



Light Measurement Report

Print date: 10/3/2025

Measurement date and time: 9/29/2025 4:05:19 PM – Measurement no. VFR-250929-0176-MS

Operator: Shawn Blaszk

Tested Light Source

Product Name	Dram: DR-L-PC98_PC98-MTP-27-1_10V_UNV
Manufacturer	RBW
Product Description	Dram-Large-Glossy White_Glossy White-Matte PET-2700K-1% Dimming, 0-10V Control, 120V-277V "Universal Input" (Driver External), Input Current: 400mA, Driver Model: ERP ESS020W-0400-42



Light Quality

CRI: 91.3

Color Temperature

2691 K

Color Match

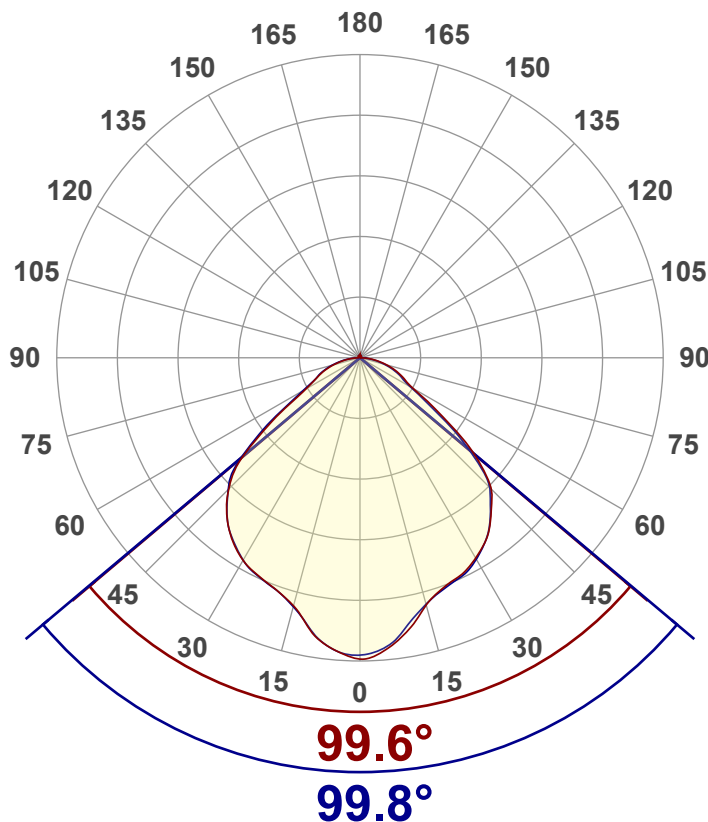
CIE1931
x: {CIEx#}
y: {CIEy#}

Summary of Results

Total Lumen Output	1422 lm
Luminaire Efficacy	85 lm/W
Peak Intensity and Beam Angle	634 cd - 99.7°
Color Rendering TM13-18	R _r 91.0 – R _g 97.5
Color Shift, CIE duv	Duv 0.0012
MacAdams Steps	3
Flicker	SVM 0.42 – PstLM 0.01
Input Power, Power and Displ. Factors	16.8 W – PF 0.99 – DPF 1.0
Input RMS Voltage and Current	120 V – 0.142 A
Frequency of Input Power	60 Hz

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	1422 lm
Lumen Up% / Down%	1.46% / 98.54%
Peak Intensity	634 cd
Beam Angle (50%-FWHM)	99.70°

Cut-off Angle

Average 2,5%	171.4°
--------------	--------

Field Angle

Average 10%	147.6°
-------------	--------

Intensity Ratio

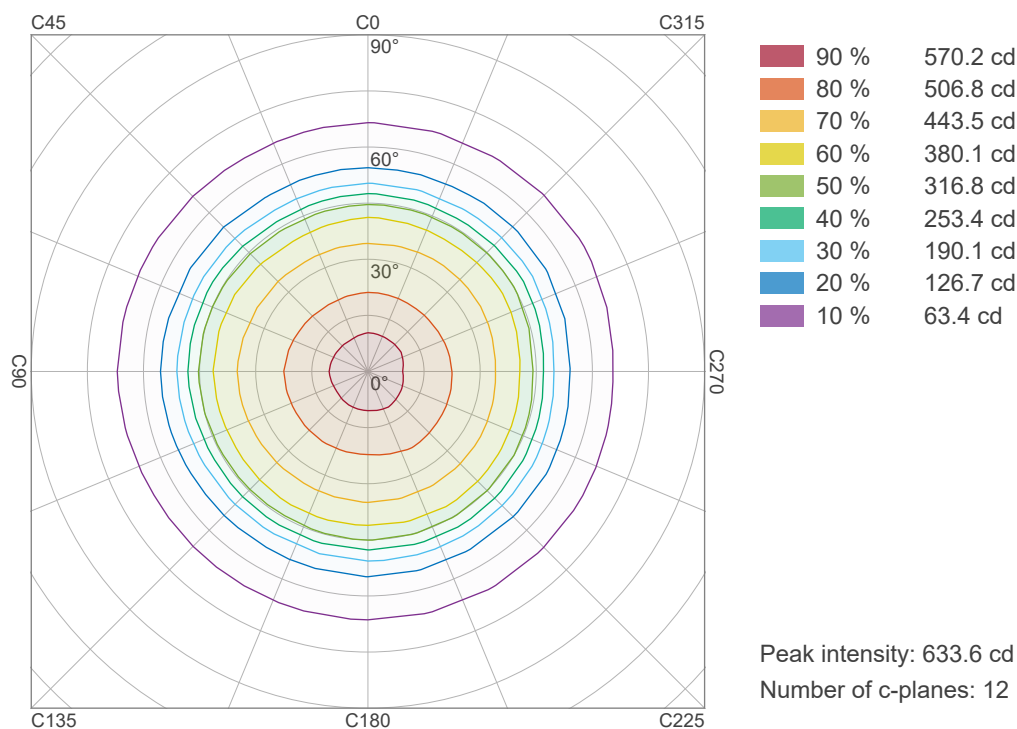
In 120° cone	85.7%
In 90° cone	62.3%

C000-C180

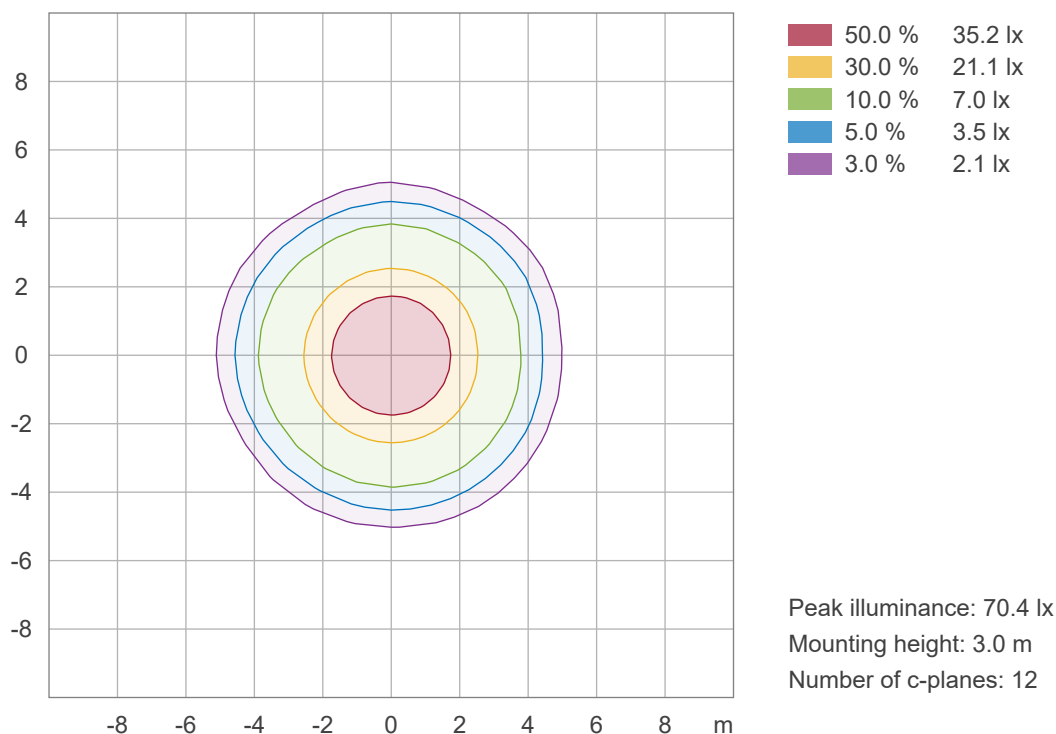
C090-C270

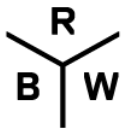


Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)





Light Measurement Report

Print date: 10/3/2025

Measurement date and time: 9/29/2025 4:05:19 PM – Measurement no. VFR-250929-0176-MS

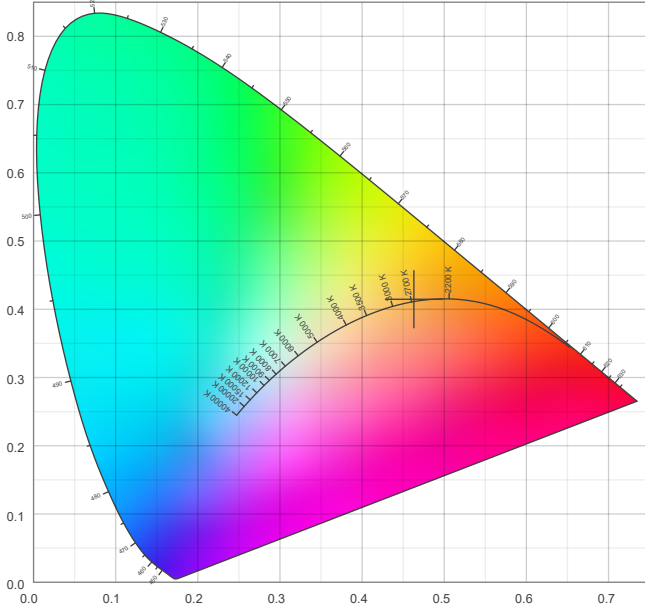
Operator: Shawn Blaszk

Color details

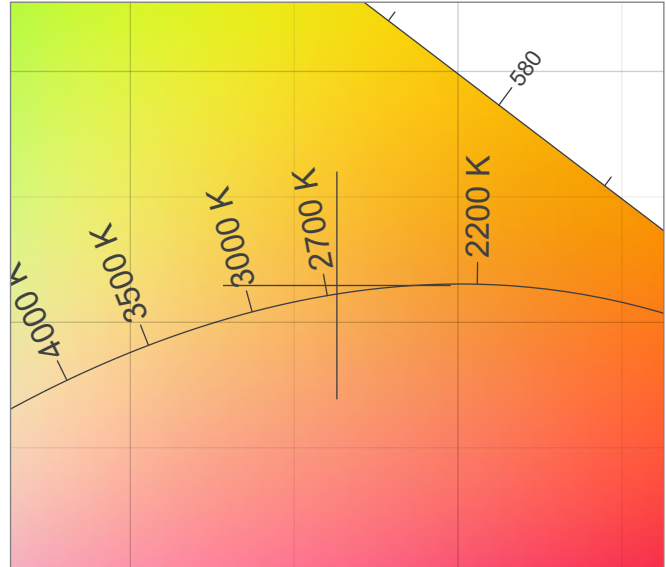
Correlated Color Temperature, Target CCT = 2691 K
Correlated Color Temperature, Measured CCT = 2691 K
Color Rendering Index CRI 91.3
Color Rendering Index, R9 (red component) R9 = 48.6
Color Rendering TM30-18 R_r 91.0 – R_g 97.5
Color Quality Scale CQS = 89.6

MacAdam Steps 3
Color coordinates CIE 1931 (x;y) = (0.463;0.415)
Color coordinate CIEs 1960 (u;v) = (0.263;0.353)
Color deviation from BBL Duv = 0.0012
Color coordinate CIEs 1976 (CIELUV)(u';v') = (0.263;0.529)

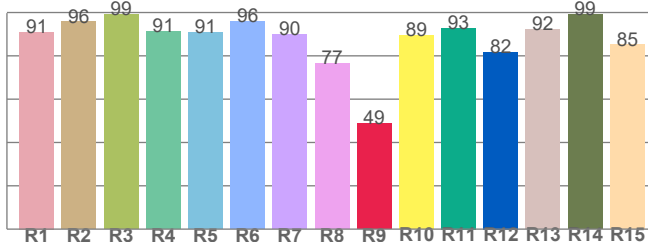
CIE 1931



CIE 1931 – zoomed on Planckian locus



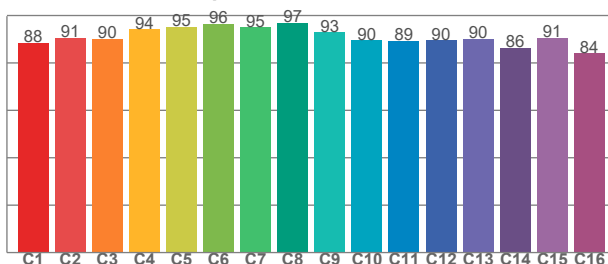
Color Rendering Index per reference color (CIE 1995)



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
91.0	95.7	99.2	91.4	90.8	95.8	90.0	76.6	48.6	89.5	92.8	81.8	92.3	99.0	85.1

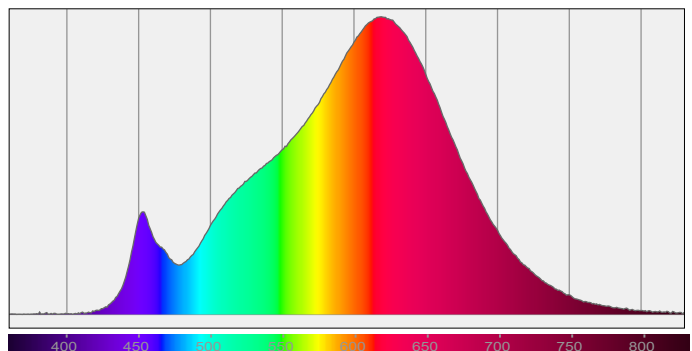
TM30-18 Rf-values per hue bin



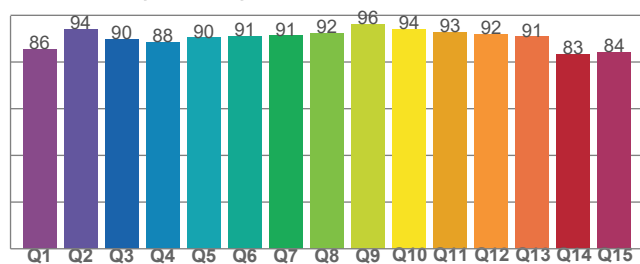
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88.4	90.6	90.0	94.1	95.3	96.4	94.9	96.8	92.9	89.6	89.2	89.5	90.2	86.3	90.6	84.1

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
85.6	94.1	89.7	88.5	90.4	91.1	91.3	92.5	96.3	94.2	92.9	92.0	90.9	83.3	84.1



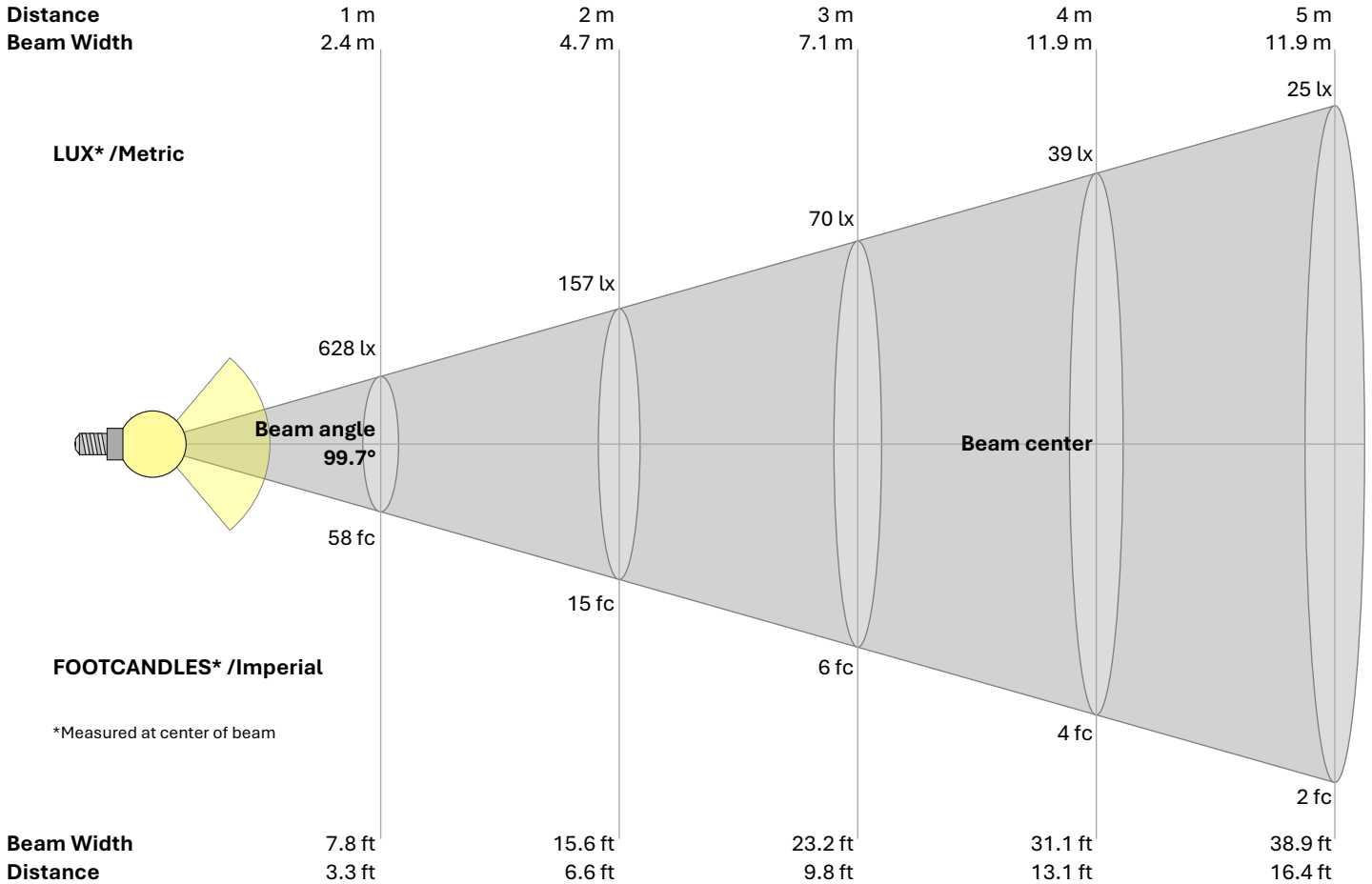
Light Measurement Report

Print date: 10/3/2025

Measurement date and time: 9/29/2025 4:05:19 PM – Measurement no. VFR-250929-0176-MS

Operator: Shawn Blaszk

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
628	157	70	39	25	17	13	10	8	6	5	4	4	3	3	2	2	2	2	2	lux
58.3	14.6	6.5	3.6	2.3	1.6	1.2	0.9	0.7	0.6	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	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
628	616	582	540	516	504	487	464	429	388	310	208	133	102	81	58	37	19	4	1	cd
100%	98%	93%	86%	82%	80%	78%	74%	68%	62%	49%	33%	21%	16%	13%	9%	6%	3%	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
628	610	573	539	518	507	489	463	426	381	297	195	127	96	75	54	33	15	5	3	cd
100%	97%	91%	86%	83%	81%	78%	74%	68%	61%	47%	31%	20%	15%	12%	9%	5%	2%	1%	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
628	616	586	542	519	506	492	468	435	389	319	213	133	101	80	58	37	18	5	3	cd
100%	98%	93%	86%	83%	81%	78%	75%	69%	62%	51%	34%	21%	16%	13%	9%	6%	3%	1%	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
628	615	584	544	520	507	491	466	434	390	324	224	142	103	82	61	40	20	6	1	cd
100%	98%	93%	87%	83%	81%	78%	74%	69%	62%	52%	36%	23%	16%	13%	10%	6%	3%	1%	0%	of 0°val