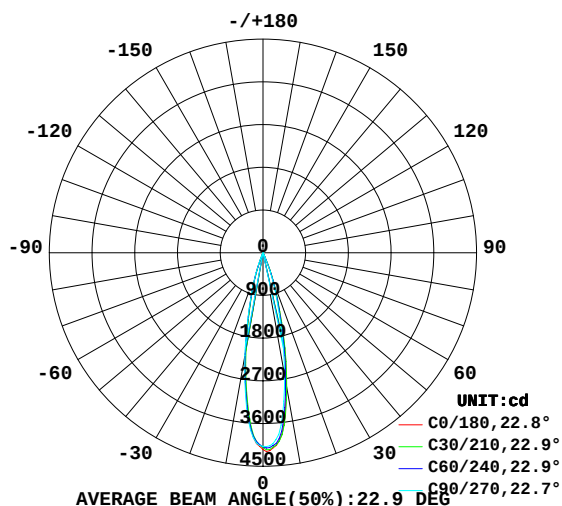


LUMINAIRE PHOTOMETRIC TEST REPORT

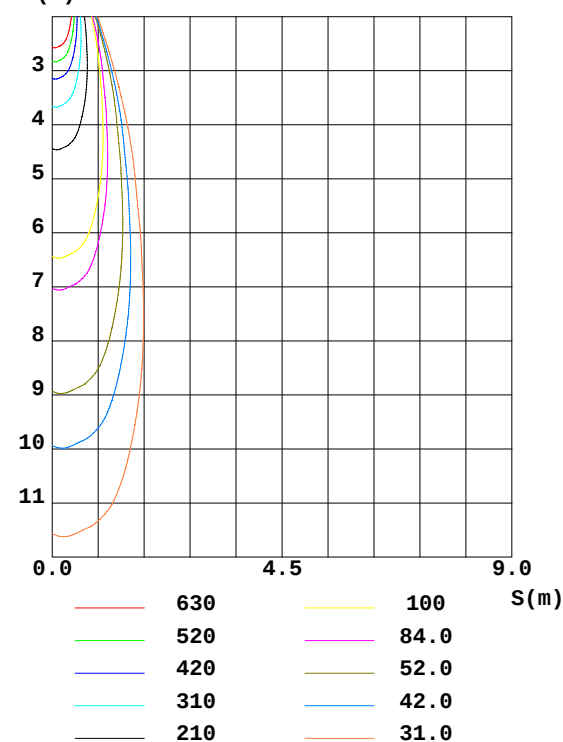
NAME:CL-Spot50 3000k-Ra90-24D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 68.23 lm/W			
MODEL		I _{max} (cd)	4188	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)	704.11	η UP, DN(C0-180)	0.2, 54.1
NOMINAL FLUX(lm)	704.107	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.2, 45.5
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	2849	2827	2636	2351	2128	2113	2197	2425	0- 10	309.9	309.9	44,44
20	628.1	644.6	558.8	434.1	315.5	301.0	352.6	456.3	10- 20	335.9	645.9	91.7,91.7
30	15.39	15.74	14.70	11.73	9.859	10.98	11.74	12.57	20- 30	50.35	696.2	98.9,98.9
40	2.795	2.717	2.413	2.032	1.838	2.001	1.985	2.116	30- 40	3.604	699.9	99.4,99.4
50	0.7749	0.7340	0.6223	0.5994	0.5750	0.6063	0.6282	0.6417	40- 50	0.9286	700.8	99.5,99.5
60	0.3212	0.2997	0.2594	0.2737	0.2638	0.2571	0.2975	0.2996	50- 60	0.3820	701.2	99.6,99.6
70	0.0426	0.0237	0	0.0001	0	0	0.0001	0.0049	60- 70	0.1350	701.3	99.6,99.6
80	0	0	0	0	0	0	0	0	70- 80	0.0005	701.3	99.6,99.6
90	0	0	0	0	0	0	0	0	80- 90	0	701.3	99.6,99.6
100	0	0	0	0	0	0	0	0	90-100	0	701.3	99.6,99.6
110	0	0	0	0	0	0	0	0	100-110	0	701.3	99.6,99.6
120	0	0	0	0	0	0	0	0	110-120	0	701.3	99.6,99.6
130	0	0	0	0	0	0	0	0	120-130	0	701.3	99.6,99.6
140	0	0.0049	0.0334	0.0449	0.1659	0.1417	0.0845	0.0590	130-140	0.0061	701.3	99.6,99.6
150	0.8998	0.9108	1.016	1.147	1.342	1.331	1.183	1.043	140-150	0.2868	701.6	99.6,99.6
160	3.027	3.008	3.150	3.332	3.461	3.419	3.259	3.077	150-160	0.9518	702.5	99.8,99.8
170	4.643	4.587	4.630	4.618	4.682	4.537	4.464	4.436	160-170	1.121	703.7	99.9,99.9
180	4.932	4.809	4.743	4.717	4.946	4.811	4.719	4.710	170-180	0.4447	704.1	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

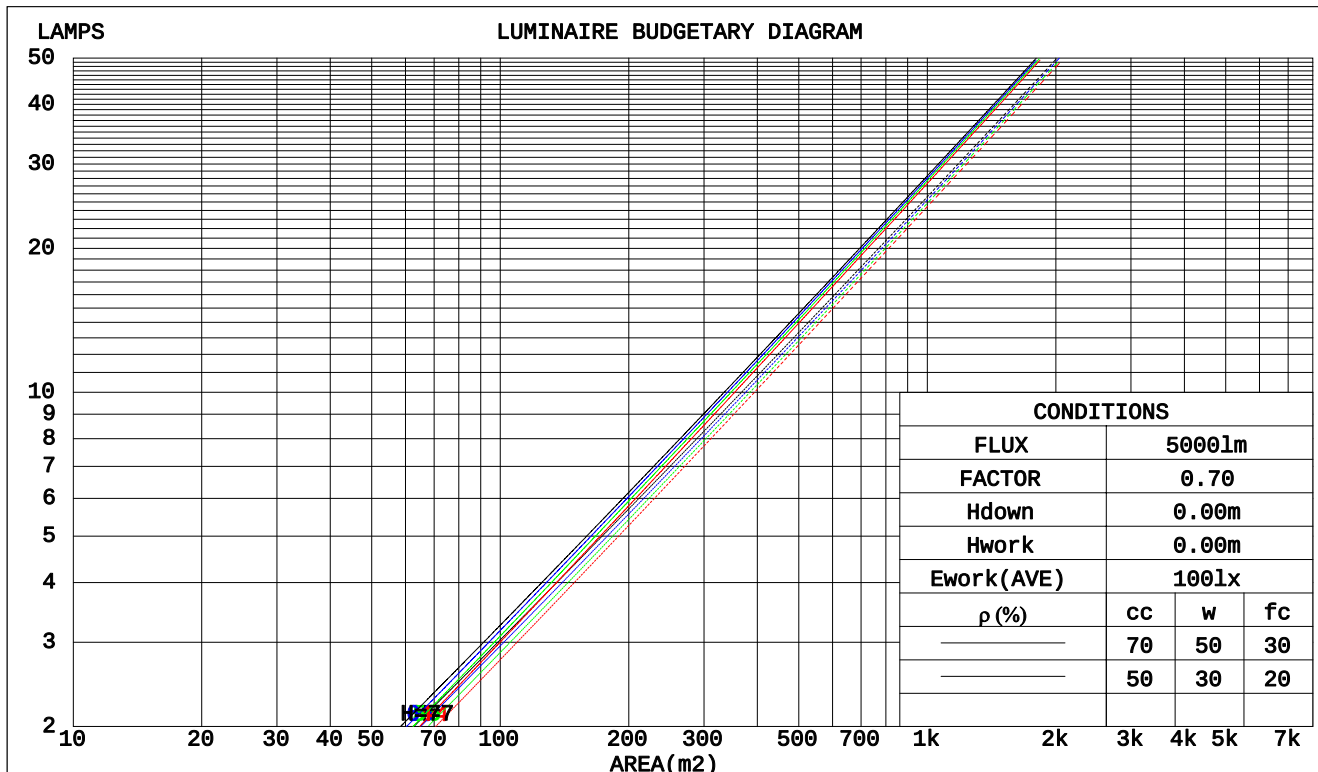
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:0
Test Date:2022-04-22

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-24D.	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	1.01	.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	.94	.92	.90	.93	.91	.89	.88
6.0	.96	.92	.89	.95	.92	.89	.94	.91	.89	.92	.90	.88	.91	.89	.87	.86
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	.88	.85	.83	.88	.85	.83	.87	.84	.82	.86	.84	.82	.81
10.0	.87	.83	.81	.87	.83	.81	.86	.83	.81	.85	.83	.81	.85	.82	.80	.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-24D.	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	.023	.119	.068	.021	.106	.061	.019	.095	.055	.018	.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	.047	.014	.078	.043	.013		
4.0	.099	.051	.015	.095	.050	.015	.088	.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	.043	.012	.079	.040	.012	.074	.038	.011	.070	.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	.075	.036	.010	.073	.035	.010	.069	.034	.010	.066	.033	.009	.063	.032	.009		
10.0	.071	.034	.009	.070	.034	.009	.067	.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	.090	.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: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-24D.					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					-16.7	-16.1	-16.5	-16.0	-15.8	-17.3	-16.8	-17.1	-16.6	-16.5
3H					-16.8	-16.3	-16.6	-16.1	-15.9	-17.4	-16.9	-17.2	-16.7	-16.5
4H					-16.9	-16.4	-16.6	-16.2	-15.9	-17.5	-17.0	-17.3	-16.8	-16.6
6H					-17.0	-16.5	-16.7	-16.2	-16.0	-17.6	-17.1	-17.3	-16.9	-16.6
8H					-17.0	-16.5	-16.7	-16.3	-16.0	-17.6	-17.2	-17.3	-16.9	-16.7
12H					-17.0	-16.6	-16.7	-16.3	-16.1	-17.7	-17.2	-17.4	-17.0	-16.7
4H 2H					-16.8	-16.3	-16.6	-16.1	-15.9	-17.5	-17.0	-17.2	-16.8	-16.5
3H					-17.0	-16.5	-16.7	-16.3	-16.0	-17.6	-17.2	-17.3	-16.9	-16.6
4H					-17.1	-16.7	-16.7	-16.4	-16.1	-17.7	-17.3	-17.4	-17.0	-16.7
6H					-17.2	-16.8	-16.8	-16.5	-16.1	-17.8	-17.4	-17.4	-17.1	-16.8
8H					-17.2	-16.9	-16.8	-16.5	-16.2	-17.9	-17.5	-17.5	-17.2	-16.8
12H					-17.3	-17.0	-16.9	-16.6	-16.2	-17.9	-17.6	-17.5	-17.2	-16.8
8H 4H					-17.2	-16.9	-16.8	-16.5	-16.2	-17.9	-17.5	-17.5	-17.2	-16.8
6H					-17.3	-17.1	-16.9	-16.7	-16.2	-18.0	-17.7	-17.6	-17.3	-16.9
8H					-17.4	-17.2	-17.0	-16.7	-16.3	-18.0	-17.8	-17.6	-17.4	-16.9
12H					-17.5	-17.3	-17.0	-16.8	-16.3	-18.1	-17.9	-17.6	-17.4	-17.0
12H 4H					-17.3	-17.0	-16.9	-16.6	-16.2	-17.9	-17.6	-17.5	-17.2	-16.8
6H					-17.4	-17.2	-17.0	-16.7	-16.3	-18.0	-17.8	-17.6	-17.4	-16.9
8H					-17.5	-17.3	-17.0	-16.8	-16.3	-18.1	-17.9	-17.6	-17.4	-17.0
Variations with the observer position at spacings:														
S = 1.0H					+ 3.1 / - 6.2					+ 2.9 / - 6.1				
1.5H					+ 5.0 / - 4.9					+ 4.7 / - 4.2				
2.0H					+ 4.1 / - 3.8					+ 3.5 / - 2.8				

CIE Pub.117 Corrected 704.1 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-24D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

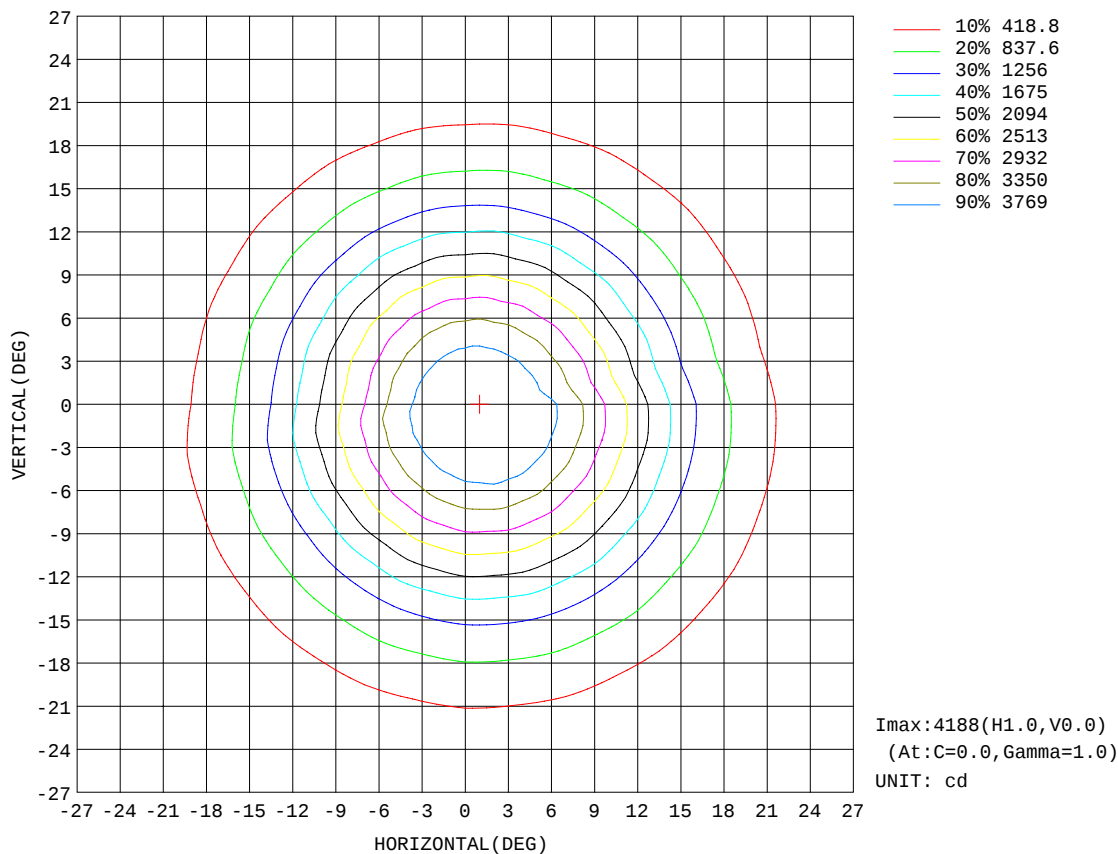
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	91	86	82	91	85	82	90	85	82	79
0.80	98	93	90	97	93	90	96	92	89	86
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: 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-24D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

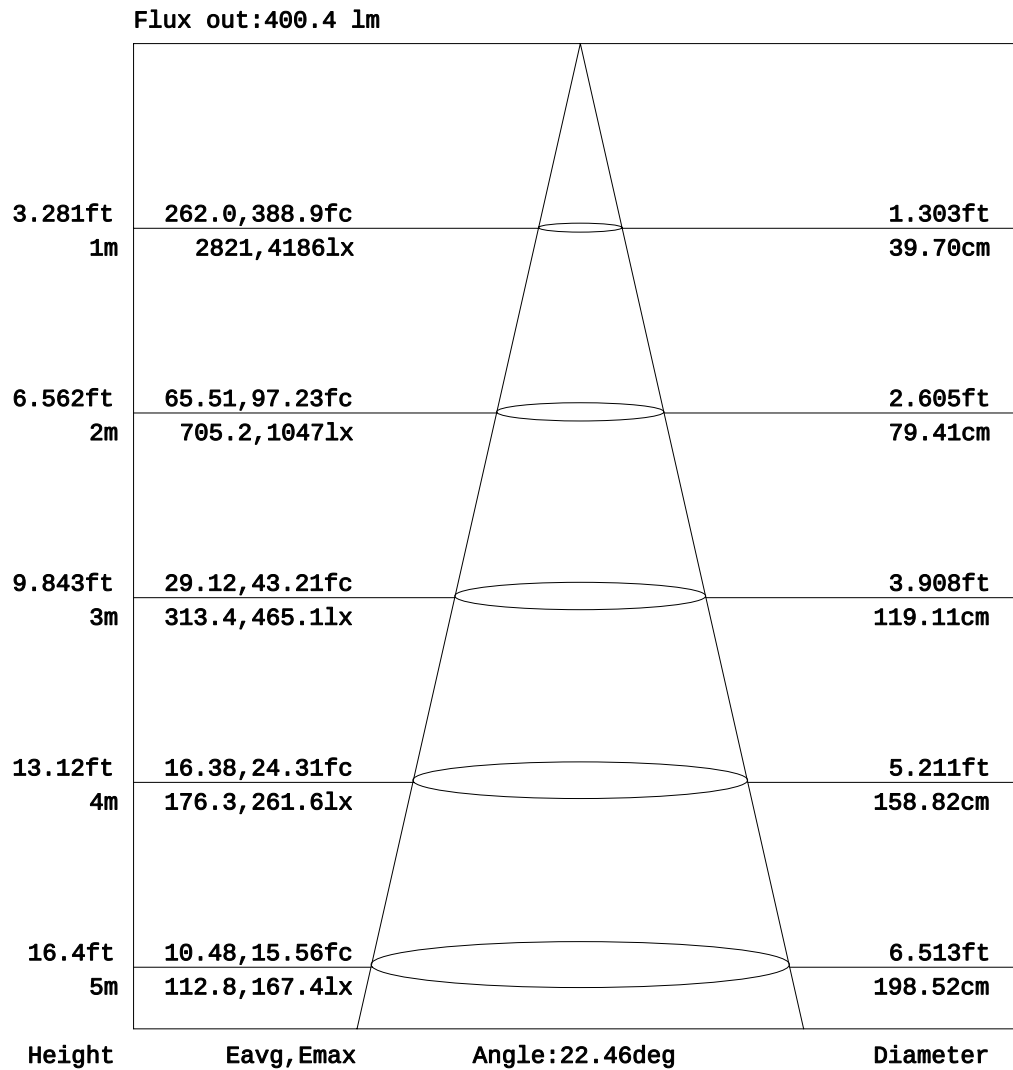


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 0
Test Date: 2022-04-22

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-24D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:



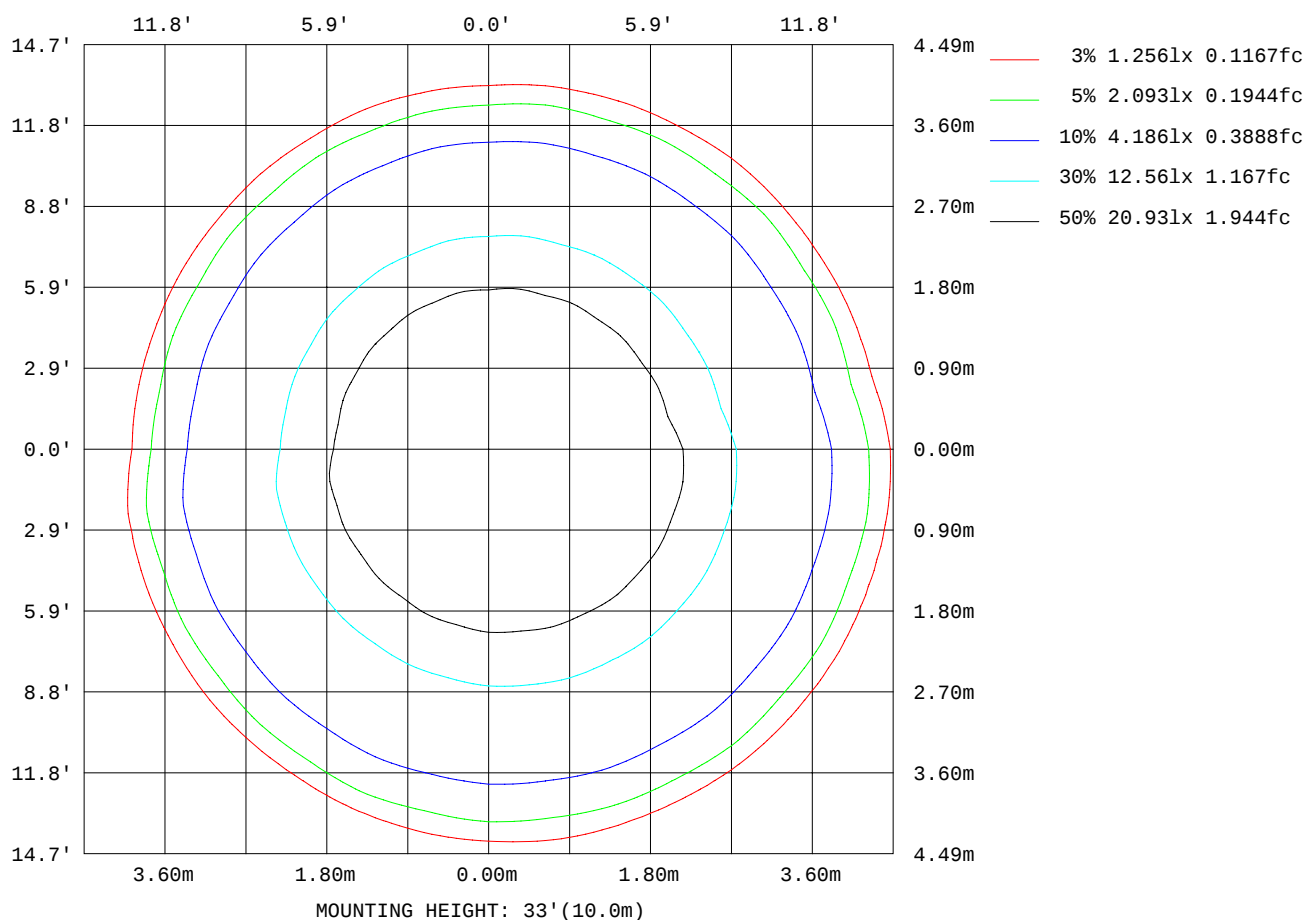
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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-24D.	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-24D.	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	704.107	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	9	8	8	7	8	7	8	7	8	7	7	7	7	6	7	6	7	6	7
60	6	5	6	6	7	5	6	6	6	5	6	5	6	5	6	5	6	5	5
65	5	3	5	4	5	4	5	4	4	3	4	3	4	3	4	3	4	2	2
70	1	0	1	0	1	0	1	0	1	0	1	0	0	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	5	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-24D.	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	704.107	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	8	7	8	7	8	7	8	7	7	7	7	6	7	6	7	6	7
60	6	5	6	6	7	5	6	6	6	5	6	5	6	5	6	5	6	5	5
65	5	3	5	4	5	4	5	4	4	3	4	3	4	3	4	3	4	2	2
70	1	0	1	0	1	0	1	0	1	0	1	0	0	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	5	1000	1500	200	500

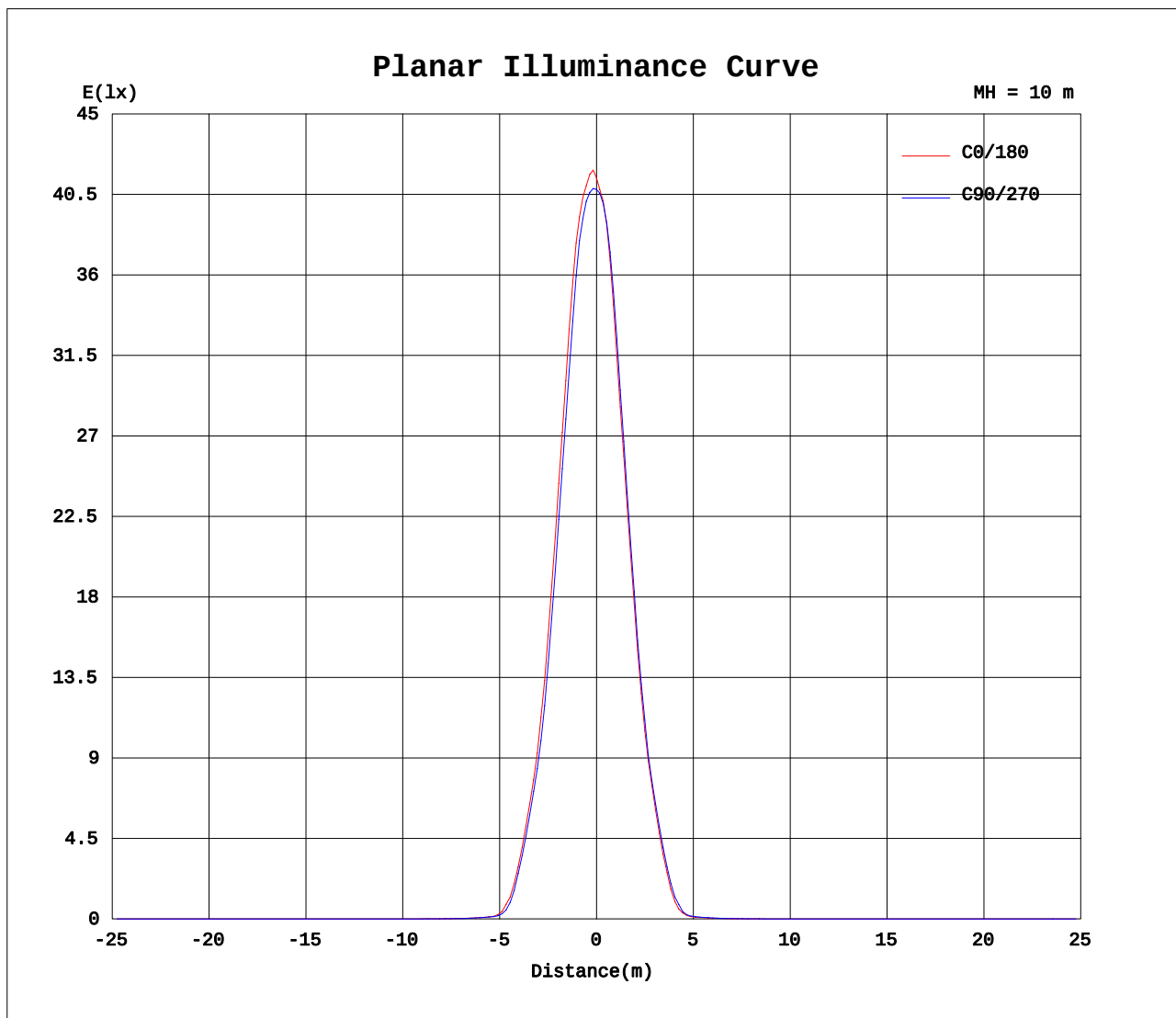
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

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-24D.	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	
γ (DEG)	0	4145	4125	4120	4103	4102	4088	4088	4080	4081	4079	4080	4082	4083	4087	4087	4093	4094	4100	4145
5	3970	3990	3982	3981	3962	3959	3931	3919	3865	3837	3779	3755	3698	3672	3617	3611	3564	3565	3471	
10	2849	2902	2861	2875	2826	2829	2753	2737	2658	2636	2550	2514	2420	2395	2308	2300	2242	2252	2128	
15	1480	1530	1503	1528	1487	1489	1430	1415	1363	1324	1272	1230	1190	1149	1098	1092	1059	1060	980	
20	628	653	649	658	644	645	616	607	575	559	521	508	467	450	418	404	376	374	316	
25	111	104	116	106	115	97.7	103	83.8	74.3	68.7	59.5	54.7	46.5	44.2	39.5	37.6	35.4	35.4	27.5	
30	15.4	15.9	15.8	16.1	15.7	15.7	15.4	15.4	14.8	14.7	13.9	13.6	12.7	12.2	11.3	11.1	10.6	10.5	9.86	
35	6.48	6.63	6.51	6.57	6.35	6.25	6.06	5.96	5.74	5.67	5.45	5.37	5.02	4.84	4.49	4.41	4.26	4.27	4.02	
40	2.79	2.82	2.84	2.83	2.75	2.68	2.65	2.59	2.46	2.41	2.32	2.27	2.15	2.06	2.00	1.96	1.95	1.90	1.84	
45	1.37	1.34	1.37	1.34	1.37	1.28	1.30	1.23	1.22	1.15	1.13	1.09	1.09	1.02	1.04	0.99	1.03	0.99	0.97	
50	0.77	0.73	0.77	0.74	0.77	0.70	0.73	0.66	0.69	0.62	0.65	0.59	0.64	0.58	0.61	0.56	0.62	0.58	0.58	
55	0.49	0.44	0.48	0.43	0.47	0.42	0.45	0.41	0.44	0.39	0.43	0.38	0.42	0.37	0.41	0.36	0.42	0.37	0.38	
60	0.32	0.27	0.32	0.28	0.33	0.27	0.32	0.28	0.32	0.26	0.30	0.25	0.31	0.25	0.30	0.25	0.31	0.25	0.26	
65	0.20	0.15	0.19	0.15	0.21	0.16	0.20	0.15	0.19	0.13	0.17	0.12	0.17	0.11	0.16	0.11	0.16	0.10	0.09	
70	0.04	0.00	0.03	0.00	0.05	0.00	0.04	0.00	0.05	0.00	0.02	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	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	0.01	0.00	0.01	0.00	0.01	0.00	0.02	0.00	0.03	0.00	0.05	0.00	0.06	0.03	0.08	0.04	0.10	0.17	
145	0.27	0.30	0.26	0.30	0.26	0.31	0.28	0.34	0.31	0.36	0.33	0.39	0.38	0.43	0.42	0.47	0.46	0.51	0.59	
150	0.90	0.91	0.89	0.91	0.89	0.93	0.92	0.97	0.96	1.02	1.01	1.07	1.09	1.14	1.15	1.21	1.23	1.27	1.34	
155	1.87	1.87	1.85	1.86	1.86	1.88	1.89	1.93	1.95	2.00	2.03	2.09	2.12	2.17	2.21	2.26	2.28	2.33	2.37	
160	3.03	3.03	3.00	3.00	2.99	3.02	3.03	3.08	3.10	3.15	3.17	3.23	3.26	3.31	3.35	3.40	3.41	3.47	3.46	
165	4.04	4.05	4.00	4.03	3.99	4.03	4.00	4.05	4.05	4.11	4.10	4.16	4.15	4.21	4.20	4.25	4.24	4.30	4.28	
170	4.64	4.67	4.60	4.63	4.57	4.61	4.56	4.61	4.57	4.63	4.59	4.63	4.59	4.63	4.60	4.66	4.63	4.70	4.68	
175	4.85	4.87	4.81	4.82	4.75	4.78	4.72	4.75	4.70	4.74	4.69	4.72	4.66	4.70	4.65	4.71	4.69	4.79	4.83	
180	4.93	4.93	4.88	4.87	4.81	4.81	4.77	4.77	4.74	4.74	4.72	4.72	4.71	4.71	4.72	4.72	4.76	4.81	4.95	

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-24D.	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	4125	4120	4103	4102	4088	4088	4080	4081	4079	4080	4082	4083	4087	4087	4093	4094	4100		
5	3426	3441	3415	3445	3445	3491	3499	3537	3546	3602	3615	3662	3691	3732	3750	3800	3819		
10	2078	2103	2076	2119	2108	2155	2152	2208	2197	2267	2274	2361	2380	2469	2496	2593	2613		
15	949	958	941	958	953	979	972	1007	1013	1054	1065	1116	1144	1198	1234	1281	1313		
20	289	303	285	305	297	325	321	351	353	382	388	424	438	475	485	520	530		
25	25.8	26.4	25.9	27.8	27.6	29.6	30.3	32.6	32.8	35.9	37.8	43.2	46.4	53.5	56.3	63.3	66.5		
30	9.80	10.1	10.3	10.9	11.1	11.6	11.7	11.8	11.7	11.9	12.0	12.3	12.3	12.8	12.8	13.4	13.7		
35	4.05	4.22	4.25	4.49	4.54	4.68	4.61	4.70	4.60	4.63	4.66	4.79	4.90	5.08	5.16	5.41	5.53		
40	1.87	1.89	1.95	1.99	2.01	2.04	2.01	2.00	1.99	1.98	2.00	2.03	2.08	2.15	2.24	2.33	2.42		
45	1.01	0.98	1.02	1.01	1.06	1.03	1.05	1.00	1.03	0.99	1.05	1.03	1.08	1.06	1.13	1.14	1.22		
50	0.62	0.57	0.62	0.58	0.63	0.59	0.62	0.58	0.63	0.58	0.65	0.60	0.66	0.62	0.67	0.63	0.70		
55	0.42	0.36	0.41	0.36	0.42	0.36	0.41	0.37	0.42	0.38	0.43	0.40	0.45	0.40	0.44	0.40	0.45		
60	0.29	0.24	0.28	0.23	0.28	0.24	0.28	0.24	0.30	0.25	0.32	0.28	0.33	0.27	0.31	0.26	0.31		
65	0.13	0.08	0.12	0.08	0.13	0.09	0.12	0.08	0.13	0.10	0.17	0.13	0.18	0.14	0.17	0.13	0.17		
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	0.02	0.00	0.02		
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	0.12	0.17	0.13	0.17	0.12	0.15	0.10	0.14	0.08	0.12	0.07	0.09	0.04	0.08	0.03	0.07	0.03		
145	0.57	0.60	0.57	0.60	0.56	0.57	0.51	0.54	0.48	0.49	0.44	0.45	0.39	0.40	0.36	0.38	0.34		
150	1.34	1.36	1.34	1.35	1.31	1.30	1.25	1.25	1.18	1.17	1.11	1.09	1.05	1.04	0.99	0.98	0.95		
155	2.37	2.39	2.37	2.37	2.33	2.31	2.26	2.24	2.18	2.15	2.09	2.06	2.00	1.98	1.93	1.91	1.88		
160	3.44	3.46	3.42	3.44	3.40	3.39	3.33	3.32	3.26	3.23	3.17	3.15	3.08	3.07	3.02	3.01	2.97		
165	4.21	4.24	4.19	4.21	4.15	4.18	4.11	4.14	4.07	4.08	4.01	4.02	3.95	3.98	3.92	3.94	3.90		
170	4.60	4.62	4.54	4.56	4.51	4.54	4.48	4.52	4.46	4.50	4.44	4.47	4.42	4.46	4.42	4.46	4.42		
175	4.75	4.75	4.67	4.69	4.62	4.67	4.60	4.65	4.59	4.63	4.58	4.62	4.57	4.64	4.61	4.67	4.64		
180	4.92	4.91	4.83	4.83	4.79	4.79	4.75	4.75	4.72	4.73	4.71	4.71	4.70	4.71	4.72	4.76	4.80		

C Range: 0 - 360DEG
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