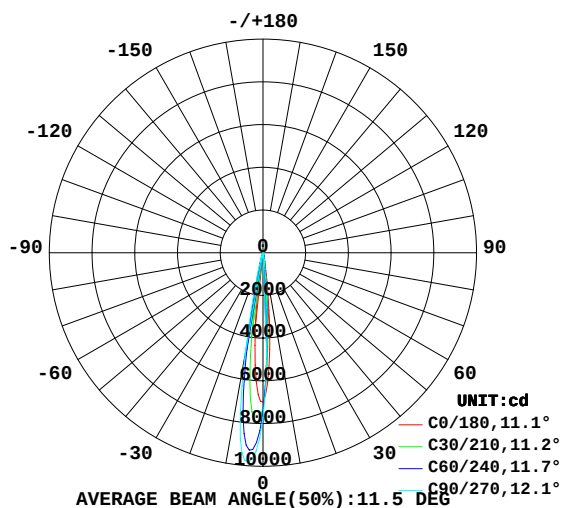


LUMINAIRE PHOTOMETRIC TEST REPORT

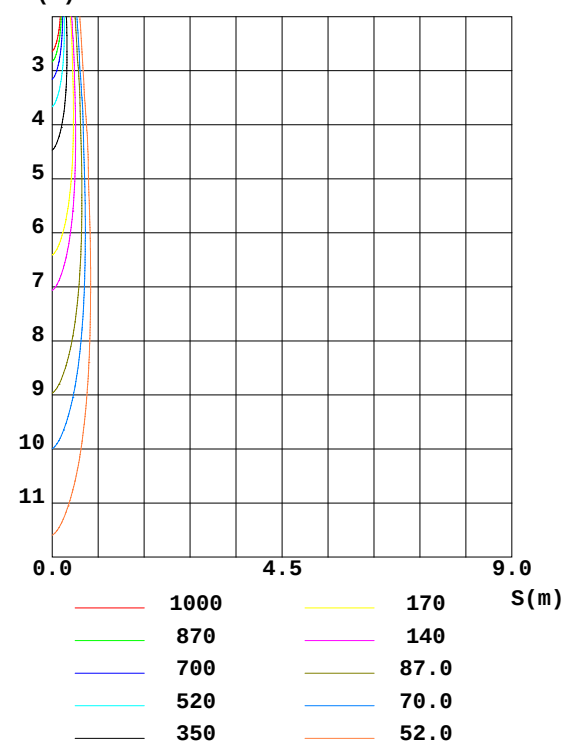
NAME:CL-Spot92-R 3000k-RA90-10D	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 38.24 lm/W			
MODEL		I _{max} (cd)	9822	S/MH(C0/180)	0.18
NOMINAL POWER(W)	15	LOR(%)	93.5	S/MH(C90/270)	0.10
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	559.86	η UP, DN(C0-180)	0.2, 23.6
NOMINAL FLUX(lm)	598.894	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1, 69.6
LAMPS INSIDE	1	η up(%)	0.4	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	24	η down(%)	93.1	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	725.8	412.1	349.7	465.2	901.7	2841	4850	2291	0- 10	364.6	364.6	65.1,60.9
20	122.9	90.38	77.00	98.41	136.7	205.7	250.6	196.4	10- 20	128.5	493.1	88.1,82.3
30	41.60	32.13	23.03	34.87	45.51	67.21	63.99	63.79	20- 30	38.47	531.6	94.9,88.8
40	13.68	9.140	6.891	10.09	14.71	21.50	21.52	21.14	30- 40	17.34	548.9	98,91.7
50	3.256	2.860	1.678	2.858	3.474	5.237	6.328	4.802	40- 50	6.275	555.2	99.2,92.7
60	1.087	0.7364	0.3439	0.7907	1.093	1.614	1.257	1.673	50- 60	1.912	557.1	99.5,93
70	0.1563	0.0120	0	0.0333	0.1551	0.3892	0.2931	0.3798	60- 70	0.5351	557.6	99.6,93.1
80	0	0	0	0	0	0	0	0	70- 80	0.0487	557.7	99.6,93.1
90	0	0	0	0	0	0	0	0	80- 90	0	557.7	99.6,93.1
100	0	0	0	0	0	0	0	0	90-100	0	557.7	99.6,93.1
110	0	0	0	0	0	0	0	0	100-110	0	557.7	99.6,93.1
120	0	0	0	0	0	0	0	0	110-120	0	557.7	99.6,93.1
130	0	0	0	0	0	0	0	0	120-130	0	557.7	99.6,93.1
140	0	0.0355	0.0853	0.0284	0.0237	0	0	0.0000	130-140	0.0017	557.7	99.6,93.1
150	0.4894	1.102	1.399	0.9250	0.4498	0.2032	0.1272	0.2364	140-150	0.1186	557.8	99.6,93.1
160	3.056	3.589	3.738	3.478	2.655	1.994	1.768	2.145	150-160	0.7384	558.5	99.8,93.3
170	3.973	3.877	3.732	3.969	3.865	3.714	3.609	3.740	160-170	0.9673	559.5	99.9,93.4
180	3.124	3.119	3.369	3.516	3.124	3.143	3.412	3.535	170-180	0.3492	559.9	100,93.5
DEG	LUMINOUS INTENSITY:cd									UNIT: lm		

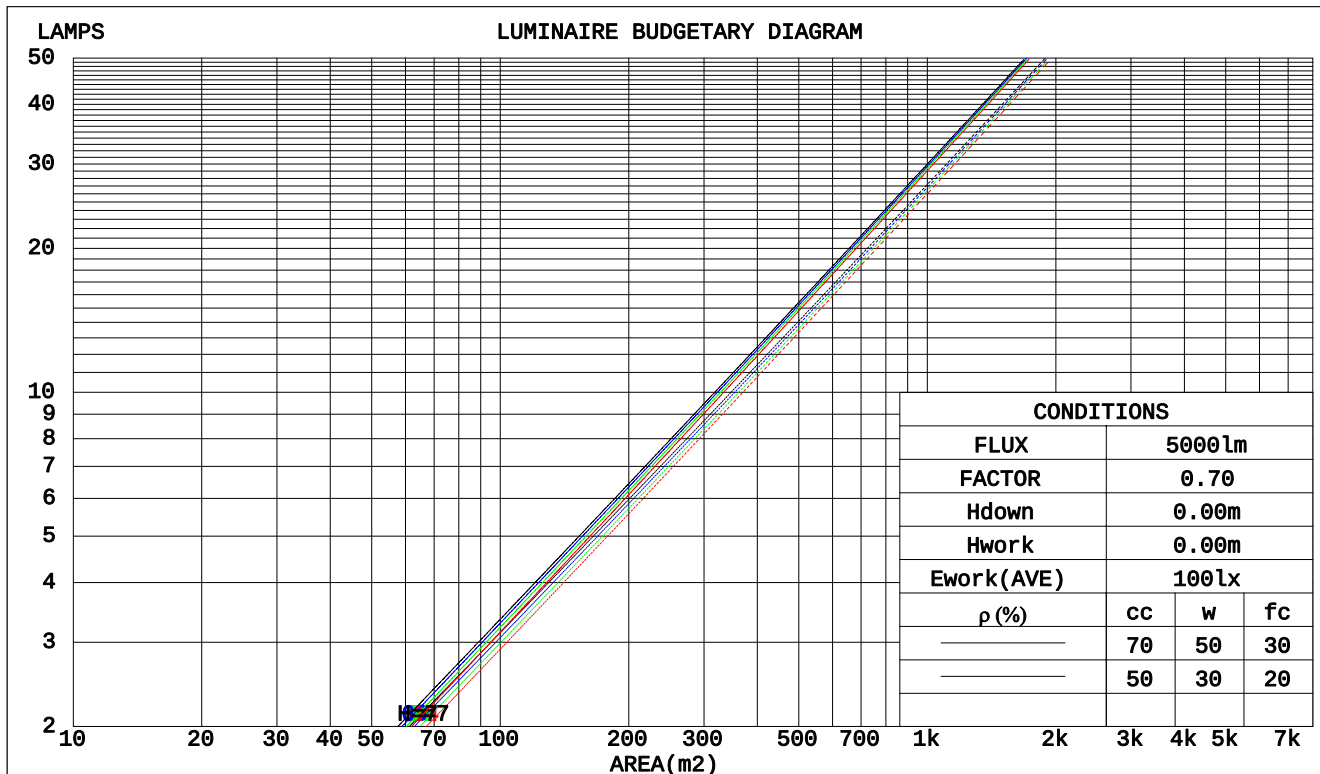
C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:0
Test Date:2022-04-22

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: Spot92-R-3000K-RA90-15W-10D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.11	1.11	1.11	1.09	1.09	1.09	1.04	1.04	1.04	.99	.99	.99	.95	.95	.95	.93
1.0	1.06	1.05	1.03	1.04	1.03	1.02	1.01	.00	.99	.97	.96	.96	.94	.93	.93	.91
2.0	1.02	1.00	.98	1.01	.99	.97	.98	.96	.95	.95	.94	.93	.93	.92	.91	.90
3.0	.99	.96	.94	.98	.95	.93	.96	.94	.92	.93	.92	.90	.92	.90	.89	.88
4.0	.96	.93	.91	.95	.93	.90	.93	.91	.89	.92	.90	.88	.90	.89	.87	.86
5.0	.94	.91	.88	.93	.90	.88	.92	.89	.87	.90	.88	.87	.89	.87	.86	.85
6.0	.92	.89	.86	.91	.88	.86	.90	.87	.86	.89	.87	.85	.88	.86	.84	.84
7.0	.90	.87	.85	.89	.86	.84	.88	.86	.84	.87	.85	.84	.87	.85	.83	.82
8.0	.88	.85	.83	.88	.85	.83	.87	.84	.83	.86	.84	.82	.85	.83	.82	.81
9.0	.87	.84	.82	.86	.84	.82	.86	.83	.81	.85	.83	.81	.84	.82	.81	.80
10.0	.85	.82	.81	.85	.82	.80	.84	.82	.80	.84	.82	.80	.83	.81	.80	.79



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: Spot92-R-3000K-RA90-15W-10D.	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	.110	.063	.020	.104	.059	.019	.092	.053	.017	.081	.047	.015	.072	.041	.013		
2.0	.100	.055	.017	.095	.053	.016	.086	.048	.015	.077	.043	.014	.069	.039	.012		
3.0	.092	.049	.015	.088	.047	.014	.080	.043	.013	.073	.040	.012	.066	.037	.011		
4.0	.085	.044	.013	.082	.043	.013	.075	.040	.012	.069	.037	.011	.063	.034	.010		
5.0	.079	.040	.012	.076	.039	.011	.071	.037	.011	.065	.035	.010	.061	.032	.010		
6.0	.074	.037	.011	.072	.036	.010	.067	.034	.010	.062	.032	.010	.058	.031	.009		
7.0	.069	.034	.010	.067	.034	.010	.063	.032	.009	.059	.030	.009	.056	.029	.009		
8.0	.065	.032	.009	.064	.031	.009	.060	.030	.009	.057	.029	.008	.054	.028	.008		
9.0	.062	.030	.008	.060	.029	.008	.057	.028	.008	.054	.027	.008	.052	.026	.008		
10.0	.059	.028	.008	.057	.028	.008	.055	.027	.008	.052	.026	.007	.050	.025	.007		

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	.181	.181	.181	.155	.155	.155	.105	.105	.105	.061	.061	.061	.019	.019	.019	
1.0	.159	.150	.143	.136	.129	.123	.093	.089	.085	.054	.051	.049	.017	.017	.016	
2.0	.141	.127	.115	.121	.109	.100	.083	.076	.070	.048	.044	.041	.015	.014	.013	
3.0	.126	.109	.095	.108	.094	.082	.074	.065	.058	.043	.038	.034	.014	.012	.011	
4.0	.113	.094	.079	.097	.081	.069	.067	.057	.049	.039	.033	.029	.012	.011	.009	
5.0	.102	.082	.067	.088	.071	.058	.061	.050	.041	.035	.029	.024	.011	.010	.008	
6.0	.093	.072	.058	.080	.063	.050	.055	.044	.035	.032	.026	.021	.010	.008	.007	
7.0	.086	.065	.050	.074	.056	.043	.051	.039	.031	.030	.023	.018	.010	.008	.006	
8.0	.079	.058	.043	.068	.050	.038	.047	.035	.027	.027	.021	.016	.009	.007	.005	
9.0	.073	.052	.038	.063	.045	.033	.044	.032	.024	.025	.019	.014	.008	.006	.005	
10.0	.068	.048	.034	.059	.041	.030	.041	.029	.021	.024	.017	.013	.008	.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
 γ Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.262
Humidity:65.0%
Test Distance:7.100m [K=1.0000]
Remarks:

Uncorrected UGR Table

NAME: Spot92-R-3000K-RA90-15W-10D.					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	-8.0	-7.5	-7.8	-7.4	-7.2	-10.0	-9.5	-9.8	-9.3	-9.2				
3H	-8.1	-7.7	-7.9	-7.5	-7.3	-10.1	-9.6	-9.9	-9.5	-9.3				
4H	-8.2	-7.8	-8.0	-7.6	-7.3	-10.2	-9.7	-9.9	-9.5	-9.3				
6H	-8.3	-7.9	-8.0	-7.6	-7.4	-10.3	-9.8	-10.0	-9.6	-9.4				
8H	-8.4	-7.9	-8.1	-7.7	-7.4	-10.3	-9.9	-10.0	-9.7	-9.4				
12H	-8.4	-8.0	-8.1	-7.7	-7.5	-10.4	-10.0	-10.1	-9.7	-9.4				
4H 2H	-8.2	-7.7	-8.0	-7.5	-7.3	-10.1	-9.7	-9.9	-9.5	-9.2				
3H	-8.4	-7.9	-8.1	-7.7	-7.4	-10.3	-9.9	-10.0	-9.6	-9.4				
4H	-8.5	-8.1	-8.1	-7.8	-7.5	-10.4	-10.0	-10.1	-9.7	-9.4				
6H	-8.6	-8.2	-8.2	-7.9	-7.5	-10.5	-10.2	-10.1	-9.8	-9.5				
8H	-8.6	-8.3	-8.2	-7.9	-7.6	-10.6	-10.2	-10.2	-9.9	-9.5				
12H	-8.7	-8.4	-8.3	-8.0	-7.6	-10.6	-10.3	-10.2	-9.9	-9.6				
8H 4H	-8.6	-8.3	-8.2	-7.9	-7.6	-10.6	-10.2	-10.2	-9.9	-9.5				
6H	-8.7	-8.5	-8.3	-8.1	-7.7	-10.7	-10.4	-10.3	-10.0	-9.6				
8H	-8.8	-8.6	-8.4	-8.1	-7.7	-10.7	-10.5	-10.3	-10.1	-9.6				
12H	-8.9	-8.7	-8.4	-8.2	-7.7	-10.8	-10.6	-10.3	-10.2	-9.7				
12H 4H	-8.7	-8.4	-8.3	-8.0	-7.6	-10.6	-10.3	-10.2	-9.9	-9.6				
6H	-8.8	-8.6	-8.4	-8.1	-7.7	-10.7	-10.5	-10.3	-10.1	-9.6				
8H	-8.9	-8.7	-8.4	-8.2	-7.7	-10.8	-10.6	-10.3	-10.2	-9.7				
Variations with the observer position at spacings:														
S = 1.0H	+ 4.1 / - 7.1					+ 2.9 / - 8.7								
1.5H	+ 5.8 / - 5.4					+ 4.1 / - 5.5								
2.0H	+ 5.7 / - 8.3					+ 4.1 / - 8.8								

CIE Pub.117 Corrected 598.9 lm Total Lamp Luminous Flux.(8log(F/F0) = -1.8)

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: Spot92-R-3000K-RA90-15W-10D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

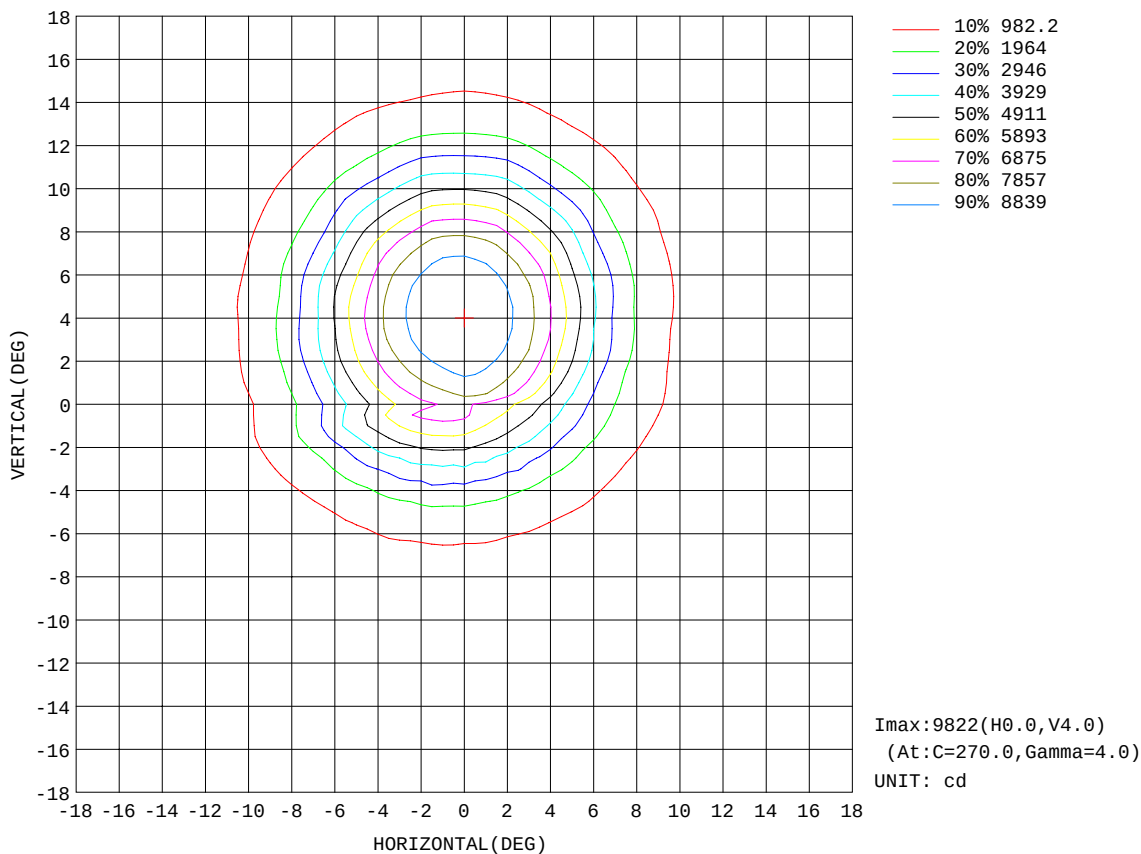
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	84	79	76	84	79	76	83	79	76	73
0.80	91	86	83	90	86	83	89	85	82	79
1.00	95	90	87	94	89	87	92	89	86	83
1.25	98	94	91	97	93	90	95	92	90	86
1.50	100	96	93	99	96	93	97	94	92	88
2.00	102	99	96	101	98	95	99	96	94	89
2.50	104	101	98	102	99	97	99	97	95	90
3.00	105	102	100	103	101	99	100	98	97	91
4.00	107	105	103	105	103	101	102	100	99	92
5.00	108	106	105	106	104	103	102	101	100	93
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: Spot92-R-3000K-RA90-15W-10D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

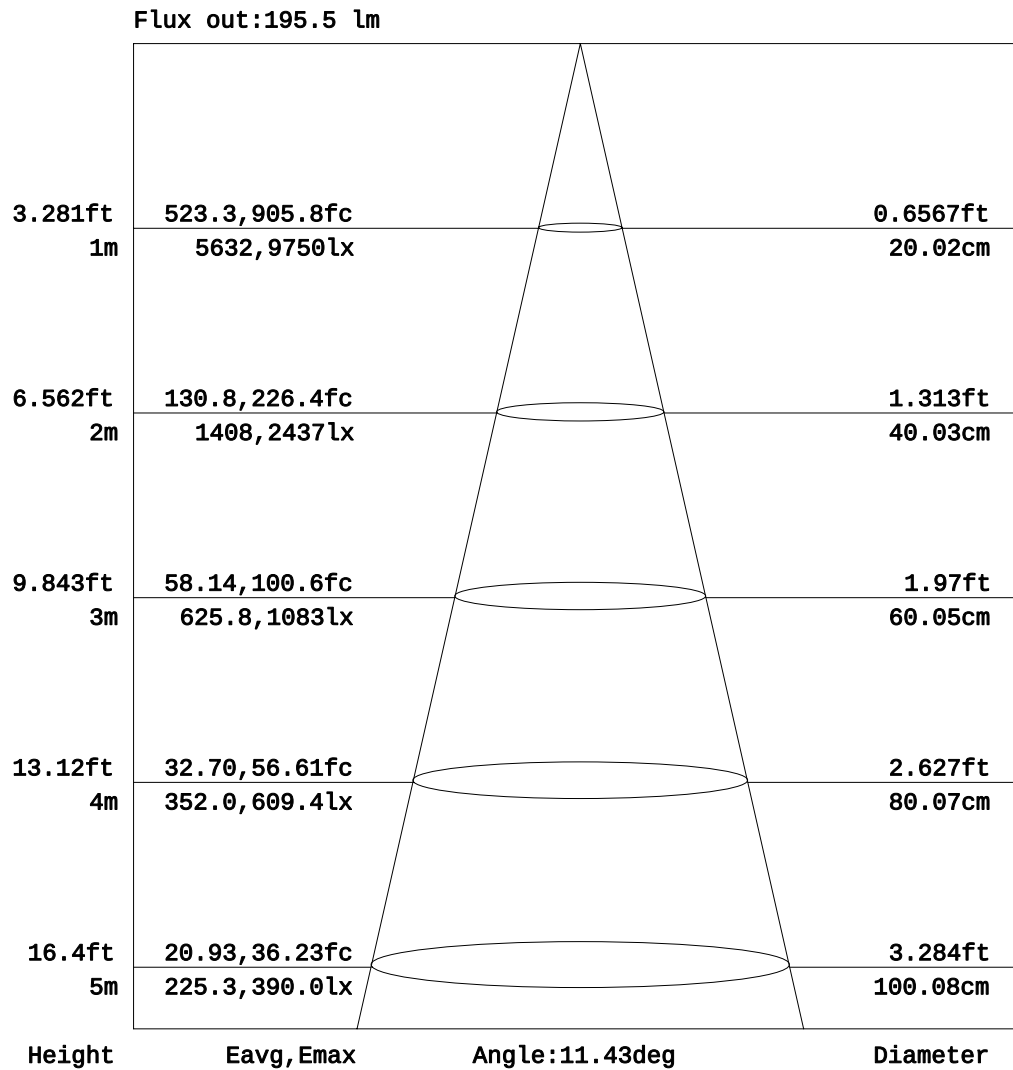


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: 0
Test Date: 2022-04-22

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: Spot92-R-3000K-RA90-15W-10D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:



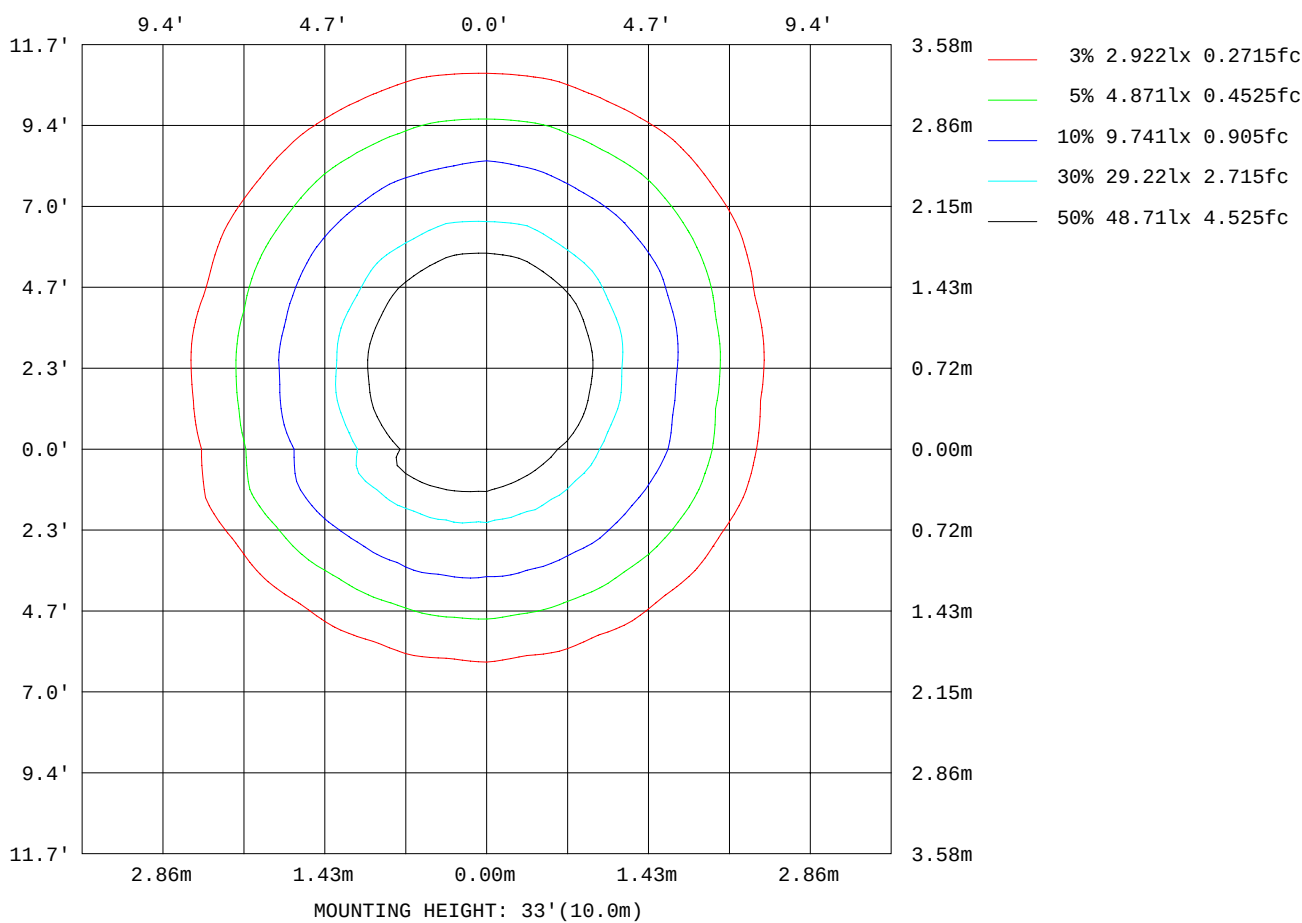
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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: Spot92-R-3000K-RA90-15W-10D.	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: Spot92-R-3000K-RA90-15W-10D.	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	598.894	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	35	32	29	28	29	28	27	23	18	14	15	19	24	28	30	31	32	34	36
60	22	19	16	14	15	14	14	11	9	7	8	9	13	15	17	17	18	20	22
65	12	9	9	6	7	6	6	4	4	2	3	3	6	7	9	8	10	10	12
70	5	2	2	0	1	0	0	0	0	0	0	0	1	0	2	1	3	4	5
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	36	200	---	500
Category 2	65 to 90	12	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: Spot92-R-3000K-RA90-15W-10D.	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	598.894	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	35	32	29	28	29	28	27	23	18	14	15	19	24	28	30	31	32	34	36
60	22	19	16	14	15	14	14	11	9	7	8	9	13	15	17	17	18	20	22
65	12	9	9	6	7	6	6	4	4	2	3	3	6	7	9	8	10	10	12
70	5	2	2	0	1	0	0	0	0	0	0	0	1	0	2	1	3	4	5
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	36	1000	1500	200	500
65 to 90	12	1000	1500	200	500

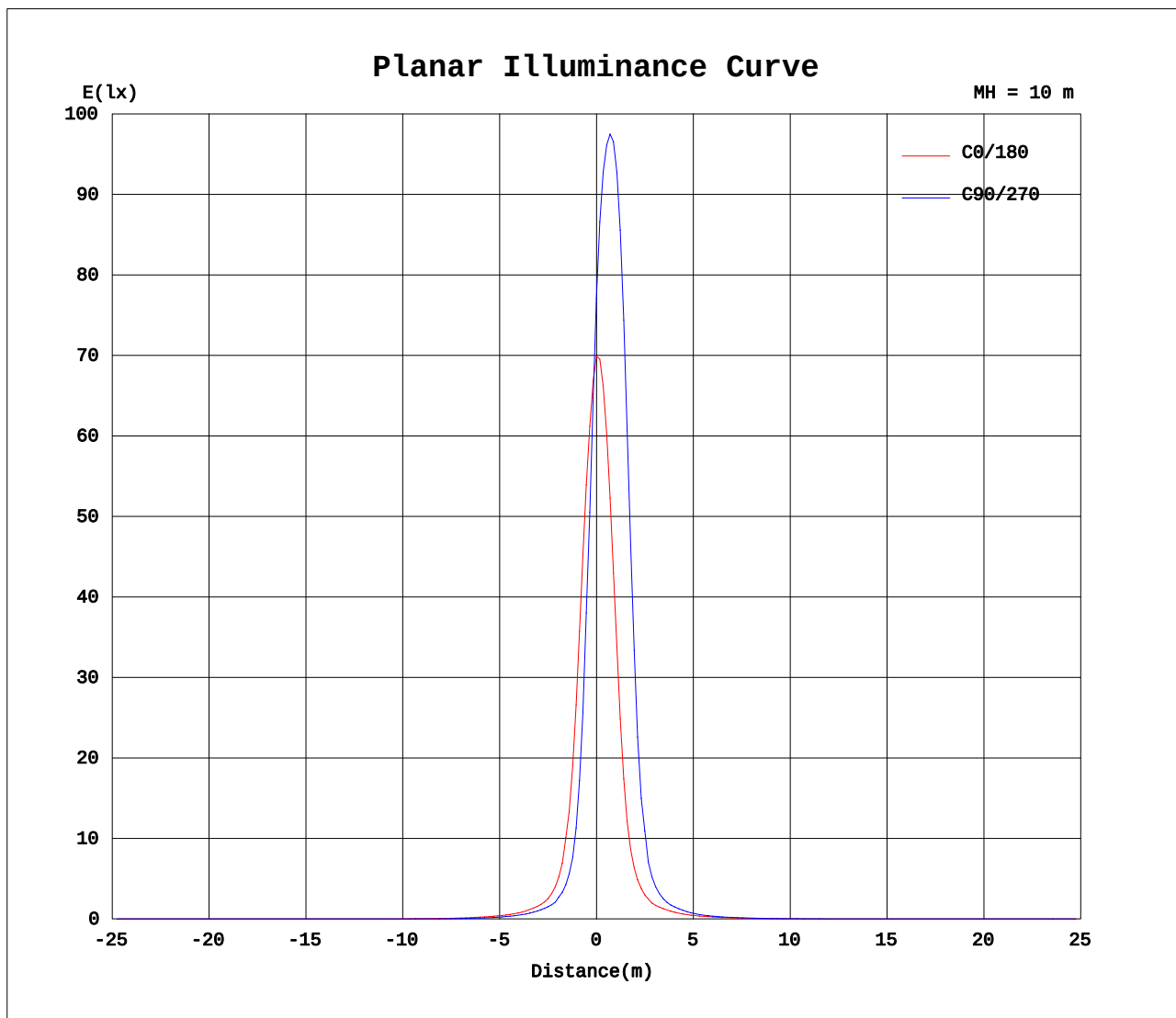
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

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: Spot92-R-3000K-RA90-15W-10D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(°) γ (°)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	6993	7100	7149	7269	7290	7434	7435	7593	7569	7712	7677	7797	7750	7830	7788	7815	7767	7726	6993
5	3615	3224	2694	2409	2065	1932	1738	1714	1650	1738	1763	1955	2091	2444	2754	3421	3886	4695	4350
10	726	640	547	486	427	397	365	356	342	350	352	376	393	437	493	595	707	907	902
15	237	213	198	182	173	165	159	153	151	150	152	156	165	175	191	208	231	260	276
20	123	111	101	96.4	91.4	89.3	84.7	82.0	78.1	77.0	77.0	80.8	86.2	94.4	102	111	120	132	137
25	68.3	61.7	56.7	55.9	54.5	53.7	51.1	47.1	43.0	42.3	42.8	45.3	50.2	56.3	59.9	63.0	65.6	70.9	74.2
30	41.6	37.5	33.5	32.2	32.0	32.3	30.1	27.4	24.2	23.0	23.3	25.7	29.0	33.5	36.3	37.8	38.5	42.2	45.5
35	25.2	22.3	19.0	17.9	17.7	18.2	17.3	16.1	14.3	13.1	13.2	15.3	17.2	19.3	20.4	21.0	21.2	24.1	26.9
40	13.7	11.8	10.1	9.45	9.11	9.17	8.76	7.84	7.64	6.89	7.02	7.90	8.50	9.93	10.2	10.6	11.4	13.0	14.7
45	6.32	5.47	4.95	4.60	4.42	4.32	4.06	3.55	3.09	3.56	3.19	3.15	3.71	4.28	4.62	5.02	5.59	6.46	7.10
50	3.26	3.08	2.89	2.82	2.90	2.82	2.69	2.30	1.93	1.68	1.71	1.96	2.42	2.75	2.96	3.03	3.06	3.27	3.47
55	2.01	1.84	1.67	1.62	1.65	1.60	1.55	1.31	1.05	0.82	0.87	1.08	1.40	1.60	1.74	1.77	1.82	1.94	2.04
60	1.09	0.94	0.82	0.72	0.77	0.71	0.71	0.56	0.46	0.34	0.39	0.45	0.66	0.74	0.84	0.86	0.91	1.00	1.09
65	0.49	0.38	0.36	0.27	0.31	0.25	0.27	0.18	0.16	0.08	0.14	0.14	0.26	0.28	0.36	0.33	0.41	0.44	0.50
70	0.16	0.07	0.06	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.07	0.04	0.11	0.12	0.16
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	0.04	0.00	0.07	0.03	0.09	0.04	0.09	0.04	0.08	0.01	0.06	0.00	0.02	0.00	0.00	0.02
145	0.06	0.14	0.13	0.22	0.22	0.30	0.30	0.37	0.35	0.39	0.34	0.34	0.25	0.26	0.16	0.16	0.08	0.10	0.12
150	0.49	0.63	0.74	0.90	1.03	1.17	1.27	1.36	1.39	1.40	1.35	1.28	1.14	1.01	0.84	0.70	0.53	0.44	0.45
155	1.67	1.89	2.08	2.29	2.46	2.61	2.72	2.81	2.84	2.84	2.79	2.71	2.57	2.41	2.21	1.98	1.75	1.54	1.38
160	3.06	3.23	3.33	3.47	3.54	3.64	3.65	3.72	3.70	3.74	3.68	3.69	3.59	3.55	3.41	3.30	3.12	2.96	2.65
165	3.76	3.86	3.85	3.94	3.92	3.92	3.94	3.94	3.89	3.88	3.92	3.89	3.93	3.91	3.88	3.87	3.78	3.76	3.55
170	3.97	3.93	3.97	3.94	3.93	3.82	3.80	3.72	3.76	3.73	3.81	3.82	3.88	3.94	3.99	4.01	3.98	4.00	3.86
175	3.59	3.44	3.38	3.22	3.16	3.06	3.08	3.06	3.16	3.20	3.33	3.38	3.52	3.58	3.72	3.75	3.87	3.86	3.56
180	3.12	3.12	3.05	3.06	3.09	3.15	3.20	3.27	3.32	3.37	3.41	3.44	3.47	3.50	3.53	3.54	3.60	3.60	3.12

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: Spot92-R-3000K-RA90-15W-10D.	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: 0	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C (DEG)	SIN (DEG)																			
γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350			
0	7100	7149	7269	7290	7434	7435	7593	7569	7712	7677	7797	7750	7830	7788	7815	7767	7726			
5	5107	5995	6810	7722	8424	9039	9446	9734	9765	9616	9219	8694	7925	7088	6039	5198	4293			
10	1194	1467	1872	2542	3140	3979	4458	4921	4850	4715	4068	3567	2616	1965	1368	1036	801			
15	308	356	406	493	572	670	724	776	785	771	686	623	527	435	343	301	256			
20	154	167	179	194	217	235	248	253	251	245	237	228	208	185	161	144	129			
25	83.7	93.0	98.0	108	123	134	137	130	124	123	121	121	113	100	85.2	76.9	70.8			
30	50.9	54.4	56.6	62.0	72.4	79.3	77.3	70.0	64.0	63.6	66.5	69.8	67.5	60.1	50.0	45.0	42.1			
35	30.5	31.2	31.3	34.5	41.3	47.3	45.8	40.8	36.6	36.4	39.4	42.2	39.9	33.8	27.4	25.2	24.7			
40	17.2	18.0	17.8	19.3	23.7	27.9	27.2	24.1	21.5	21.6	23.6	25.4	23.4	18.9	15.1	14.1	13.4			
45	8.52	8.80	8.79	9.91	12.9	15.9	15.2	13.5	12.4	12.4	12.9	13.7	12.8	9.97	7.37	6.73	6.24			
50	3.70	3.73	4.17	4.91	5.56	6.45	6.61	6.31	6.33	6.16	5.79	5.59	5.10	4.50	3.77	3.36	3.22			
55	2.20	2.22	2.31	2.59	3.06	3.36	3.03	2.53	2.37	2.31	2.60	2.99	3.07	2.76	2.35	2.07	1.95			
60	1.22	1.21	1.30	1.46	1.77	1.90	1.76	1.43	1.26	1.26	1.52	1.74	1.78	1.57	1.33	1.14	1.08			
65	0.61	0.58	0.66	0.74	0.95	1.01	0.96	0.74	0.64	0.61	0.80	0.90	0.95	0.78	0.65	0.49	0.48			
70	0.24	0.21	0.29	0.32	0.46	0.48	0.48	0.33	0.29	0.26	0.37	0.41	0.43	0.32	0.27	0.16	0.16			
75	0.00	0.00	0.03	0.01	0.11	0.11	0.15	0.07	0.08	0.02	0.09	0.07	0.09	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00		
145	0.06	0.09	0.03	0.06	0.01	0.04	0.00	0.04	0.00	0.04	0.00	0.05	0.01	0.07	0.05	0.12	0.09			
150	0.33	0.32	0.23	0.24	0.17	0.19	0.14	0.18	0.13	0.18	0.15	0.21	0.19	0.28	0.31	0.42	0.48			
155	1.20	1.08	0.94	0.86	0.76	0.73	0.67	0.68	0.65	0.70	0.72	0.80	0.86	1.00	1.13	1.30	1.47			
160	2.48	2.34	2.17	2.06	1.93	1.86	1.80	1.79	1.77	1.82	1.86	1.96	2.06	2.23	2.38	2.57	2.72			
165	3.42	3.37	3.25	3.20	3.08	3.05	2.98	2.98	2.96	3.01	3.03	3.12	3.16	3.29	3.35	3.48	3.53			
170	3.82	3.83	3.75	3.75	3.68	3.70	3.62	3.66	3.61	3.66	3.63	3.66	3.70	3.78	3.78	3.86	3.86			
175	3.66	3.62	3.69	3.67	3.74	3.70	3.66	3.72	3.74	3.72	3.70	3.72	3.77	3.72	3.76	3.71	3.75			
180	3.14	3.09	3.10	3.10	3.19	3.21	3.31	3.33	3.41	3.41	3.49	3.48	3.53	3.53	3.58	3.58	3.61			

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: