



Light Measurement Report

Print date: 10/3/2025

Measurement date and time: 9/29/2025 11:33:39 AM – Measurement no. VFR-250929-0163-MS

Operator: Shawn Blaszak

Tested Light Source

Product Name: Dram: DR-M-PC54_PC98-MTP-27-0.1_10V_UNV
Manufacturer: RBW
Product Description: Dram-Medium-Penny Vein_Glossy White-Matte PET-2700K-0.1% Dimming, 0-10V Control, 120V-277V "Universal Input" (Driver External), Input Current: 350mA, Driver Model: EldoLED Solodrive 561/S



Light Quality

CRI: 91.5

Color Temperature

2648 K

Color Match

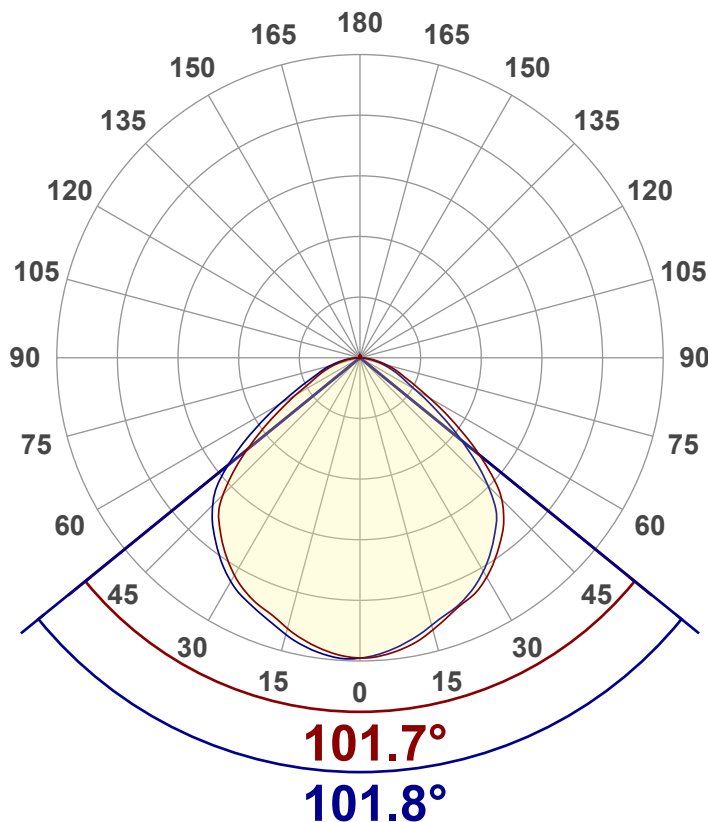
CIE1931
x: {CIEx#}
y: {CIEy#}

Summary of Results

Total Lumen Output: 1196 lm
Luminaire Efficacy: 75 lm/W
Peak Intensity and Beam Angle: 496 cd - 101.8°
Color Rendering TM13-18: R_r 91.1 – R_g 97.5
Color Shift, CIE duv: Duv 0.0012
MacAdams Steps: 3
Flicker: SVM 0.05 – PstLM 0.2
Input Power, Power and Displ. Factors: 16.0 W – PF 0.96 – DPF 0.98
Input RMS Voltage and Current: 121 V – 0.139 A
Frequency of Input Power: 60 Hz

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen): 1196 lm
Lumen Up% / Down%: 1.08% / 98.92%
Peak Intensity: 496 cd
Beam Angle (50%-FWHM): 101.78°

Cut-off Angle

Average 2,5%: 168.7°

Field Angle

Average 10%: 146.9°

Intensity Ratio

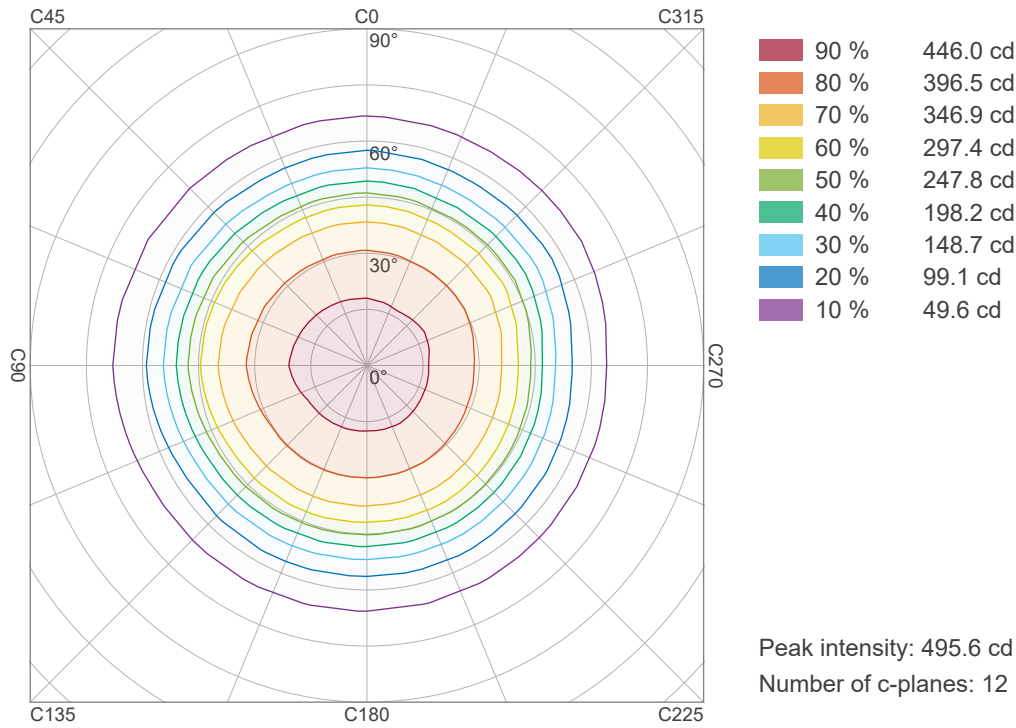
In 120° cone: 86.6%
In 90° cone: 62.5%

C000-C180

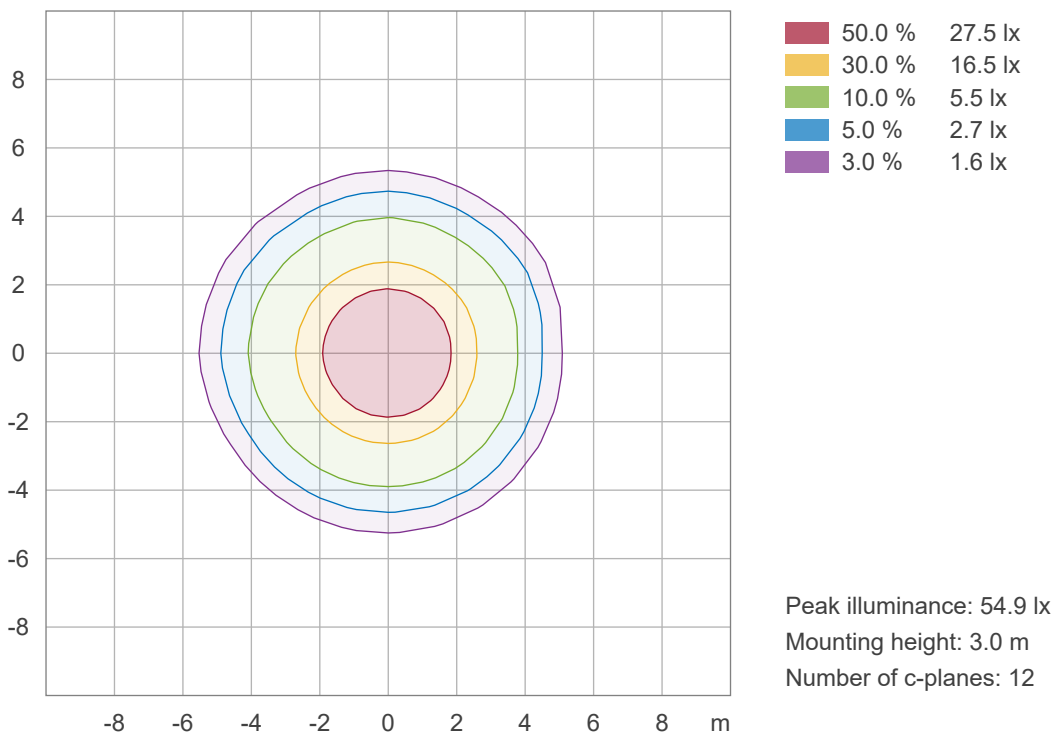
C090-C270



Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)





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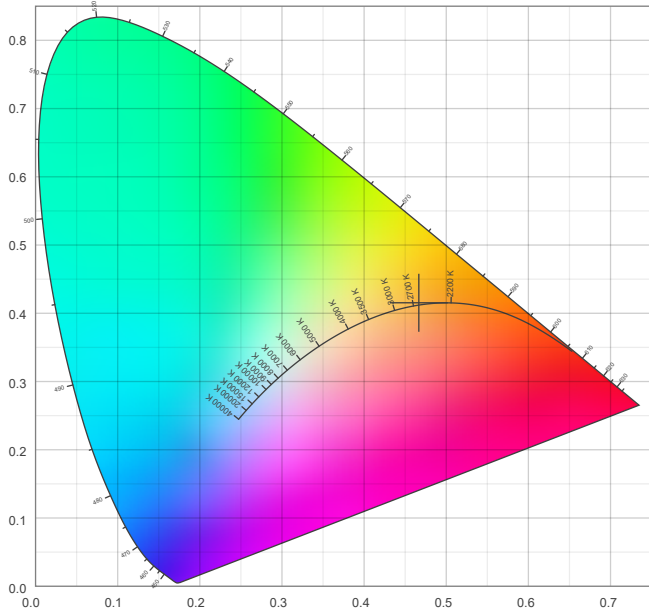
Operator: Shawn Blaszk

Color details

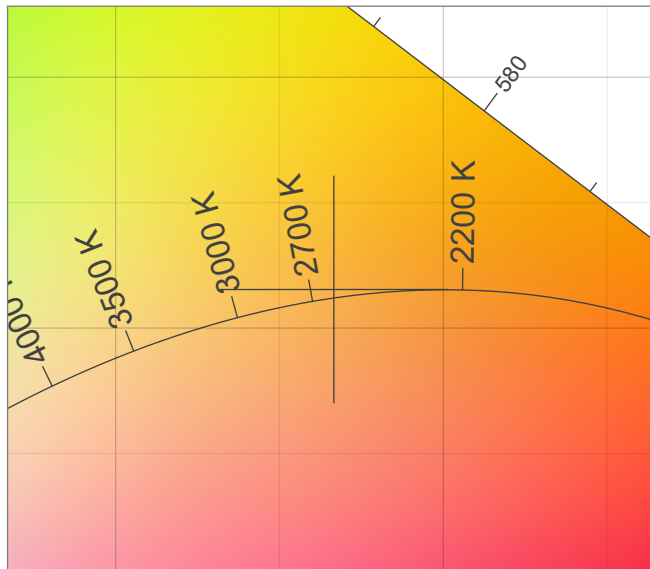
Correlated Color Temperature, Target CCT = 2648 K
Correlated Color Temperature, Measured CCT = 2648 K
Color Rendering Index CRI 91.5
Color Rendering Index, R9 (red component) R9 = 49.3
Color Rendering TM30-18 R_r 91.1 – R_g 97.5
Color Quality Scale CQS = 89.6

MacAdam Steps 3
Color coordinates CIE 1931 (x;y) = (0.467;0.415)
Color coordinate CIEs 1960 (u;v) = (0.265;0.353)
Color deviation from BBL Duv = 0.0012
Color coordinate CIEs 1976 (CIELUV)(u';v') = (0.265;0.530)

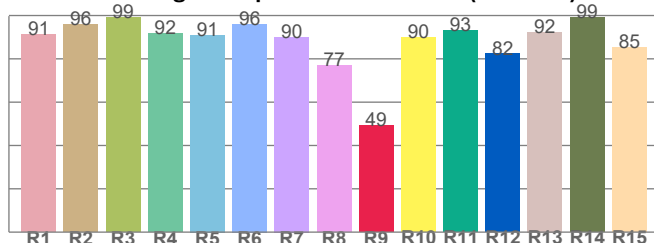
CIE 1931



CIE 1931 – zoomed on Planckian locus



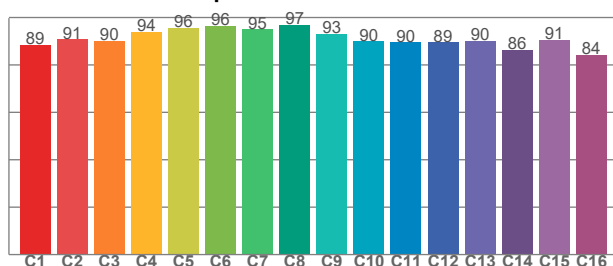
Color Rendering Index per reference color (CIE 1995)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91.2	95.8	99.2	91.6	91.0	96.0	90.0	76.8	49.3	89.7	93.2	82.3	92.4	99.0	85.2

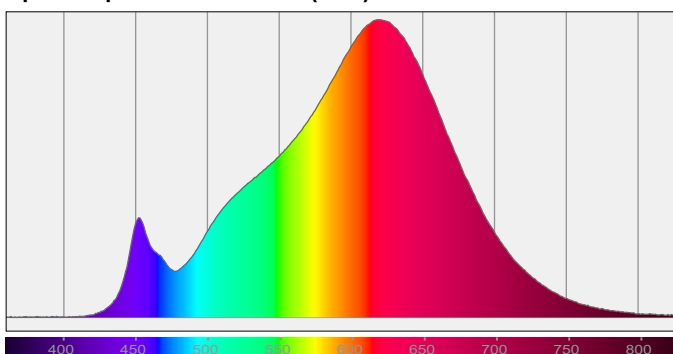
TM30-18 Rf-values per hue bin



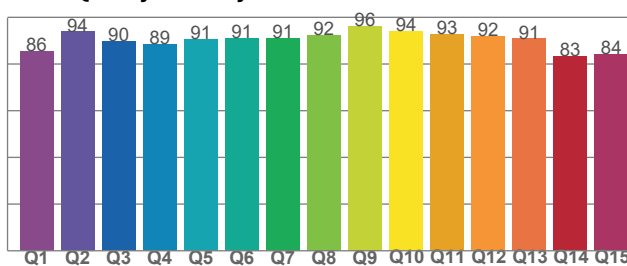
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88.5	90.7	90.2	93.9	95.6	96.4	95.0	96.9	93.2	89.9	89.5	89.5	90.1	86.4	90.7	84.2

Spectral power distribution (SPD) / W/nm – 0-100%



Color Quality Scale by reference color



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85.5	93.9	89.8	88.6	90.5	91.2	91.2	92.4	96.1	94.1	92.8	91.9	90.9	83.3	84.2



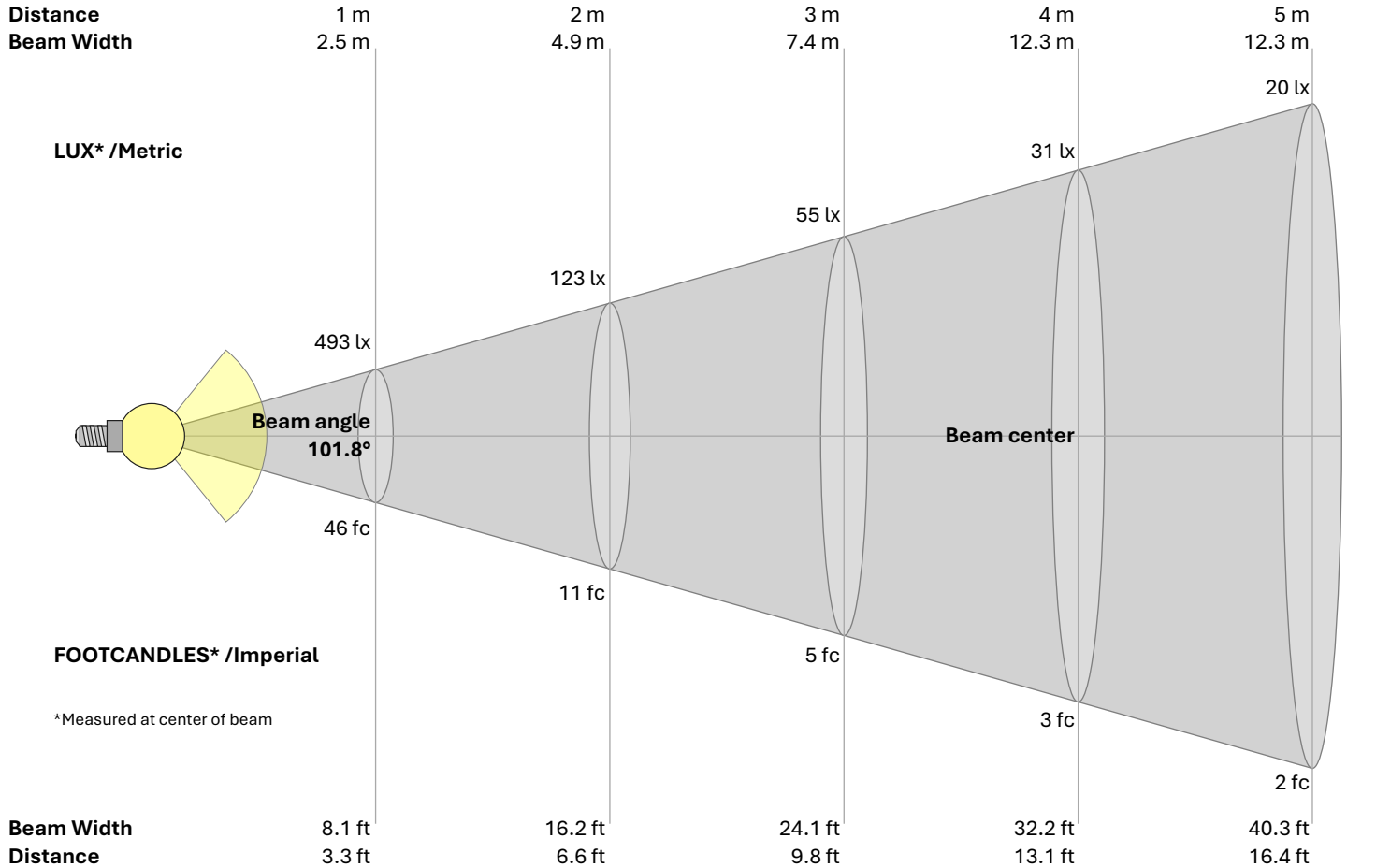
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Beam Details



Beam intensities from 1 – 20 m																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	m
3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6	ft
493	123	55	31	20	14	10	8	6	5	4	3	3	3	2	2	2	2	1	1	lux
45.8	11.5	5.1	2.9	1.8	1.3	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	fc

Intensities in 0° c-plane																				
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
493	489	479	463	446	433	416	393	365	327	266	195	134	91	66	46	28	12	3	1	cd
100%	99%	97%	94%	90%	88%	84%	80%	74%	66%	54%	40%	27%	19%	13%	9%	6%	2%	1%	0%	of 0°val

Intensities in 90° c-plane																				
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
493	485	472	456	442	426	405	379	347	296	228	161	108	76	55	35	19	6	1	1	cd
100%	98%	96%	92%	90%	86%	82%	77%	70%	60%	46%	33%	22%	15%	11%	7%	4%	1%	0%	0%	of 0°val

Intensities in 180° c-plane																				
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
493	488	477	461	445	431	413	388	358	317	252	183	124	84	62	42	24	10	2	1	cd
100%	99%	97%	93%	90%	87%	84%	79%	73%	64%	51%	37%	25%	17%	13%	8%	5%	2%	0%	0%	of 0°val

Intensities in 270° c-plane																				
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
493	493	485	471	455	441	424	401	374	341	290	222	155	103	72	52	32	16	5	1	cd
100%	100%	98%	96%	92%	89%	86%	81%	76%	69%	59%	45%	31%	21%	15%	10%	7%	3%	1%	0%	of 0°val