

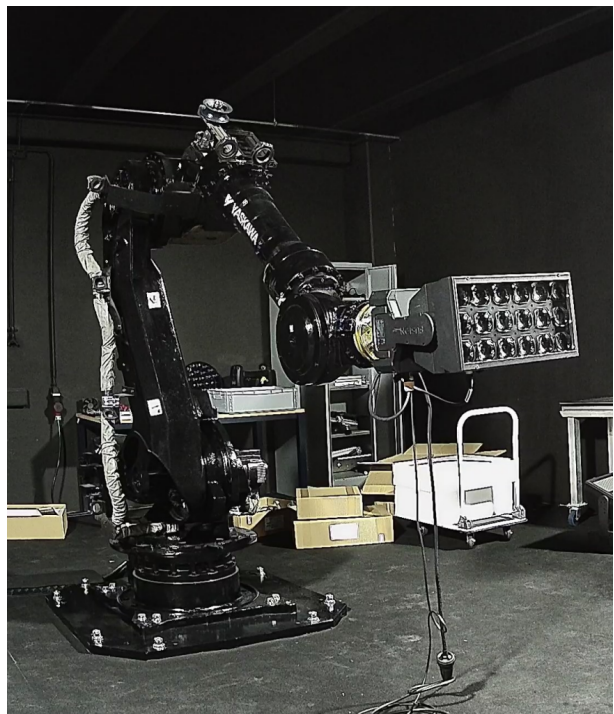


Creos Photometric Report

Report 2025-01-20-1

GLP German Light Products GmbH
GLP LightLab

Maximum Total Lumens	6970 lm
Maximum Intensity	746000 cd
Energy Efficiency Class	C
Energy Efficiency Index	1.07
Power Consumption	549 $\frac{\text{kWh}}{1000 \text{ h}}$
Lamp	18 x RGBL
Serial Number	6010100028
Measurement Date	2025-01-20 10:57
Analysis SW Version	3.0.0rc7





Contents

1	Light Distribution	2
1.1	NarrowDMX43, RGBHO5600K Beam	3
1.2	Wide, RGBHO5600K Beam	4

1 Light Distribution

Table 1: Summary of beam opening angles for different fixture configurations.

Beam	Beam Angle (50 %)		Field Angle (10 %)		Cutoff Angle (3 %)	
	C0	C90	C0	C90	C0	C90
NarrowDMX43, RGBHO5600K	4.2°	4.1°	6.0°	5.4°	6.9°	6.4°
Wide, RGBHO5600K	34°	32°	48°	47°	51°	50°

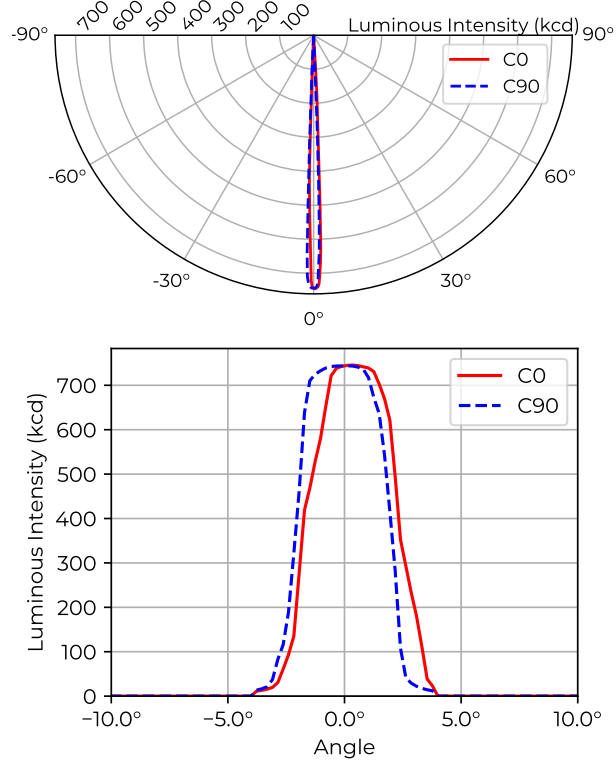
Table 2: Summary of luminous flux and intensity for different fixture configurations.

Beam	Total Lumen Output	Peak Luminous Intensity)
NarrowDMX43, RGBHO5600K	3.89 klm	746 kcd
Wide, RGBHO5600K	6.97 klm	23.4 kcd

Table 3: Approximate illuminance and beam diameter at different projection distances, calculated with the inverse-square law. The approximation is valid only for large distances, compared to the size of the fixture output port.

Beam	Parameter	Factor	Projection Distance [m]								
			5	7.5	10	12.5	15	17.5	20	22.5	25
NarrowDMX43, RGBHO5600K	Diameter [m]	0.072	0.36	0.54	0.72	0.90	1.1	1.3	1.4	1.6	1.8
	Illuminance [lx]	744k	30k	13k	7.4k	4.8k	3.3k	2.4k	1.9k	1.5k	1.2k
Wide, RGBHO5600K	Diameter [m]	0.59	2.9	4.4	5.9	7.4	8.8	10	12	13	15
	Illuminance [lx]	23.3k	930	410	230	150	100	76	58	46	37

1.1 NarrowDMX43, RGBHO5600K Beam



Type B measurement, 1296 data points.

Table 4: Opening angles for different intensity thresholds. NarrowDMX43, RGBHO5600K

		C0	C90
Beam Angle	50 %	4.2°	4.1°
Field Angle	10 %	6.0°	5.4°
Cutoff Angle	3 %	6.9°	6.4°

Table 5: Luminous flux, integrated over the beam for several minimum threshold intensities. NarrowDMX43, RGBHO5600K

		Flux (lm)
Half-Peak Output	@50 %	2960
Tenth-Peak Output	@10 %	3780
Total Lumen Output	@3 %	3890

$$\text{diameter} = 0.072 \times \text{distance}$$

$$\text{illuminance} = \frac{744\,000 \text{ lx}}{(\text{distance [m]})^2}$$

Figure 1: Polar and cartesian light intensity distributions. NarrowDMX43, RGBHO5600K

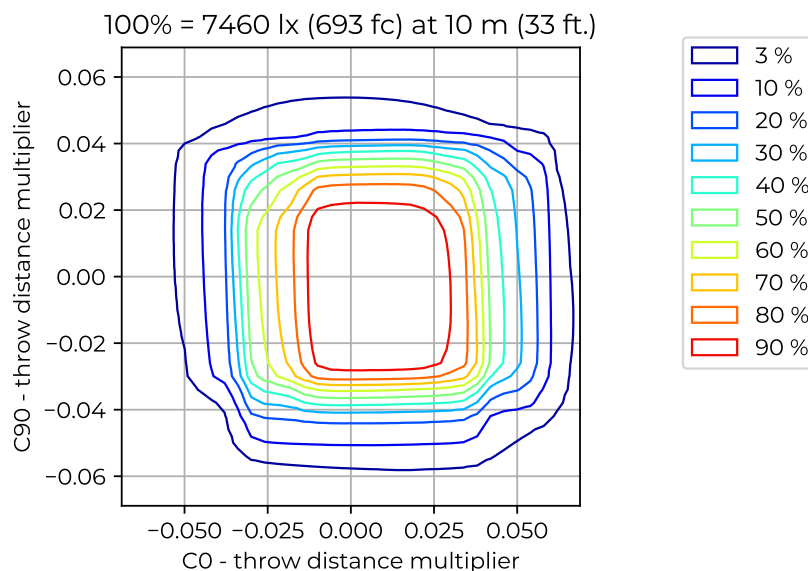


Figure 2: Iso-illuminance diagram of projected beam. NarrowDMX43, RGBHO5600K
dist. from origin = throw dist. × throw dist. multiplier

Table 6: Quick calculation diagram for illuminance and beam diameter. NarrowDMX43, RGBHO5600K

Parameter	Factor	Projection Distance [m]								
		5	7.5	10	12.5	15	17.5	20	22.5	25
Diameter [m]	0.072	0.36	0.54	0.72	0.90	1.1	1.3	1.4	1.6	1.8
Illuminance [lx]	744k	30k	13k	7.4k	4.8k	3.3k	2.4k	1.9k	1.5k	1.2k

1.2 Wide, RGBHO5600K Beam

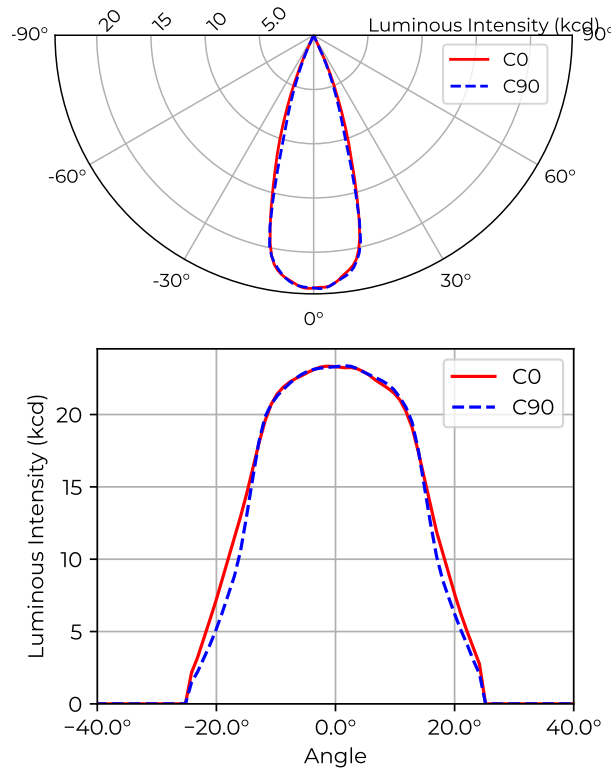


Figure 3: Polar and cartesian light intensity distributions. Wide, RGBHO5600K

Type B measurement, 2500 data points.

Table 7: Opening angles for different intensity thresholds. Wide, RGBHO5600K

		C0	C90
Beam Angle	50 %	34°	32°
Field Angle	10 %	48°	47°
Cutoff Angle	3 %	51°	50°

Table 8: Luminous flux, integrated over the beam for several minimum threshold intensities. Wide, RGBHO5600K

		Flux (lm)
Half-Peak Output	@50 %	5200
Tenth-Peak Output	@10 %	6830
Total Lumen Output	@3 %	6970

$$\text{diameter} = 0.59 \times \text{distance}$$

$$\text{illuminance} = \frac{23\,300 \text{ lx}}{(\text{distance [m]})^2}$$

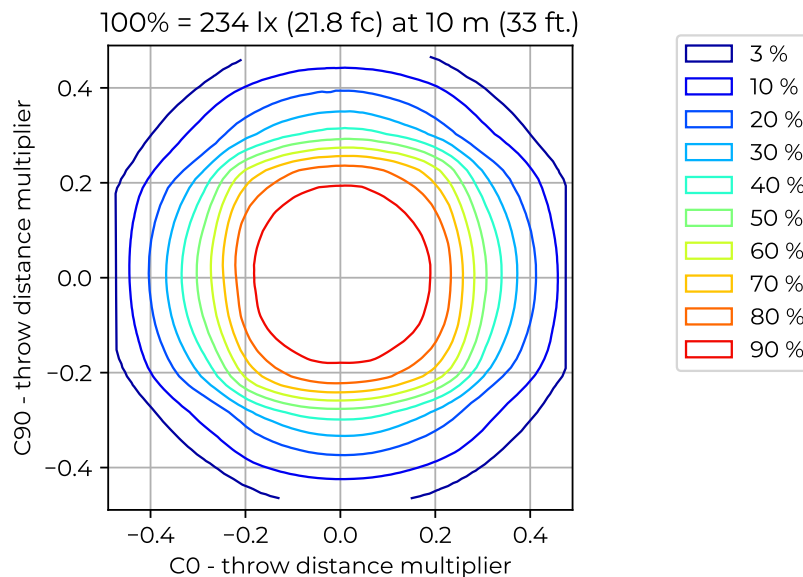


Figure 4: Iso-illuminance diagram of projected beam. Wide, RGBHO5600K
dist. from origin = throw dist. × throw dist. multiplier

Table 9: Quick calculation diagram for illuminance and beam diameter. Wide, RGBHO5600K

Parameter	Factor	Projection Distance [m]									
		5	7.5	10	12.5	15	17.5	20	22.5	25	
Diameter [m]	0.59	2.9	4.4	5.9	7.4	8.8	10	12	13	15	
Illuminance [lx]	23.3k	930	410	230	150	100	76	58	46	37	