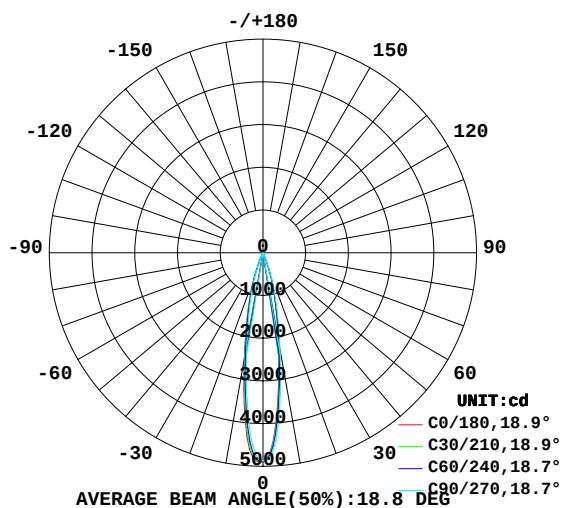


LUMINAIRE PHOTOMETRIC TEST REPORT

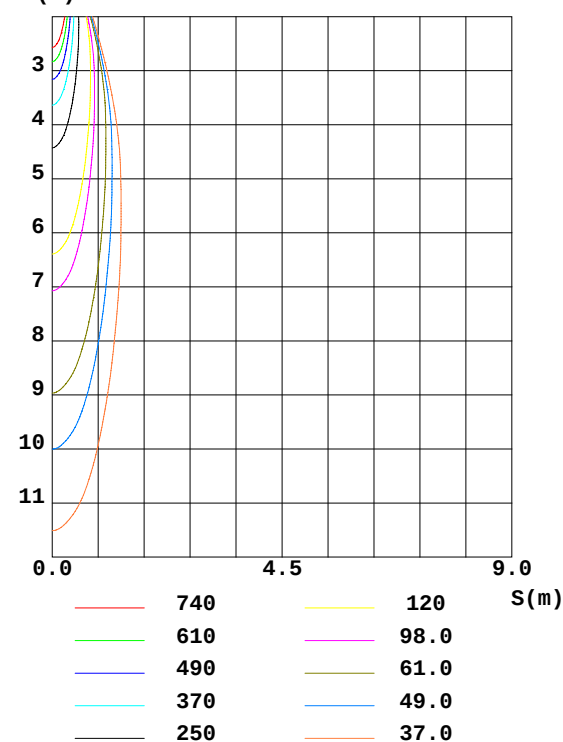
NAME:CL-Spot50-D9 3000k-Ra90-18D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 68.18 lm/W			
MODEL		I _{max} (cd)	4902	S/MH(C0/180)	0.30
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.33
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	703.62	η UP, DN(C0-180)	0.2, 50.5
NOMINAL FLUX(lm)	703.621	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.2, 49.1
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:0
Test Date:2022-04-22

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	2059	2131	2304	2521	2542	2404	2185	2018	0- 10	322.3	322.3	45.8,45.8
20	355.6	379.2	468.9	574.1	591.5	552.2	461.9	361.0	10- 20	322.5	644.9	91.7,91.7
30	13.34	13.41	15.89	17.45	16.25	15.13	13.92	12.71	20- 30	49.38	694.3	98.7,98.7
40	2.766	2.592	2.893	3.515	3.303	3.185	2.906	2.808	30- 40	4.294	698.6	99.3,99.3
50	1.039	0.9204	0.9430	1.185	1.099	1.137	1.114	1.048	40- 50	1.346	699.9	99.5,99.5
60	0.5199	0.4719	0.4807	0.5923	0.5610	0.5826	0.5479	0.4764	50- 60	0.7021	700.6	99.6,99.6
70	0	0.0001	0	0.0167	0.0093	0.0120	0.0146	0.0001	60- 70	0.2250	700.8	99.6,99.6
80	0	0	0	0	0	0	0	0	70- 80	0.0004	700.8	99.6,99.6
90	0	0	0	0	0	0	0	0	80- 90	0	700.8	99.6,99.6
100	0	0	0	0	0	0	0	0	90-100	0	700.8	99.6,99.6
110	0	0	0	0	0	0	0	0	100-110	0	700.8	99.6,99.6
120	0	0	0	0	0	0	0	0	110-120	0	700.8	99.6,99.6
130	0	0	0	0	0	0	0	0	120-130	0	700.8	99.6,99.6
140	0.0701	0.0779	0.0665	0.0144	0.0666	0.0450	0.0469	0.1157	130-140	0.0050	700.8	99.6,99.6
150	1.249	1.201	1.082	0.9368	0.9316	0.9490	1.037	1.190	140-150	0.2785	701.1	99.6,99.6
160	3.532	3.461	3.315	3.122	3.004	3.011	3.132	3.294	150-160	0.9438	702.1	99.8,99.8
170	4.742	4.710	4.686	4.587	4.512	4.438	4.450	4.514	160-170	1.123	703.2	99.9,99.9
180	4.814	4.757	4.733	4.726	4.814	4.738	4.714	4.717	170-180	0.4453	703.6	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT: lm		

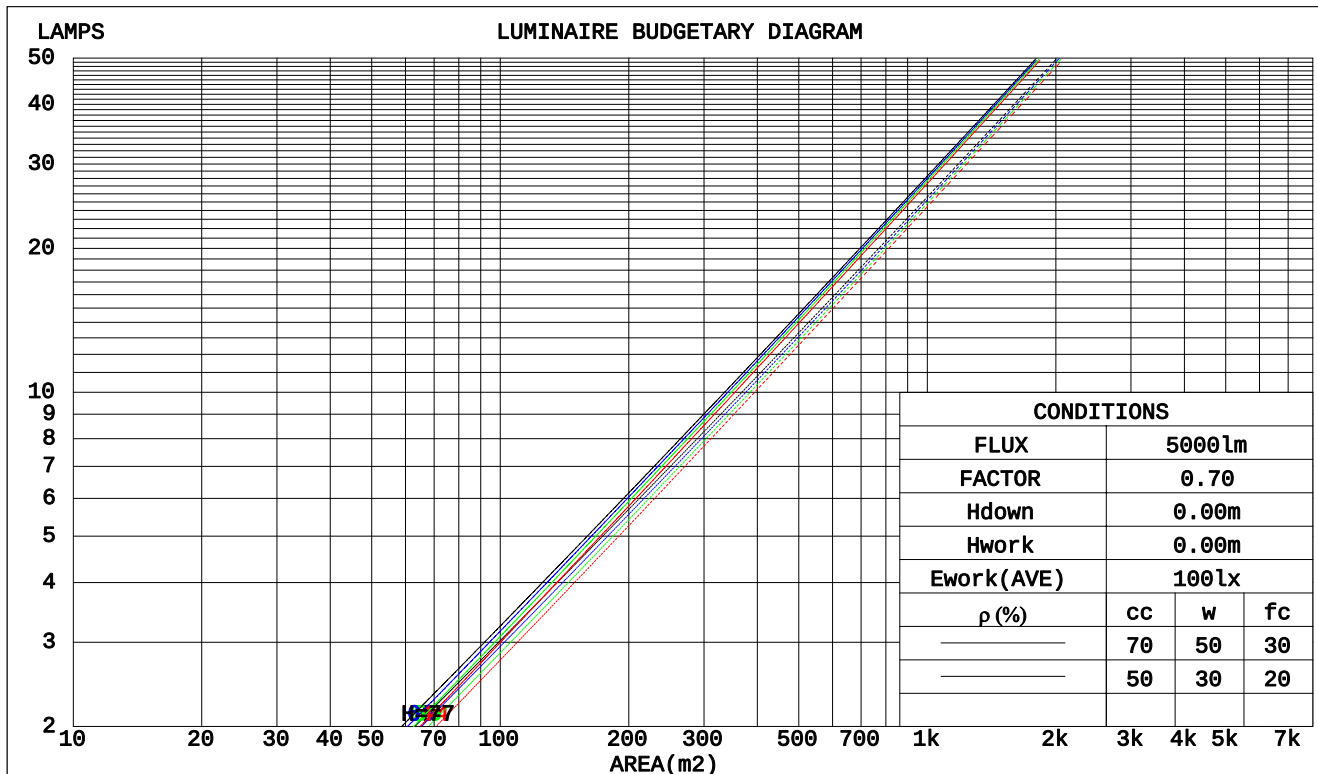
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:0
Test Date:2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	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	.83	.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: 0
Test Date: 2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	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	.109	.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	.081	.040	.011	.079	.039	.011	.075	.038	.011	.070	.036	.010	.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	.068	.034	.010	.065	.033	.009	.062	.032	.009		
10.0	.070	.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	.116	.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	.087	.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	.020	.015	.009	.007	.005		
10.0	.076	.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: 0
 Test Date: 2022-04-22

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: Spot50-3000K-RA90-10W-18D.						TYPE:					WEIGHT:				
DIM.:						SPEC.:					SERIAL No.:				
MFR.: 0						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	-17.1	-16.5	-16.9	-16.4	-16.2	-17.0	-16.5	-16.8	-16.3	-16.2					
3H	-17.2	-16.7	-17.0	-16.5	-16.3	-17.1	-16.6	-16.9	-16.4	-16.2					
4H	-17.3	-16.8	-17.0	-16.6	-16.3	-17.2	-16.7	-16.9	-16.5	-16.3					
6H	-17.3	-16.9	-17.1	-16.6	-16.4	-17.3	-16.8	-17.0	-16.6	-16.3					
8H	-17.4	-16.9	-17.1	-16.7	-16.4	-17.3	-16.9	-17.0	-16.6	-16.4					
12H	-17.4	-17.0	-17.1	-16.7	-16.5	-17.4	-16.9	-17.1	-16.7	-16.4					
4H 2H	-17.2	-16.7	-16.9	-16.4	-16.2	-17.1	-16.6	-16.9	-16.4	-16.2					
3H	-17.3	-16.9	-17.0	-16.6	-16.3	-17.2	-16.8	-16.9	-16.5	-16.3					
4H	-17.4	-17.0	-17.1	-16.7	-16.4	-17.3	-16.9	-17.0	-16.6	-16.3					
6H	-17.5	-17.1	-17.1	-16.8	-16.5	-17.4	-17.1	-17.1	-16.7	-16.4					
8H	-17.6	-17.2	-17.2	-16.9	-16.5	-17.5	-17.2	-17.1	-16.8	-16.4					
12H	-17.6	-17.3	-17.2	-16.9	-16.5	-17.6	-17.2	-17.2	-16.9	-16.5					
8H 4H	-17.6	-17.2	-17.2	-16.9	-16.5	-17.5	-17.2	-17.1	-16.8	-16.4					
6H	-17.7	-17.4	-17.3	-17.0	-16.6	-17.6	-17.3	-17.2	-16.9	-16.5					
8H	-17.7	-17.5	-17.3	-17.1	-16.6	-17.7	-17.4	-17.2	-17.0	-16.6					
12H	-17.8	-17.6	-17.3	-17.1	-16.7	-17.7	-17.5	-17.3	-17.1	-16.6					
12H 4H	-17.6	-17.3	-17.2	-16.9	-16.5	-17.6	-17.2	-17.1	-16.9	-16.5					
6H	-17.7	-17.5	-17.3	-17.1	-16.6	-17.7	-17.4	-17.2	-17.0	-16.6					
8H	-17.8	-17.6	-17.3	-17.1	-16.7	-17.7	-17.5	-17.3	-17.1	-16.6					
Variations with the observer position at spacings:															
S = 1.0H	+ 2.6 / - 3.2					+ 2.8 / - 3.9									
1.5H	+ 4.2 / - 2.3					+ 4.5 / - 2.7									
2.0H	+ 2.9 / - 5.0					+ 2.8 / - 3.5									

CIE Pub.117 Corrected 703.6 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:0
Test Date:2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

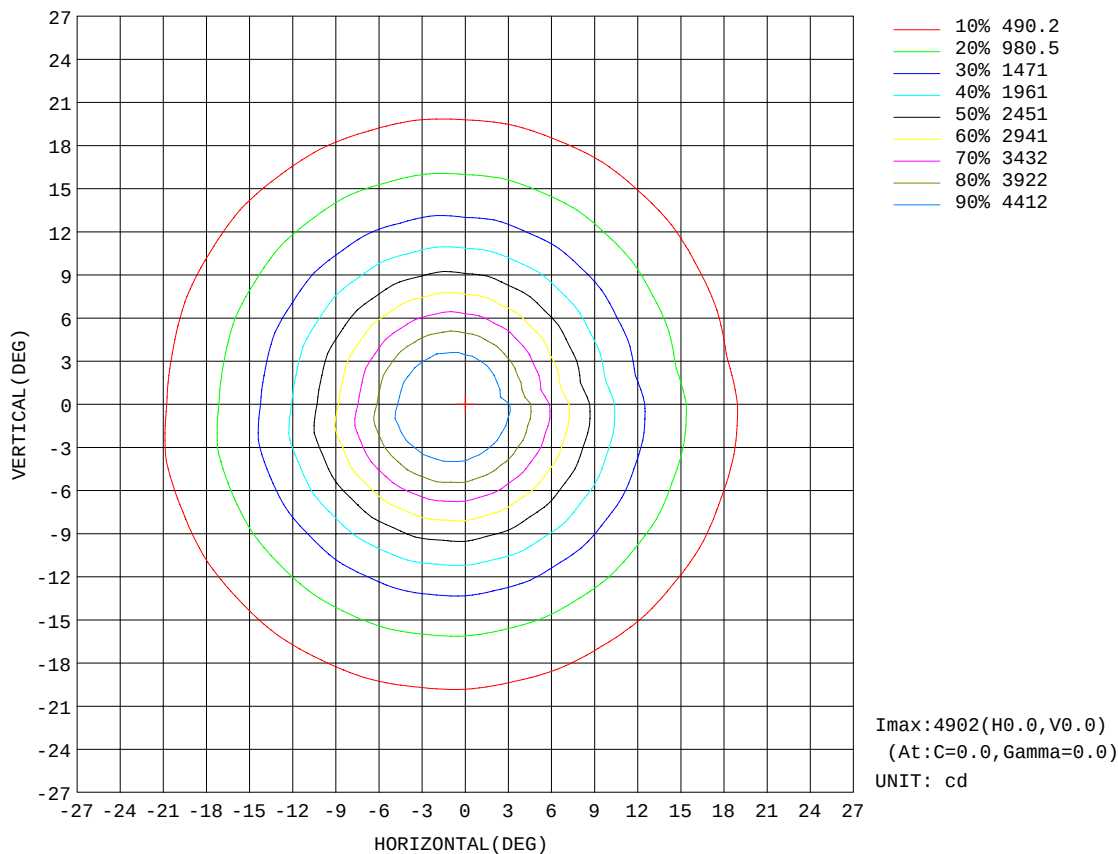
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	91	85	82	91	85	82	90	85	82	79
0.80	98	93	90	97	93	89	96	92	89	86
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	113	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: 0
Test Date: 2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

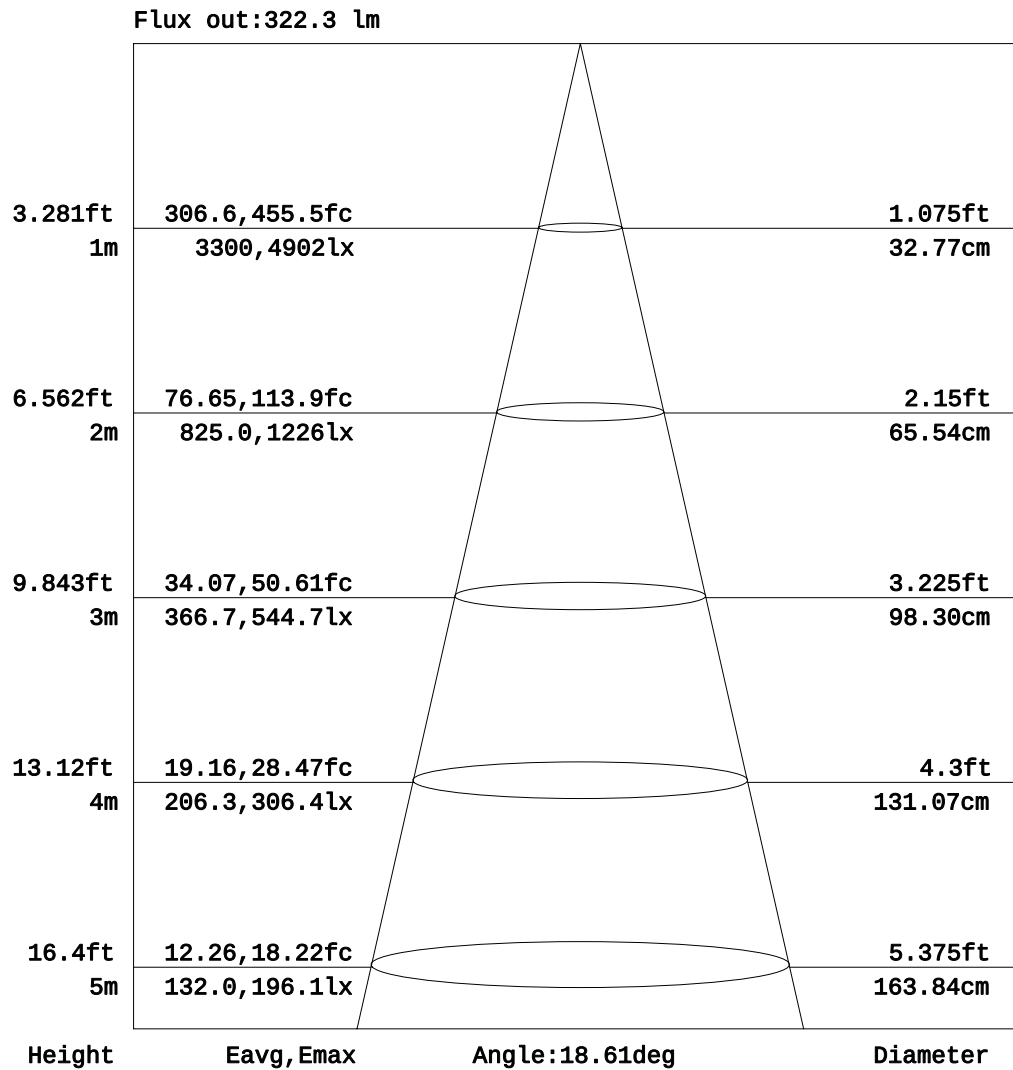


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 0
Test Date: 2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:



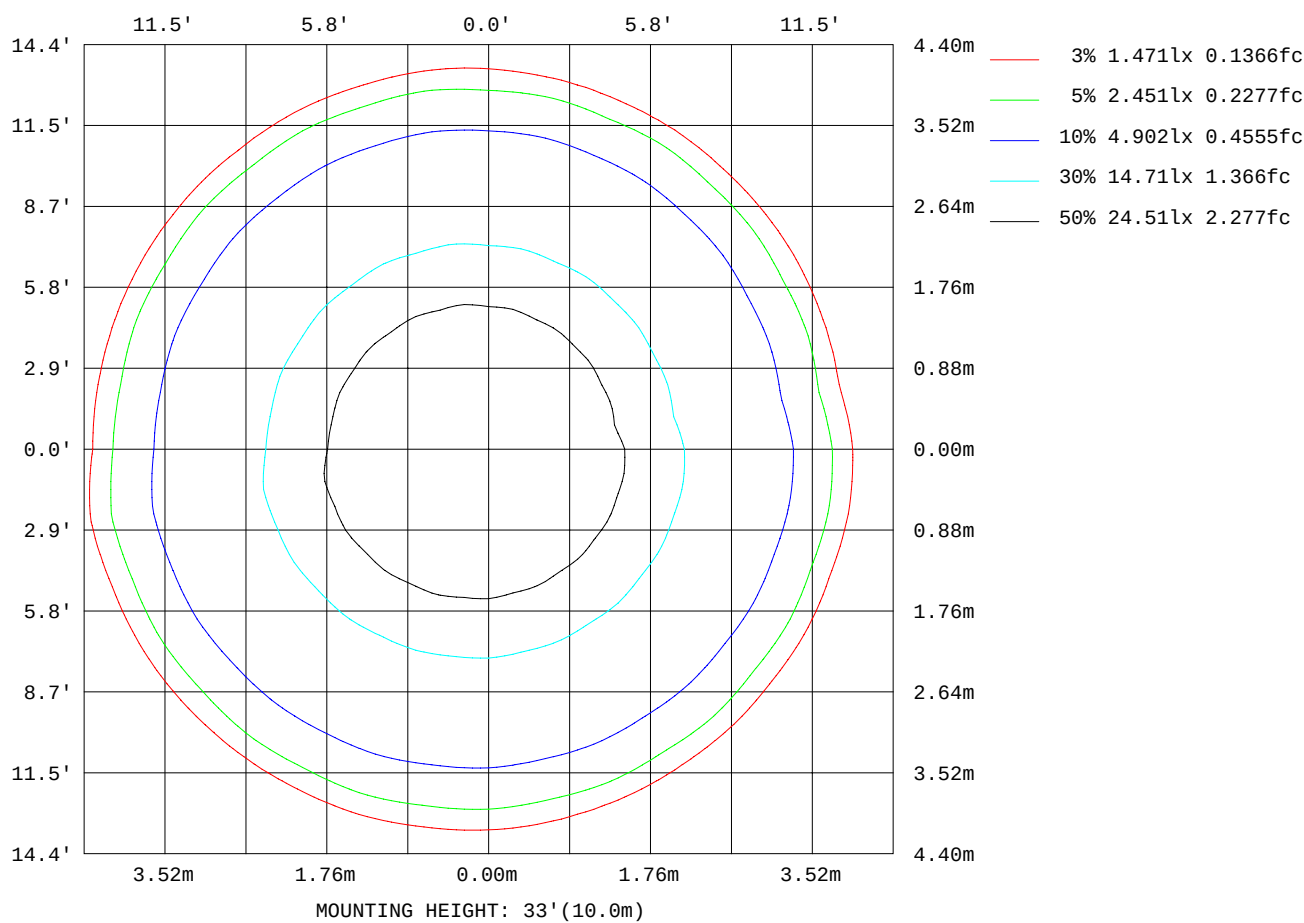
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:0
Test Date:2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 0
Test Date: 2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	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	703.621	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	14	12	13	12	12	12	12	12	13	12	13	13	15	14	15	14	15	14	14
60	10	9	10	9	10	9	10	9	10	10	11	11	12	11	12	11	12	12	11
65	5	4	5	4	5	4	5	4	5	4	5	5	6	5	6	5	7	6	6
70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	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	15	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:0
Test Date:2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	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	703.621	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	14	12	13	12	12	12	12	12	13	12	13	13	15	14	15	14	15	14	14
60	10	9	10	9	10	9	10	9	10	10	11	11	12	11	12	11	12	12	11
65	5	4	5	4	5	4	5	4	5	4	5	5	6	5	6	5	7	6	6
70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	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	15	1000	1500	200	500
65 to 90	7	1000	1500	200	500

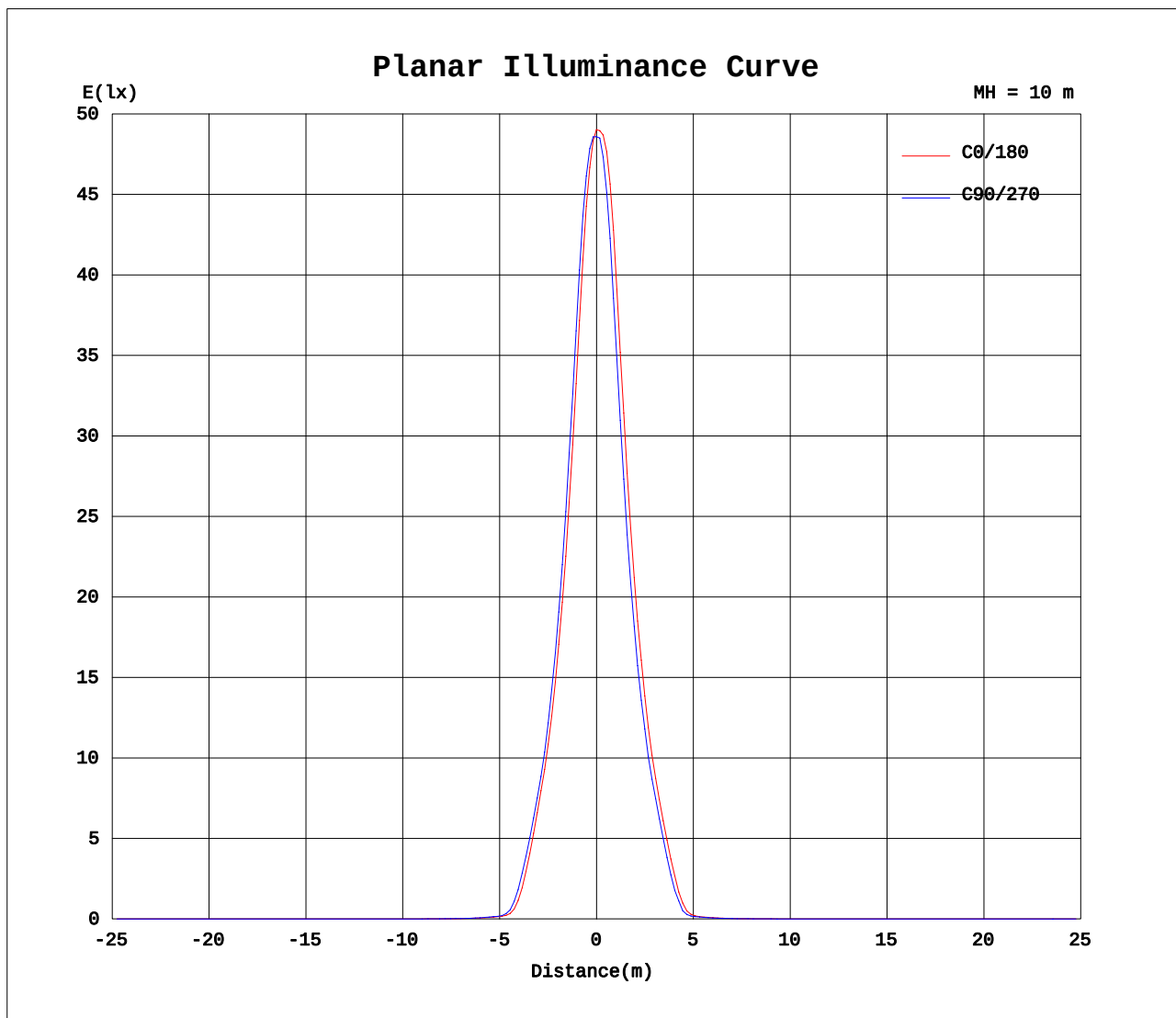
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

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:0
Test Date:2022-04-22

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: 0
Test Date: 2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	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	4902	4896	4889	4884	4879	4874	4870	4867	4863	4859	4857	4854	4852	4848	4844	4837	4838	4831	4902
5	3760	3795	3775	3830	3820	3881	3889	3966	3994	4077	4108	4186	4211	4292	4319	4378	4378	4422	4328
10	2059	2087	2071	2112	2101	2160	2156	2224	2231	2304	2318	2404	2422	2512	2529	2612	2606	2672	2542
15	1031	1043	1031	1048	1039	1065	1068	1099	1111	1150	1167	1210	1244	1280	1310	1346	1368	1390	1320
20	356	363	355	369	368	391	395	422	437	469	483	518	534	567	582	613	619	642	591
25	31.7	31.7	31.3	32.2	32.4	34.0	35.4	39.0	41.0	45.8	48.6	54.5	58.4	65.1	69.6	78.2	80.7	88.7	68.1
30	13.3	13.5	13.1	13.3	13.2	13.6	13.8	14.4	14.7	15.9	16.3	17.0	17.2	17.6	17.3	17.6	17.3	17.5	16.2
35	5.84	5.76	5.54	5.47	5.38	5.48	5.50	5.64	5.75	6.22	6.69	7.13	7.39	7.52	7.45	7.46	7.30	7.37	6.96
40	2.77	2.71	2.61	2.55	2.58	2.61	2.63	2.66	2.71	2.89	3.08	3.31	3.42	3.51	3.52	3.55	3.51	3.57	3.30
45	1.55	1.48	1.46	1.40	1.44	1.41	1.46	1.42	1.49	1.51	1.64	1.74	1.86	1.86	1.88	1.83	1.84	1.86	1.73
50	1.04	0.96	0.95	0.89	0.94	0.90	0.94	0.90	0.96	0.94	1.05	1.08	1.18	1.17	1.20	1.14	1.18	1.14	1.10
55	0.78	0.71	0.72	0.67	0.71	0.67	0.71	0.67	0.72	0.69	0.76	0.76	0.84	0.80	0.84	0.79	0.84	0.83	0.81
60	0.52	0.47	0.49	0.44	0.49	0.46	0.50	0.46	0.52	0.48	0.57	0.56	0.62	0.57	0.61	0.57	0.61	0.59	0.56
65	0.19	0.15	0.20	0.15	0.19	0.16	0.21	0.16	0.21	0.16	0.23	0.19	0.25	0.20	0.26	0.22	0.29	0.27	0.24
70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.00	0.05	0.02	0.01
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	0.07	0.11	0.07	0.10	0.06	0.10	0.05	0.09	0.02	0.07	0.01	0.05	0.00	0.03	0.00	0.02	0.00	0.01	0.07
145	0.49	0.52	0.48	0.51	0.46	0.48	0.43	0.45	0.40	0.42	0.36	0.38	0.33	0.35	0.30	0.33	0.27	0.30	0.36
150	1.25	1.27	1.23	1.24	1.20	1.20	1.14	1.14	1.09	1.08	1.03	1.03	0.97	0.96	0.91	0.92	0.88	0.89	0.93
155	2.36	2.37	2.34	2.33	2.30	2.29	2.22	2.21	2.15	2.13	2.06	2.04	1.98	1.96	1.91	1.89	1.85	1.85	1.87
160	3.53	3.55	3.52	3.51	3.47	3.46	3.41	3.39	3.33	3.31	3.25	3.22	3.16	3.15	3.09	3.07	3.05	3.04	3.00
165	4.34	4.37	4.32	4.34	4.29	4.30	4.25	4.27	4.20	4.22	4.16	4.16	4.10	4.10	4.04	4.05	4.00	4.02	3.95
170	4.74	4.79	4.72	4.72	4.70	4.72	4.66	4.70	4.64	4.69	4.62	4.65	4.59	4.62	4.56	4.60	4.54	4.59	4.51
175	4.80	4.81	4.78	4.76	4.76	4.75	4.74	4.74	4.73	4.72	4.73	4.72	4.73	4.72	4.71	4.72	4.74	4.76	4.76
180	4.81	4.81	4.79	4.79	4.76	4.76	4.74	4.74	4.73	4.73	4.73	4.73	4.73	4.73	4.72	4.73	4.75	4.79	4.81

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 0
Test Date: 2022-04-22

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: Spot50-3000K-RA90-10W-18D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	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	4896	4889	4884	4879	4874	4870	4867	4863	4859	4857	4854	4852	4848	4844	4837	4838	4831		
5	4292	4288	4226	4210	4127	4104	4018	3988	3900	3876	3792	3776	3699	3689	3611	3617	3556		
10	2499	2507	2448	2442	2366	2352	2273	2258	2185	2164	2099	2082	2023	2012	1958	1964	1921		
15	1308	1302	1276	1262	1235	1216	1172	1161	1118	1105	1068	1056	1021	1012	985	985	958		
20	578	585	563	564	540	533	505	494	462	448	411	399	365	357	324	326	294		
25	65.7	66.8	61.7	59.4	53.5	50.6	45.5	43.2	38.8	36.8	33.5	32.6	29.9	29.2	28.1	28.2	27.3		
30	15.9	15.8	15.2	15.3	15.0	14.8	14.4	14.3	13.9	13.9	13.5	13.4	12.8	12.6	12.1	12.3	12.0		
35	6.71	6.69	6.46	6.40	6.26	6.16	5.90	5.82	5.68	5.72	5.64	5.78	5.59	5.60	5.45	5.51	5.45		
40	3.24	3.24	3.22	3.19	3.18	3.07	3.00	2.92	2.91	2.89	2.90	2.93	2.86	2.76	2.69	2.67	2.64		
45	1.74	1.73	1.77	1.73	1.75	1.67	1.69	1.63	1.65	1.62	1.68	1.65	1.64	1.54	1.52	1.47	1.53		
50	1.14	1.10	1.16	1.11	1.16	1.09	1.13	1.07	1.11	1.08	1.14	1.09	1.10	1.00	1.02	0.96	1.03		
55	0.86	0.83	0.89	0.84	0.89	0.83	0.87	0.82	0.85	0.82	0.86	0.80	0.82	0.74	0.76	0.71	0.78		
60	0.62	0.57	0.61	0.57	0.60	0.54	0.57	0.51	0.55	0.50	0.55	0.49	0.51	0.44	0.46	0.42	0.48		
65	0.29	0.24	0.28	0.24	0.27	0.21	0.25	0.19	0.24	0.19	0.24	0.18	0.21	0.14	0.17	0.12	0.18		
70	0.05	0.00	0.04	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	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		
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	0.01	0.07	0.03	0.07	0.02	0.07	0.04	0.09	0.05	0.10	0.07	0.13	0.09	0.14	0.11	0.16	0.12		
145	0.32	0.36	0.32	0.37	0.33	0.38	0.36	0.41	0.39	0.44	0.43	0.49	0.47	0.52	0.50	0.55	0.53		
150	0.91	0.93	0.92	0.96	0.94	0.99	0.99	1.04	1.04	1.09	1.11	1.16	1.16	1.22	1.23	1.26	1.26		
155	1.85	1.87	1.86	1.90	1.90	1.94	1.95	2.00	2.02	2.07	2.10	2.16	2.18	2.24	2.26	2.30	2.31		
160	2.97	2.99	2.98	3.01	3.01	3.06	3.06	3.11	3.13	3.19	3.20	3.26	3.26	3.32	3.33	3.39	3.39		
165	3.89	3.92	3.89	3.94	3.92	3.96	3.94	4.01	3.99	4.05	4.03	4.09	4.07	4.14	4.12	4.18	4.16		
170	4.44	4.47	4.42	4.46	4.42	4.47	4.43	4.48	4.45	4.50	4.46	4.52	4.48	4.55	4.52	4.58	4.54		
175	4.70	4.71	4.64	4.68	4.62	4.67	4.62	4.67	4.62	4.67	4.62	4.66	4.61	4.66	4.62	4.68	4.65		
180	4.81	4.81	4.75	4.75	4.73	4.73	4.72	4.72	4.71	4.72	4.71	4.73	4.71	4.72	4.73	4.75	4.79		

C Range: 0 - 360DEG
C Interval: 10.0DEG
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