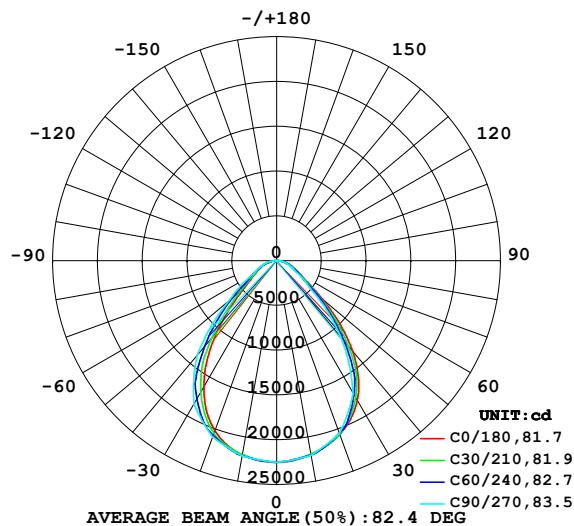


# LUMINAIRE PHOTOMETRIC TEST REPORT

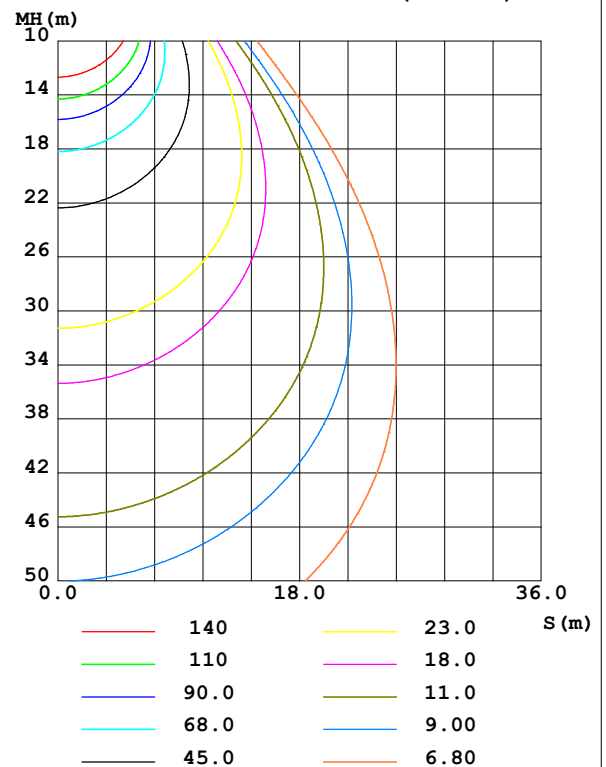
Test:U:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-90-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 147.05 lm/W
MODEL	N/A	Imax (cd)	22518	S/MH(C0/180)	1.11	
NOMINAL POWER(W)	280	LOR(%)	100.0	S/MH(C90/270)	1.21	
RATED VOLTAGE(V)	277	TOTAL FLUX(lm)	40547	η UP,DN(C0-180)	0.0,47.8	
NOMINAL FLUX(lm)	40546.9	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,52.2	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	277	η down (%)	100.0	CIBSE SHR MAX	1.25	

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: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	2201	2197	2208	2191	2204	2206	2215	2197	0- 10	2121	2121	5.23,5.23
20	2062	2048	2053	2000	2020	2058	2095	2065	10- 20	6025	8146	20.1,20.1
30	1802	1754	1709	1618	1628	1745	1848	1829	20- 30	8784	16930	41.8,41.8
40	1319	1234	1114	1023	1035	1203	1383	1421	30- 40	9281	26211	64.6,64.6
50	668.2	580.9	499.0	465.6	473.4	568.1	691.3	753.7	40- 50	6848	33059	81.5,81.5
60	297.8	273.6	240.8	255.1	266.6	292.0	304.3	330.7	50- 60	3709	36768	90.7,90.7
70	176.5	159.6	146.1	147.9	164.5	175.9	179.2	191.3	60- 70	2205	38974	96.1,96.1
80	78.71	71.93	66.13	55.59	57.21	77.67	94.13	95.80	70- 80	1287	40261	99.3,99.3
90	0.3004	0	0	0	0.4021	0	0	0	80- 90	285.9	40547	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): 30083 lm

%lum = 74.2%

%lamp = 74.2%

Conical surface Flux(120deg): 36768 lm

%lum = 90.7%

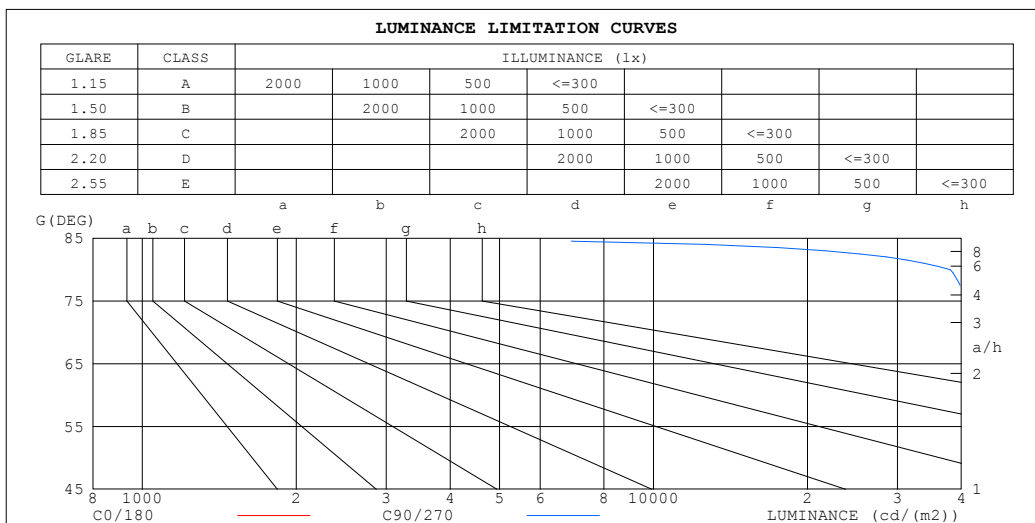
%lamp = 90.7%

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:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-90-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	44178	0
80	45329	38080
75	51117	40993
70	51597	42709
65	53581	45765
60	59562	48150
55	73777	64487
50	103947	77634
45	140985	114057

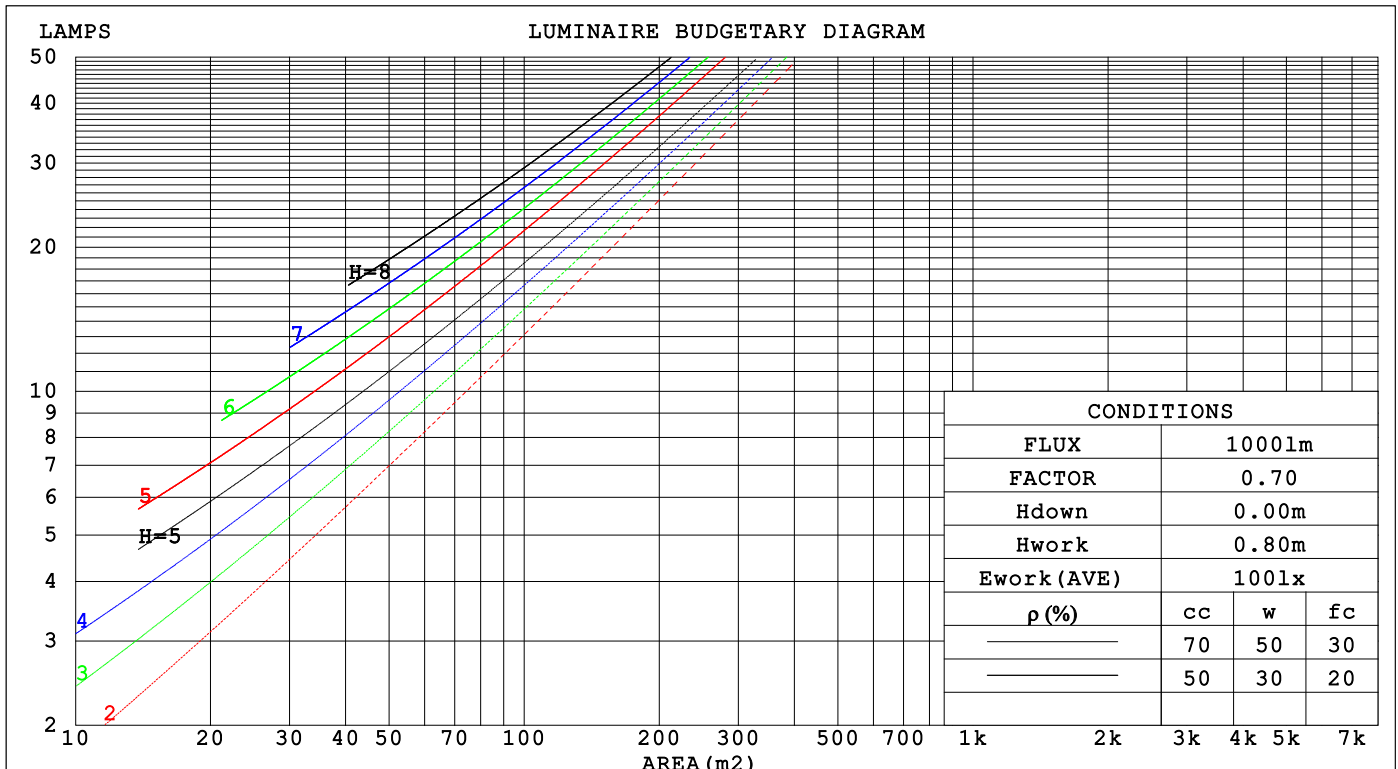
H( $\beta$ ) Range:-90 - 90DEG  
H( $\beta$ ) Interval: 1.0DEG  
Test Speed: HIGH  
Temperature:25.3°C  
Operators:J.W  
Test Date:28 April 2024

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:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-90-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
p <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
p <sub>fc</sub>	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	1.07	1.04	1.01	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.94	.92	.90	.88
2.0	.96	.91	.86	.95	.89	.85	.91	.87	.83	.88	.84	.81	.85	.82	.80	.78
3.0	.87	.80	.75	.85	.79	.74	.83	.77	.73	.80	.75	.72	.78	.74	.70	.69
4.0	.79	.71	.66	.77	.71	.65	.75	.69	.64	.73	.68	.64	.71	.66	.63	.61
5.0	.72	.64	.58	.71	.63	.58	.69	.62	.57	.67	.61	.57	.65	.60	.56	.54
6.0	.66	.58	.52	.65	.57	.52	.63	.57	.52	.61	.56	.51	.60	.55	.51	.49
7.0	.60	.53	.47	.60	.52	.47	.58	.52	.47	.57	.51	.46	.55	.50	.46	.44
8.0	.56	.48	.43	.55	.48	.43	.54	.47	.43	.53	.47	.42	.51	.46	.42	.40
9.0	.52	.44	.39	.51	.44	.39	.50	.43	.39	.49	.43	.39	.48	.43	.39	.37
10.0	.48	.41	.36	.47	.41	.36	.47	.40	.36	.46	.40	.36	.45	.39	.36	.34



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:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-90-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	.246	.140	.044	.239	.136	.043	.226	.129	.041	.214	.123	.040	.203	.118	.038															
2.0	.235	.129	.040	.229	.126	.039	.218	.121	.038	.208	.117	.036	.198	.112	.035															
3.0	.222	.118	.035	.217	.116	.035	.207	.112	.034	.198	.108	.033	.189	.105	.032															
4.0	.208	.108	.032	.204	.107	.032	.195	.104	.031	.187	.101	.030	.180	.098	.030															
5.0	.196	.100	.029	.192	.098	.029	.184	.096	.028	.177	.093	.028	.170	.091	.027															
6.0	.184	.092	.026	.181	.091	.026	.174	.089	.026	.168	.087	.026	.162	.085	.025															
7.0	.174	.086	.024	.170	.085	.024	.164	.083	.024	.159	.081	.024	.154	.080	.023															
8.0	.164	.080	.023	.161	.079	.022	.156	.078	.022	.151	.076	.022	.146	.075	.022															
9.0	.155	.075	.021	.153	.074	.021	.148	.073	.021	.143	.072	.021	.139	.071	.020															
10.0	.147	.071	.020	.145	.070	.020	.141	.069	.019	.136	.068	.019	.133	.067	.019															

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	.176	.157	.139	.150	.134	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.165	.132	.105	.141	.114	.091	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.070	.091	.068	.049	.053	.040	.029	.017	.013	.010	
4.0	.147	.100	.064	.126	.086	.056	.087	.060	.039	.050	.035	.023	.016	.011	.008	
5.0	.139	.089	.052	.120	.077	.046	.082	.054	.032	.048	.032	.019	.015	.010	.006	
6.0	.132	.081	.043	.114	.070	.038	.078	.049	.027	.046	.029	.016	.015	.009	.005	
7.0	.126	.073	.037	.108	.064	.032	.075	.045	.023	.043	.026	.013	.014	.009	.004	
8.0	.120	.068	.031	.103	.059	.027	.071	.041	.019	.042	.024	.012	.013	.008	.004	
9.0	.115	.063	.027	.099	.054	.024	.068	.038	.017	.040	.023	.010	.013	.007	.003	
10.0	.109	.058	.024	.094	.051	.021	.065	.036	.015	.038	.021	.009	.012	.007	.003	

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:

### UGR(Unified Glare Rating) Table

Test:U:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm										
NAME: Crane Master Series					TYPE: Floodlight			WEIGHT: N/A		
SPEC.: CMF-300-100-277-5K-90-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	20.0	21.3	20.2	21.5	21.6	19.4	20.7	19.7	20.9	21.1
3H	20.3	21.5	20.6	21.7	21.9	19.7	20.8	20.0	21.1	21.3
4H	20.4	21.5	20.7	21.8	22.0	19.8	20.9	20.1	21.1	21.4
6H	20.5	21.5	20.8	21.8	22.1	19.8	20.8	20.1	21.1	21.4
8H	20.5	21.5	20.8	21.8	22.0	19.8	20.8	20.1	21.0	21.3
12H	20.5	21.4	20.8	21.7	22.0	19.7	20.7	20.1	21.0	21.3
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, 40547 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 12.9)  
 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:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-90-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

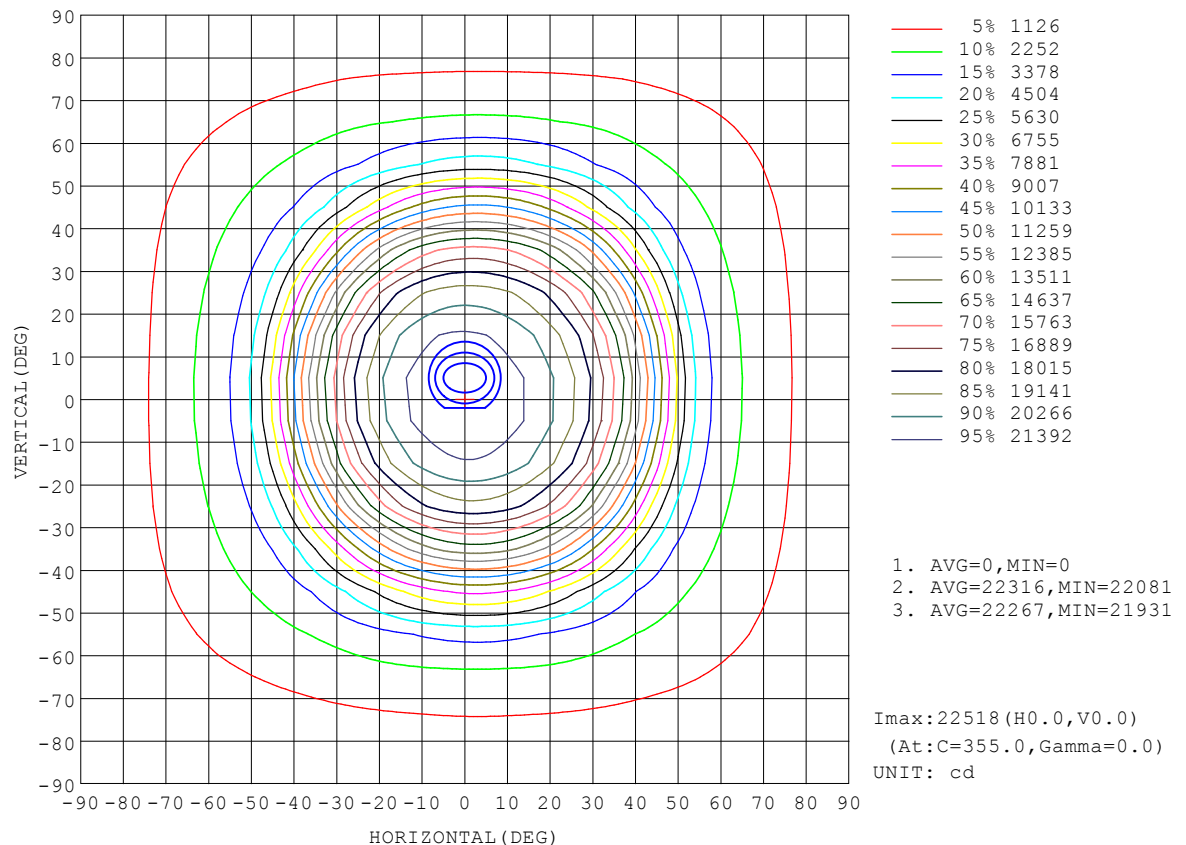
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	69	60	54	69	60	54	68	59	54	49
0.80	79	70	64	78	69	64	77	69	63	58
1.00	86	78	72	85	77	72	83	78	71	65
1.25	92	84	79	91	83	78	89	82	77	72
1.50	96	89	83	95	88	83	92	86	82	76
2.00	101	95	90	100	94	89	97	92	88	81
2.50	104	98	94	102	97	93	99	95	91	84
3.00	107	102	97	105	100	96	101	97	94	87
4.00	110	105	102	108	104	101	104	100	98	90
5.00	112	108	105	109	106	103	105	102	100	92
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:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-90-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

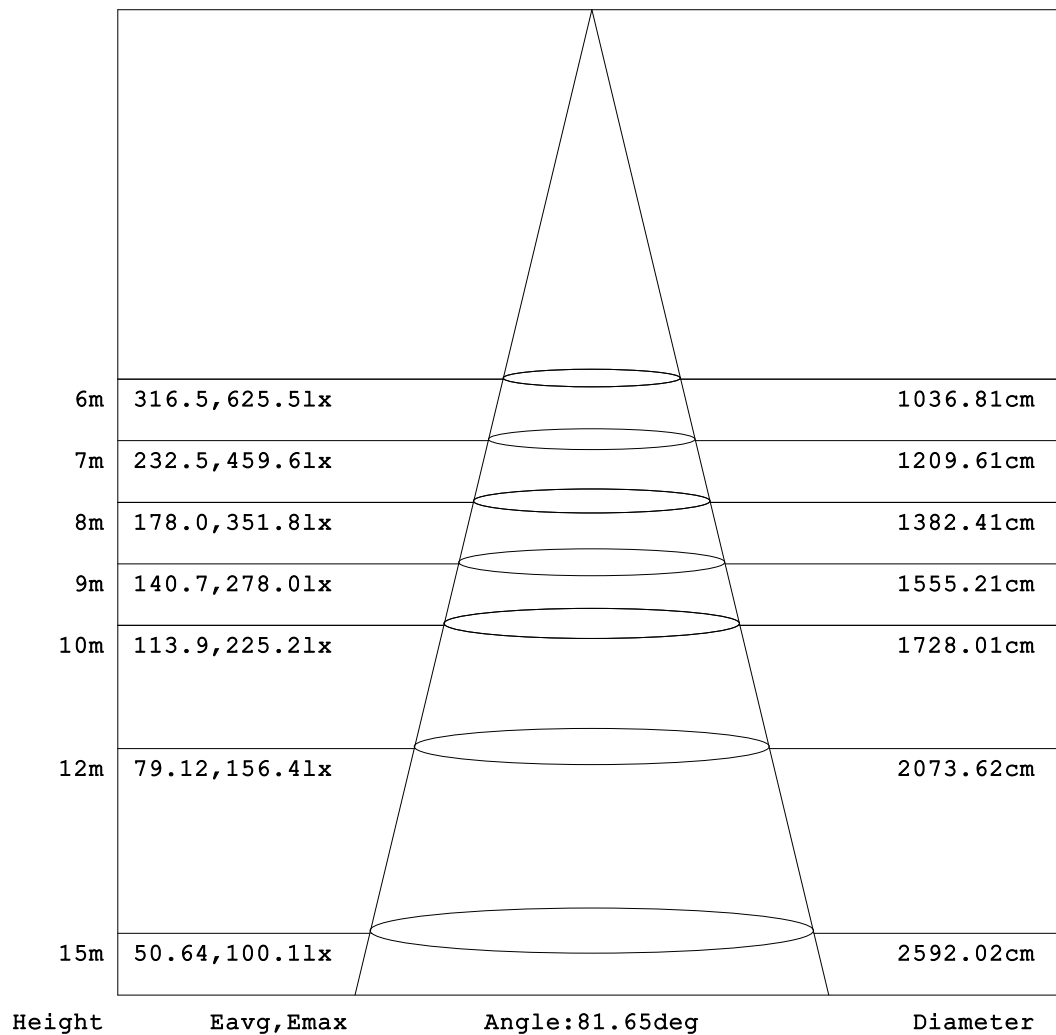
V(B) Range:-80 - 80DEG  
V(B) Interval: 5.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.00.480  
Humidity:65.0%  
Test Distance:5.700m [K=1.0000]  
Remarks:



### AAI Figure

Test:U:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-90-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

Flux out:27048 lm



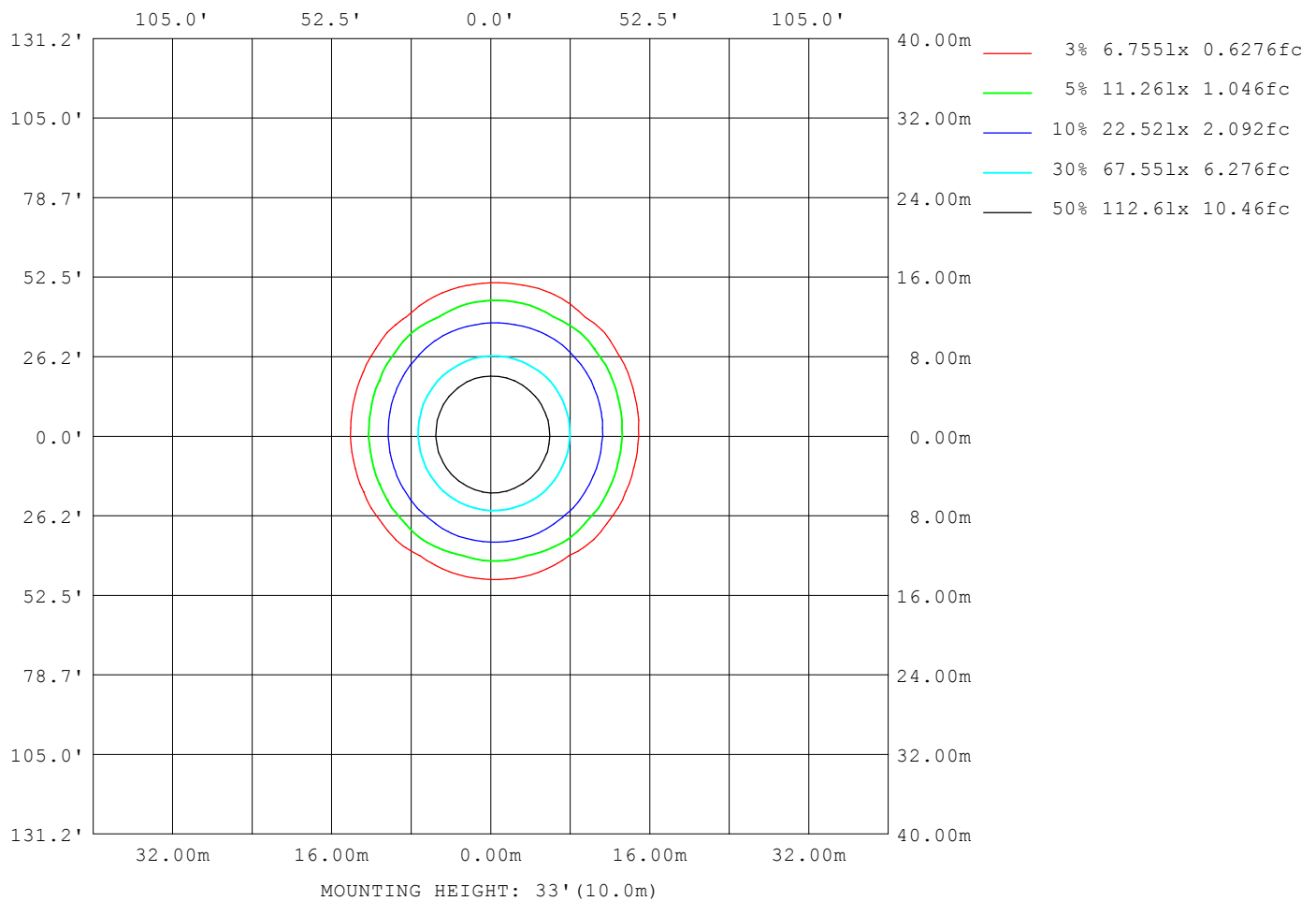
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

H(β) Range:-90 - 90DEG  
 H(β) Interval: 1.0DEG  
 Test Speed: HIGH  
 Temperature:25.3°C  
 Operators:J.W  
 Test Date: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:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-90-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:276.20V I:1.0663A P:275.73W PF:0.9362 Freq:59.98Hz Lamp Flux:40546.9x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-90-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

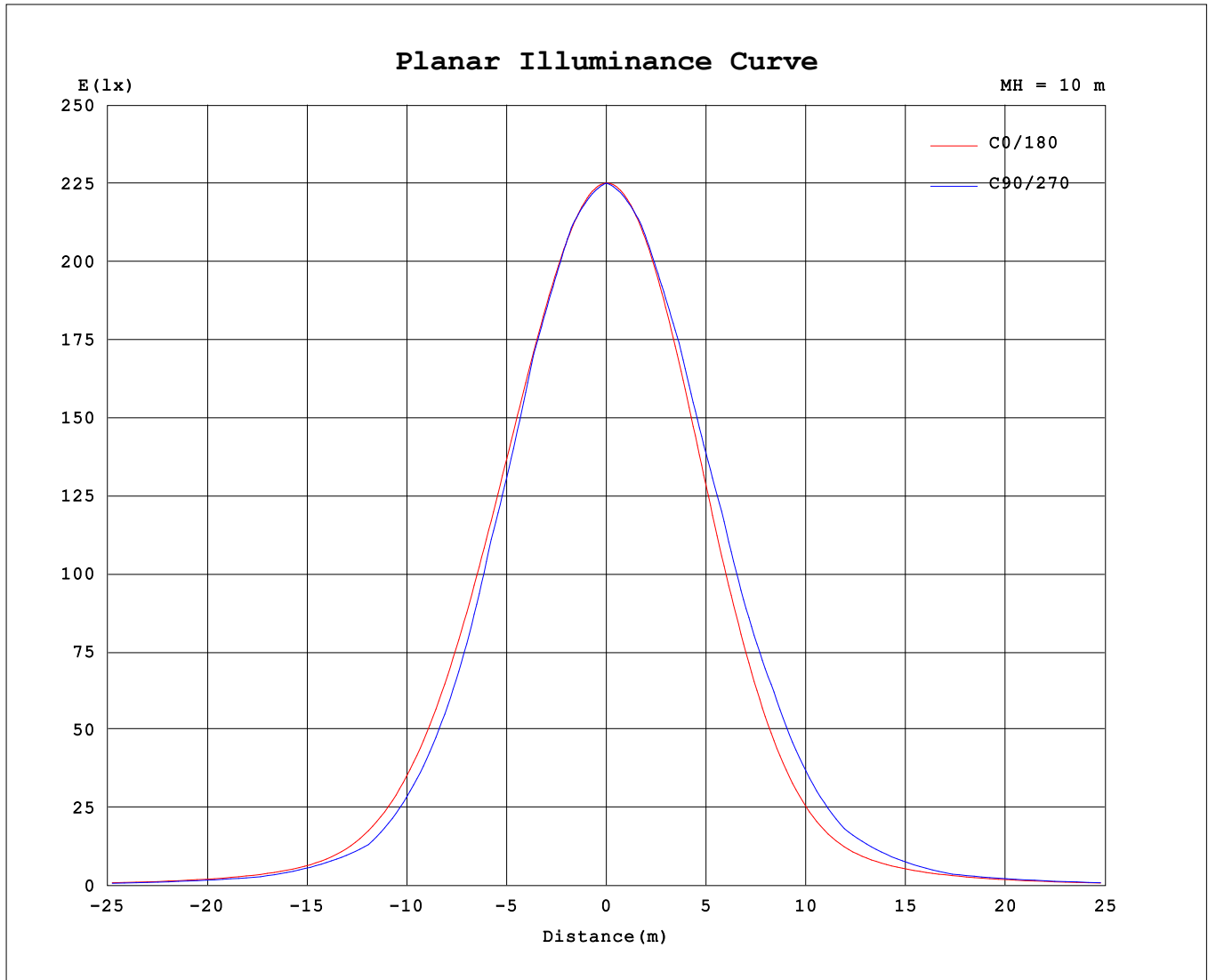
AvgL	cd/m2
L_0~180 (65) av	51826
L_0~180 (75) av	44825
L_0~180 (85) av	30645
L_90~270 (65) av	51488
L_90~270 (75) av	46901
L_90~270 (85) av	0
L_45 (65) av	52860
L_45 (75) av	46280
L_45 (85) av	23398

Standard: GB/T 29293-2012

H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) 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:
```