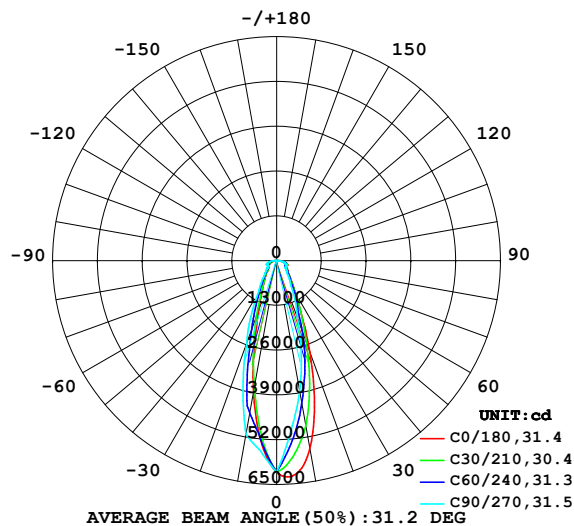


LUMINAIRE PHOTOMETRIC TEST REPORT

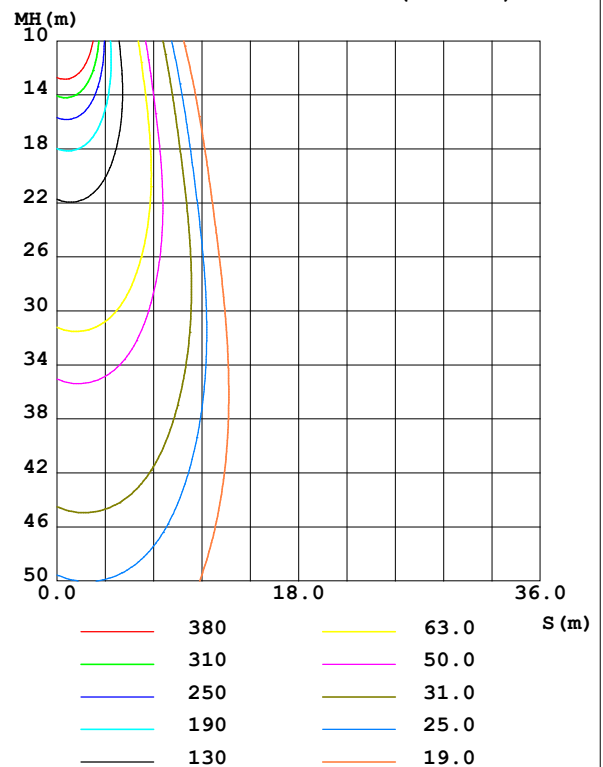
Test:U:276.25V I:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 136.76 lm/W
MODEL	N/A	Imax (cd)	62856	S/MH(C0/180)	0.43	
NOMINAL POWER(W)	280	LOR(%)	100.0	S/MH(C90/270)	0.58	
RATED VOLTAGE(V)	277	TOTAL FLUX(lm)	37674	η UP,DN(C0-180)	0.0,46.8	
NOMINAL FLUX(lm)	37674.2	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,53.2	
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.50	
TEST VOLTAGE(V)	277	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: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	5556	4509	3861	3522	3888	4086	5130	5429	0- 10	4839	4839	12.8,12.8
20	2831	2464	1750	1589	1535	1836	2546	3265	10- 20	9058	13897	36.9,36.9
30	1108	1041	835.7	780.1	754.7	866.5	1045	1349	20- 30	6832	20729	55,55
40	584.0	553.6	478.3	473.5	470.5	508.9	550.3	635.6	30- 40	4498	25227	67,67
50	381.0	362.1	329.8	336.7	344.8	356.0	356.1	395.5	40- 50	3368	28595	75.9,75.9
60	321.4	295.3	315.9	276.3	300.6	285.7	297.4	307.0	50- 60	2900	31495	83.6,83.6
70	304.8	283.1	273.0	237.3	239.7	262.8	326.4	311.6	60- 70	2899	34394	91.3,91.3
80	201.0	188.1	164.4	135.1	142.8	169.2	215.7	231.7	70- 80	2474	36868	97.9,97.9
90	0	0	0	0	0.7937	0	0	0	80- 90	806.1	37674	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): 27003 lm

%lum = 71.7%

%lamp = 71.7%

Conical surface Flux(120deg): 31495 lm

%lum = 83.6%

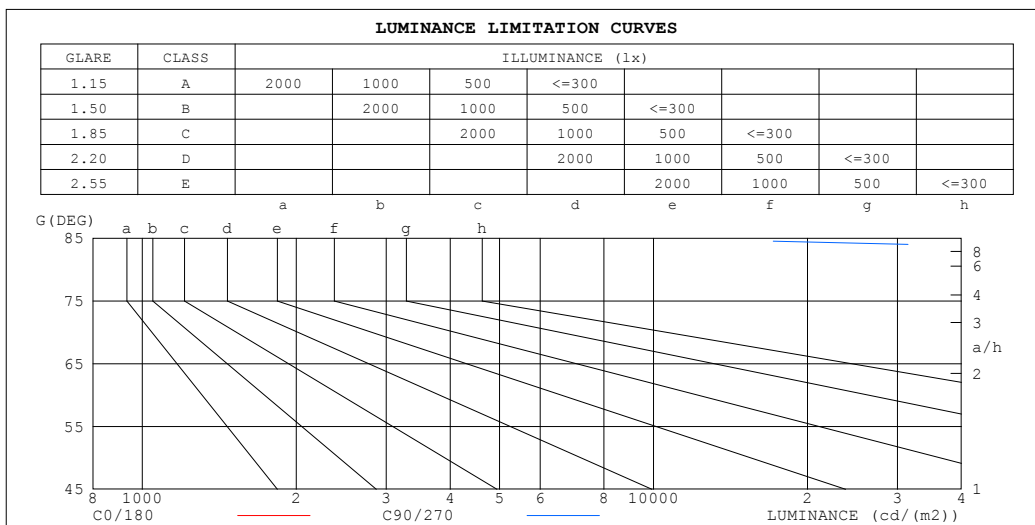
%lamp = 83.6%

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:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-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	152145	0
80	115750	94690
75	99696	84250
70	89106	79828
65	76684	69432
60	64287	63188
55	58878	56124
50	59267	51302
45	64913	57028

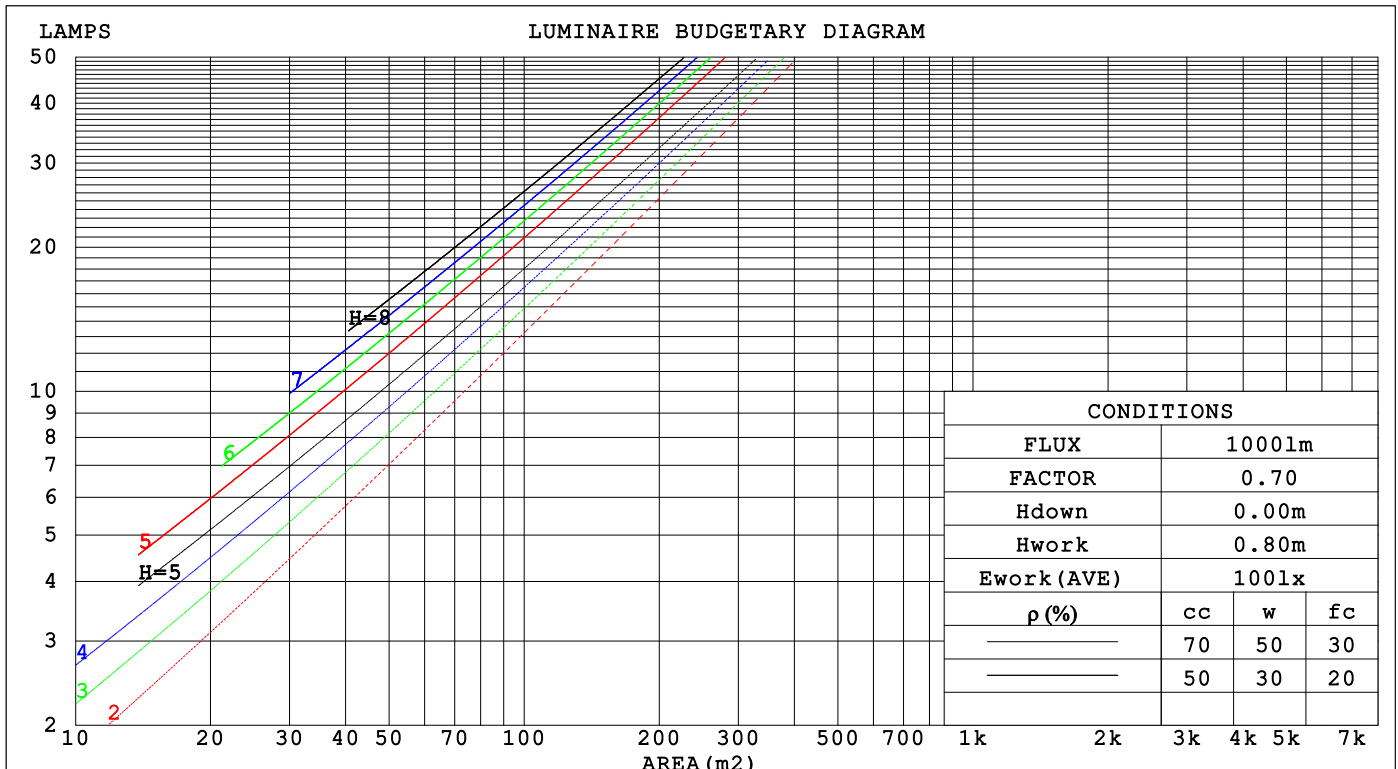
H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:28 April 2024

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:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-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	1.03	.99	1.04	1.01	.98	.00	.97	.95	.96	.94	.92	.93	.91	.89	.87
2.0	.96	.90	.85	.94	.89	.84	.91	.86	.82	.87	.84	.81	.84	.82	.79	.77
3.0	.87	.81	.75	.86	.80	.75	.83	.78	.73	.80	.76	.72	.78	.74	.71	.69
4.0	.80	.73	.68	.79	.72	.67	.77	.71	.66	.74	.70	.66	.72	.68	.65	.63
5.0	.74	.67	.62	.73	.66	.61	.71	.65	.61	.70	.64	.60	.68	.63	.60	.58
6.0	.69	.62	.57	.68	.62	.57	.67	.61	.56	.65	.60	.56	.64	.59	.55	.54
7.0	.65	.58	.53	.64	.57	.53	.63	.57	.52	.62	.56	.52	.60	.55	.52	.50
8.0	.61	.54	.49	.61	.54	.49	.59	.53	.49	.58	.53	.49	.57	.52	.49	.47
9.0	.58	.51	.47	.57	.51	.46	.56	.50	.46	.55	.50	.46	.54	.50	.46	.44
10.0	.55	.48	.44	.54	.48	.44	.54	.48	.44	.53	.47	.44	.52	.47	.44	.42



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:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-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	.263	.149	.047	.256	.146	.046	.243	.139	.044	.231	.133	.043	.220	.127	.041															
2.0	.240	.132	.040	.234	.129	.040	.223	.124	.039	.213	.119	.037	.203	.115	.036															
3.0	.219	.117	.035	.214	.115	.035	.204	.111	.034	.195	.107	.033	.187	.104	.032															
4.0	.201	.105	.031	.197	.103	.030	.188	.100	.030	.180	.097	.029	.173	.094	.029															
5.0	.186	.095	.027	.182	.093	.027	.174	.091	.027	.167	.088	.026	.161	.086	.026															
6.0	.172	.086	.025	.169	.085	.025	.162	.083	.024	.156	.081	.024	.150	.079	.024															
7.0	.161	.079	.023	.158	.079	.022	.152	.077	.022	.146	.075	.022	.141	.073	.022															
8.0	.151	.074	.021	.148	.073	.021	.143	.071	.020	.138	.070	.020	.133	.068	.020															
9.0	.142	.069	.019	.139	.068	.019	.135	.067	.019	.130	.065	.019	.126	.064	.019															
10.0	.134	.064	.018	.132	.064	.018	.128	.062	.018	.124	.061	.017	.120	.060	.017															

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	.151	.134	.119	.104	.092	.082	.060	.053	.048	.019	.017	.015	
2.0	.165	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.155	.114	.081	.133	.098	.071	.091	.068	.050	.053	.040	.029	.017	.013	.010	
4.0	.145	.100	.065	.124	.086	.057	.086	.060	.040	.050	.035	.024	.016	.011	.008	
5.0	.136	.089	.054	.117	.077	.047	.081	.054	.033	.047	.032	.020	.015	.010	.006	
6.0	.128	.080	.045	.110	.069	.039	.076	.048	.028	.044	.028	.017	.014	.009	.005	
7.0	.121	.072	.038	.104	.063	.033	.072	.044	.024	.042	.026	.014	.014	.008	.005	
8.0	.114	.066	.033	.099	.057	.029	.068	.040	.021	.040	.024	.012	.013	.008	.004	
9.0	.109	.061	.029	.094	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.103	.057	.026	.089	.049	.022	.062	.035	.016	.036	.020	.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:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm										
NAME: Crane Master Series					TYPE: Floodlight			WEIGHT: N/A		
SPEC.: CMF-300-100-277-5K-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	18.1	19.2	18.3	19.4	19.6	17.5	18.7	17.8	18.9	19.1
3H	20.1	21.2	20.3	21.4	21.6	19.4	20.5	19.6	20.7	20.9
4H	20.9	22.0	21.2	22.2	22.5	20.1	21.2	20.4	21.4	21.7
6H	21.6	22.6	21.9	22.9	23.1	20.7	21.8	21.1	22.0	22.3
8H	21.9	22.8	22.2	23.1	23.4	20.8	21.8	21.2	22.1	22.4
12H	22.0	23.0	22.4	23.2	23.5	20.8	21.8	21.1	22.0	22.3
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, 37674 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: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:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

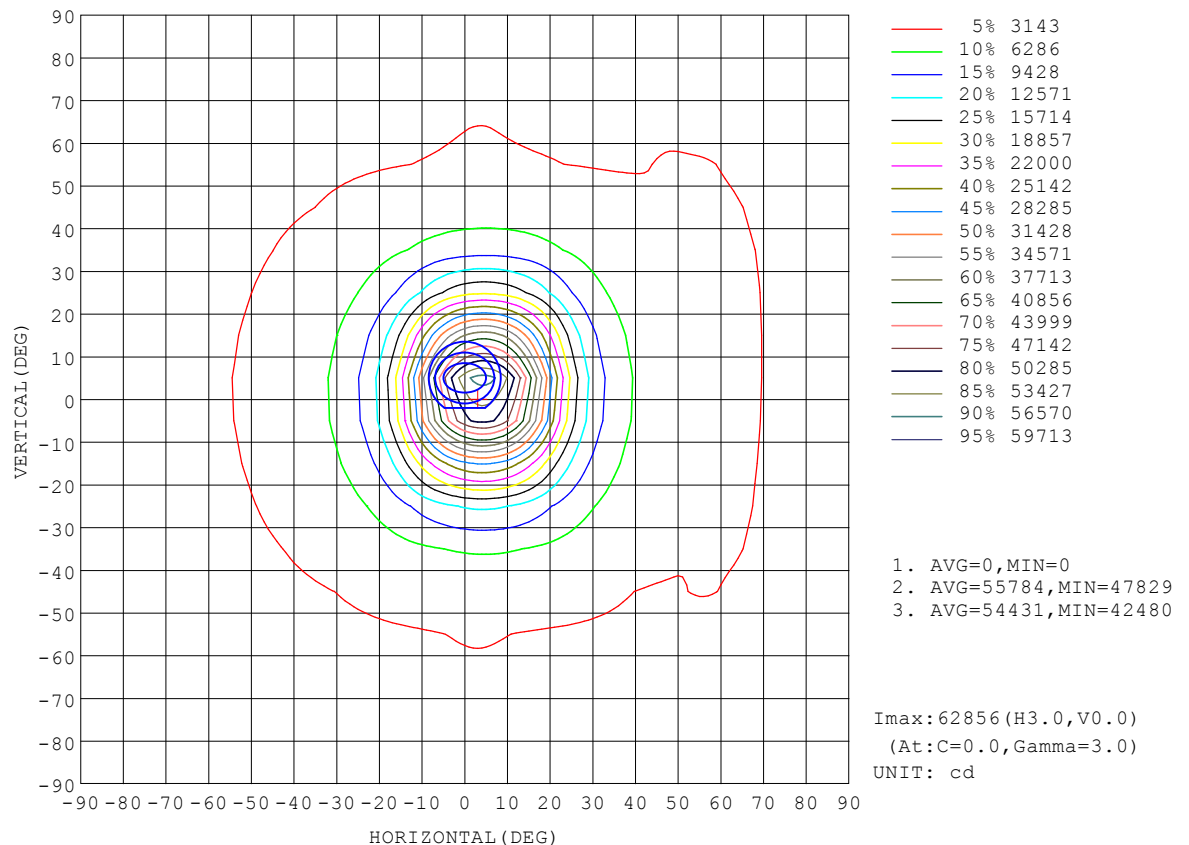
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	72	63	57	71	62	57	70	62	57	52
0.80	80	71	65	79	71	65	78	70	65	59
1.00	86	77	71	85	77	71	83	77	71	65
1.25	91	83	77	90	82	77	88	81	76	70
1.50	95	87	82	94	86	81	91	85	80	74
2.00	100	93	88	98	92	87	95	90	86	79
2.50	103	97	92	101	95	91	98	93	89	82
3.00	106	100	95	104	98	94	100	96	92	84
4.00	109	104	100	107	102	99	103	99	96	88
5.00	111	107	104	109	105	102	104	101	99	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: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:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

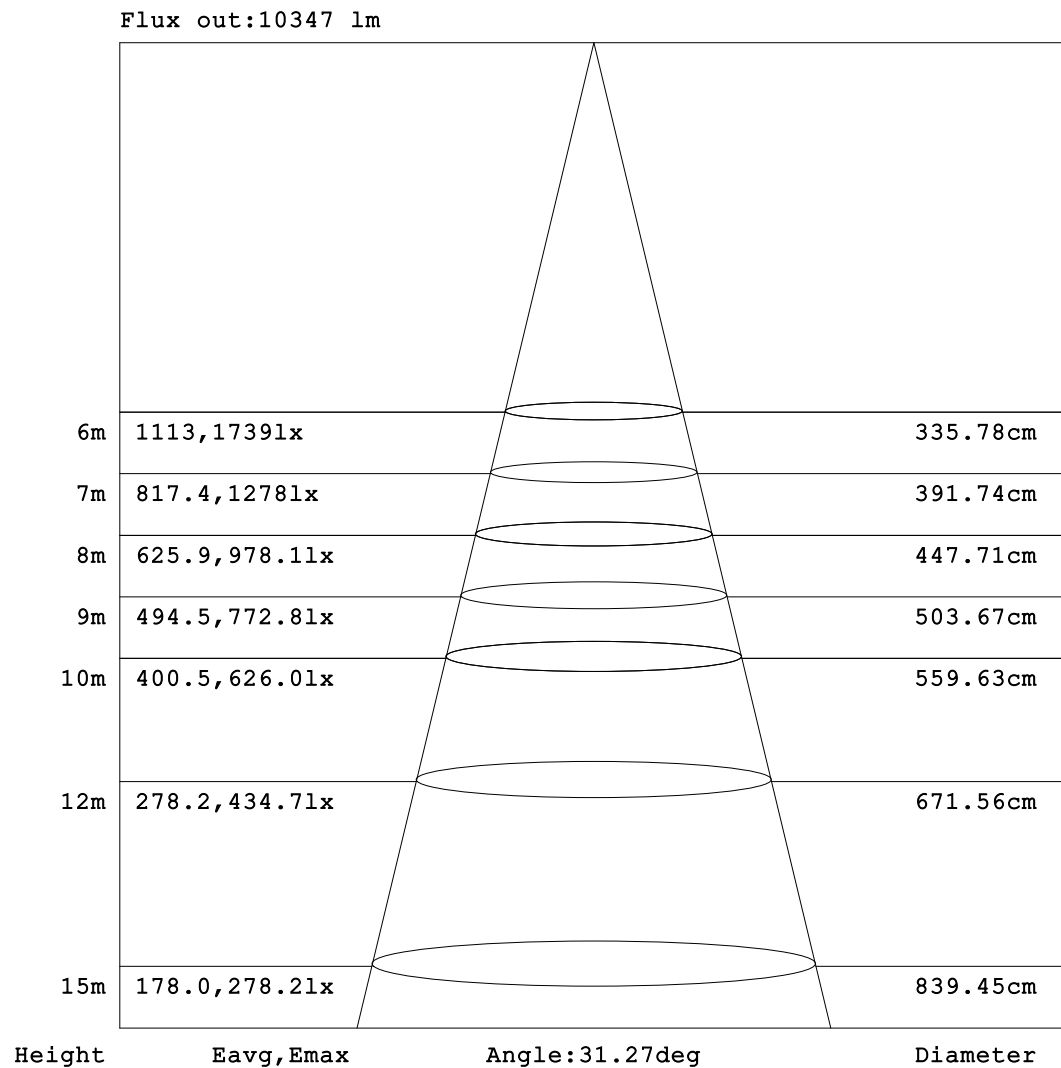


H(β) Range:-90 - 90DEG
H(β) Interval: 1.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:J.W
Test Date:28 April 2024

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:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A



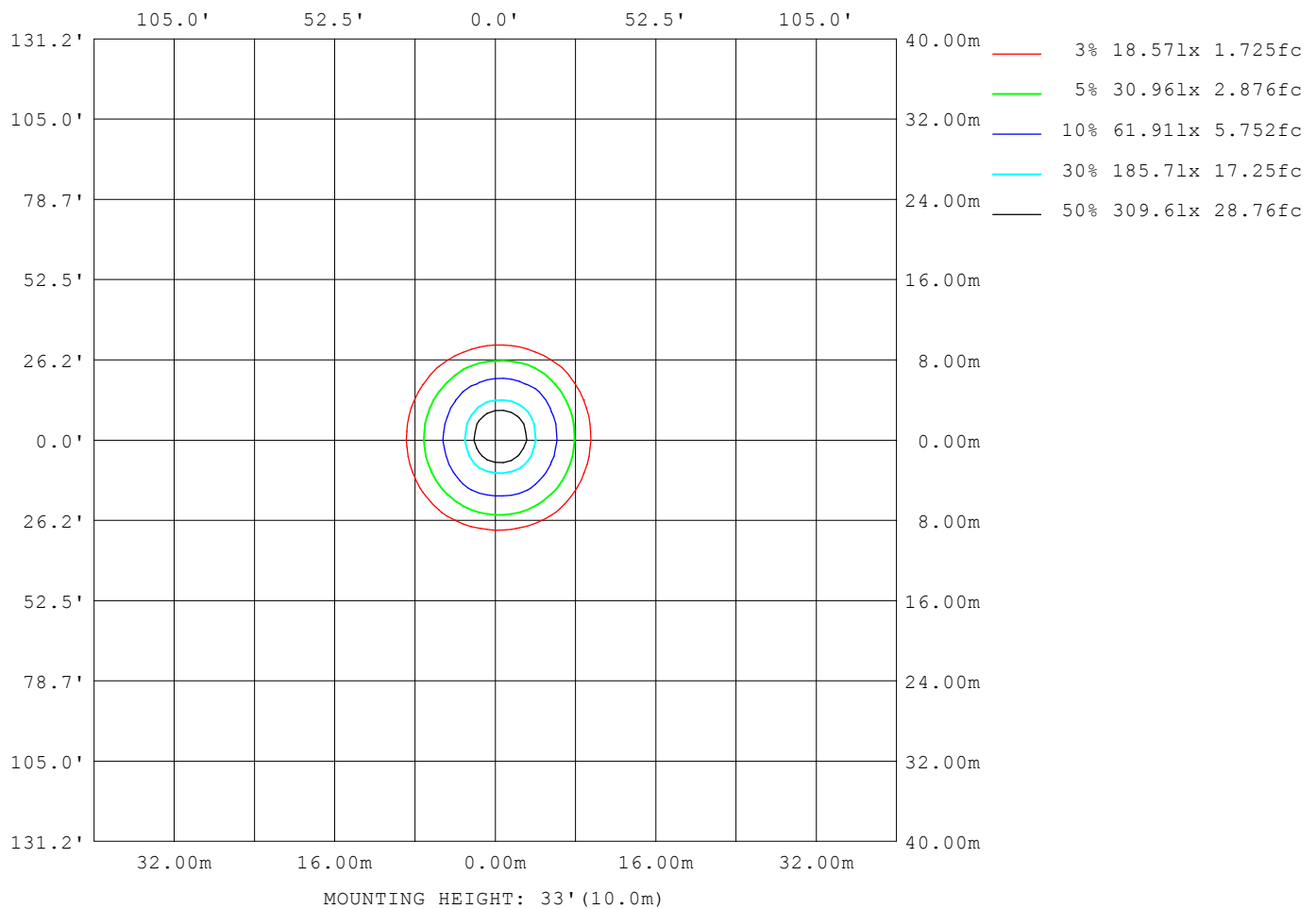
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-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: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:1.0652A P:275.48W PF:0.9362 Freq:59.98Hz Lamp Flux:37674.2x1 lm		
NAME: Crane Master Series	TYPE: Floodlight	WEIGHT: N/A
SPEC.: CMF-300-100-277-5K-30-HS-CP-GRY-YKE	DIM.: N/A	SERIAL No.: N/A
MFR.: Red Sky Lighting	SUR.: N/A	Shielding Angle: N/A

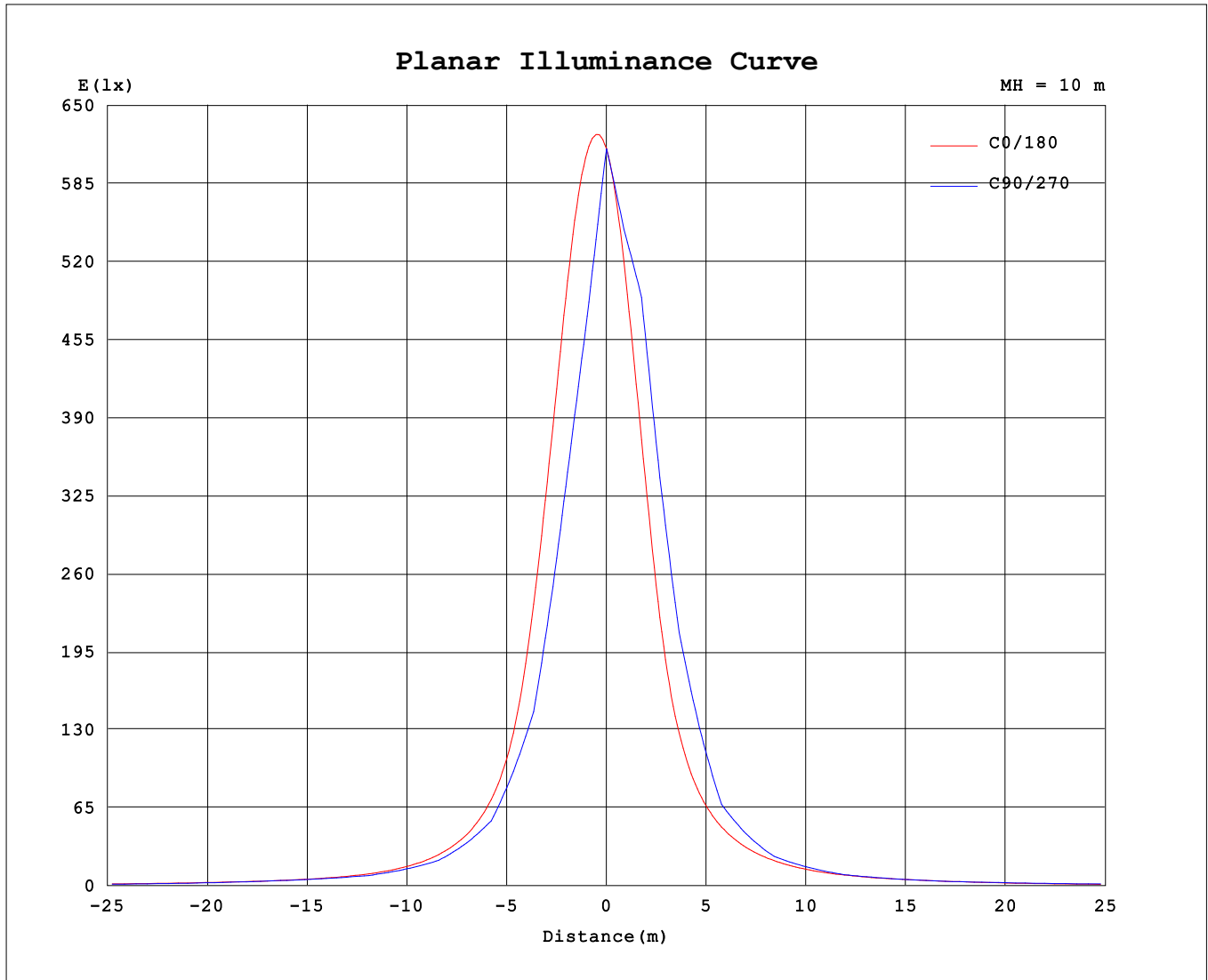
AvgL	cd/m2
L_0~180 (65) av	70713
L_0~180 (75) av	87287
L_0~180 (85) av	119380
L_90~270 (65) av	71490
L_90~270 (75) av	94235
L_90~270 (85) av	0
L_45 (65) av	68280
L_45 (75) av	92024
L_45 (85) av	69210

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:
```