

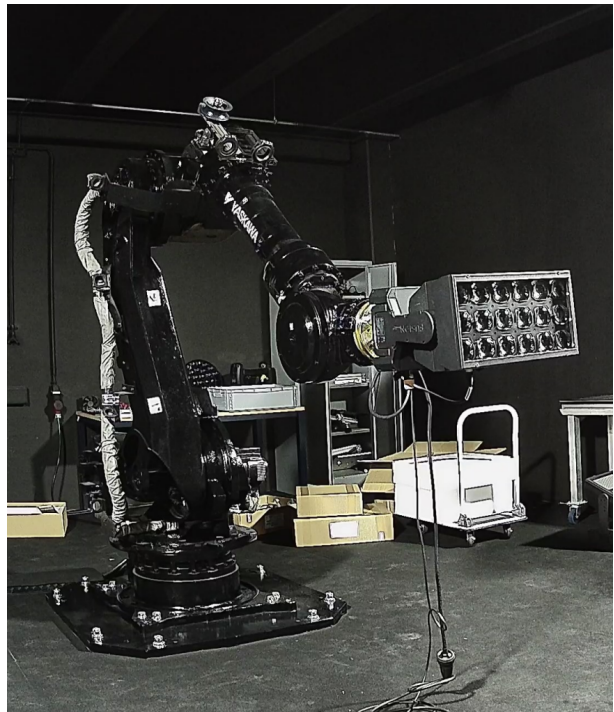


# Creos Photometric Report

Report 2025-01-27-1

GLP German Light Products GmbH  
GLP LightLab

Maximum Total Lumens	10800	lm
Maximum Intensity	1240000	cd
Energy Efficiency Class	B	
Energy Efficiency Index	0.89	
Power Consumption	708	$\frac{\text{kWh}}{1000\text{h}}$
Lamp	18 x RGBL	
Serial Number	6040100537	
Measurement Date	2025-01-27 14:27	
Analysis SW Version	3.0.0rc7	





Contents

<b>1</b>	<b>Light Distribution</b>	<b>2</b>
1.1	Narrow, RAWFullOn Beam . . . . .	3
1.2	Wide, RAWFullOn 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
Narrow, RAWFullOn	4.0°	4.0°	5.8°	5.0°	6.4°	5.5°
Wide, RAWFullOn	35°	33°	50°	49°	53°	53°

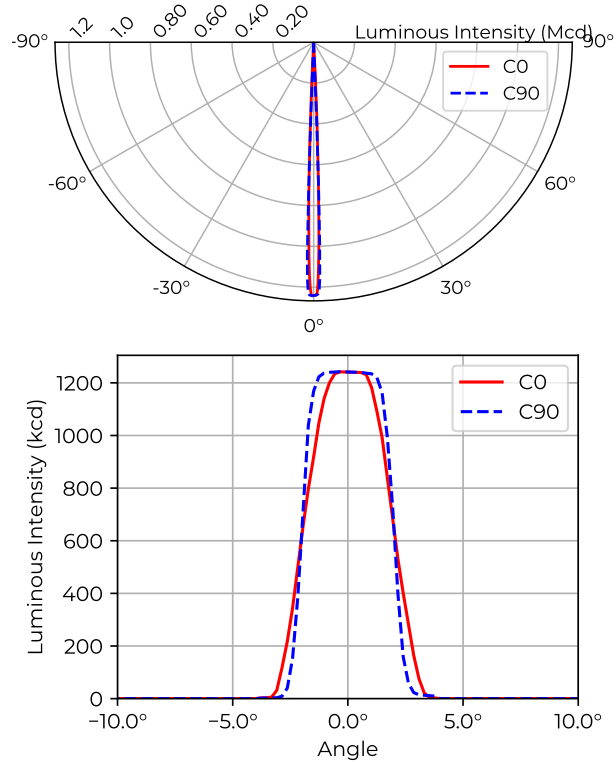
Table 2: Summary of luminous flux and intensity for different fixture configurations.

Beam	Total Lumen Output	Peak Luminous Intensity)
Narrow, RAWFullOn	6.10 klm	1.24 Mcd
Wide, RAWFullOn	10.8 klm	33.7 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	
Narrow, RAWFullOn	Diameter [m]	0.070	0.35	0.53	0.70	0.88	1.1	1.2	1.4	1.6	1.8	
	Illuminance [lx]	1.24M	50k	22k	12k	7.9k	5.5k	4.1k	3.1k	2.5k	2.0k	
Wide, RAWFullOn	Diameter [m]	0.61	3.1	4.6	6.1	7.7	9.2	11	12	14	15	
	Illuminance [lx]	33.0k	1.3k	590	330	210	150	110	83	65	53	

## 1.1 Narrow, RAWFullOn Beam



Type B measurement, 1296 data points.

Table 4: Opening angles for different intensity thresholds. Narrow, RAWFullOn

		C0	C90
Beam Angle	50 %	4.0°	4.0°
Field Angle	10 %	5.8°	5.0°
Cutoff Angle	3 %	6.4°	5.5°

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

		Flux (lm)
Half-Peak Output	@50 %	4810
Tenth-Peak Output	@10 %	5990
Total Lumen Output	@3 %	6100

$$\text{diameter} = 0.070 \times \text{distance}$$

$$\text{illuminance} = \frac{1\,240\,000 \text{ lx}}{(\text{distance [m]})^2}$$

Figure 1: Polar and cartesian light intensity distributions. Narrow, RAWFullOn

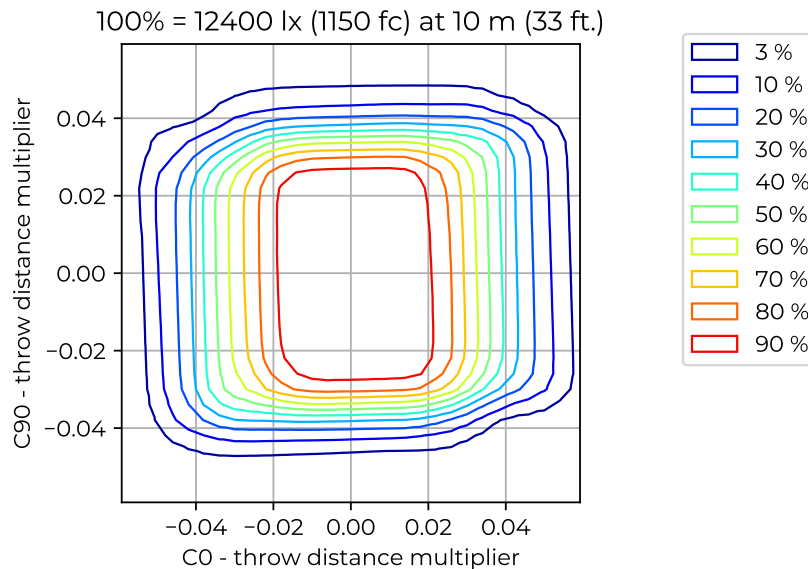
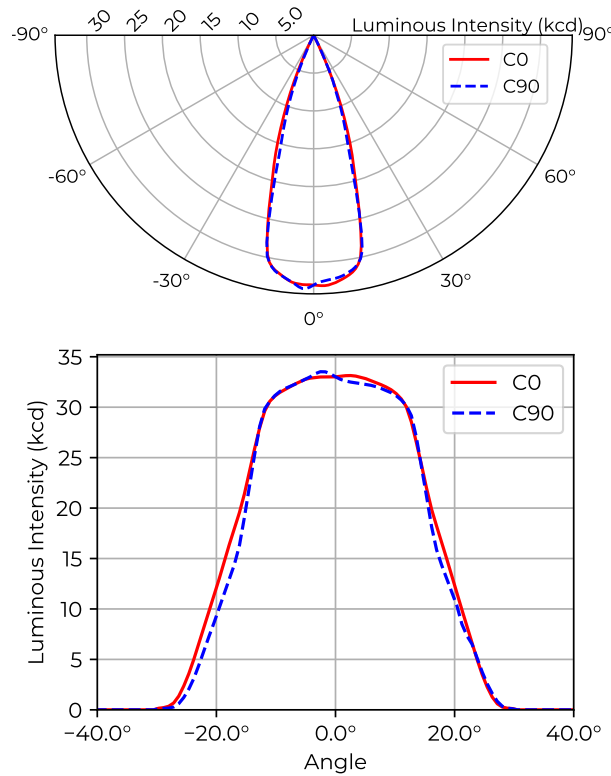


Figure 2: Iso-illuminance diagram of projected beam. Narrow, RAWFullOn  
dist. from origin = throw dist. × throw dist. multiplier

Table 6: Quick calculation diagram for illuminance and beam diameter. Narrow, RAWFullOn

Parameter	Factor	Projection Distance [m]									
		5	7.5	10	12.5	15	17.5	20	22.5	25	
Diameter [m]	0.070	0.35	0.53	0.70	0.88	1.1	1.2	1.4	1.6	1.8	
Illuminance [lx]	1.24M	50k	22k	12k	7.9k	5.5k	4.1k	3.1k	2.5k	2.0k	

## 1.2 Wide, RAWFullOn Beam



Type B measurement, 5184 data points.

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

	C0	C90
Beam Angle	50 % 35°	33°
Field Angle	10 % 50°	49°
Cutoff Angle	3 % 53°	53°

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

	Flux (lm)	
Half-Peak Output	@50 %	8050
Tenth-Peak Output	@10 %	10 600
Total Lumen Output	@3 %	10 800

$$\text{diameter} = 0.61 \times \text{distance}$$

$$\text{illuminance} = \frac{33\,000 \text{ lx}}{(\text{distance [m]})^2}$$

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

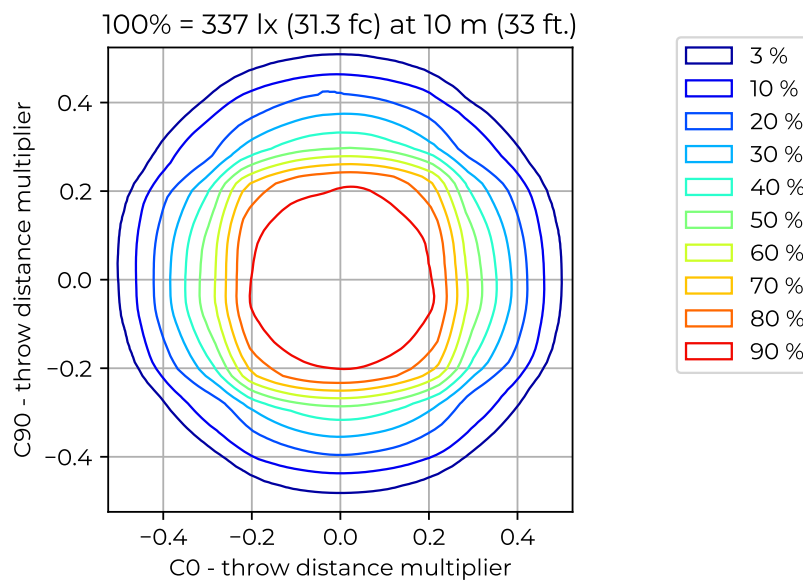


Figure 4: Iso-illuminance diagram of projected beam. Wide, RAWFullOn  
dist. from origin = throw dist. × throw dist. multiplier

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

Parameter	Factor	Projection Distance [m]									
		5	7.5	10	12.5	15	17.5	20	22.5	25	
Diameter [m]	0.61	3.1	4.6	6.1	7.7	9.2	11	12	14	15	
Illuminance [lx]	33.0k	1.3k	590	330	210	150	110	83	65	53	