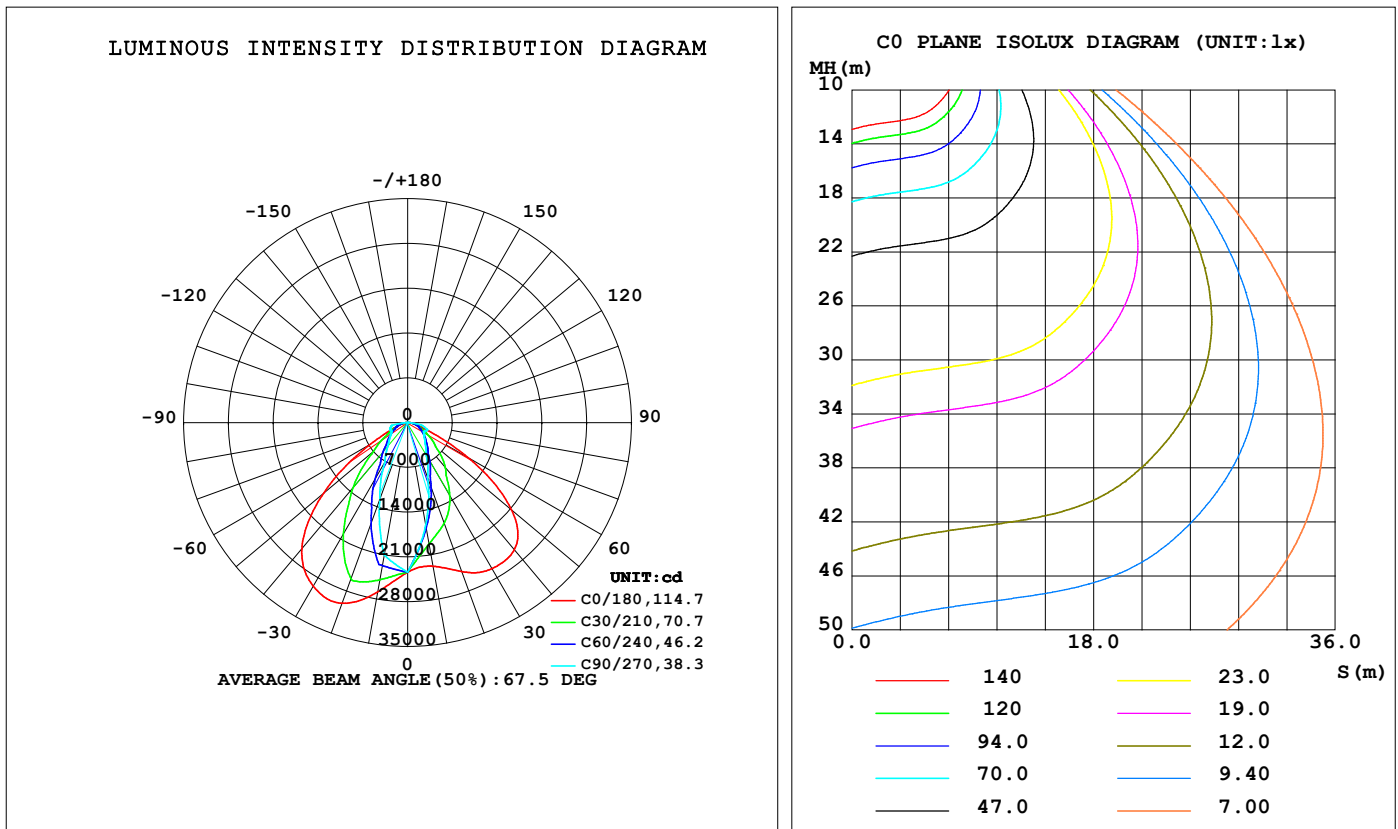


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 138.06 lm/W
MODEL	N/A	Imax (cd)	30318	S/MH(C0/180)	1.57	
NOMINAL POWER(W)	280	LOR(%)	100.0	S/MH(C90/270)	0.68	
RATED VOLTAGE(V)	480	TOTAL FLUX(lm)	38915	η UP,DN(C0-180)	0.0,45.6	
NOMINAL FLUX(lm)	38914.8	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,54.4	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	480	η down (%)	100.0	CIBSE SHR MAX	0.70	



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [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	2280	1781	1631	2008	2683	2381	2107	2101	0- 10	2075	2075	5.33,5.33
20	2477	1326	916.6	1544	3005	2079	1275	1720	10- 20	5471	7546	19.4,19.4
30	2635	879.4	581.9	963.0	2953	1393	713.7	1190	20- 30	7229	14776	38,38
40	2594	573.6	428.2	585.5	2573	766.5	479.1	720.9	30- 40	7513	22289	57.3,57.3
50	2121	406.9	334.3	394.4	1716	459.3	360.4	469.8	40- 50	6717	29005	74.5,74.5
60	1085	277.9	288.3	257.9	666.4	291.8	292.3	316.1	50- 60	4886	33891	87.1,87.1
70	287.2	174.6	330.8	159.8	189.9	179.6	300.5	200.1	60- 70	2914	36805	94.6,94.6
80	86.30	83.53	214.7	68.26	61.18	86.94	258.1	109.3	70- 80	1705	38511	99,99
90	0.3989	0	0	0	0.5087	0	0	0	80- 90	403.9	38915	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:X10cd									UNIT:lm		

Conical surface Flux(90deg): 25816 lm

%lum = 66.3%

%lamp = 66.3%

Conical surface Flux(120deg): 33891 lm

%lum = 87.1%

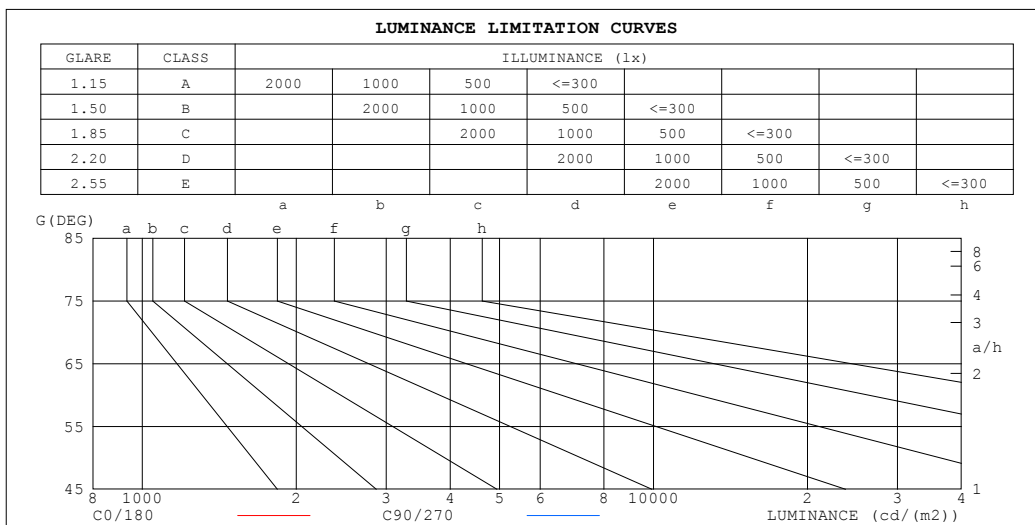
%lamp = 87.1%

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	44678	0
80	49696	123652
75	59527	105384
70	83973	96716
65	134152	73245
60	216962	57661
55	287694	54278
50	329906	52015
45	344796	53921

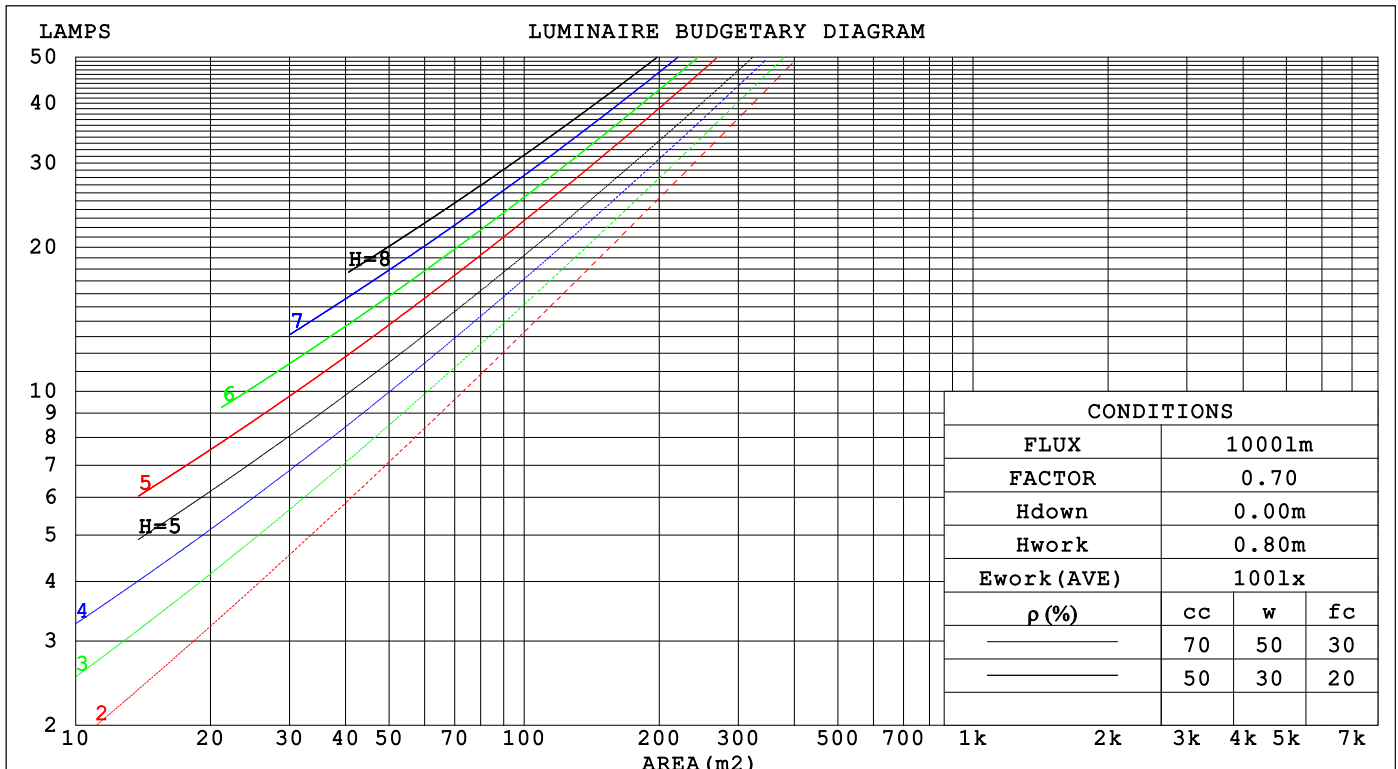
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

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	1.19	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	1.00
1.0	1.06	1.03	.99	1.04	1.01	.98	.00	.97	.95	.96	.94	.92	.92	.91	.89	.87
2.0	.95	.89	.84	.93	.87	.83	.89	.85	.81	.86	.82	.79	.83	.80	.77	.75
3.0	.85	.77	.72	.83	.76	.71	.80	.74	.70	.77	.73	.69	.75	.71	.67	.65
4.0	.76	.68	.62	.75	.68	.62	.72	.66	.61	.70	.65	.60	.68	.63	.60	.58
5.0	.69	.61	.55	.68	.60	.55	.66	.59	.54	.64	.58	.54	.62	.57	.53	.51
6.0	.63	.55	.49	.62	.54	.49	.60	.53	.48	.59	.53	.48	.57	.52	.48	.46
7.0	.58	.50	.44	.57	.49	.44	.55	.49	.44	.54	.48	.43	.53	.47	.43	.41
8.0	.53	.45	.40	.52	.45	.40	.51	.44	.40	.50	.44	.39	.49	.43	.39	.37
9.0	.49	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.36	.45	.40	.36	.34
10.0	.46	.38	.33	.45	.38	.33	.44	.38	.33	.43	.37	.33	.42	.37	.33	.31



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

pcc	80%			70%			50%			30%			10%			0														
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
pfc	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Wall Exitance Coefficients(WEC)														
0.0																														
1.0	.265	.151	.048	.258	.147	.047	.245	.141	.045	.233	.134	.043	.222	.129	.041															
2.0	.253	.138	.042	.247	.136	.042	.235	.131	.041	.225	.126	.039	.215	.122	.038															
3.0	.237	.126	.038	.231	.124	.037	.221	.120	.036	.212	.116	.036	.204	.113	.035															
4.0	.221	.115	.034	.216	.113	.033	.207	.110	.033	.199	.107	.032	.192	.104	.032															
5.0	.206	.105	.030	.202	.104	.030	.194	.101	.030	.187	.099	.029	.180	.096	.029															
6.0	.193	.097	.028	.189	.096	.028	.182	.093	.027	.176	.091	.027	.170	.089	.027															
7.0	.181	.089	.025	.178	.089	.025	.172	.087	.025	.166	.085	.025	.160	.083	.024															
8.0	.170	.083	.023	.167	.082	.023	.162	.081	.023	.157	.079	.023	.152	.078	.023															
9.0	.160	.078	.022	.158	.077	.022	.153	.076	.021	.148	.074	.021	.144	.073	.021															
10.0	.152	.073	.020	.149	.072	.020	.145	.071	.020	.141	.070	.020	.137	.069	.020															

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.177	.157	.138	.152	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.167	.132	.103	.143	.114	.089	.098	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.158	.114	.079	.136	.098	.069	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.150	.100	.063	.129	.087	.054	.088	.060	.038	.051	.035	.023	.016	.012	.007	
5.0	.142	.090	.051	.122	.078	.044	.084	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.129	.074	.036	.111	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.123	.068	.031	.105	.059	.027	.073	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.038	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.096	.051	.021	.067	.036	.015	.039	.021	.009	.013	.007	.003	

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm											
NAME: Crane Master Series					TYPE: Floodlight			WEIGHT: N/A			
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE					DIM.: N/A			SERIAL No.: N/A			
MFR.: Red Sky Lighting					SUR.: N/A			Shielding Angle: N/A			
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	2H	23.8	25.2	24.1	25.4	25.6	16.8	18.2	17.1	18.4	18.6
	3H	24.2	25.4	24.5	25.6	25.9	18.9	20.1	19.2	20.4	20.6
	4H	24.2	25.4	24.5	25.6	25.9	19.9	21.1	20.2	21.4	21.6
	6H	24.2	25.3	24.5	25.5	25.8	20.8	21.9	21.1	22.2	22.4
	8H	24.1	25.2	24.5	25.5	25.8	20.9	22.0	21.3	22.3	22.6
	12H	24.1	25.1	24.4	25.4	25.7	20.9	22.0	21.3	22.2	22.5
4H	2H	---	---	---	---	---	---	---	---	---	---
	3H	---	---	---	---	---	---	---	---	---	---
	4H	---	---	---	---	---	---	---	---	---	---
	6H	---	---	---	---	---	---	---	---	---	---
	8H	---	---	---	---	---	---	---	---	---	---
	12H	---	---	---	---	---	---	---	---	---	---
8H	4H	---	---	---	---	---	---	---	---	---	---
	6H	---	---	---	---	---	---	---	---	---	---
	8H	---	---	---	---	---	---	---	---	---	---
	12H	---	---	---	---	---	---	---	---	---	---
12H	4H	---	---	---	---	---	---	---	---	---	---
	6H	---	---	---	---	---	---	---	---	---	---
	8H	---	---	---	---	---	---	---	---	---	---
Variations with the observer position at spacings(CIE Pub.117):											
S = 1.0H		+ 0.0 / - 0.0					+ 0.0 / - 0.0				
1.5H		+ 0.0 / - 0.0					+ 0.0 / - 0.0				
2.0H		+ 0.0 / - 0.0					+ 0.0 / - 0.0				

CIE Pub.117, 38915 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 12.7)
Area: 0.1 m2

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

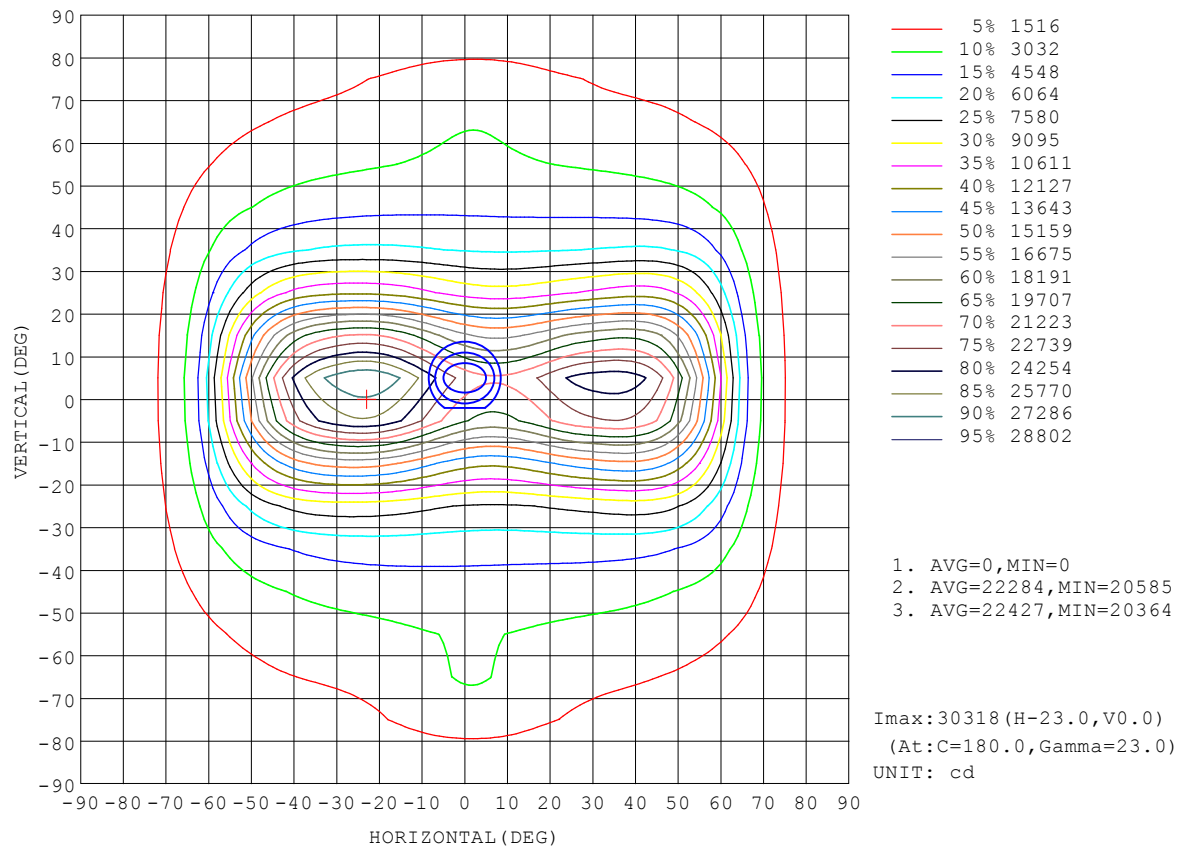
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	48	64	54	48	63	54	48	42
0.80	75	65	58	74	64	58	72	63	58	52
1.00	83	73	67	81	72	66	79	73	66	60
1.25	89	80	74	88	79	74	85	78	73	66
1.50	93	85	79	92	84	79	89	83	78	71
2.00	99	92	87	98	91	86	94	89	84	77
2.50	102	96	91	100	95	90	97	92	88	80
3.00	105	99	95	103	98	94	99	95	92	84
4.00	109	104	100	106	102	98	102	99	96	87
5.00	111	106	103	108	105	101	104	101	98	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

H(β) Range:-90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature:25.3°C
 Operators:J.W
 Test Date:22 April 2024

V(B) Range:-80 - 80DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
 Humidity:65.0%
 Test Distance:5.700m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

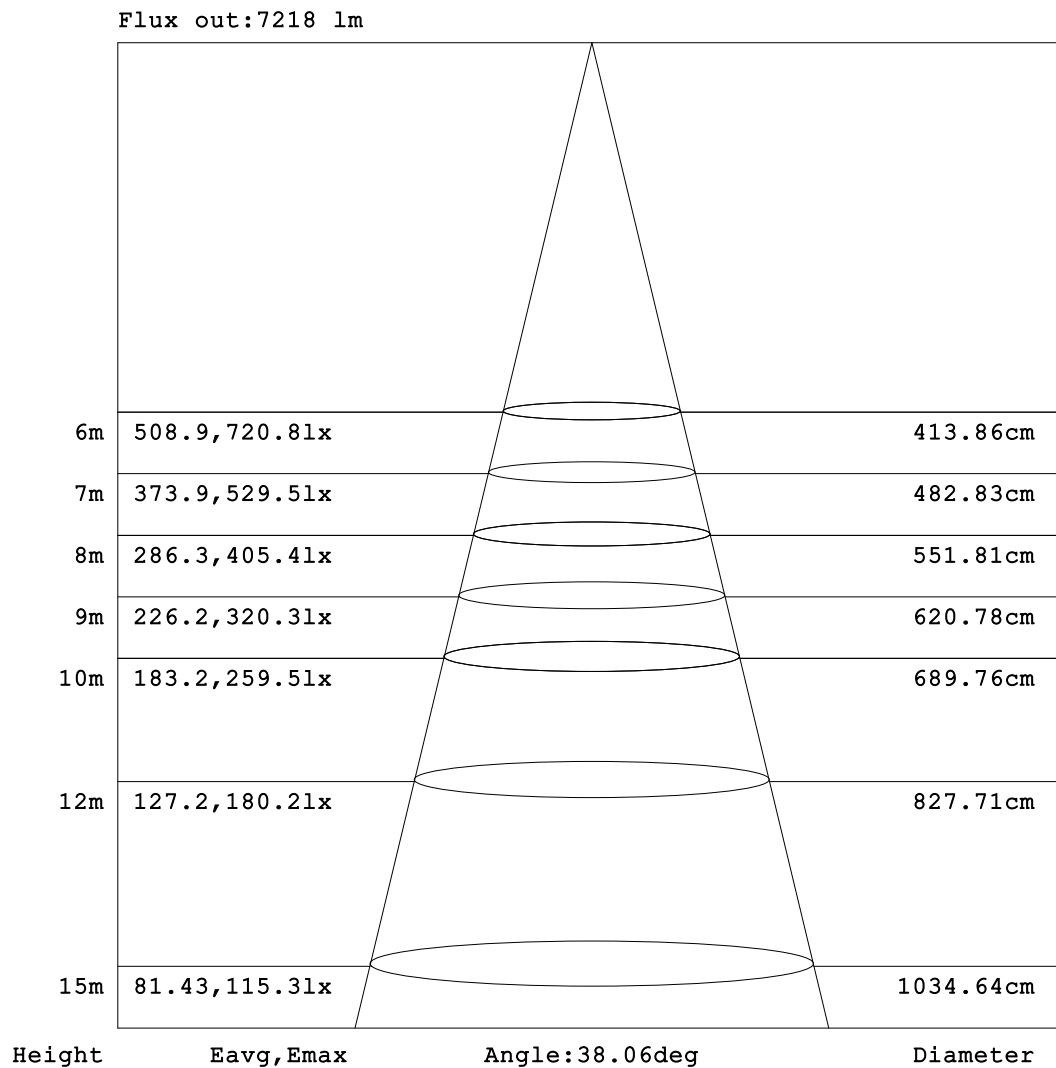


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:

AAI Figure

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A



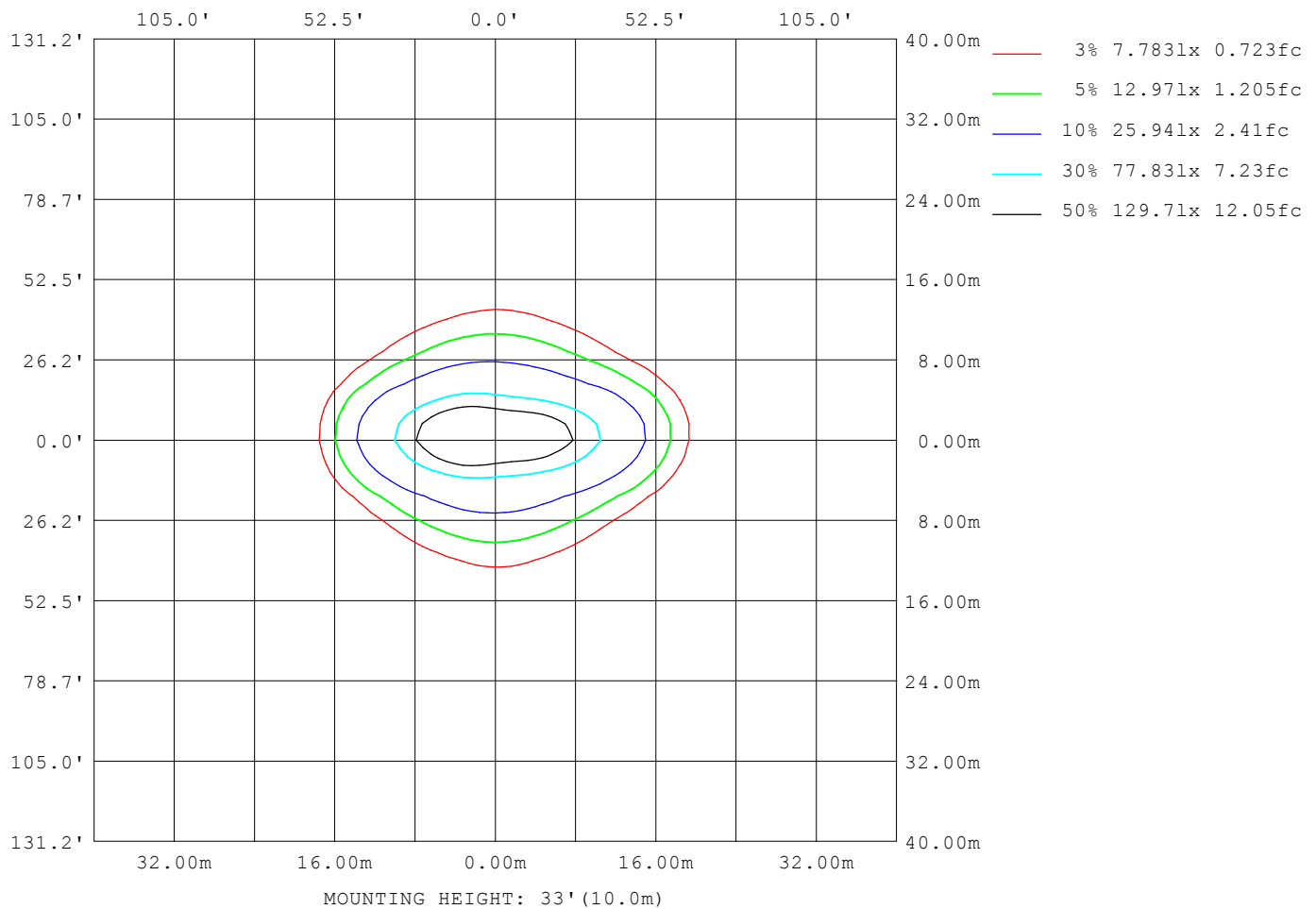
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range: -90 - 90DEG
 H(β) Interval: 1.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: J.W
 Test Date: 22 April 2024

V(B) Range: -80 - 80DEG
 V(B) Interval: 5.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.480
 Humidity: 65.0%
 Test Distance: 5.700m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:478.62V I:0.6201A P:281.87W PF:0.9498 Freq:49.99Hz Lamp Flux:38914.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

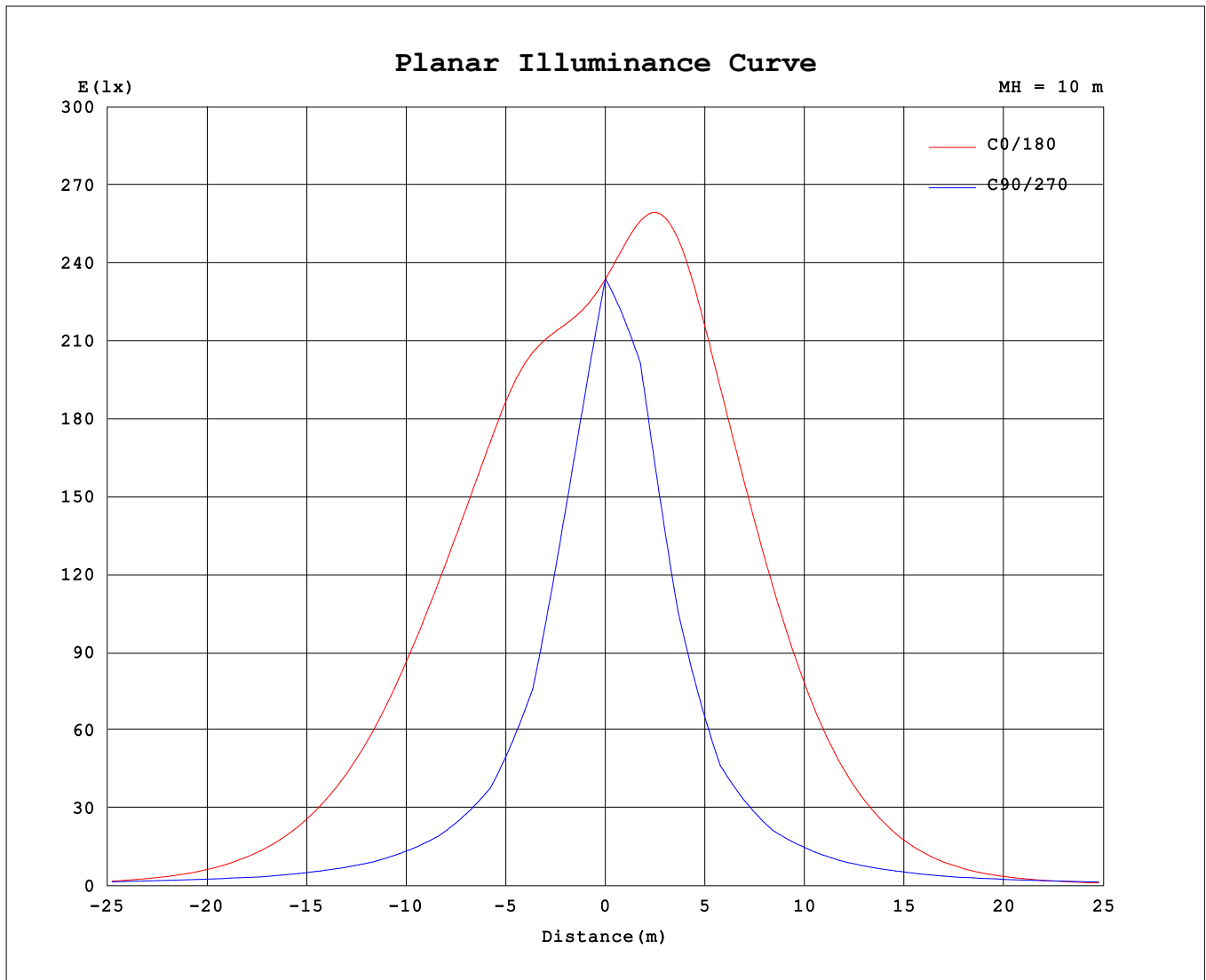
AvgL	cd/m2
L_0~180 (65) av	106682
L_0~180 (75) av	51176
L_0~180 (85) av	32805
L_90~270 (65) av	71693
L_90~270 (75) av	106653
L_90~270 (85) av	0
L_45 (65) av	54315
L_45 (75) av	51510
L_45 (85) av	28341

Standard: GB/T 29293-2012

H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:22 April 2024

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:

```
V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:
```

```
V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:
```

```
V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:
```

```
V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.480
Humidity:65.0%
Test Distance:5.700m [K=1.0000]
Remarks:
```