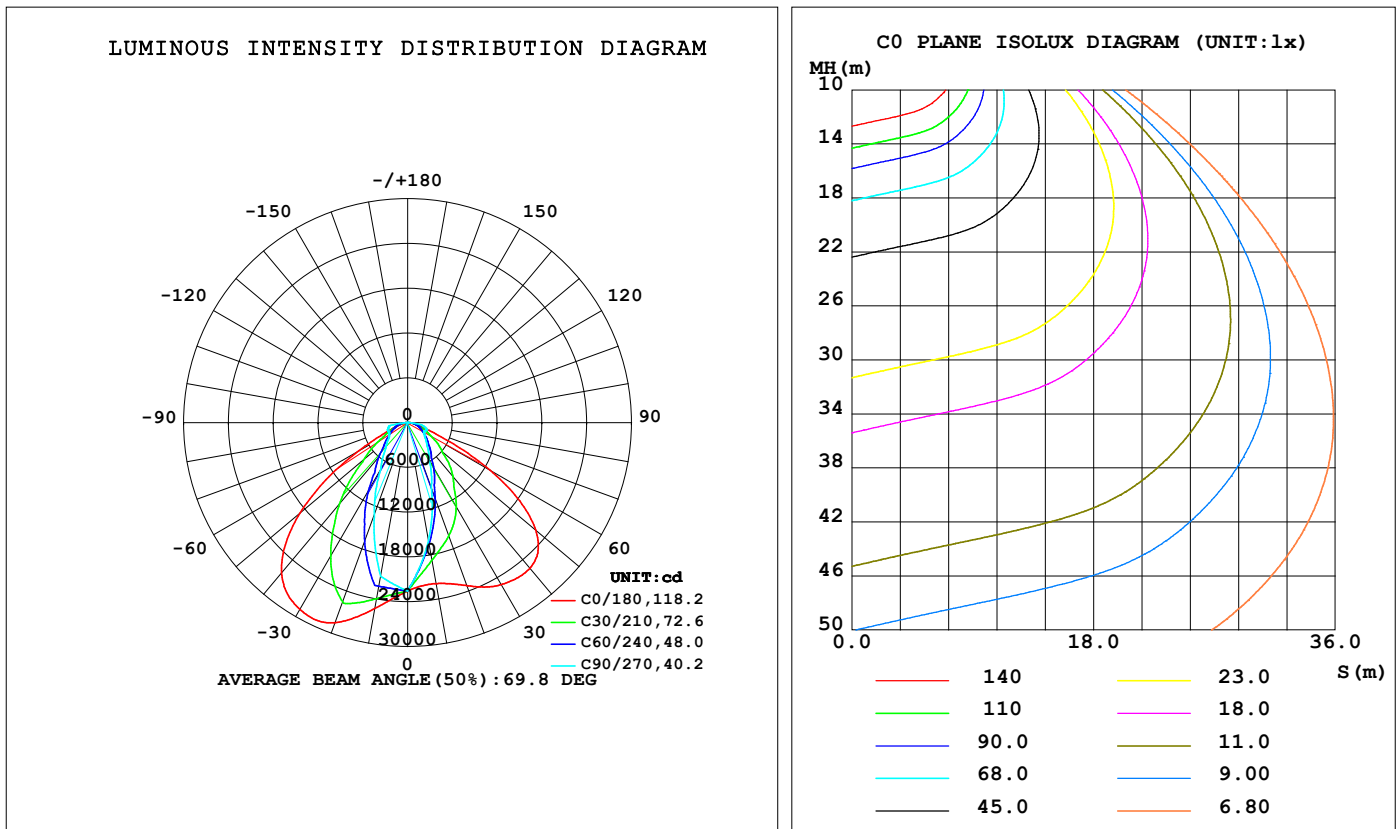


# LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-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: 141.27 lm/W
MODEL	N/A	Imax (cd)	29169	S/MH(C0/180)	1.63	
NOMINAL POWER(W)	280	LOR(%)	100.0	S/MH(C90/270)	0.71	
RATED VOLTAGE(V)	277	TOTAL FLUX(lm)	38919	η UP,DN(C0-180)	0.0,45.2	
NOMINAL FLUX(lm)	38918.7	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,54.8	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	277	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:28 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	2190	1746	1608	1927	2526	2310	2092	2068	0- 10	2012	2012	5.17, 5.17
20	2324	1304	931.7	1500	2851	2067	1307	1703	10- 20	5329	7341	18.9, 18.9
30	2506	884.9	581.0	974.6	2889	1448	722.8	1201	20- 30	7140	14481	37.2, 37.2
40	2548	579.3	407.9	592.2	2629	799.0	463.0	727.2	30- 40	7550	22031	56.6, 56.6
50	2239	398.0	302.4	382.5	1880	457.9	334.2	460.8	40- 50	6873	28904	74.3, 74.3
60	1272	263.5	248.2	239.6	758.2	279.5	285.5	303.9	50- 60	5085	33988	87.3, 87.3
70	308.3	160.8	276.1	142.2	181.4	176.3	290.0	199.5	60- 70	2928	36917	94.9, 94.9
80	82.19	76.97	194.5	58.19	52.56	84.12	253.0	110.6	70- 80	1618	38534	99, 99
90	0.3602	0	0	0	0.5225	0	0	0	80- 90	384.3	38919	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): 25622 lm

%lum = 65.8%

%lamp = 65.8%

Conical surface Flux(120deg): 33988 lm

%lum = 87.3%

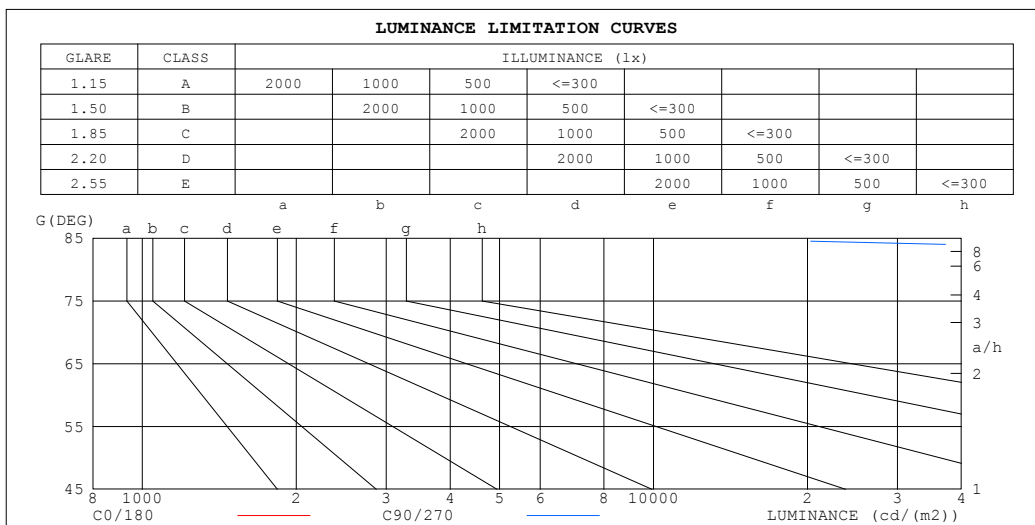
%lamp = 87.3%

H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:J.W  
Test Date:28 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:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-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	42625	0
80	47331	112028
75	59425	90917
70	90126	80723
65	160179	62023
60	254430	49630
55	320226	47996
50	348393	47050
45	348875	50228

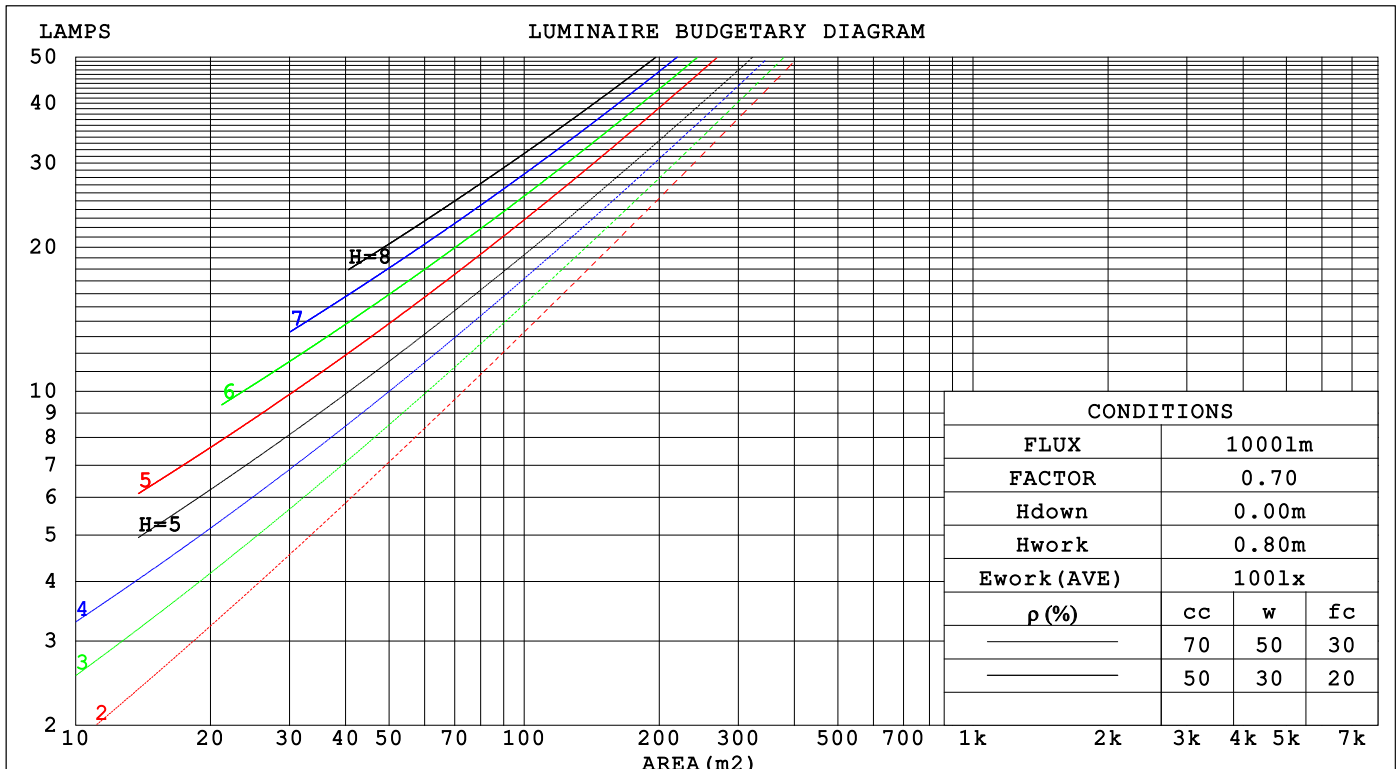
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:J.W  
Test Date:28 April 2024

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:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-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	.94	.89	.84	.93	.87	.83	.89	.85	.81	.86	.82	.79	.83	.80	.77	.75
3.0	.84	.77	.71	.83	.76	.71	.80	.74	.70	.77	.73	.68	.75	.71	.67	.65
4.0	.76	.68	.62	.75	.67	.62	.72	.66	.61	.70	.65	.60	.68	.63	.59	.57
5.0	.69	.61	.55	.68	.60	.54	.66	.59	.54	.64	.58	.53	.62	.57	.53	.51
6.0	.63	.54	.49	.62	.54	.48	.60	.53	.48	.58	.52	.48	.57	.51	.47	.45
7.0	.57	.49	.44	.57	.49	.43	.55	.48	.43	.54	.48	.43	.52	.47	.43	.41
8.0	.53	.45	.40	.52	.45	.39	.51	.44	.39	.50	.43	.39	.49	.43	.39	.37
9.0	.49	.41	.36	.48	.41	.36	.47	.40	.36	.46	.40	.36	.45	.40	.35	.34
10.0	.45	.38	.33	.45	.38	.33	.44	.37	.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:28 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:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-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	.140	.045	.233	.134	.043	.222	.129	.041															
2.0	.253	.139	.043	.247	.136	.042	.236	.131	.041	.225	.126	.040	.215	.122	.038															
3.0	.237	.126	.038	.232	.124	.037	.222	.120	.037	.213	.117	.036	.204	.113	.035															
4.0	.222	.115	.034	.217	.114	.034	.208	.110	.033	.200	.107	.032	.192	.105	.032															
5.0	.207	.106	.031	.203	.104	.030	.195	.102	.030	.188	.099	.029	.181	.097	.029															
6.0	.194	.097	.028	.190	.096	.028	.183	.094	.027	.177	.092	.027	.171	.090	.027															
7.0	.182	.090	.025	.179	.089	.025	.172	.087	.025	.167	.085	.025	.161	.084	.025															
8.0	.171	.084	.023	.168	.083	.023	.163	.081	.023	.157	.080	.023	.152	.078	.023															
9.0	.161	.078	.022	.159	.077	.022	.154	.076	.022	.149	.075	.021	.145	.073	.021															
10.0	.152	.073	.020	.150	.072	.020	.146	.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	.068	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.150	.100	.062	.129	.087	.054	.089	.060	.038	.051	.035	.023	.016	.012	.007	
5.0	.143	.090	.051	.122	.078	.044	.084	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.136	.081	.042	.116	.070	.037	.080	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.129	.074	.036	.111	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.123	.068	.031	.106	.059	.027	.073	.042	.019	.043	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.039	.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℃  
Operators:J.W  
Test Date:28 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:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm											
NAME: Crane Master Series					TYPE: Floodlight			WEIGHT: N/A			
SPEC.: CMF-300-100-277-5K-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	24.5	25.8	24.7	26.0	26.2	16.3	17.6	16.5	17.8	18.0
	3H	24.8	26.1	25.1	26.3	26.5	18.1	19.3	18.3	19.5	19.8
	4H	24.8	26.0	25.1	26.2	26.5	19.0	20.2	19.3	20.5	20.7
	6H	24.8	25.9	25.1	26.1	26.4	19.9	21.0	20.2	21.3	21.6
	8H	24.7	25.8	25.1	26.1	26.4	20.1	21.2	20.4	21.4	21.7
	12H	24.7	25.7	25.0	26.0	26.3	20.1	21.1	20.4	21.4	21.7
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, 38919 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:28 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:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

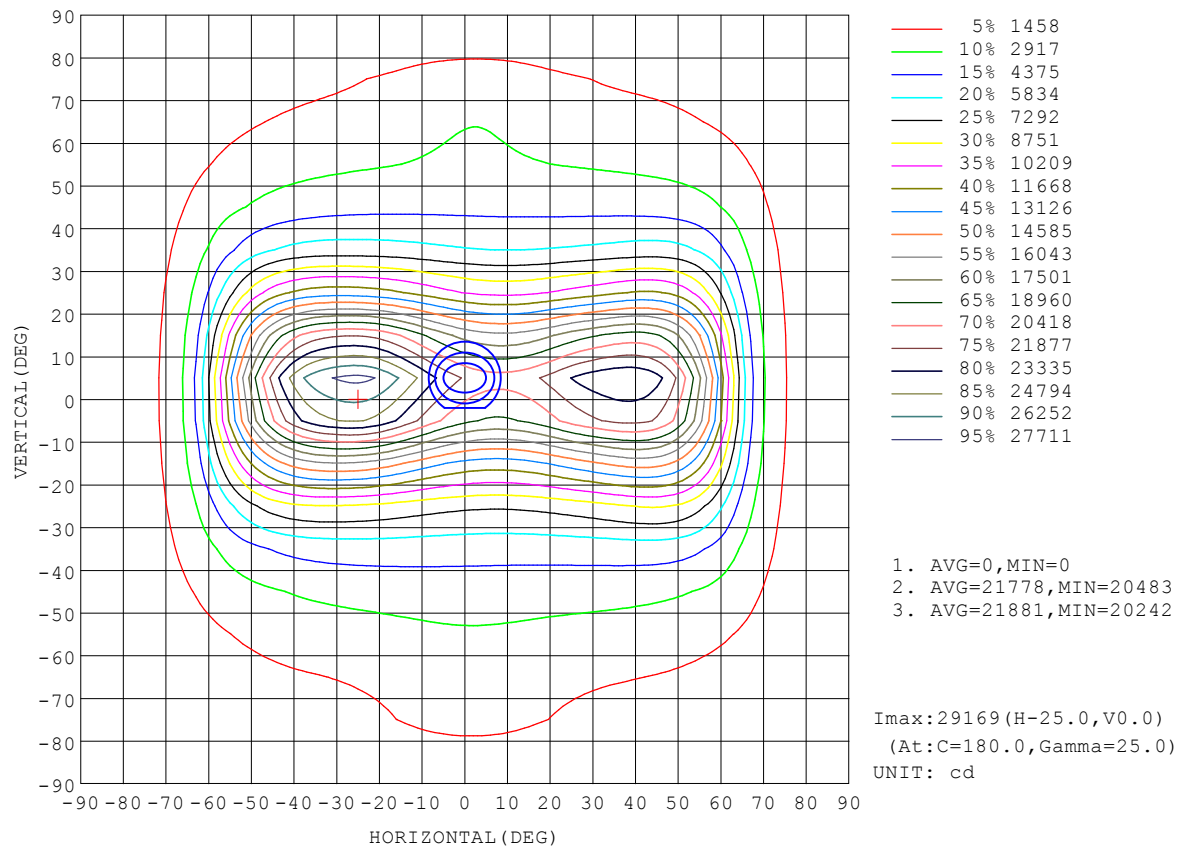
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	64	54	48	64	54	48	63	53	47	42
0.80	74	64	58	73	64	58	72	63	57	51
1.00	82	73	66	81	72	66	79	73	66	59
1.25	89	80	74	87	79	73	85	78	73	66
1.50	93	85	79	92	84	78	89	82	77	71
2.00	99	92	87	97	91	86	94	89	84	77
2.50	102	96	91	100	94	90	97	92	88	80
3.00	105	99	95	103	98	94	99	95	91	84
4.00	109	104	100	106	102	98	102	99	96	87
5.00	110	106	103	108	104	101	104	101	98	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:28 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:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A



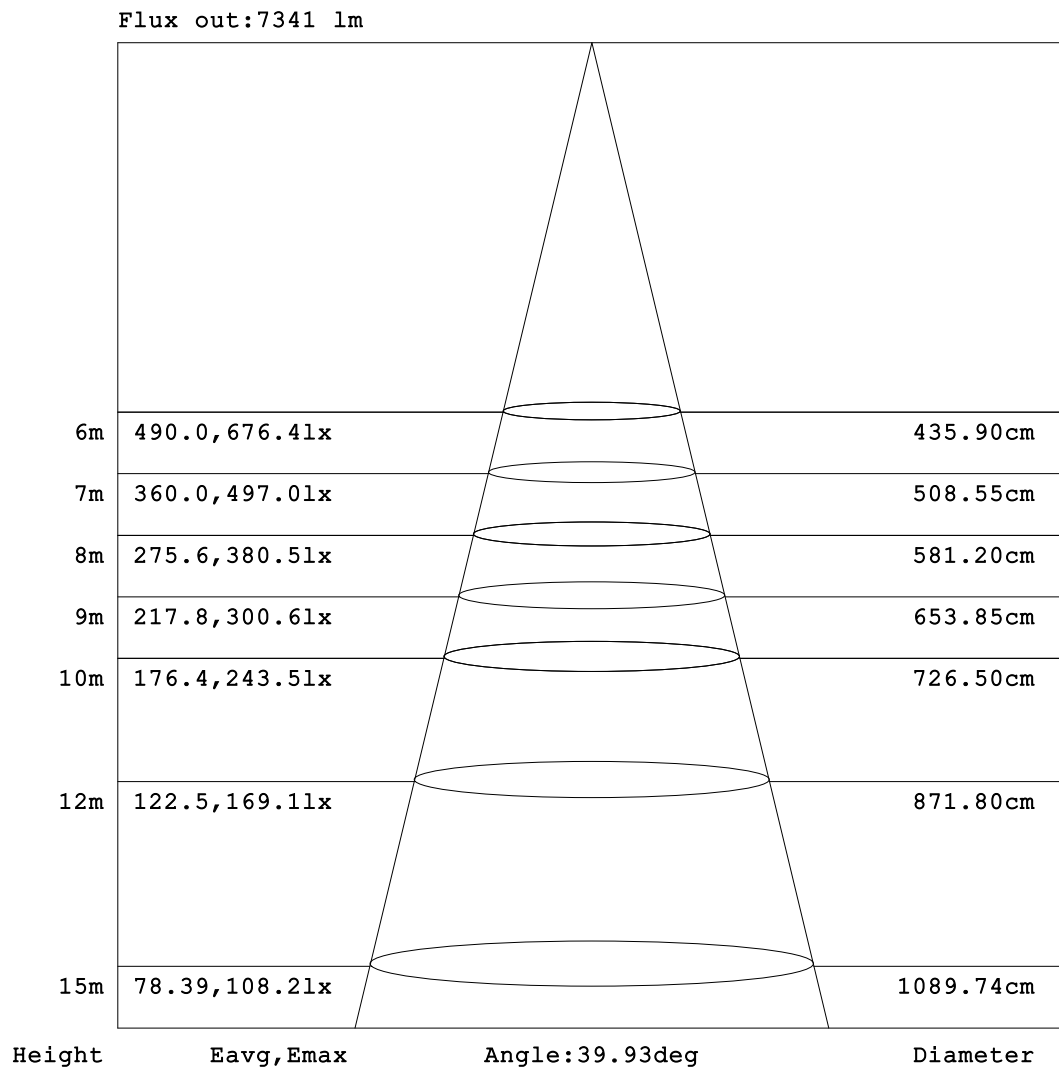
H(β) Range:-90 - 90DEG  
H(β) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:J.W  
Test Date:28 April 2024

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:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A



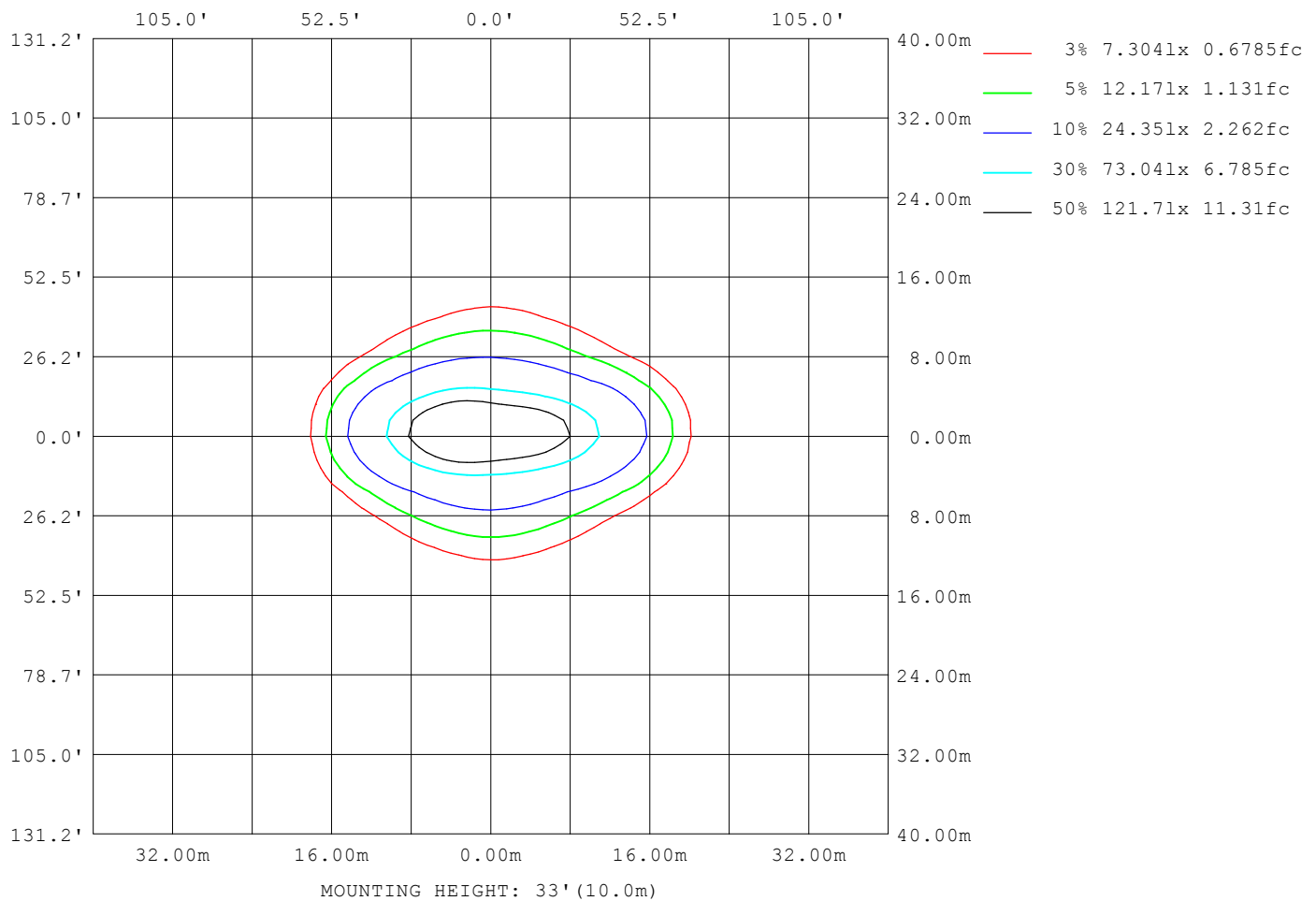
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG  
 H(β) Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:J.W  
 Test Date:28 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:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-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:28 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:276.18V I:1.0655A P:275.50W PF:0.9362 Freq:59.98Hz Lamp Flux:38918.7x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-32-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

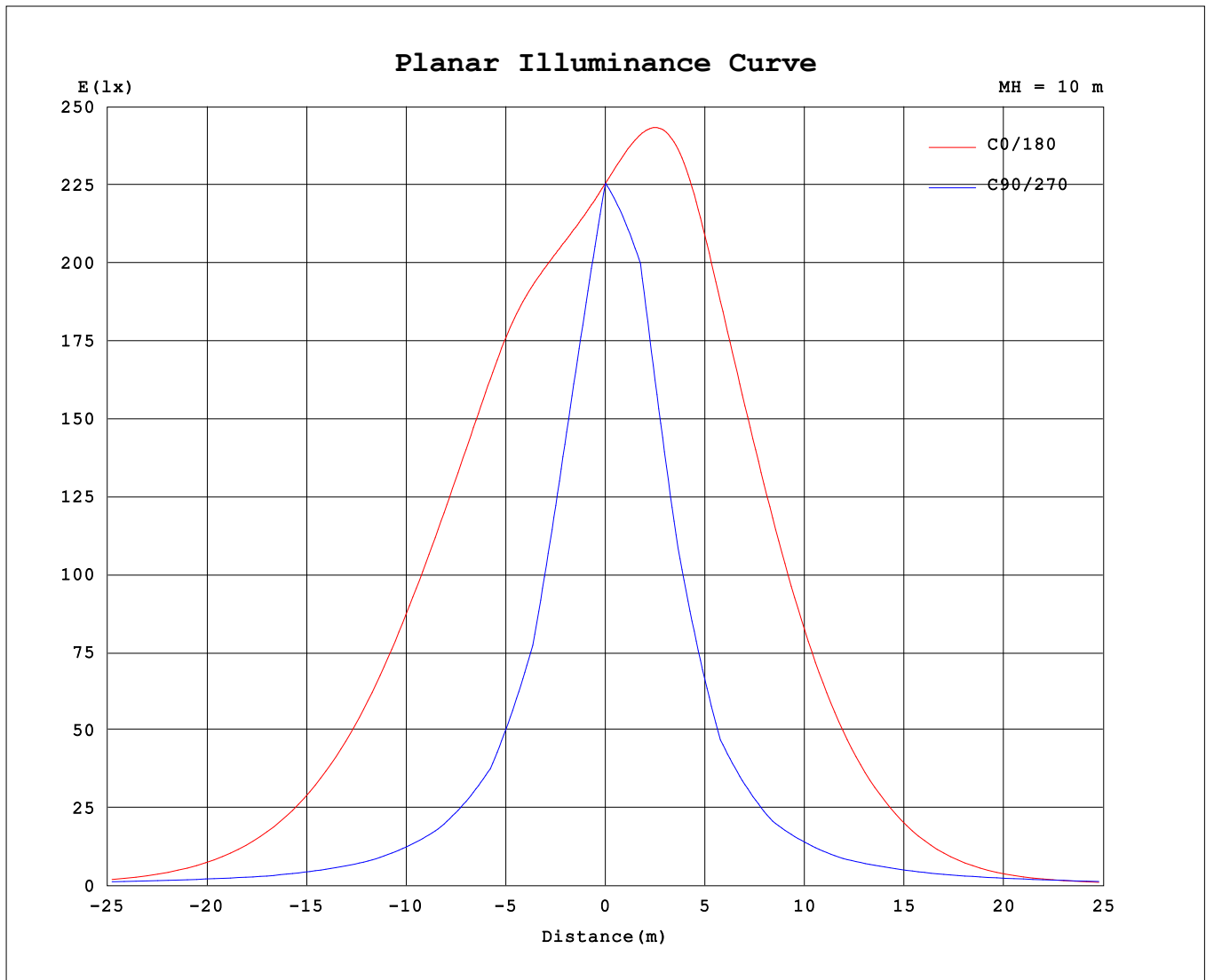
AvgL	cd/m2
L_0~180 (65) av	121208
L_0~180 (75) av	48985
L_0~180 (85) av	29653
L_90~270 (65) av	65053
L_90~270 (75) av	97907
L_90~270 (85) av	0
L_45 (65) av	51753
L_45 (75) av	48657
L_45 (85) av	26960

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:28 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:28 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:
```