



JDC2
Photometric Report

Report 2023-12-21-1

GLP German Light Products GmbH
GLP LightLab

Maximum Total Lumens	15600 lm
Maximum Intensity	5950 cd
Energy Efficiency Class	A
Energy Efficiency Index	0.33
Power Consumption	378 $\frac{\text{kWh}}{1000 \text{ h}}$
Serial Number	2001100023
Measurement Date	2023-12-21 13:33



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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
Red	110°	110°	150°	150°	160°	160°
Green	110°	110°	150°	150°	160°	160°
Blue	110°	110°	150°	150°	160°	160°

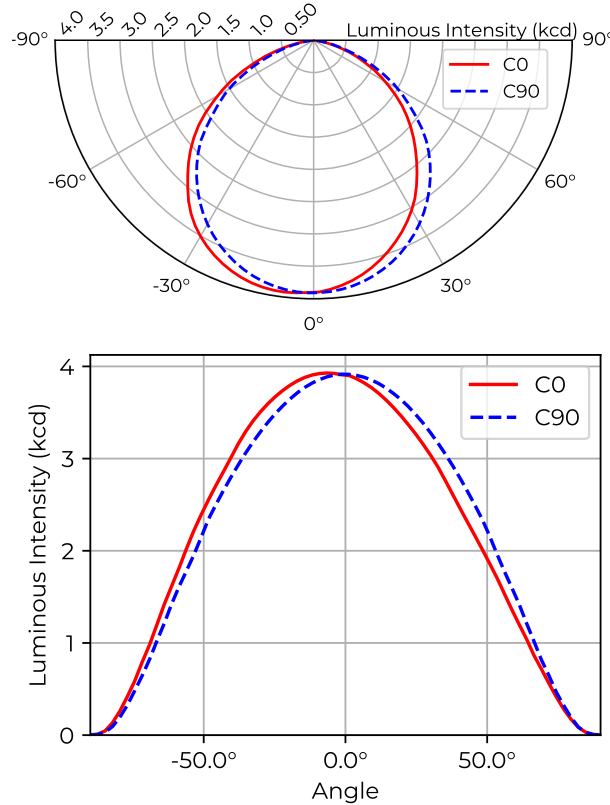
Table 2: Summary of luminous flux and intensity for different fixture configurations.

Beam	Total Lumen Output	Peak Luminous Intensity)
Red	10.2 klm	3.94 kcd
Green	15.6 klm	5.95 kcd
Blue	2.93 klm	1.13 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
Red	Diameter [m]	2.7	13	20	27	33	40	47	54	60	67
	Illuminance [lx]	3.92k	160	70	39	25	17	13	9.8	7.7	6.3
Green	Diameter [m]	2.7	14	21	27	34	41	48	55	62	69
	Illuminance [lx]	5.94k	240	110	59	38	26	19	15	12	9.5
Blue	Diameter [m]	2.7	13	20	27	34	40	47	54	61	67
	Illuminance [lx]	1.12k	45	20	11	7.1	5.0	3.6	2.8	2.2	1.8

1.1 Red Beam



Type C measurement, 720 data points.

Table 4: Opening angles for different intensity thresholds. Red

	C0	C90
Beam Angle 50 %	110°	110°
Field Angle 10 %	150°	150°
Cutoff Angle 3 %	160°	160°

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

	Flux (lm)
Half-Peak Output @50 %	7510
Tenth-Peak Output @10 %	10 000
Total Lumen Output @3 %	10 200

$$\text{diameter} = 2.7 \times \text{distance}$$

$$\text{illuminance} = \frac{3920 \text{ lx}}{(\text{distance [m]})^2}$$

Figure 1: Polar and cartesian light intensity distributions. Red

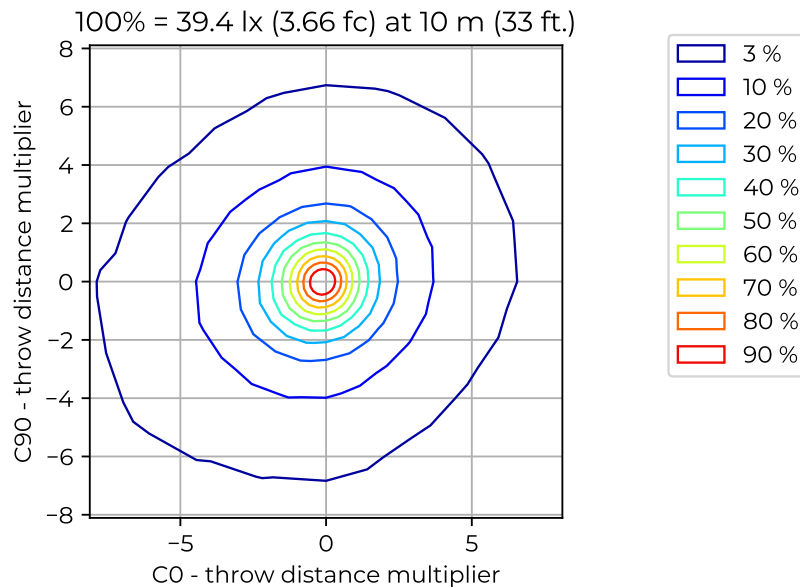
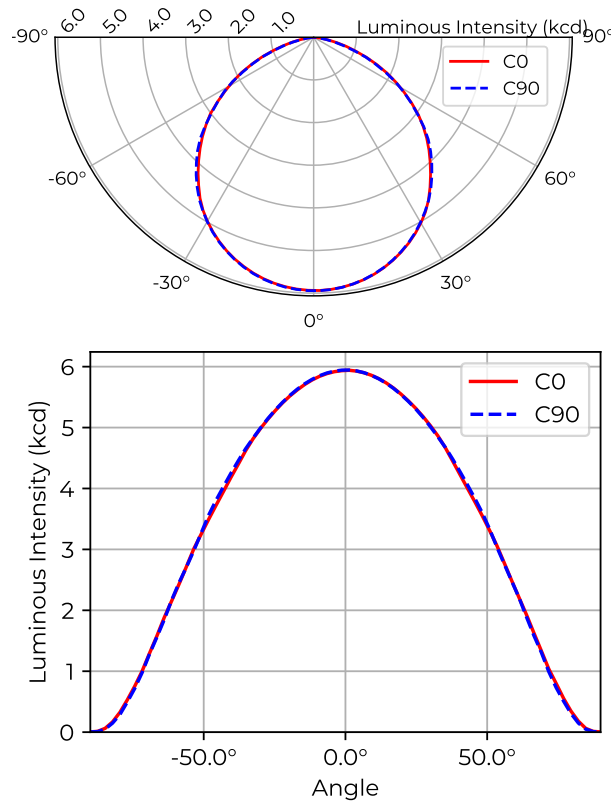


Figure 2: Iso-illuminance diagram of projected beam. Red
dist. from origin = throw dist. × throw dist. multiplier

Table 6: Quick calculation diagram for illuminance and beam diameter. Red

Parameter	Factor	Projection Distance [m]								
		5	7.5	10	12.5	15	17.5	20	22.5	25
Diameter [m]	2.7	13	20	27	33	40	47	54	60	67
Illuminance [lx]	3.92k	160	70	39	25	17	13	9.8	7.7	6.3

1.2 Green Beam



Type C measurement, 720 data points.

Table 7: Opening angles for different intensity thresholds. Green

	C0	C90
Beam Angle 50 %	110°	110°
Field Angle 10 %	150°	150°
Cutoff Angle 3 %	160°	160°

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

	Flux (lm)	
Half-Peak Output @50 %	11 600	
Tenth-Peak Output @10 %	15 400	
Total Lumen Output @3 %	15 600	

$$\text{diameter} = 2.7 \times \text{distance}$$

$$\text{illuminance} = \frac{5940 \text{ lx}}{(\text{distance [m]})^2}$$

Figure 3: Polar and cartesian light intensity distributions. Green

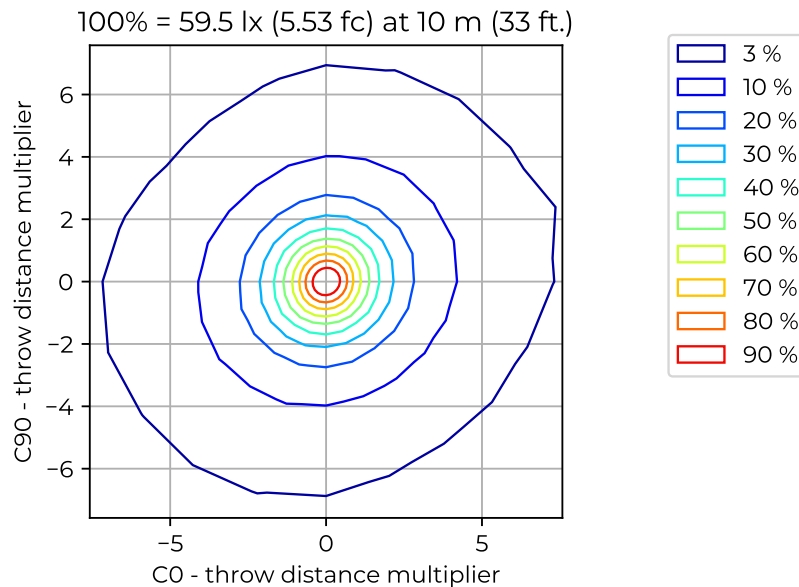
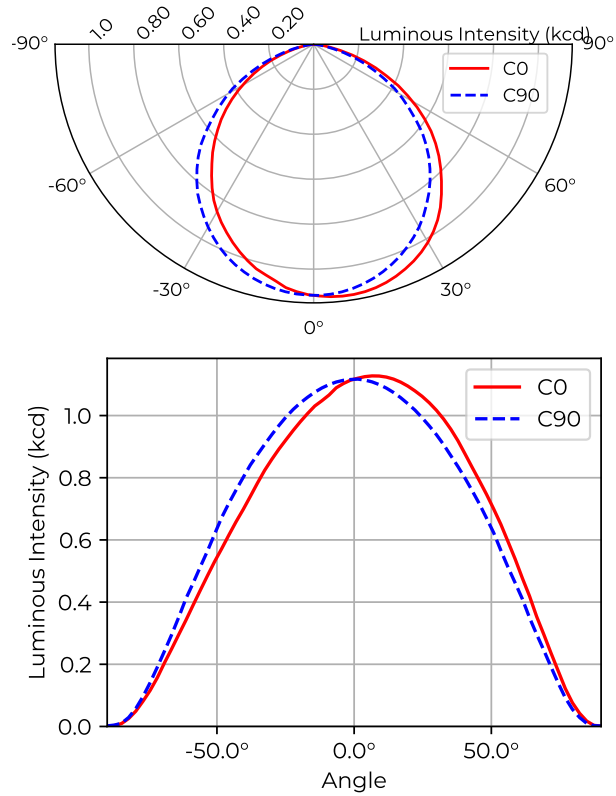


Figure 4: Iso-illuminance diagram of projected beam. Green
dist. from origin = throw dist. × throw dist. multiplier

Table 9: Quick calculation diagram for illuminance and beam diameter. Green

Parameter	Factor	Projection Distance [m]									
		5	7.5	10	12.5	15	17.5	20	22.5	25	
Diameter [m]	2.7	14	21	27	34	41	48	55	62	69	
Illuminance [lx]	5.94k	240	110	59	38	26	19	15	12	9.5	

1.3 Blue Beam



Type C measurement, 720 data points.

Table 10: Opening angles for different intensity thresholds. Blue

		C0	C90
Beam Angle	50 %	110°	110°
Field Angle	10 %	150°	150°
Cutoff Angle	3 %	160°	160°

Table 11: Luminous flux, integrated over the beam for several minimum threshold intensities. Blue

		Flux (lm)
Half-Peak Output	@50 %	2160
Tenth-Peak Output	@10 %	2880
Total Lumen Output	@3 %	2930

$$\text{diameter} = 2.7 \times \text{distance}$$

$$\text{illuminance} = \frac{1120 \text{ lx}}{(\text{distance [m]})^2}$$

Figure 5: Polar and cartesian light intensity distributions. Blue

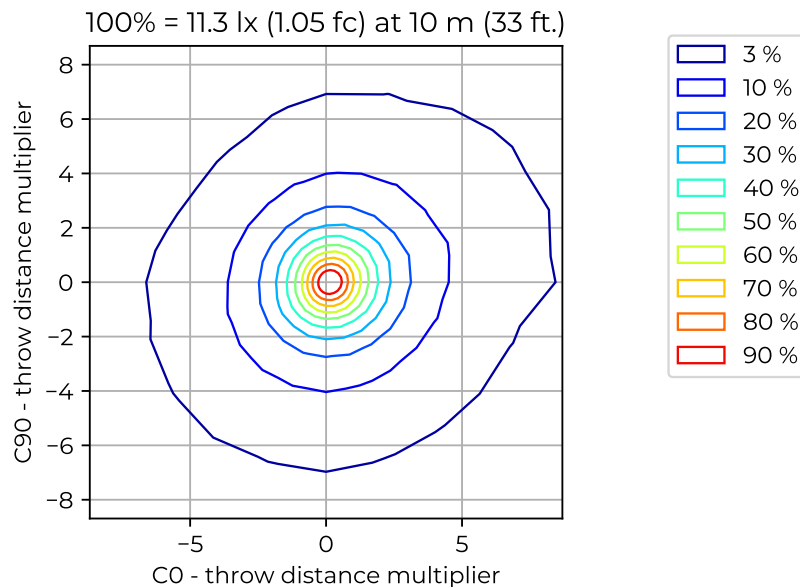


Figure 6: Iso-illuminance diagram of projected beam. Blue
dist. from origin = throw dist. × throw dist. multiplier

Table 12: Quick calculation diagram for illuminance and beam diameter. Blue

Parameter	Factor	Projection Distance [m]								
		5	7.5	10	12.5	15	17.5	20	22.5	25
Diameter [m]	2.7	13	20	27	34	40	47	54	61	67
Illuminance [lx]	1.12k	45	20	11	7.1	5.0	3.6	2.8	2.2	1.8