-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.000m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: VD
Test Date: 2021-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.000m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(°)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	4156	4136	4132	4119	4117	4107	4103	4055	4058	4053	4057	4058	4062	4068	4073	4083	4093	4111	4156
5	4053	4065	4058	4063	4027	4007	3973	3919	3835	3775	3666	3602	3499	3442	3356	3327	3294	3347	3397
10	2946	3026	3027	3058	3021	3012	2931	2900	2736	2643	2483	2379	2221	2145	2018	1975	1923	1972	2005
15	1556	1632	1629	1671	1630	1638	1559	1562	1414	1326	1221	1121	1020	966	897	870	838	860	871
20	646	687	690	709	690	690	653	658	585	535	461	409	343	310	257	229	211	219	218
25	115	114	134	127	135	122	121	111	83.8	66.9	49.9	39.6	30.5	26.8	23.5	22.5	21.7	22.1	22.2
30	17.3	17.9	18.0	18.1	17.8	17.8	17.2	17.4	16.0	15.1	13.7	12.9	11.6	11.0	10.2	9.81	9.50	9.78	9.71
35	7.13	7.49	7.47	7.57	7.37	7.39	7.09	7.16	6.47	5.95	5.48	5.16	4.71	4.50	4.15	4.08	3.98	4.09	4.07
40	3.24	3.34	3.33	3.35	3.28	3.27	3.14	3.12	2.92	2.75	2.52	2.35	2.28	2.18	2.06	1.99	1.96	1.97	1.96
45	1.70	1.72	1.75	1.73	1.73	1.68	1.67	1.63	1.56	1.43	1.38	1.26	1.24	1.16	1.15	1.09	1.12	1.09	1.09
50	1.02	1.00	1.04	1.00	1.02	0.97	0.99	0.94	0.91	0.82	0.81	0.74	0.76	0.69	0.72	0.66	0.70	0.66	0.66
55	0.67	0.63	0.67	0.61	0.66	0.60	0.63	0.58	0.59	0.51	0.54	0.49	0.51	0.44	0.47	0.42	0.46	0.42	0.42
60	0.45	0.41	0.45	0.41	0.44	0.39	0.43	0.38	0.41	0.35	0.38	0.32	0.35	0.29	0.32	0.27	0.31	0.26	0.27
65	0.31	0.26	0.31	0.26	0.29	0.25	0.28	0.23	0.26	0.20	0.23	0.16	0.20	0.14	0.17	0.12	0.16	0.11	0.11
70	0.11	0.07	0.12	0.06	0.11	0.06	0.10	0.05	0.09	0.03	0.07	0.02	0.05	0.00	0.01	0.00	0.00	0.00	0.00
75	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
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	0.00	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
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.09	0.07	0.14	0.11	0.16	0.19
145	0.19	0.22	0.17	0.21	0.17	0.21	0.19	0.22	0.22	0.29	0.30	0.39	0.41	0.51	0.53	0.61	0.62	0.64	0.64
150	0.77	0.77	0.72	0.75	0.73	0.76	0.76	0.78	0.81	0.91	0.96	1.08	1.15	1.28	1.35	1.45	1.47	1.50	1.43
155	1.70	1.68	1.64	1.65	1.64	1.67	1.69	1.68	1.76	1.87	1.96	2.09	2.21	2.35	2.44	2.55	2.60	2.62	2.48
160	2.87	2.84	2.80	2.80	2.80	2.82	2.84	2.83	2.91	3.03	3.12	3.25	3.36	3.48	3.57	3.68	3.70	3.74	3.56
165	3.94	3.93	3.88	3.89	3.86	3.89	3.89	3.88	3.92	4.02	4.07	4.17	4.21	4.30	4.33	4.42	4.43	4.47	4.35
170	4.60	4.62	4.55	4.58	4.53	4.56	4.52	4.52	4.50	4.56	4.54	4.60	4.57	4.63	4.61	4.61	4.67	4.73	4.70
175	4.85	4.89	4.83	4.84	4.77	4.79	4.73	4.73	4.67	4.70	4.64	4.67	4.61	4.64	4.61	4.65	4.68	4.77	4.82
180	4.95	4.95	4.90	4.90	4.84	4.84	4.79	4.78	4.72	4.72	4.68	4.68	4.66	4.66	4.67	4.68	4.72	4.78	4.94

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: VD
Test Date: 2021-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity: 65.0%
Test Distance: 7.000m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: Spot50-SQ-10W-3000K-24D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	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	4136	4132	4119	4117	4107	4103	4055	4058	4053	4057	4058	4062	4068	4073	4083	4093	4111		
5	3326	3313	3261	3278	3246	3285	3180	3280	3330	3445	3526	3653	3736	3841	3902	3969	3997		
10	1922	1928	1873	1904	1873	1932	1849	1971	2031	2173	2261	2434	2532	2699	2776	2885	2881		
15	834	832	813	830	820	853	819	889	927	1007	1073	1184	1277	1385	1450	1534	1518		
20	196	194	184	194	194	210	194	232	267	329	365	437	480	552	589	636	625		
25	21.3	21.3	20.7	20.7	20.5	21.1	20.4	22.2	24.1	29.1	34.0	44.7	53.7	68.2	80.5	94.6	107		
30	9.26	9.19	8.88	8.96	8.88	9.09	8.80	9.50	10.1	11.2	12.0	13.4	14.3	15.6	16.4	17.1	16.8		
35	3.90	3.89	3.80	3.82	3.77	3.87	3.72	4.00	4.25	4.69	4.98	5.51	5.88	6.36	6.71	7.01	6.90		
40	1.94	1.91	1.90	1.87	1.89	1.89	1.89	1.97	2.11	2.23	2.37	2.54	2.71	2.91	3.02	3.17	3.14		
45	1.11	1.06	1.08	1.04	1.08	1.06	1.09	1.11	1.21	1.23	1.33	1.37	1.48	1.53	1.63	1.64	1.66		
50	0.69	0.63	0.67	0.63	0.69	0.65	0.70	0.68	0.75	0.75	0.82	0.82	0.91	0.91	0.98	0.96	1.00		
55	0.46	0.41	0.45	0.41	0.46	0.43	0.48	0.46	0.52	0.49	0.56	0.54	0.60	0.59	0.64	0.60	0.65		
60	0.31	0.25	0.30	0.27	0.33	0.29	0.34	0.31	0.37	0.34	0.40	0.36	0.42	0.38	0.45	0.40	0.45		
65	0.15	0.10	0.15	0.11	0.16	0.12	0.17	0.14	0.19	0.16	0.23	0.20	0.27	0.24	0.29	0.25	0.29		
70	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.06	0.03	0.08	0.05	0.11	0.07	0.11		
75	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		
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	0.16	0.21	0.16	0.21	0.16	0.18	0.14	0.15	0.09	0.11	0.04	0.06	0.00	0.03	0.00	0.01	0.00		
145	0.64	0.68	0.65	0.68	0.63	0.64	0.61	0.58	0.49	0.47	0.39	0.37	0.29	0.29	0.23	0.25	0.21		
150	1.45	1.48	1.48	1.47	1.45	1.42	1.40	1.33	1.23	1.15	1.04	0.97	0.88	0.83	0.77	0.76	0.75		
155	2.52	2.55	2.55	2.54	2.51	2.47	2.46	2.36	2.24	2.14	2.00	1.91	1.80	1.72	1.64	1.61	1.60		
160	3.58	3.61	3.60	3.60	3.56	3.54	3.51	3.43	3.31	3.22	3.09	3.00	2.88	2.81	2.72	2.70	2.69		
165	4.31	4.34	4.29	4.33	4.27	4.27	4.21	4.18	4.09	4.06	3.95	3.91	3.81	3.78	3.70	3.71	3.70		
170	4.64	4.65	4.57	4.60	4.54	4.56	4.48	4.50	4.44	4.45	4.38	4.39	4.33	4.36	4.31	4.36	4.33		
175	4.77	4.76	4.67	4.70	4.63	4.66	4.56	4.59	4.54	4.57	4.51	4.56	4.52	4.58	4.55	4.63	4.60		
180	4.93	4.93	4.87	4.86	4.81	4.82	4.74	4.74	4.70	4.69	4.67	4.67	4.66	4.67	4.68	4.72	4.78		

C Range: 0 - 360DEG
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