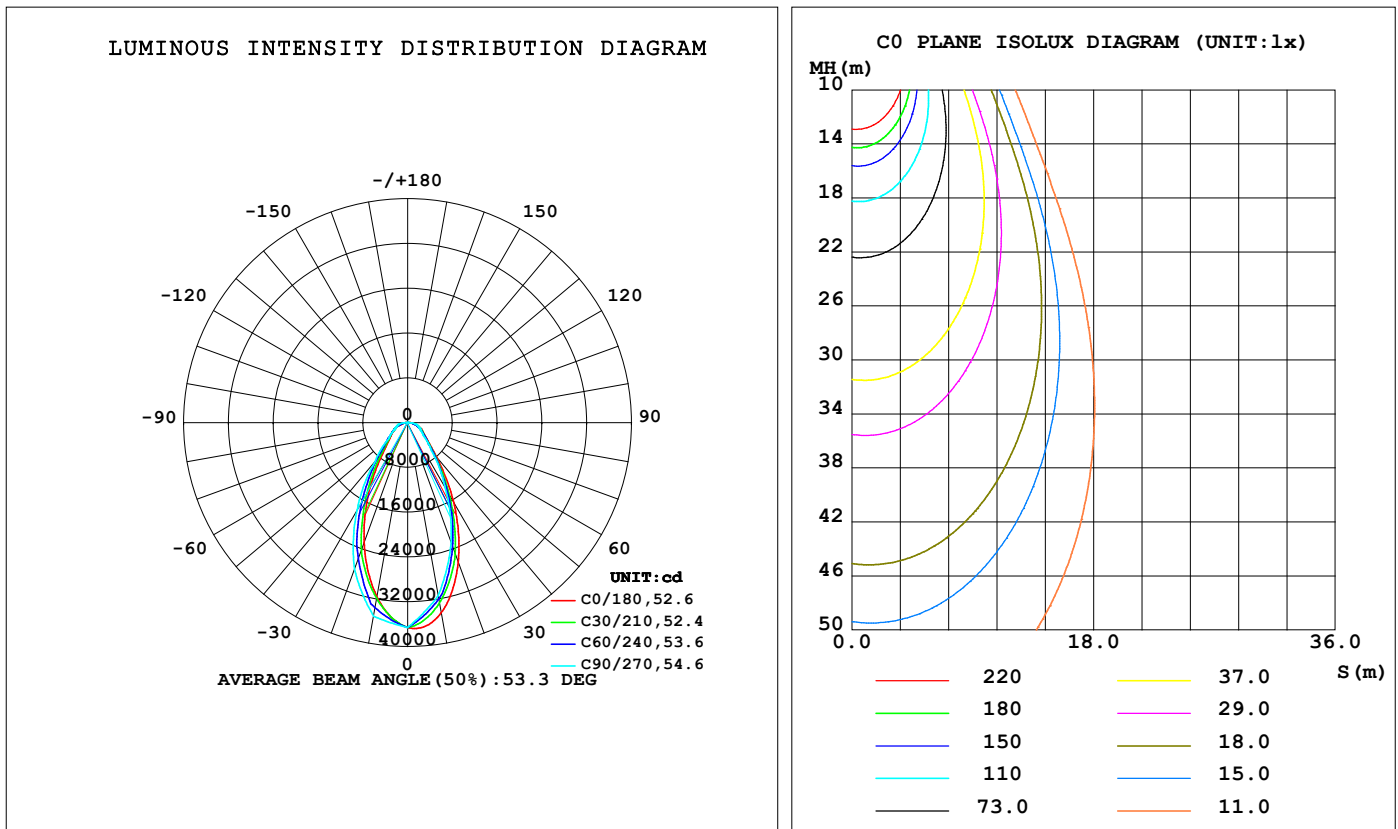


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-60-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: 143.18 lm/W
MODEL	N/A	Imax (cd)	36797	S/MH(C0/180)	0.75	
NOMINAL POWER(W)	280	LOR(%)	100.0	S/MH(C90/270)	0.89	
RATED VOLTAGE(V)	277	TOTAL FLUX(lm)	39485	η UP,DN(C0-180)	0.0,46.7	
NOMINAL FLUX(lm)	39484.5	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,53.3	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	277	η down (%)	100.0	CIBSE SHR MAX	0.90	



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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3452	3228	3142	3038	3161	3266	3512	3495	0- 10	3275	3275	8.29,8.29
20	2646	2398	2273	2162	2277	2476	2784	2781	10- 20	8082	11357	28.8,28.8
30	1649	1457	1341	1287	1351	1557	1813	1814	20- 30	9102	20459	51.8,51.8
40	809.8	735.2	668.6	650.2	667.6	790.0	905.9	922.0	30- 40	6968	27427	69.5,69.5
50	441.9	420.0	377.9	397.8	407.6	445.8	445.5	471.6	40- 50	4434	31861	80.7,80.7
60	303.9	289.6	264.0	279.7	298.1	309.9	291.7	317.5	50- 60	3189	35049	88.8,88.8
70	216.2	186.4	203.1	172.9	187.4	199.3	219.8	212.1	60- 70	2447	37496	95,95
80	103.4	93.06	135.8	73.68	74.37	97.45	165.5	119.7	70- 80	1594	39090	99,99
90	0.3716	0	0	0	0.4932	0	0	0	80- 90	394.8	39485	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): 29866 lm

%lum = 75.6%

%lamp = 75.6%

Conical surface Flux(120deg): 35049 lm

%lum = 88.8%

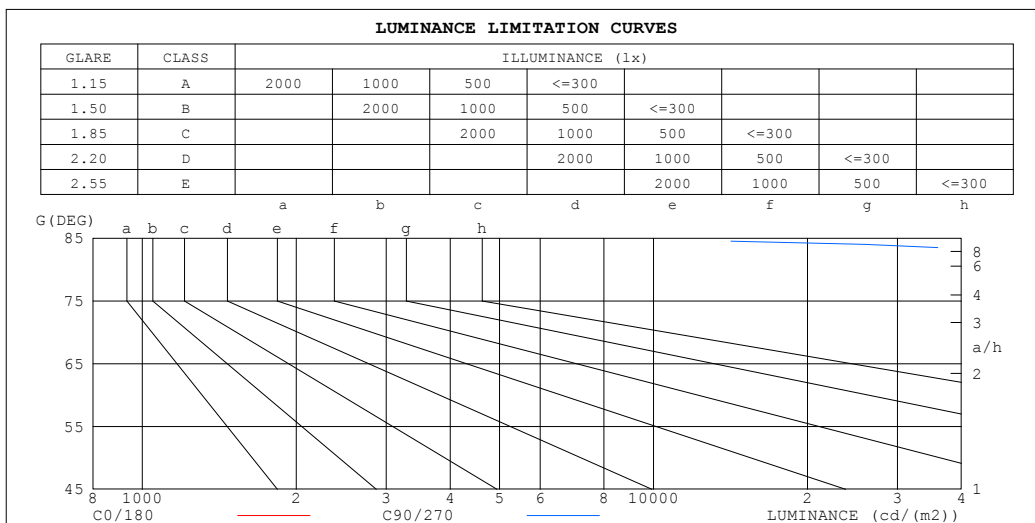
%lamp = 88.8%

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:

LUMINANCE LIMITATION CURVES

Test:U:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-60-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	62637	0
80	59531	78217
75	57886	65475
70	63213	59383
65	61508	55264
60	60787	52801
55	62773	55955
50	68744	58789
45	81212	73996

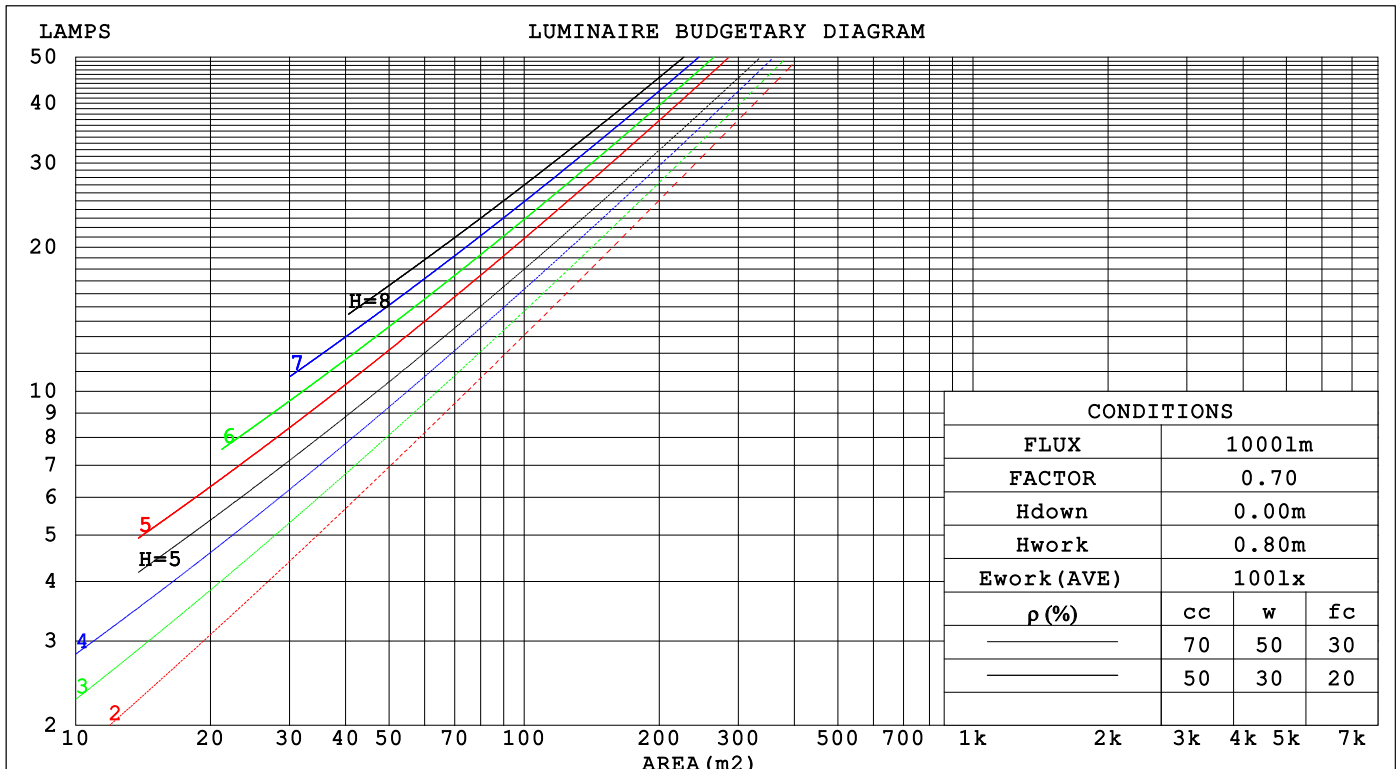
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:28 April 2024

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-60-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	1.07	1.04	1.01	1.05	1.02	.99	1.01	.99	.96	.97	.95	.93	.94	.92	.91	.89
2.0	.97	.92	.87	.95	.90	.86	.92	.88	.84	.89	.85	.82	.86	.83	.80	.79
3.0	.88	.82	.76	.87	.81	.76	.84	.79	.75	.81	.77	.73	.79	.75	.72	.70
4.0	.81	.74	.68	.79	.73	.68	.77	.71	.67	.75	.70	.66	.73	.69	.65	.63
5.0	.74	.67	.62	.73	.66	.61	.71	.65	.61	.69	.64	.60	.68	.63	.59	.58
6.0	.69	.61	.56	.68	.61	.56	.66	.60	.55	.65	.59	.55	.63	.58	.55	.53
7.0	.64	.57	.51	.63	.56	.51	.62	.55	.51	.60	.55	.51	.59	.54	.50	.49
8.0	.60	.52	.48	.59	.52	.47	.58	.52	.47	.57	.51	.47	.56	.50	.47	.45
9.0	.56	.49	.44	.55	.49	.44	.54	.48	.44	.53	.48	.44	.52	.47	.44	.42
10.0	.52	.46	.41	.52	.45	.41	.51	.45	.41	.50	.45	.41	.49	.44	.41	.39



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:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-60-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	.243	.138	.044	.236	.134	.043	.223	.128	.041	.211	.122	.039	.200	.116	.037															
2.0	.229	.125	.038	.223	.123	.038	.212	.118	.037	.202	.113	.035	.192	.109	.034															
3.0	.214	.114	.034	.208	.112	.034	.199	.108	.033	.190	.104	.032	.182	.101	.031															
4.0	.199	.103	.030	.195	.102	.030	.186	.099	.029	.178	.096	.029	.171	.093	.028															
5.0	.186	.095	.027	.182	.093	.027	.175	.091	.027	.168	.088	.026	.161	.086	.026															
6.0	.174	.087	.025	.171	.086	.025	.164	.084	.024	.158	.082	.024	.152	.080	.024															
7.0	.164	.081	.023	.161	.080	.023	.155	.078	.023	.149	.077	.022	.144	.075	.022															
8.0	.155	.076	.021	.152	.075	.021	.147	.073	.021	.142	.072	.021	.137	.070	.020															
9.0	.146	.071	.020	.144	.070	.020	.139	.069	.019	.135	.067	.019	.130	.066	.019															
10.0	.139	.066	.018	.136	.066	.018	.132	.065	.018	.128	.064	.018	.124	.063	.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	.176	.157	.140	.150	.135	.120	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.164	.132	.106	.140	.114	.091	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.090	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.145	.100	.066	.124	.086	.057	.085	.060	.040	.049	.035	.024	.016	.011	.008	
5.0	.136	.089	.054	.117	.077	.047	.081	.054	.033	.047	.032	.020	.015	.010	.006	
6.0	.129	.080	.045	.111	.069	.039	.076	.048	.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	.100	.058	.028	.069	.041	.020	.040	.024	.012	.013	.008	.004	
9.0	.111	.062	.028	.095	.053	.025	.066	.038	.018	.038	.022	.011	.012	.007	.003	
10.0	.105	.057	.025	.091	.050	.022	.063	.035	.016	.037	.021	.009	.012	.007	.003	

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:

UGR(Unified Glare Rating) Table

Test:U:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm										
NAME: Crane Master Series					TYPE: Floodlight			WEIGHT: N/A		
SPEC.: CMF-300-100-277-5K-60-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	18.3	19.5	18.5	19.7	19.9	17.8	19.0	18.1	19.2	19.4
3H	19.2	20.4	19.5	20.6	20.8	18.7	19.8	19.0	20.0	20.2
4H	19.6	20.7	19.9	20.9	21.1	19.1	20.2	19.4	20.4	20.6
6H	19.8	20.8	20.1	21.1	21.3	19.5	20.5	19.8	20.7	21.0
8H	19.9	20.9	20.2	21.1	21.4	19.5	20.5	19.8	20.7	21.0
12H	19.9	20.8	20.2	21.1	21.4	19.5	20.4	19.8	20.7	21.0
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, 39485 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 12.8)
 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:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-60-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

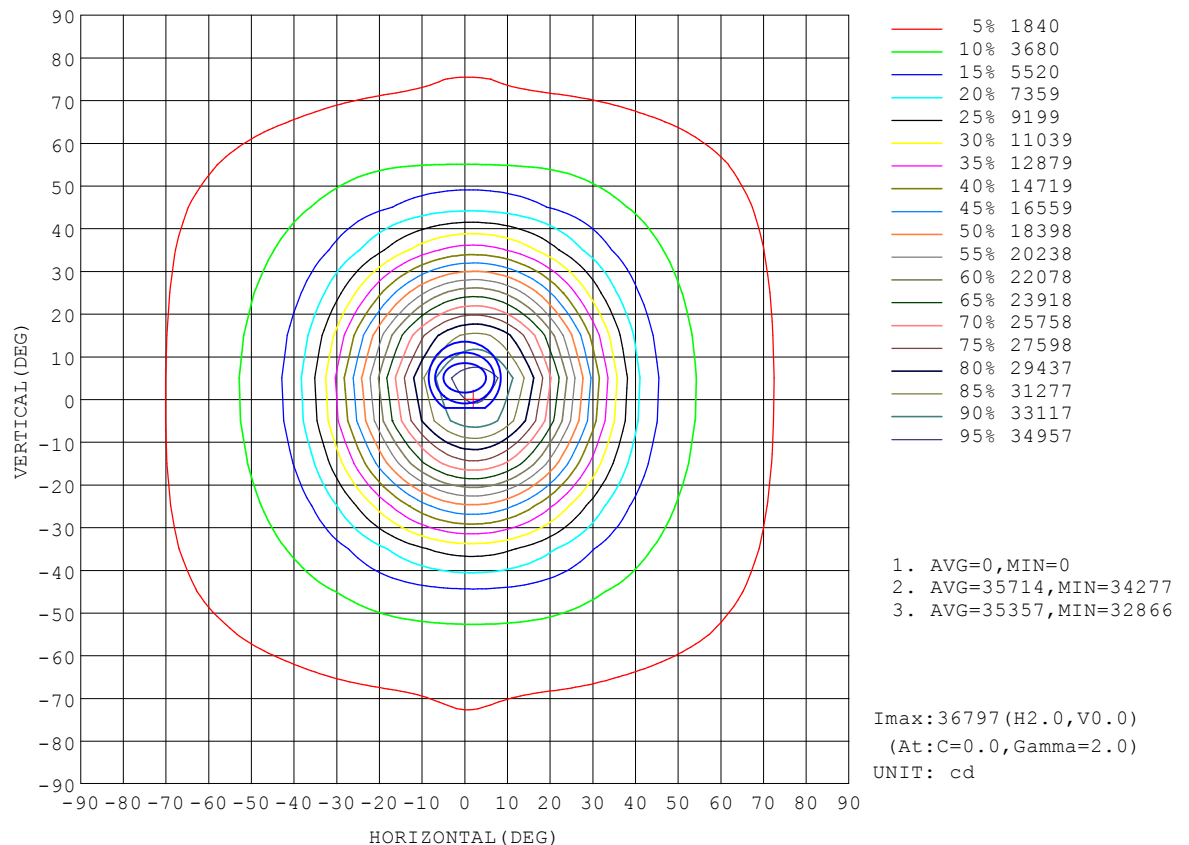
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	73	64	59	72	64	58	71	63	58	53
0.80	81	73	67	81	72	67	79	72	67	62
1.00	88	80	74	87	79	74	85	80	73	68
1.25	93	85	80	92	85	80	90	84	79	73
1.50	97	90	85	96	89	84	93	87	83	77
2.00	102	95	91	100	94	90	97	92	88	82
2.50	105	99	94	103	97	93	99	95	92	84
3.00	107	102	98	105	100	97	101	98	94	87
4.00	110	106	102	108	104	101	104	101	98	90
5.00	112	108	105	110	106	104	105	103	101	92
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: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:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-60-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

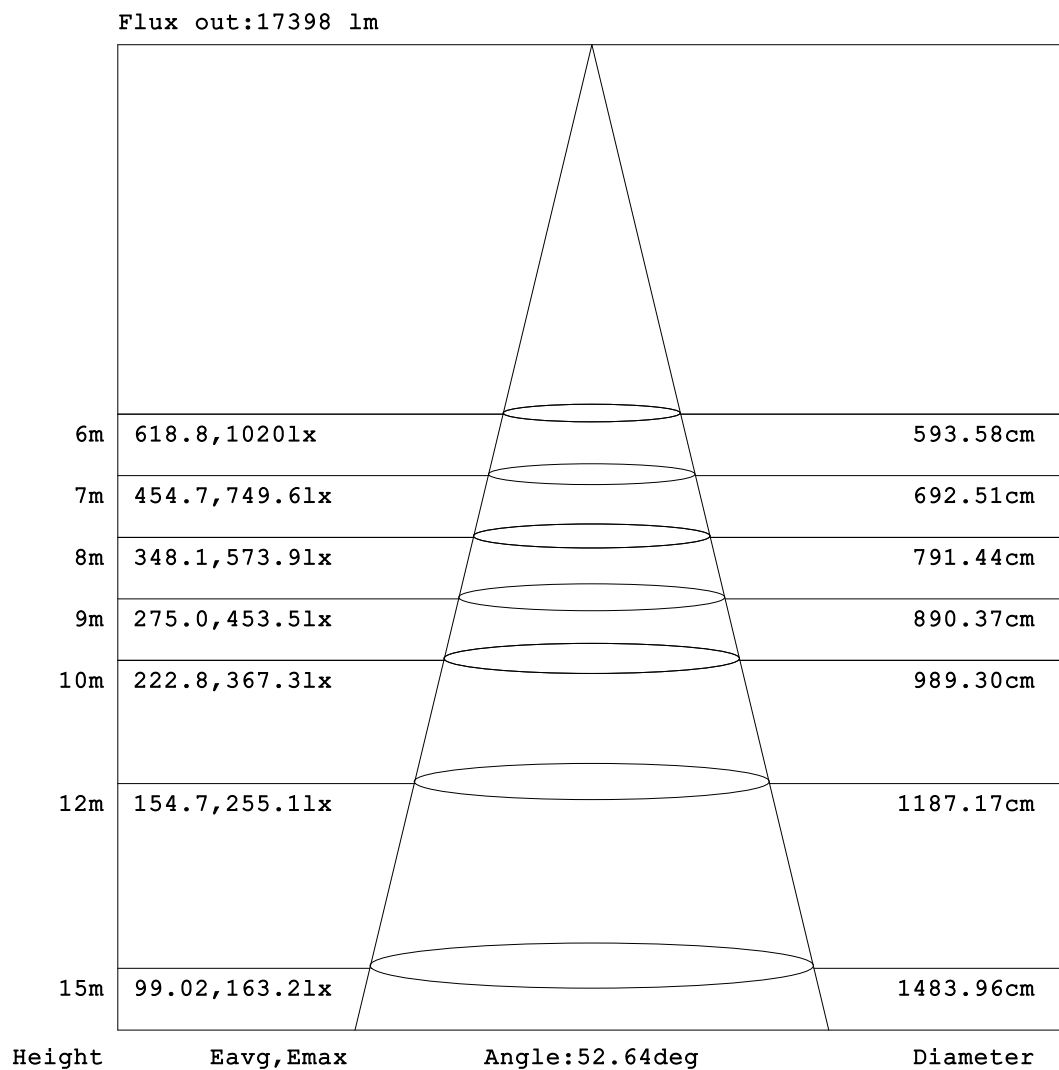


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:28 April 2024

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:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-60-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A



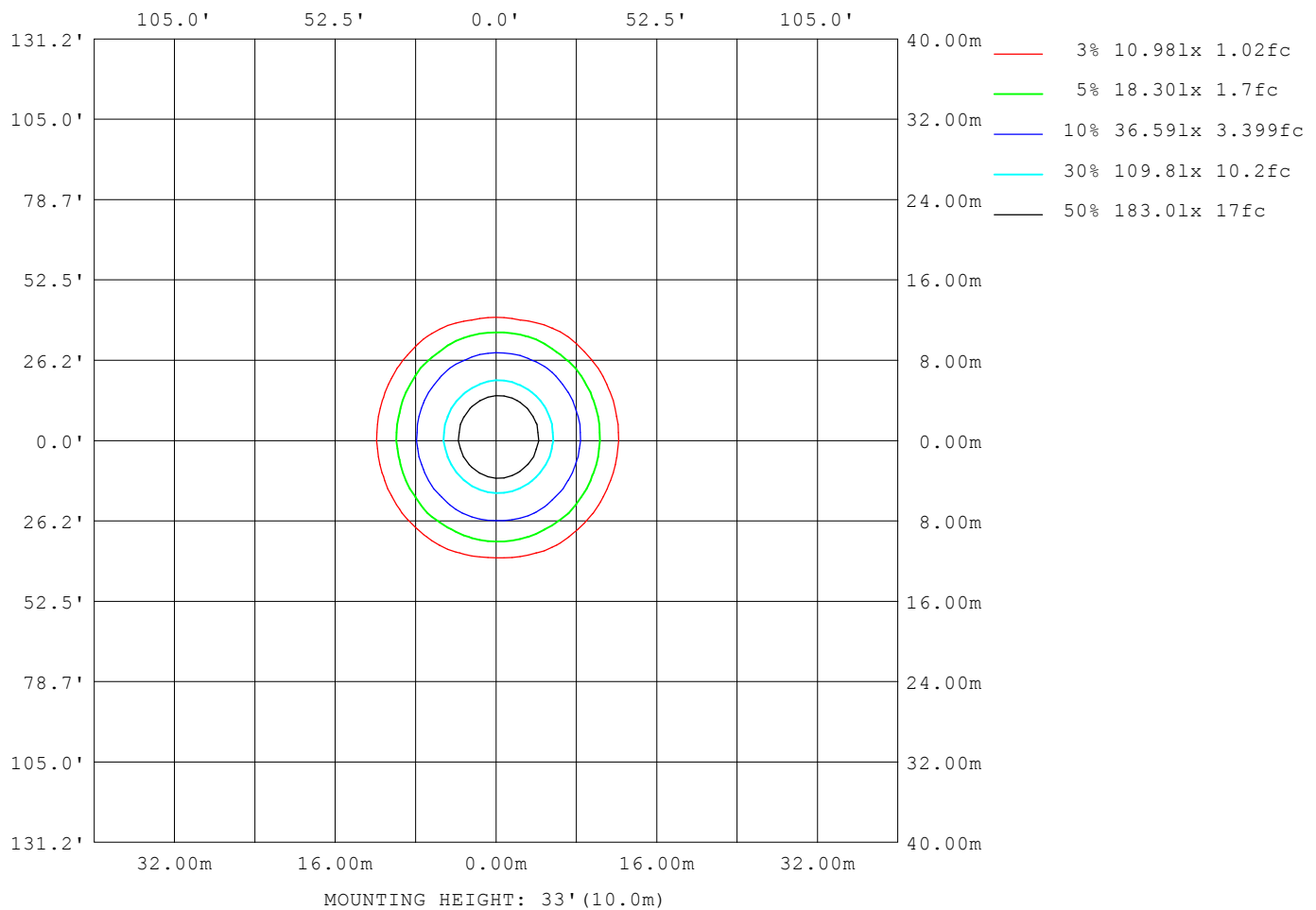
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-60-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:276.25V I:1.0663A P:275.78W PF:0.9362 Freq:59.98Hz Lamp Flux:39484.5x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-60-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

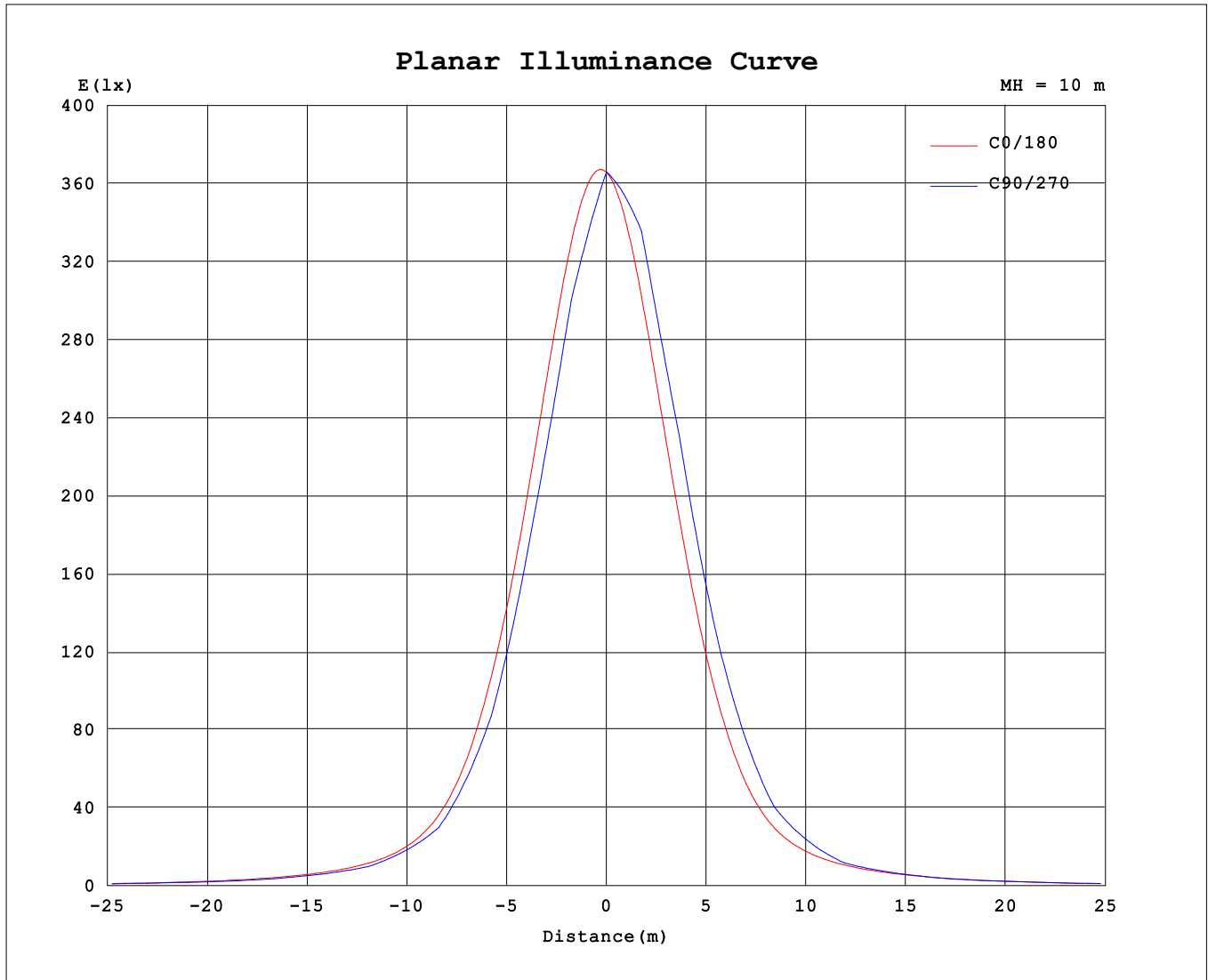
AvgL	cd/m2
L_0~180 (65) av	60891
L_0~180 (75) av	53047
L_0~180 (85) av	44845
L_90~270 (65) av	57891
L_90~270 (75) av	69956
L_90~270 (85) av	0
L_45 (65) av	57694
L_45 (75) av	56000
L_45 (85) av	31713

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(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:

```
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:
```