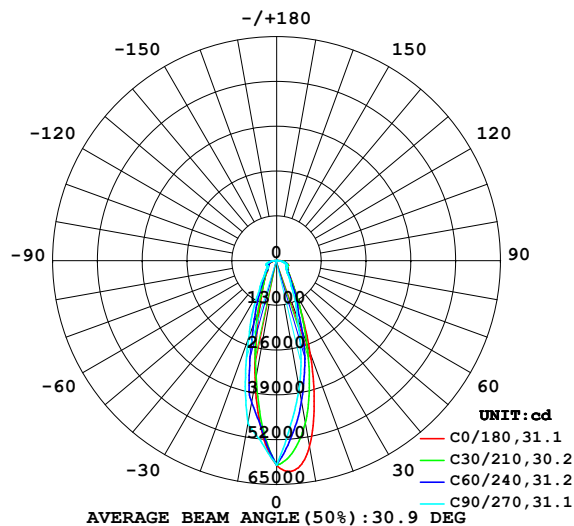


# LUMINAIRE PHOTOMETRIC TEST REPORT

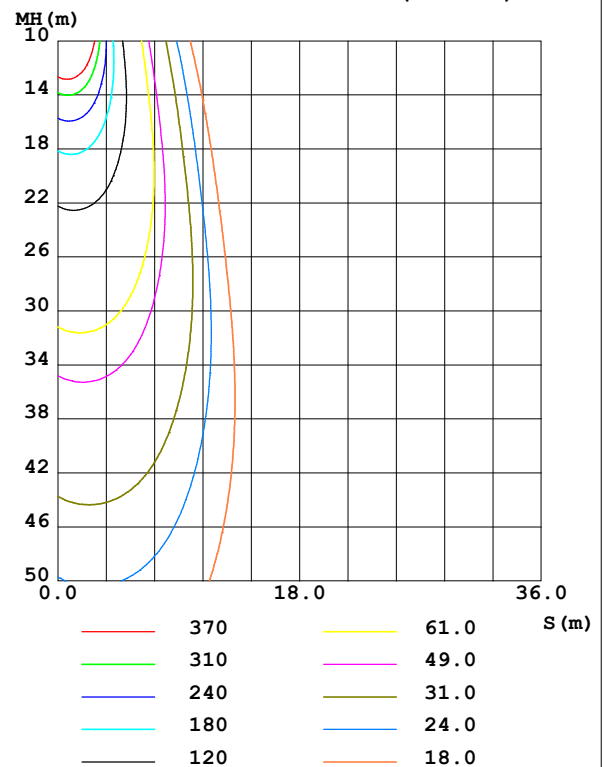
Test:U:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 133.90 lm/W
MODEL	N/A	Imax (cd)	61282	S/MH(C0/180)	0.41	
NOMINAL POWER(W)	280	LOR(%)	100.0	S/MH(C90/270)	0.57	
RATED VOLTAGE(V)	480	TOTAL FLUX(lm)	37724	η UP,DN(C0-180)	0.0,47.3	
NOMINAL FLUX(lm)	37723.8	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,52.7	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	480	η down (%)	100.0	CIBSE SHR MAX	0.60	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:J.W  
Test Date:19 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:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	5493	4449	3776	3338	3603	3787	4807	5204	0- 10	4644	4644	12.3,12.3
20	2849	2476	1740	1512	1461	1702	2345	3125	10- 20	8686	13331	35.3,35.3
30	1151	1076	848.2	777.1	752.6	848.9	1016	1327	20- 30	6701	20032	53.1,53.1
40	615.1	579.0	495.5	487.9	484.4	519.7	559.5	652.4	30- 40	4571	24603	65.2,65.2
50	410.2	387.4	352.3	357.6	367.4	378.2	377.6	420.9	40- 50	3529	28131	74.6,74.6
60	349.3	320.0	340.2	295.6	322.6	307.9	326.2	334.3	50- 60	3120	31251	82.8,82.8
70	326.2	300.9	286.2	246.2	250.2	273.9	342.2	329.6	60- 70	3098	34349	91.1,91.1
80	211.1	194.7	164.6	133.2	143.0	167.5	216.4	237.6	70- 80	2564	36913	97.9,97.9
90	0	0	0	0	0.8338	0	0	0	80- 90	810.4	37724	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): 26449 lm

%lum = 70.1%

%lamp = 70.1%

Conical surface Flux(120deg): 31251 lm

%lum = 82.8%

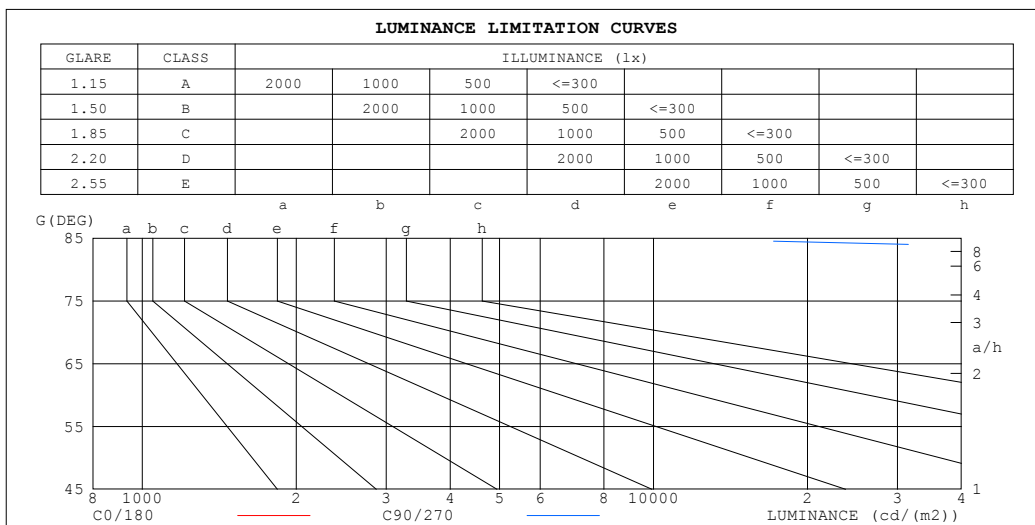
%lamp = 82.8%

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:J.W  
Test Date:19 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:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-30-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	159260	0
80	121575	94800
75	105876	86768
70	95370	83673
65	82583	73791
60	69864	68049
55	63986	60176
50	63821	54808
45	69044	59825

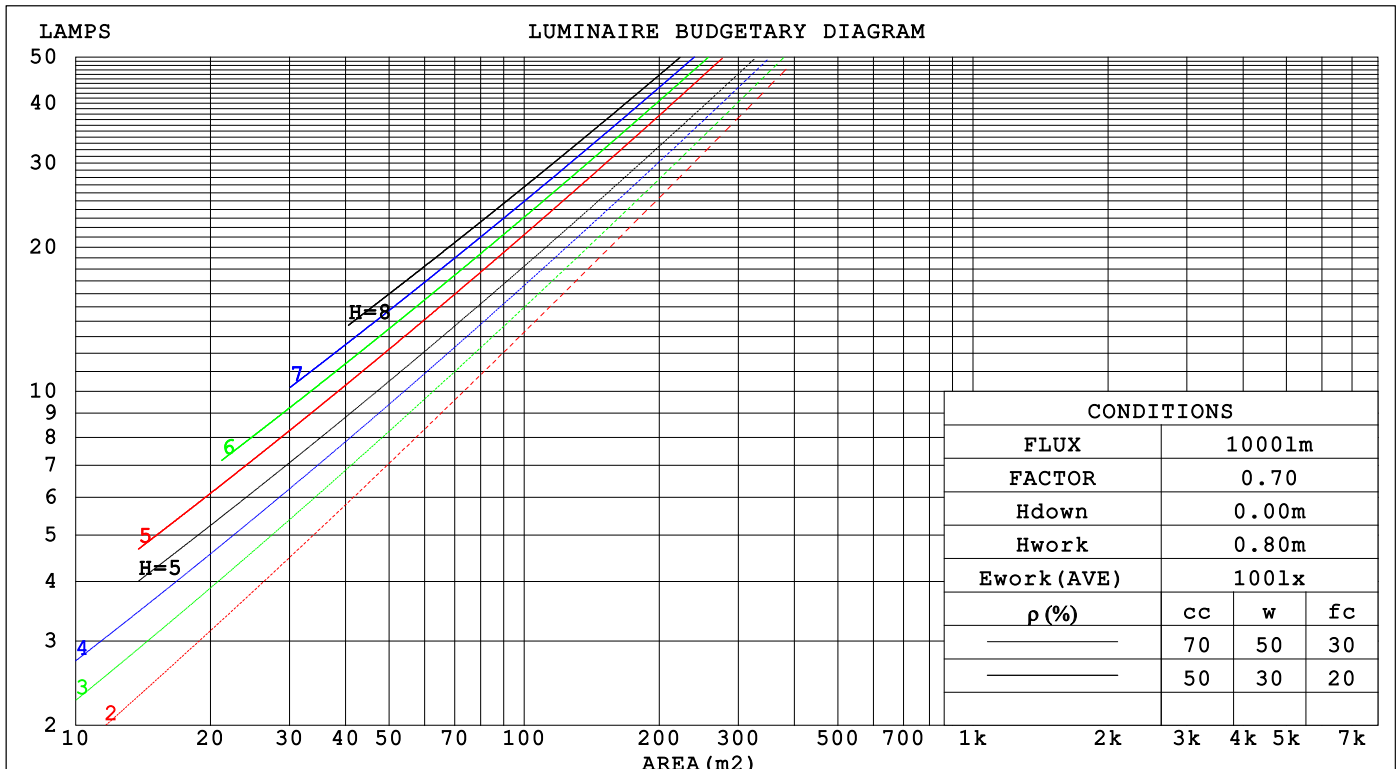
H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:J.W  
Test Date:19 April 2024

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:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-30-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	1.02	.99	1.04	1.00	.97	.00	.97	.94	.96	.94	.91	.92	.90	.89	.87
2.0	.95	.90	.85	.93	.88	.84	.90	.86	.82	.87	.83	.80	.84	.81	.78	.76
3.0	.87	.80	.74	.85	.79	.74	.82	.77	.72	.80	.75	.71	.77	.73	.70	.68
4.0	.79	.72	.67	.78	.71	.66	.76	.70	.65	.74	.69	.64	.72	.67	.64	.62
5.0	.73	.66	.61	.72	.65	.60	.70	.64	.60	.69	.63	.59	.67	.62	.58	.57
6.0	.68	.61	.56	.67	.60	.55	.66	.60	.55	.64	.59	.55	.63	.58	.54	.52
7.0	.64	.57	.52	.63	.56	.51	.62	.56	.51	.61	.55	.51	.59	.54	.51	.49
8.0	.60	.53	.48	.60	.53	.48	.58	.52	.48	.57	.52	.48	.56	.51	.47	.46
9.0	.57	.50	.45	.56	.50	.45	.55	.49	.45	.54	.49	.45	.53	.48	.45	.43
10.0	.54	.47	.43	.53	.47	.43	.52	.47	.43	.52	.46	.42	.51	.46	.42	.41



H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:J.W  
Test Date:19 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:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-30-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	.268	.152	.048	.261	.149	.047	.248	.142	.045	.236	.136	.044	.224	.130	.042															
2.0	.245	.134	.041	.239	.132	.041	.228	.127	.039	.217	.122	.038	.208	.118	.037															
3.0	.224	.119	.036	.219	.117	.035	.209	.113	.034	.200	.109	.034	.191	.106	.033															
4.0	.205	.107	.031	.201	.105	.031	.192	.102	.030	.184	.099	.030	.177	.096	.029															
5.0	.189	.096	.028	.185	.095	.028	.178	.093	.027	.171	.090	.027	.164	.088	.026															
6.0	.175	.088	.025	.172	.087	.025	.165	.085	.025	.159	.083	.024	.153	.081	.024															
7.0	.164	.081	.023	.160	.080	.023	.155	.078	.023	.149	.076	.022	.144	.075	.022															
8.0	.153	.075	.021	.150	.074	.021	.145	.073	.021	.140	.071	.021	.136	.070	.020															
9.0	.144	.070	.019	.142	.069	.019	.137	.068	.019	.133	.066	.019	.128	.065	.019															
10.0	.136	.065	.018	.134	.065	.018	.130	.063	.018	.126	.062	.018	.122	.061	.018															

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	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.156	.114	.081	.133	.098	.070	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.146	.100	.065	.125	.086	.056	.086	.060	.040	.050	.035	.023	.016	.011	.008	
5.0	.137	.089	.053	.118	.077	.046	.081	.054	.033	.047	.032	.019	.015	.010	.006	
6.0	.129	.080	.045	.111	.069	.039	.077	.049	.028	.044	.029	.016	.014	.009	.005	
7.0	.122	.073	.038	.105	.063	.033	.073	.044	.023	.042	.026	.014	.014	.009	.005	
8.0	.116	.067	.033	.099	.058	.029	.069	.041	.020	.040	.024	.012	.013	.008	.004	
9.0	.110	.061	.029	.094	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.104	.057	.025	.090	.049	.022	.062	.035	.016	.036	.021	.009	.012	.007	.003	

H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3℃  
Operators:J.W  
Test Date:19 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:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm										
NAME: Crane Master Series					TYPE: Floodlight			WEIGHT: N/A		
SPEC.: CMF-300-347-480-5K-30-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	18.5	19.7	18.8	19.9	20.1	18.0	19.2	18.2	19.4	19.6
3H	20.5	21.7	20.8	21.9	22.1	19.8	20.9	20.1	21.1	21.3
4H	21.4	22.5	21.7	22.7	23.0	20.5	21.6	20.8	21.9	22.1
6H	22.1	23.1	22.4	23.3	23.6	21.1	22.1	21.4	22.4	22.6
8H	22.3	23.3	22.6	23.6	23.8	21.2	22.2	21.5	22.4	22.7
12H	22.4	23.4	22.8	23.7	24.0	21.1	22.1	21.5	22.4	22.7
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, 37724 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 12.6)  
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:19 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:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

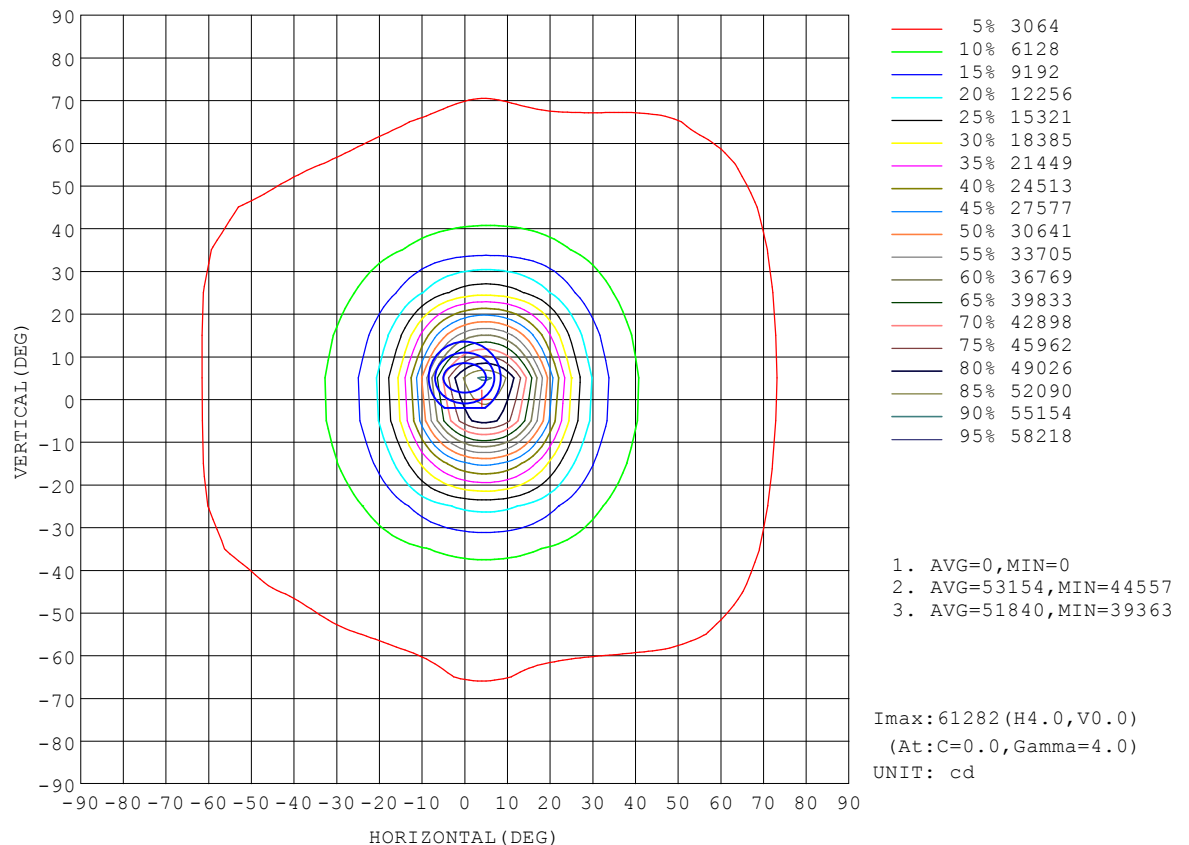
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	71	61	56	70	61	56	69	61	56	50
0.80	79	70	64	78	69	64	77	69	63	58
1.00	85	76	70	84	76	70	82	76	69	64
1.25	91	82	76	89	81	76	87	80	75	69
1.50	95	86	81	93	86	80	90	84	79	73
2.00	99	92	87	98	91	86	95	89	85	78
2.50	103	96	91	101	95	90	97	92	88	81
3.00	105	99	95	103	98	94	99	95	92	84
4.00	109	104	100	106	102	99	102	99	96	88
5.00	111	107	103	108	105	102	104	101	99	90
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:J.W  
 Test Date:19 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:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-30-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:19 April 2024

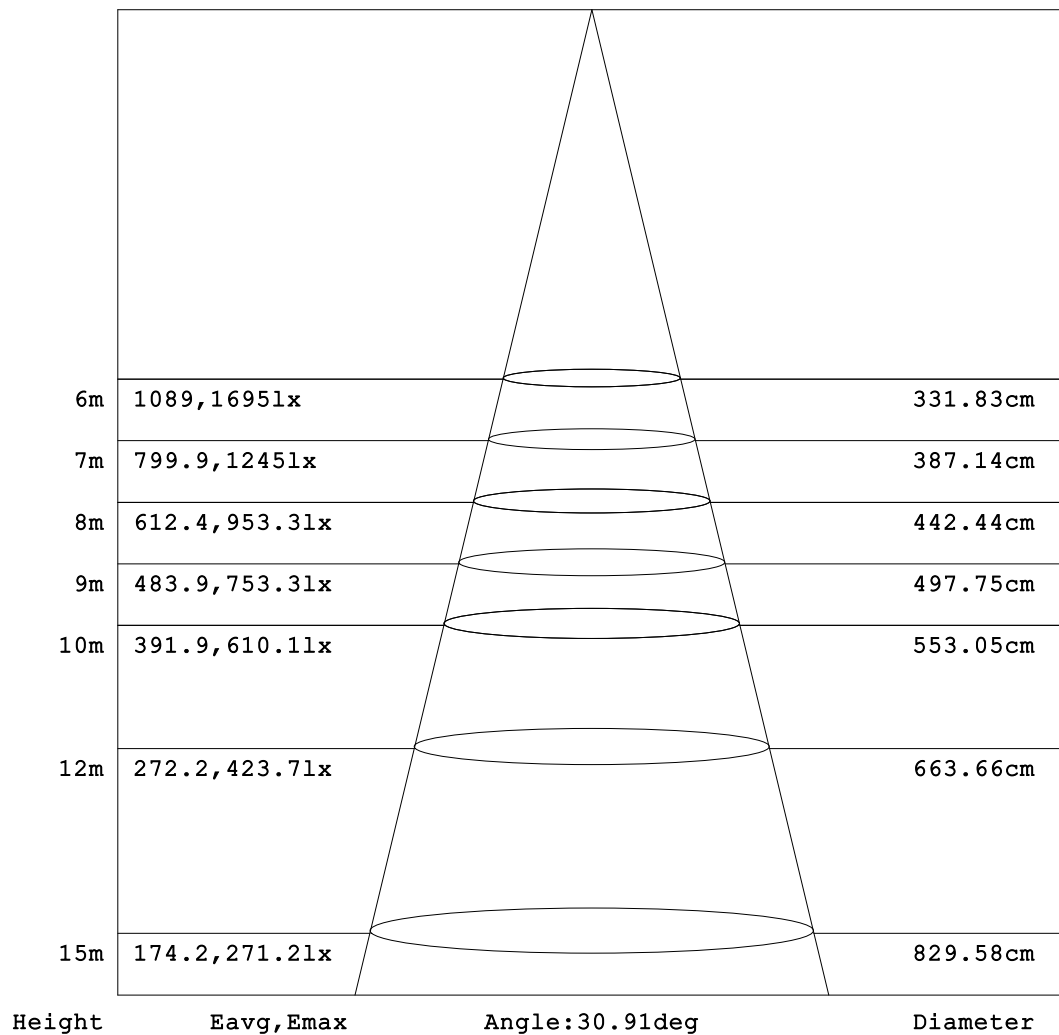
V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.480  
Humidity:65.0%  
Test Distance:5.700m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

Flux out:9470 lm



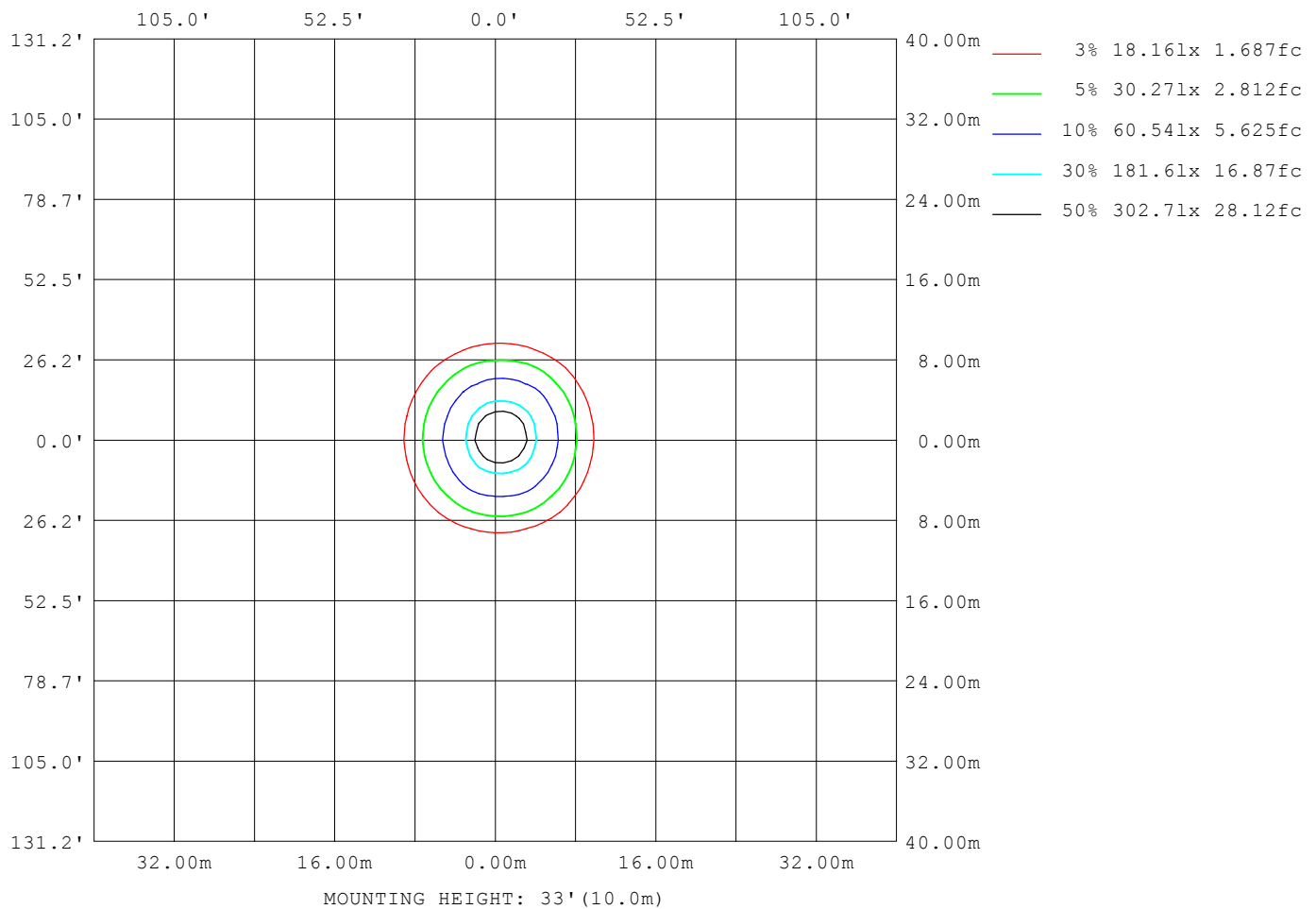
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range: -90 - 90DEG  
 H(β) Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3°C  
 Operators: J.W  
 Test Date: 19 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:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A



H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:J.W  
Test Date:19 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:478.23V I:0.6202A P:281.74W PF:0.9499 Freq:49.99Hz Lamp Flux:37723.8x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-347-480-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

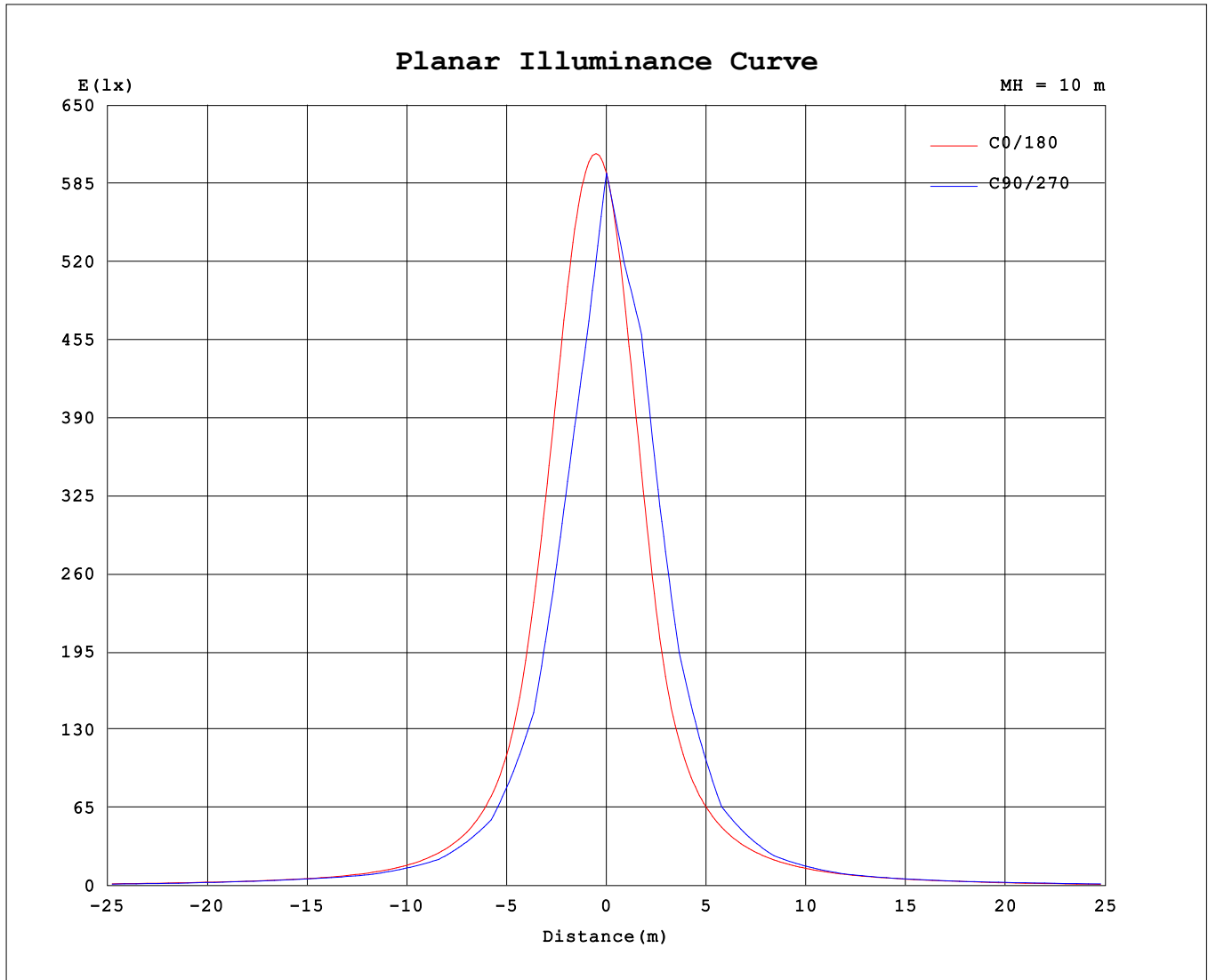
AvgL	cd/m2
L_0~180 (65) av	75404
L_0~180 (75) av	91504
L_0~180 (85) av	120421
L_90~270 (65) av	76295
L_90~270 (75) av	97063
L_90~270 (85) av	0
L_45 (65) av	72922
L_45 (75) av	94863
L_45 (85) av	68955

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:19 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( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:J.W  
Test Date:19 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:
```