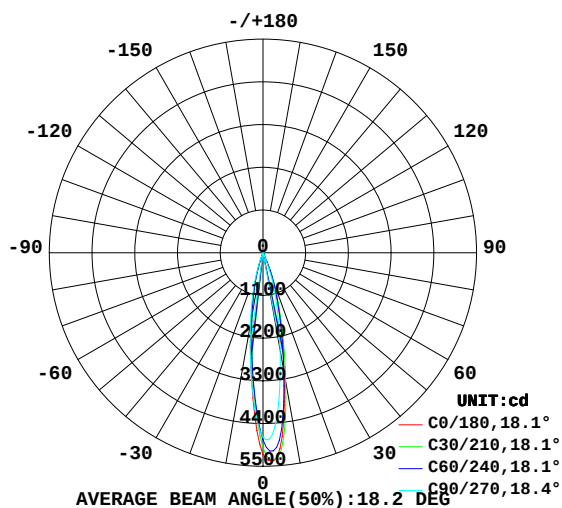


LUMINAIRE PHOTOMETRIC TEST REPORT

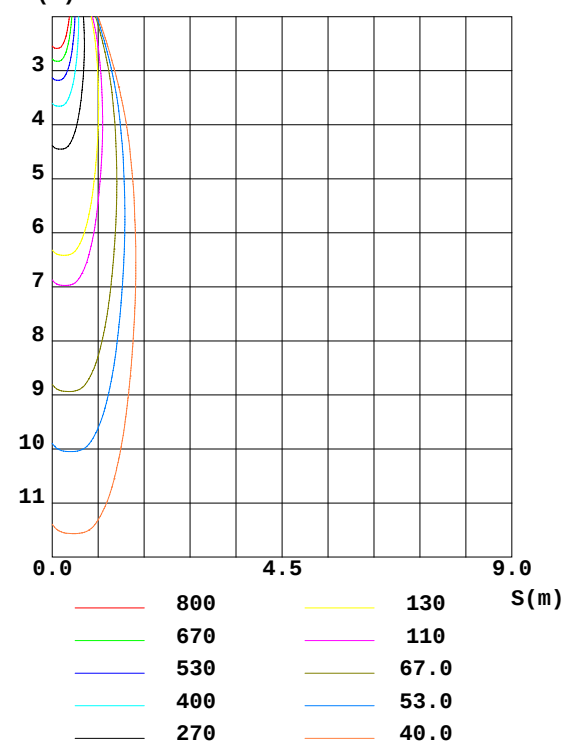
NAME:CL-Spot50-SQ-uls 10W-3000K-18D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 68.72 lm/W			
MODEL		I _{max} (cd)	5360	S/MH(C0/180)	0.39
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.36
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	709.16	η UP, DN(C0-180)	0.2, 56.3
NOMINAL FLUX(lm)	709.156	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.2, 43.3
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:Vando
Test Date:2022-03-10

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	3146	3304	2550	1877	1756	1594	1875	2569	0- 10	323.0	323.0	45.5, 45.5
20	767.1	851.2	565.4	252.2	168.5	130.7	254.8	581.3	10- 20	326.2	649.2	91.5, 91.5
30	19.03	19.74	15.12	9.371	8.409	7.091	9.422	15.86	20- 30	52.15	701.4	98.9, 98.9
40	3.085	3.306	2.235	1.473	1.346	1.227	1.595	2.506	30- 40	3.595	705.0	99.4, 99.4
50	0.7440	0.6951	0.5087	0.4450	0.4037	0.4206	0.5004	0.6192	40- 50	0.8021	705.8	99.5, 99.5
60	0.4086	0.3785	0.3024	0.2363	0.1922	0.1903	0.2755	0.3462	50- 60	0.3625	706.1	99.6, 99.6
70	0.1510	0.0758	0.0227	0.0071	0	0.0023	0.0186	0.0914	60- 70	0.1454	706.3	99.6, 99.6
80	0	0	0	0	0	0	0	0	70- 80	0.0074	706.3	99.6, 99.6
90	0	0	0	0	0	0	0	0	80- 90	0	706.3	99.6, 99.6
100	0	0	0	0	0	0	0	0	90-100	0	706.3	99.6, 99.6
110	0	0	0	0	0	0	0	0	100-110	0	706.3	99.6, 99.6
120	0	0	0	0	0	0	0	0	110-120	0	706.3	99.6, 99.6
130	0	0	0	0	0	0	0	0	120-130	0	706.3	99.6, 99.6
140	0	0	0.0004	0.1100	0.2348	0.2501	0.1050	0.0094	130-140	0.0113	706.3	99.6, 99.6
150	0.6822	0.6284	0.8869	1.367	1.571	1.666	1.251	0.8077	140-150	0.2918	706.6	99.6, 99.6
160	2.873	2.722	3.126	3.736	3.860	3.890	3.462	2.883	150-160	0.9723	707.5	99.8, 99.8
170	4.742	4.621	4.684	4.729	4.941	4.743	4.578	4.461	160-170	1.153	708.7	99.9, 99.9
180	5.138	4.977	4.794	4.720	5.138	4.966	4.748	4.718	170-180	0.4554	709.2	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

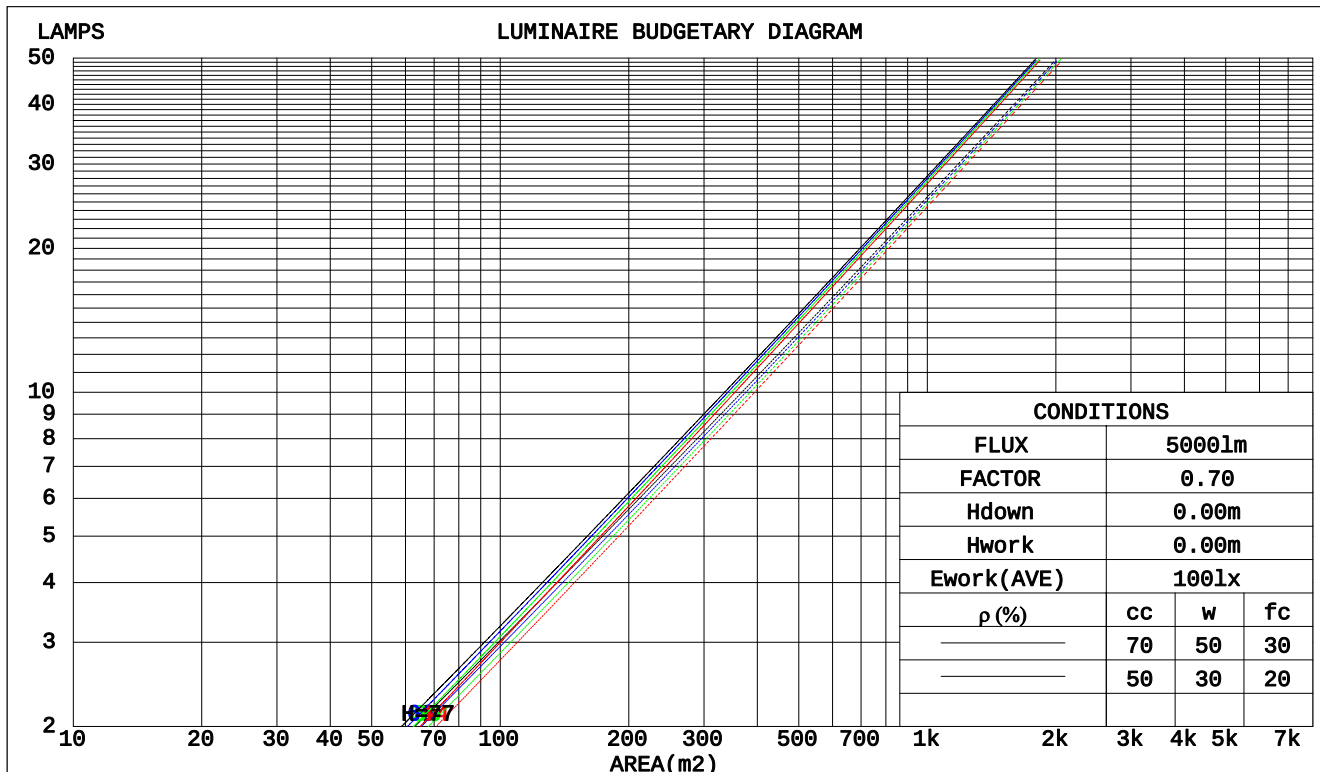
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Vando
Test Date:2022-03-10

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-18D-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	1.02	.98	.95	1.01	.97	.95	.99	.96	.94	.97	.95	.93	.95	.93	.92	.91
5.0	.99	.95	.92	.98	.94	.92	.96	.93	.91	.95	.92	.90	.93	.91	.90	.89
6.0	.96	.92	.90	.95	.92	.89	.94	.91	.89	.93	.90	.88	.92	.89	.88	.87
7.0	.94	.90	.87	.93	.90	.87	.92	.89	.87	.91	.88	.86	.90	.88	.86	.85
8.0	.91	.88	.85	.91	.87	.85	.90	.87	.85	.89	.86	.84	.88	.86	.84	.83
9.0	.89	.86	.83	.89	.86	.83	.88	.85	.83	.87	.85	.83	.87	.84	.82	.82
10.0	.87	.84	.82	.87	.84	.82	.86	.83	.81	.86	.83	.81	.85	.83	.81	.80



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Vando
Test Date:2022-03-10

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-18D-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	.022	.118	.067	.021	.105	.060	.019	.094	.054	.017	.083	.048	.016		
2.0	.114	.062	.019	.108	.060	.018	.098	.055	.017	.089	.050	.016	.080	.045	.014		
3.0	.105	.056	.017	.101	.054	.016	.092	.050	.015	.084	.046	.014	.077	.043	.013		
4.0	.098	.051	.015	.094	.049	.015	.087	.046	.014	.080	.043	.013	.074	.040	.012		
5.0	.092	.047	.014	.088	.045	.013	.082	.043	.013	.077	.040	.012	.071	.038	.011		
6.0	.086	.043	.012	.083	.042	.012	.078	.040	.012	.073	.038	.011	.069	.036	.011		
7.0	.082	.040	.011	.079	.039	.011	.075	.038	.011	.070	.036	.011	.066	.035	.010		
8.0	.077	.038	.011	.075	.037	.010	.071	.036	.010	.068	.034	.010	.064	.033	.010		
9.0	.074	.036	.010	.072	.035	.010	.069	.034	.010	.065	.033	.009	.062	.032	.009		
10.0	.071	.034	.009	.069	.033	.009	.066	.032	.009	.063	.031	.009	.060	.030	.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	.094	.070	.052	.081	.060	.046	.056	.042	.032	.033	.025	.019	.011	.008	.006	
8.0	.088	.063	.046	.075	.054	.040	.052	.038	.028	.030	.023	.017	.010	.007	.006	
9.0	.082	.057	.040	.070	.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:Vando
Test Date:2022-03-10

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-18D-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	-14.7	-14.6	-16.8	-16.3	-16.6	-16.1	-16.0
3H					-15.5	-15.0	-15.3	-14.8	-14.6	-16.9	-16.4	-16.7	-16.2	-16.0
4H					-15.6	-15.1	-15.3	-14.9	-14.7	-17.0	-16.5	-16.8	-16.3	-16.1
6H					-15.7	-15.2	-15.4	-15.0	-14.7	-17.1	-16.6	-16.8	-16.4	-16.2
8H					-15.7	-15.3	-15.4	-15.0	-14.8	-17.1	-16.7	-16.9	-16.4	-16.2
12H					-15.8	-15.3	-15.5	-15.1	-14.8	-17.2	-16.7	-16.9	-16.5	-16.2
4H 2H					-15.6	-15.1	-15.4	-14.9	-14.7	-17.0	-16.5	-16.7	-16.2	-16.0
3H					-15.7	-15.3	-15.4	-15.0	-14.7	-17.1	-16.6	-16.8	-16.4	-16.1
4H					-15.8	-15.4	-15.5	-15.1	-14.8	-17.2	-16.8	-16.8	-16.5	-16.2
6H					-15.9	-15.5	-15.5	-15.2	-14.9	-17.3	-16.9	-16.9	-16.6	-16.2
8H					-16.0	-15.6	-15.6	-15.3	-14.9	-17.3	-17.0	-17.0	-16.6	-16.3
12H					-16.0	-15.7	-15.6	-15.3	-14.9	-17.4	-17.1	-17.0	-16.7	-16.3
8H 4H					-16.0	-15.6	-15.6	-15.3	-14.9	-17.3	-17.0	-16.9	-16.6	-16.3
6H					-16.1	-15.8	-15.6	-15.4	-15.0	-17.5	-17.2	-17.0	-16.8	-16.4
8H					-16.1	-15.9	-15.7	-15.5	-15.0	-17.5	-17.3	-17.1	-16.8	-16.4
12H					-16.2	-16.0	-15.7	-15.5	-15.1	-17.6	-17.4	-17.1	-16.9	-16.4
12H 4H					-16.0	-15.7	-15.6	-15.3	-14.9	-17.4	-17.1	-17.0	-16.7	-16.3
6H					-16.1	-15.9	-15.7	-15.5	-15.0	-17.5	-17.3	-17.1	-16.8	-16.4
8H					-16.2	-16.0	-15.7	-15.5	-15.1	-17.6	-17.4	-17.1	-16.9	-16.4
Variations with the observer position at spacings:														
S = 1.0H					+ 2.9 / - 5.7					+ 2.4 / - 5.7				
1.5H					+ 5.1 / - 4.9					+ 4.5 / - 5.0				
2.0H					+ 3.3 / - 2.5					+ 2.7 / - 1.9				

CIE Pub.117 Corrected 709.2 lm Total Lamp Luminous Flux.(8log(F/F0) = -1.2)

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Vando
Test Date:2022-03-10

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-18D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

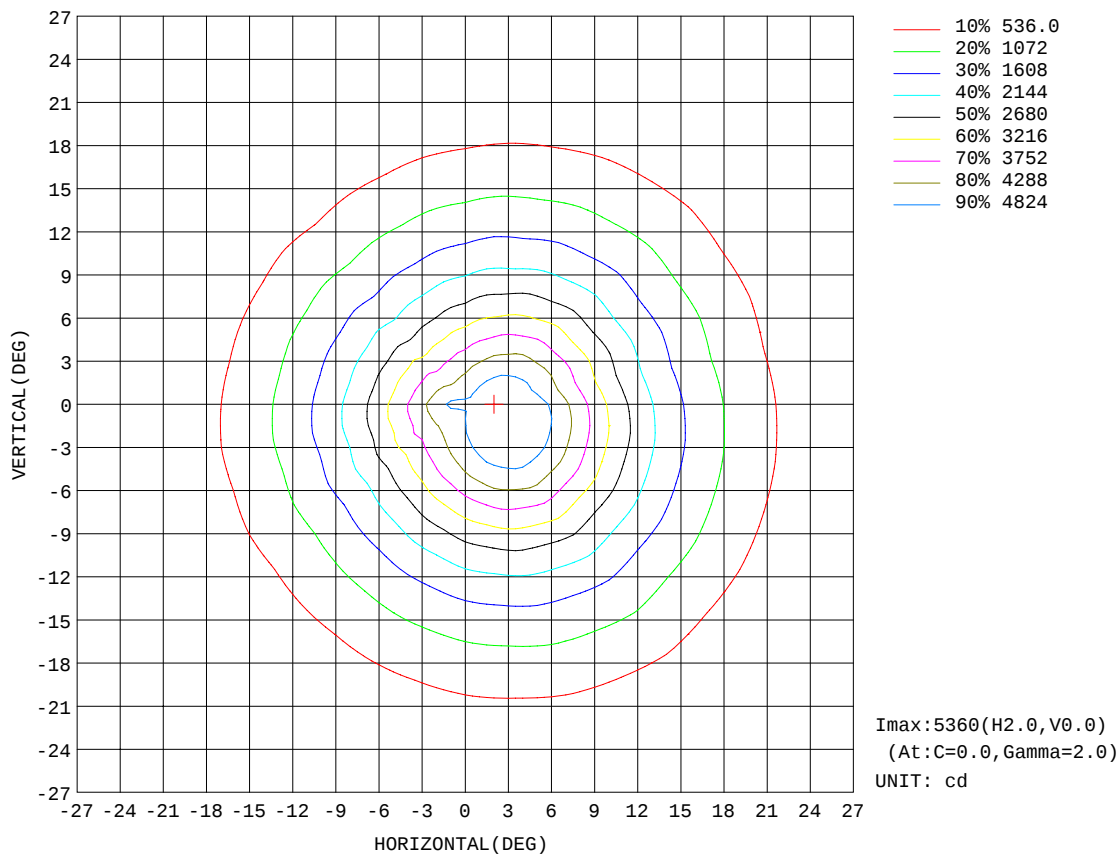
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	91	86	82	91	85	82	90	85	82	79
0.80	98	93	90	97	93	90	96	92	89	86
1.00	102	97	94	101	96	93	99	96	93	89
1.25	105	101	98	104	100	97	102	99	96	93
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: Vando
Test Date: 2022-03-10

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-18D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

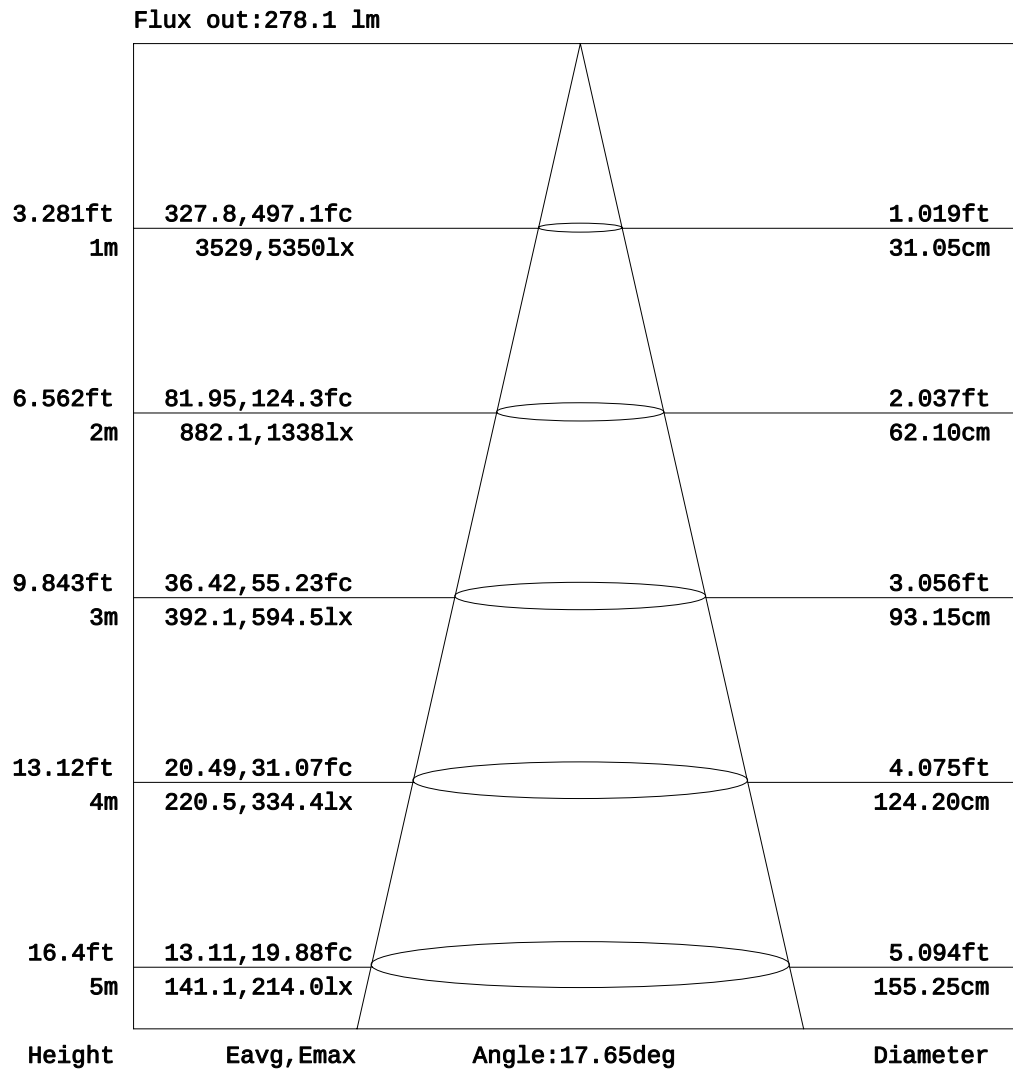


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Vando
Test Date: 2022-03-10

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-18D-90RA	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



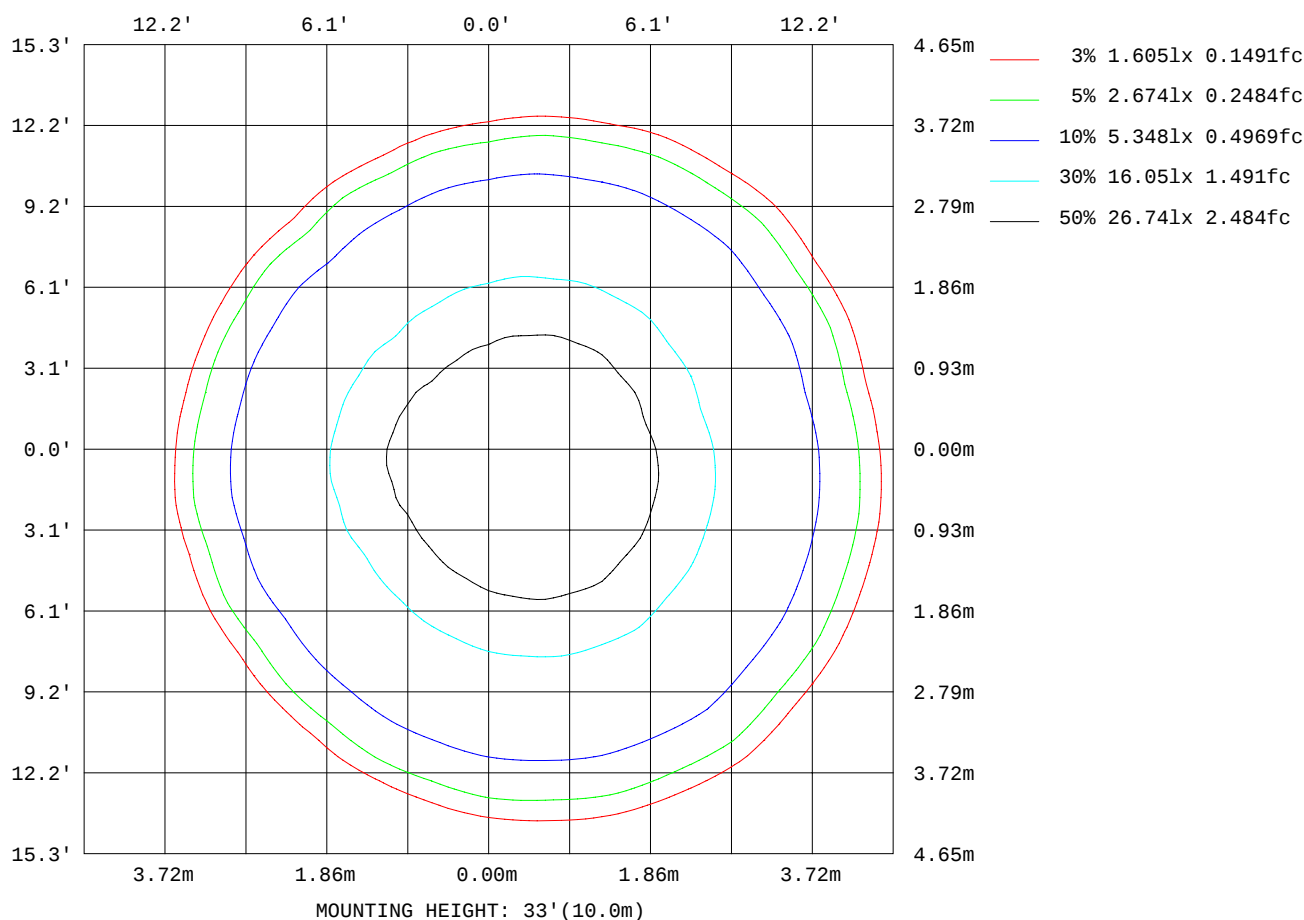
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Vando
Test Date: 2022-03-10

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-18D-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: Vando
Test Date: 2022-03-10

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-18D-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	709.156	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	9	8	9	8	8	7	8	7	7	6	7	7	7	7	7	6	7	6	6
60	8	8	8	7	8	7	7	7	7	6	6	5	6	4	5	4	5	4	4
65	5	4	6	4	6	5	5	3	4	3	3	2	3	2	3	2	3	1	2
70	4	4	3	3	3	1	2	1	2	1	1	0	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	9	200	---	500
Category 2	65 to 90	6	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:Vando
Test Date:2022-03-10

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-18D-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	709.156	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	9	8	9	8	8	7	8	7	7	6	7	7	7	7	7	6	7	6	6
60	8	8	8	7	8	7	7	7	7	6	6	5	6	4	5	4	5	4	4
65	5	4	6	4	6	5	5	3	4	3	3	2	3	2	3	2	3	1	2
70	4	4	3	3	3	1	2	1	2	1	1	0	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	9	1000	1500	200	500
65 to 90	6	1000	1500	200	500

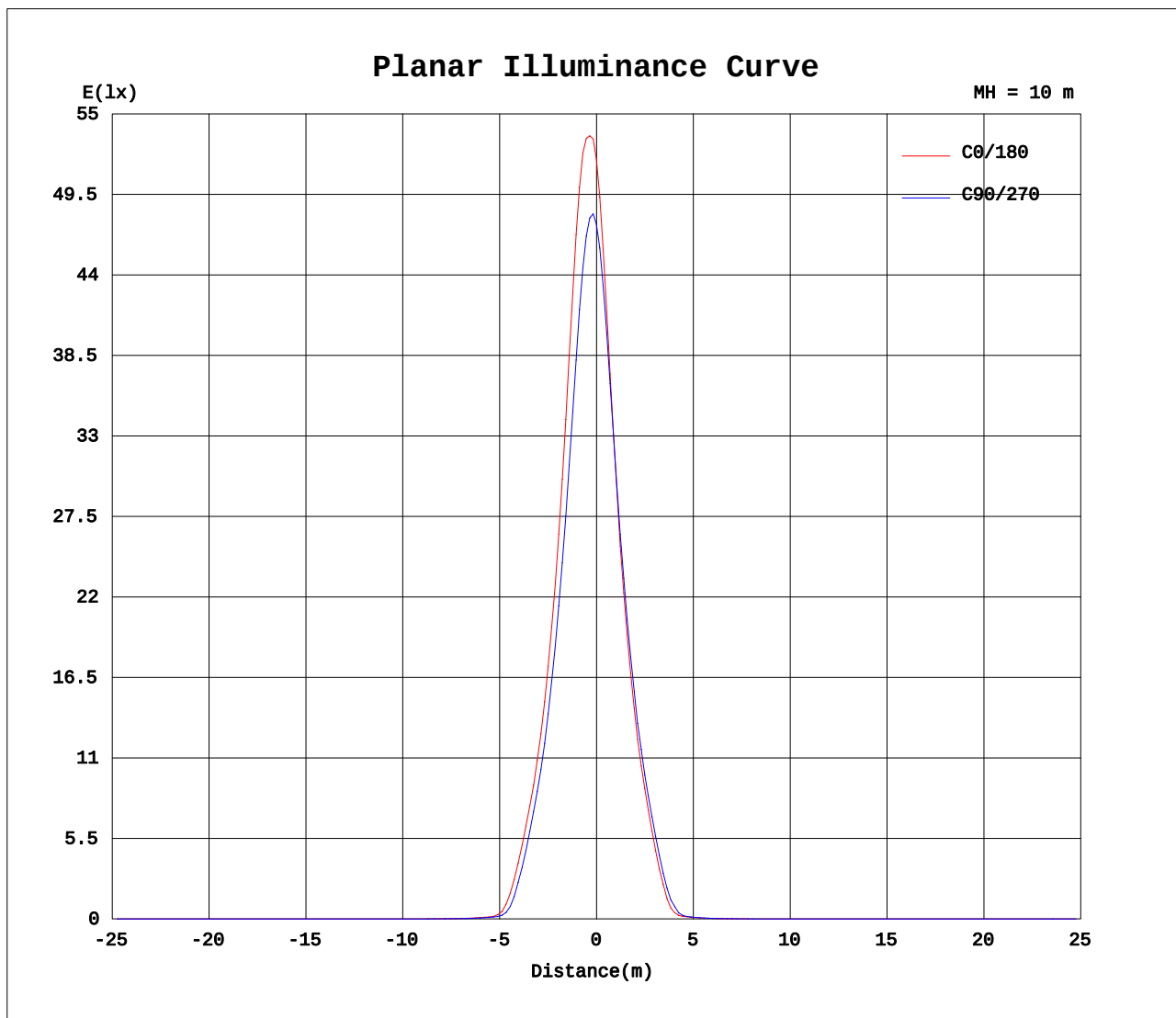
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

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:Vando
Test Date:2022-03-10

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: Vando
Test Date: 2022-03-10

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-18D-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	5191	5128	5092	5020	4992	4813	4818	4779	4776	4747	4760	4766	4779	4808	4843	4980	4999	5073	5191
5	5056	5144	5162	5166	5095	5034	4848	4678	4421	4212	3970	3801	3591	3484	3347	3423	3320	3384	3348
10	3146	3276	3317	3368	3297	3312	3100	2960	2712	2550	2333	2202	2030	1934	1819	1848	1768	1799	1756
15	1647	1729	1755	1795	1756	1785	1663	1576	1433	1332	1214	1113	1012	952	885	893	846	859	825
20	767	815	838	859	841	861	789	735	640	565	474	407	322	282	222	221	194	196	168
25	136	159	171	183	177	188	154	122	99.7	61.4	42.5	33.1	26.0	23.4	21.7	21.8	21.1	21.2	20.4
30	19.0	19.7	19.9	19.9	19.5	20.0	18.7	18.0	16.3	15.1	13.4	12.5	10.8	9.69	9.05	9.11	8.74	8.85	8.41
35	7.16	7.70	7.90	8.11	7.98	8.35	7.55	6.93	6.17	5.73	5.07	4.63	4.06	3.82	3.50	3.56	3.41	3.49	3.31
40	3.08	3.19	3.26	3.33	3.26	3.35	3.09	2.84	2.51	2.24	2.00	1.82	1.64	1.51	1.43	1.42	1.40	1.39	1.35
45	1.31	1.32	1.36	1.35	1.35	1.35	1.27	1.14	1.06	0.93	0.90	0.80	0.79	0.71	0.73	0.69	0.71	0.66	0.66
50	0.74	0.70	0.75	0.70	0.72	0.67	0.67	0.59	0.59	0.51	0.53	0.46	0.49	0.43	0.46	0.41	0.45	0.40	0.40
55	0.49	0.45	0.49	0.43	0.46	0.41	0.44	0.38	0.39	0.37	0.39	0.39	0.38	0.38	0.41	0.37	0.39	0.36	0.37
60	0.41	0.38	0.42	0.37	0.40	0.35	0.36	0.34	0.35	0.30	0.32	0.27	0.28	0.22	0.25	0.20	0.23	0.20	0.19
65	0.23	0.18	0.24	0.19	0.24	0.19	0.22	0.15	0.17	0.11	0.15	0.08	0.13	0.08	0.12	0.07	0.11	0.06	0.07
70	0.15	0.14	0.11	0.09	0.10	0.05	0.08	0.02	0.07	0.02	0.05	0.00	0.04	0.00	0.01	0.00	0.01	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	0.01
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.04	0.12	0.10	0.15	0.14	0.17	0.23
145	0.16	0.18	0.13	0.17	0.13	0.17	0.15	0.22	0.21	0.29	0.32	0.41	0.44	0.54	0.56	0.62	0.63	0.68	0.73
150	0.68	0.68	0.63	0.65	0.62	0.63	0.65	0.74	0.78	0.89	0.96	1.09	1.20	1.33	1.41	1.47	1.52	1.55	1.57
155	1.61	1.58	1.51	1.52	1.50	1.49	1.54	1.65	1.74	1.88	2.01	2.18	2.32	2.49	2.61	2.67	2.74	2.78	2.74
160	2.87	2.83	2.76	2.75	2.74	2.71	2.77	2.88	2.99	3.13	3.26	3.41	3.55	3.69	3.78	3.85	3.90	3.94	3.86
165	4.03	4.01	3.93	3.94	3.90	3.89	3.92	4.00	4.04	4.15	4.20	4.32	4.36	4.48	4.50	4.58	4.60	4.64	4.61
170	4.74	4.75	4.67	4.68	4.62	4.62	4.58	4.64	4.61	4.68	4.66	4.73	4.71	4.69	4.77	4.78	4.84	4.85	4.94
175	5.08	5.10	5.02	5.05	4.96	4.95	4.88	4.84	4.83	4.79	4.78	4.74	4.75	4.71	4.74	4.74	4.82	4.86	5.01
180	5.14	5.14	5.09	5.06	5.00	4.96	4.91	4.87	4.83	4.79	4.77	4.74	4.72	4.72	4.72	4.76	4.79	4.86	5.14

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Vando
Test Date: 2022-03-10

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-18D-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	5128	5092	5020	4992	4813	4818	4779	4776	4747	4760	4766	4779	4808	4843	4980	4999	5073		
5	3221	3186	3088	3117	2965	3077	3108	3254	3346	3546	3704	3956	4147	4405	4538	4715	4767		
10	1677	1657	1610	1630	1559	1646	1686	1801	1875	2035	2141	2338	2465	2673	2721	2907	2910		
15	779	763	739	751	713	764	805	879	931	1023	1087	1200	1288	1393	1409	1503	1509		
20	144	134	140	131	131	143	166	213	255	337	391	481	543	620	630	690	688		
25	19.6	19.2	18.7	18.8	18.1	18.9	19.7	21.2	23.5	28.6	34.2	45.7	56.9	77.8	97.4	100	118		
30	7.82	7.53	7.28	7.34	6.85	7.60	8.03	8.66	9.42	11.1	12.5	14.1	15.3	16.5	16.5	17.6	17.5		
35	3.15	3.13	3.04	3.06	2.93	3.17	3.30	3.64	3.88	4.33	4.73	5.31	5.76	6.24	6.23	6.59	6.55		
40	1.33	1.25	1.25	1.24	1.21	1.25	1.35	1.45	1.59	1.79	1.97	2.19	2.40	2.61	2.62	2.82	2.78		
45	0.68	0.62	0.66	0.61	0.65	0.63	0.70	0.70	0.78	0.80	0.90	0.95	1.06	1.11	1.16	1.17	1.20		
50	0.44	0.40	0.43	0.41	0.44	0.40	0.45	0.43	0.50	0.48	0.55	0.54	0.63	0.61	0.67	0.65	0.70		
55	0.41	0.35	0.39	0.35	0.39	0.34	0.40	0.36	0.40	0.36	0.40	0.37	0.43	0.39	0.45	0.42	0.47		
60	0.23	0.17	0.22	0.17	0.21	0.17	0.23	0.21	0.28	0.24	0.32	0.29	0.36	0.33	0.38	0.34	0.39		
65	0.11	0.06	0.11	0.07	0.11	0.08	0.12	0.09	0.12	0.09	0.15	0.11	0.18	0.14	0.20	0.16	0.21		
70	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.06	0.01	0.10	0.09	0.12	0.14	0.14		
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	0.02	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
140	0.21	0.27	0.23	0.27	0.23	0.24	0.17	0.18	0.11	0.11	0.04	0.06	0.00	0.02	0.00	0.01	0.00		
145	0.72	0.78	0.76	0.78	0.76	0.74	0.65	0.61	0.51	0.47	0.37	0.35	0.27	0.27	0.22	0.24	0.21		
150	1.61	1.66	1.66	1.66	1.67	1.59	1.48	1.38	1.25	1.14	1.02	0.93	0.83	0.78	0.75	0.74	0.71		
155	2.78	2.84	2.84	2.83	2.83	2.75	2.62	2.49	2.33	2.19	2.03	1.90	1.76	1.68	1.65	1.61	1.58		
160	3.87	3.92	3.90	3.91	3.87	3.83	3.71	3.61	3.46	3.35	3.19	3.06	2.93	2.84	2.81	2.76	2.74		
165	4.56	4.61	4.54	4.56	4.50	4.48	4.38	4.35	4.23	4.18	4.06	4.01	3.90	3.87	3.84	3.83	3.81		
170	4.88	4.89	4.79	4.78	4.70	4.69	4.64	4.66	4.58	4.58	4.50	4.51	4.45	4.47	4.45	4.49	4.46		
175	4.94	4.93	4.84	4.81	4.74	4.72	4.68	4.68	4.63	4.67	4.64	4.68	4.66	4.72	4.71	4.79	4.77		
180	5.10	5.11	5.02	5.01	4.92	4.91	4.83	4.83	4.75	4.75	4.71	4.71	4.72	4.72	4.76	4.79	4.86		

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
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