VEROBOARD®

LED Type: VBDFS-315-XXXX-120-12-NS (Side Emitting)
Colour: 3000K • 5000K • Green

Job Name: _____

Distributor: _____

Type: _____

	Wattage	Brightness
Per Foot	3W/ft	329-402Lm/ft (3K,5K) 731-878Lm/ft (Green)
Per Meter	9W/m	1080-1320Lm-m (3K,5K) 2400-2880Lm/ft (Green)

c UL us LISTED E514904

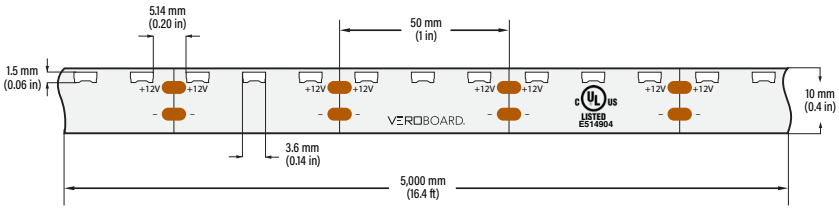
RoHS

☐ 666561423827 ☐ 666561423834 ☐ 666561423841

DESCRIPTION

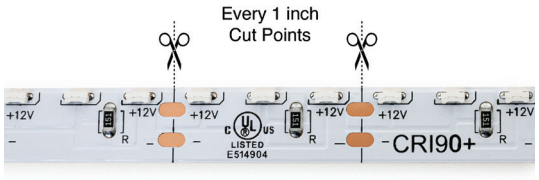
Flexible 10mm Side Emitting wide linear LED strip. Available in 5 meter (196.8 inches) rolls that can be cut every 3 LEDs (2.5mm or 1in). The LED Strip lights are manufactured with high-quality materials and designed for professional lighting. Every strip light begins with a heavy-duty dual-core copper printed circuit board (PC Board), which is then soldered with an array of chips and color options. They can be cut to any size (marked interval points) and rejoined by soldering.

DIMENSIONS



SPECIFICATIONS

Model:	VBDFS-315-xxxx-120-12-NS (Side Emitting)
Color Temperature:	3000K • 5000K • Green
LED Type:	315 SMD
LED Qty:	120 LEDs per meter
LM/LED:	9-11 Lm per LED
Input Voltage (VF):	12V DC
Power:	9W per meter (3W/ft)
Brightness:	1080-1320 Lm/meter ((329-402Lm/ft) for 3K,5K) 2400-2880 Lm/meter ((731-878Lm/ft) for Green)
Lifespan:	>50,000 hours
PCB:	4oz PCB, Double-side, white colour 10mm width
IP Rating:	IP20 (Indoor use only)
Rendering Index (Ra):	CRI>95
Beam Angle:	120°
Dimmable:	Yes
Cut Size:	Every 3 LED chips (1")
Operating Temperature:	-15ºC to +40ºC
Dimensions:	5,000mm x 10mm x 2mm (196.8" x 0.39" x 0.07")
Certificates:	UL / RoHs
Roll Length:	5 meter roll (16.4ft)



ORDERING GUIDE

Example part number: **VBDFS - 315 - XXXX - 120 - 12 - NS**

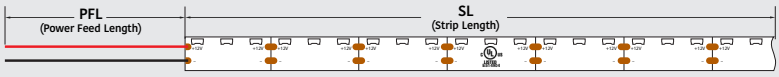
MODEL	SERIES	COLOUR	LEDs/METER	VOLTAGE		LENGTH
VBDFS	315	XXXX	120	12V	NS	XXXX
		3000K 5000K GREEN				Custom Length Full Roll (5 Meter)

For more information about our products and services, please visit our website: **www.veroboard.com**

CUSTOM ORDERING GUIDE

Single Run (Straight Run): The below ordering guide will be used for single run LED strip.

- **PFL:** Power Feed Length
- **SL:** Strip Length

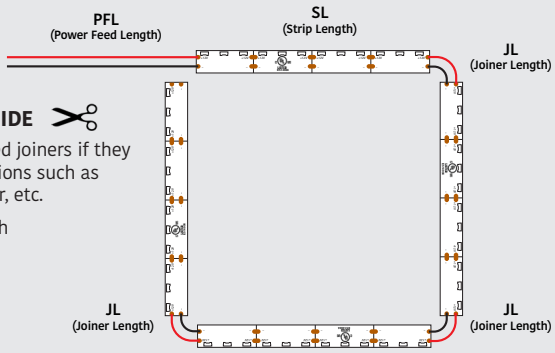


Example: 2 (QTY) x 36" (PFL) - 84" (SL) QTY x PFL – SL

CUSTOM ORDERING GUIDE

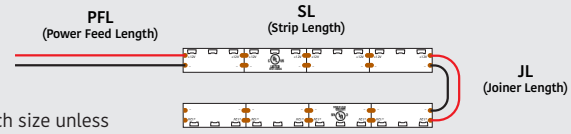
Joiner: LED strip lights need joiners if they are used for curve applications such as corner side, behind a mirror, etc.

- **PFL:** Power Feed Length
- **SL:** Strip Length
- **JL:** Joiner Length



QTY x PFL – SL – JL – SL – JL – SL – JL – SL

Example: 1 (QTY) x 12" (PFL) - 46" (SL) - 1" (JL) - 36" (SL) - 1" (JL) - 46" (SL) - 1" (JL) -36" (SL)



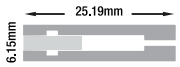
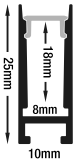
Note: Joiners will be 1-inch size unless customers require a specific size.

QTY x PFL – SL – JL – SL

Example: 2 (QTY) x 24" (PFL) - 52" (SL) - 1" (JL) - 52" (SL)

RECOMMENDED LED ALUMINUM CHANNELS

(Sold Separately)

VBD-CH-RF9	VBD-CH-H1	VBD-CH-H2
		
SKU: 666561423421	SKU: 666561428570	SKU: 666561428594

RECOMMENDED LED POWER SUPPLIES (Sold Separately)

For more options and varieties, please visit our website: **www.veroboard.com**

Constant Voltage Dimmable LED Drivers (5 in 1), Triac/Phase, 0-10V, 1-10V, Potentiometer, 10V PWM 5 in 1 Dimming

Model No.	Input Voltage	Output Voltage	Wattage	IP Rating	Class	Max. Strip Length	SKU#
VBD-012-030C2DM5i1	100-277V	12V	30W	IP67	Class 2	8ft	666561425999
VBD-012-060C2DM5i1	100-277V	12V	60W	IP67	Class 2	16ft	666561426002
VBD-012-100C2DM5i1	100-277V	12V	100W	IP65	Type HL	26.6ft	666561428426
VBD-012-150C2DM5i1	100-277V	12V	150W	IP65	Type HL	40ft	666561428433
VBD-012-180C2DM5i1	100-277V	12V	180W (3x60W)	IP67	Class 2	48ft	666561426019
VBD-012-300C2DM5i1	100-277V	12V	300W (5x60W)	IP67	Class 2	80ft	666561426026

Constant Voltage Triac LED Drivers forward Phase, Magnetic Low Voltage & Triac Dimmers

Model No.	Input Voltage	Output Voltage	Wattage	IP Rating	Class	Max. Strip Length	SKU#
VBD-012-024DM	100-130V	12V	24W	IP20	Class 2	6.4ft	666561415761
VBD-012-048DM	100-130V	12V	48W	IP20	Class 2	12.8ft	666561415754
VBD-012-060DM	100-130V	12V	60W	IP20	Class 2	16ft	666561415747
VBD-012-096DM	100-130V	12V	96W	IP67	-	25.6ft	666561415730
VBD-012-150DM	100-130V	12V	150W	IP67	-	40ft	666561415723
VBD-012-200DM	100-130V	12V	200W	IP67	-	53.3ft	666561415716
VBD-012-300VTHWJ	100-277V	12V	300W	IP65	-	80ft	666561419790

For more information about our products and services, please visit our website: **www.veroboard.com**

Dali Dimming Constant Voltage

Model No.	Input Voltage	Output Voltage	Wattage	IP Rating	Class	Max. Strip Length	SKU#
VBD-012-030DD	100-265V AC	12V	30W	IP20	Class 2	8ft	666561427290
VBD-012-060DD	100-265V AC	12V	60W	IP65	Class 2	16ft	666561427313
VBD-012-096DD	100-265V AC	12V	96W	IP65	------	25.6ft	666561427337
VBD-012-150DD	100-265V AC	12V	150W	IP65	------	40ft	666561427351

Plug-in Drivers

Model No.	Input Voltage	Output Voltage	Wattage	IP Rating	Class	Max. Strip Length	SKU#
VBDA-012-012P1J	100-240V AC	12V	12W	IP20	Class 2	3.2ft	666561428945
VBDA-012-024P1J	100-240V AC	12V	24W	IP20	Class 2	6.4ft	666561428952
VBDA-012-036P1J	100-240V AC	12V	36W	IP20	Class 2	9.6ft	666561428976
VBDA-012-060P1J	100-240V AC	12V	60W	IP20	------	16ft	666561428990

Notes:

Light Measurement Report

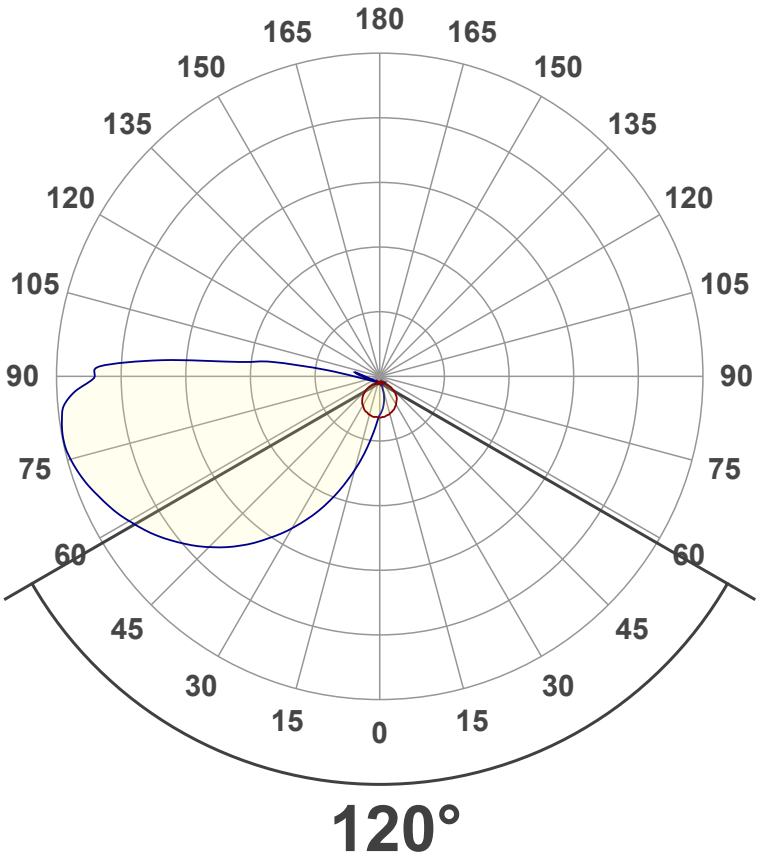
Print date: 2023-04-26

Measurement date and time: 2023-04-26 2:33:47 PM – Measurement no. VFR-230426-0173-MS

VERO LAB POWERED BY VISO SYSTEMS

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Lumen Up% / Down%	14.48% / 85.52%
Peak Intensity	83.3 cd
Beam Angle (50%)	120°
Beam Angle (90%)	67.6°
Beam Angle (10%)	119°

Cut-off Angle

Average 2,5%	157.9°

Field Angle

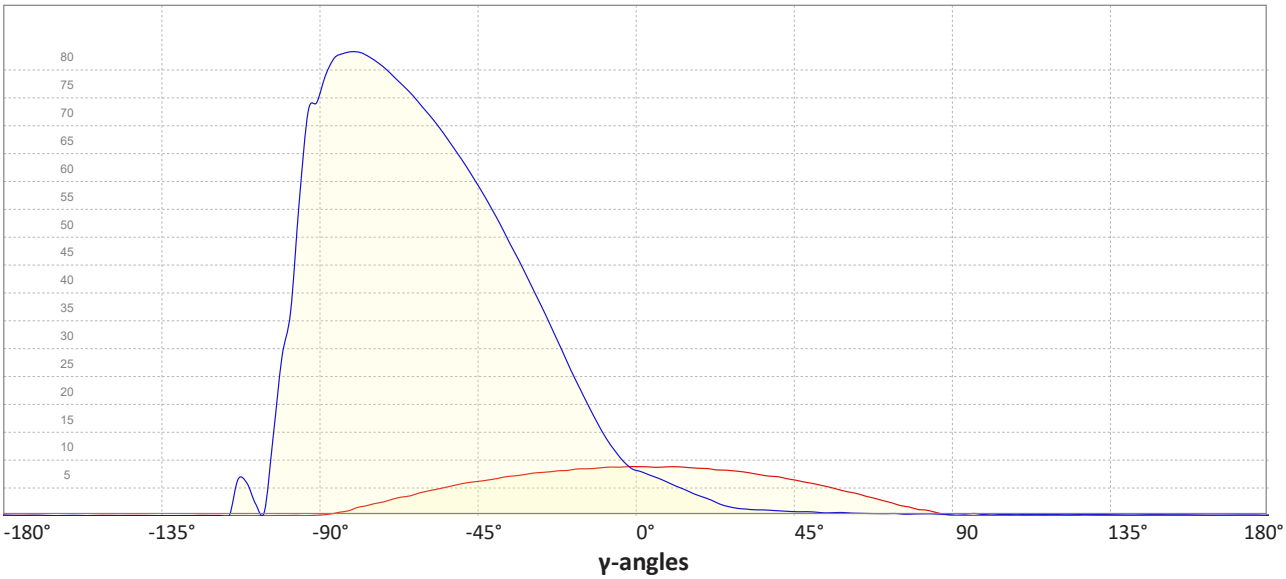
Average 10%	134.7°

Intensity Ratio

In 120° cone	37.6%
In 90° cone	19.3%

C000-C180
C090-C270

Linear distribution diagram - Intensity (candela) vs γ-angle



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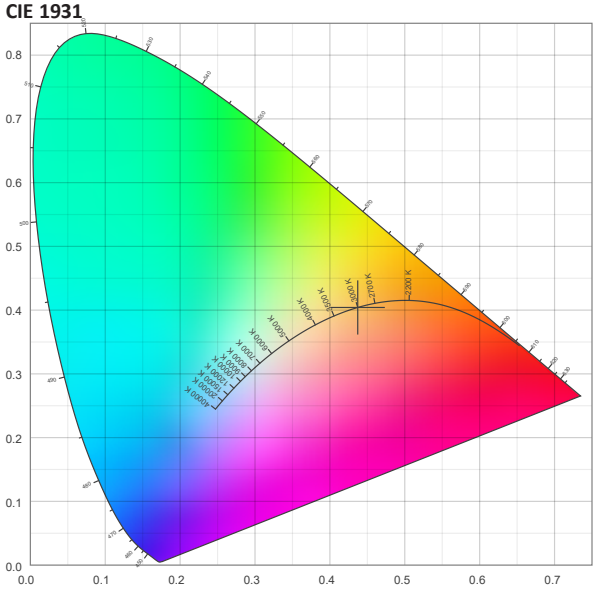
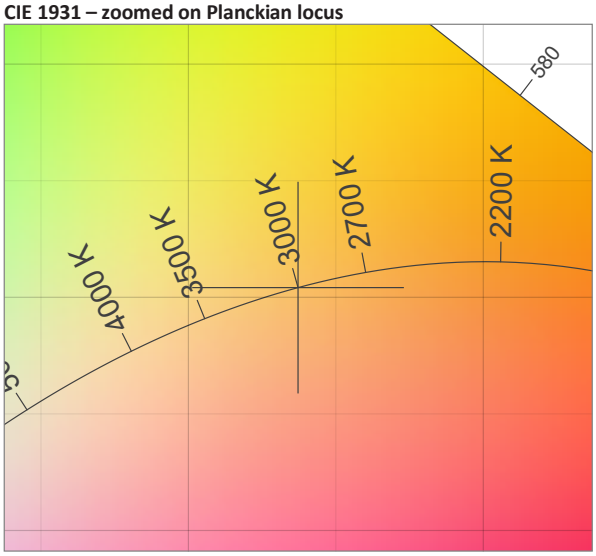
Color details

Correlated Color Temperature, Target	CCT = 3000 K
Correlated Color Temperature, Measured	CCT = 2751 K
Color Rendering Index	CRI 92.0
Color Rendering Index, R9 (red component)	R9 = 64.3
Color Rendering TM30-18	R_f 91.2 – R_g 101.0
Color Quality Scale	CQS = 89.9
MacAdam Steps	SDCM = 9.9
Color coordinates CIE 1931	(x;y) = (0.437;0.404)
Color coordinate CIEs 1960	(u;v) = (0.251;0.348)
Color deviation from BBL	Duv = 0.0011
Color coordinate CIEs 1976 (CIELUV)	(u';v') = (0.251;0.251)

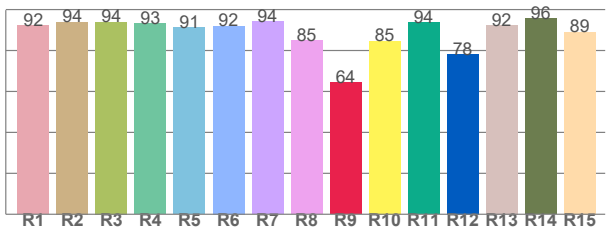
CIE 1931



CIE 1931 – zoomed on Planckian locus



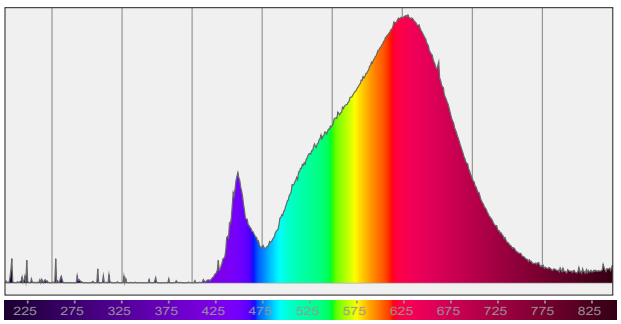
Color Rendering Index per reference color (CIE 1995)



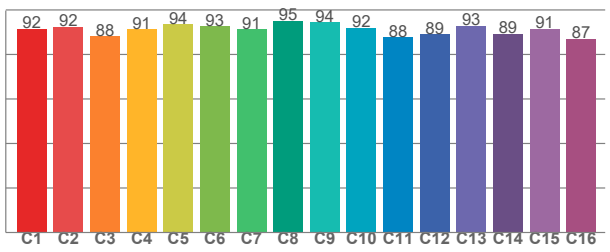
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92.3	93.9	94.0	93.2	91.2	92.0	94.1	85.0	64.3	84.7	93.6	78.2	92.4	95.7	89.0

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



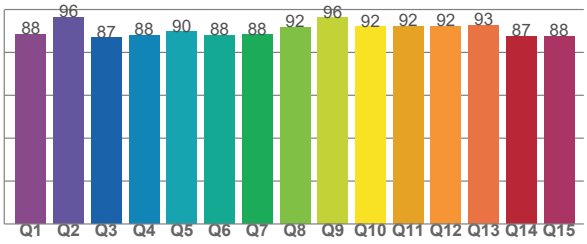
TM30-18 Rf-values per hue bin



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
91.6	92.4	88.1	91.4	93.6	92.7	91.4	95.0	94.4	91.9	87.6	89.1	92.9	89.4	91.4	87.2

Color Quality Scale by reference color



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.4	96.4	86.9	88.0	89.7	87.9	88.1	91.9	96.1	92.0	92.2	92.3	92.5	87.4	87.6

Light Measurement Report

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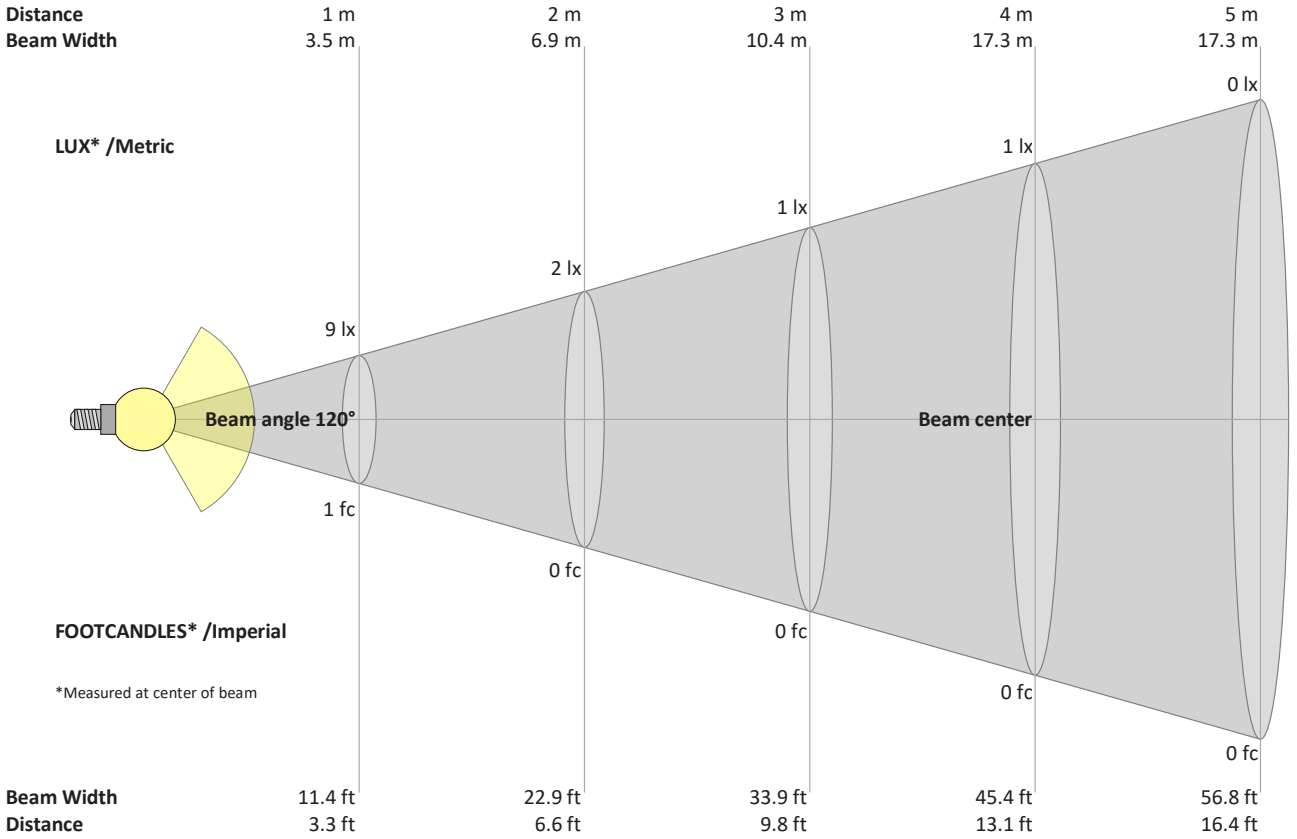
Beam Details



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
9	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	lux
0.8	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
8.52	8.73	8.64	8.43	8.14	7.88	7.60	7.15	6.65	6.18	5.72	5.01	4.35	3.52	2.86	2.11	1.35	0.58	0.14	0.05	cd
100%	103%	101%	99%	96%	93%	89%	84%	78%	73%	67%	59%	51%	41%	34%	25%	16%	7%	2%	1%	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
8.52	7.04	5.72	4.37	3.14	1.89	1.28	1.07	0.93	0.76	0.70	0.55	0.55	0.44	0.40	0.35	0.34	0.33	0.31	0.38	cd
100%	83%	67%	51%	37%	22%	15%	13%	11%	9%	8%	6%	6%	5%	5%	4%	4%	4%	4%	4%	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
8.52	8.73	8.81	8.66	8.49	8.21	7.92	7.40	7.04	6.44	5.84	5.15	4.35	3.59	2.78	1.89	1.18	0.66	0.06	0.06	cd
100%	102%	103%	102%	100%	96%	93%	87%	83%	76%	69%	60%	51%	42%	33%	22%	14%	8%	1%	1%	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
8.5	10.8	15.5	21.5	28.1	35.0	41.5	47.7	53.8	59.3	64.2	68.8	72.7	76.3	79.4	81.9	83.2	82.4	75.9	62.1	cd
100%	127%	182%	253%	330%	411%	487%	560%	631%	696%	754%	807%	854%	896%	932%	962%	977%	968%	891%	729%	of 0°val