

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: iO LED

Report Number: P977172

Luminaire Tested: GRZ-15L-927-17x75-X-UNV-STD-4F

Issue Date: 3/21/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P977172  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-147-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 3/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: iO LED  
Catalog Number: GRZ-15L-927-17x75-X-UNV-STD-4F  
Description: iO COVIO LED GRAZER WITH 17X75 DEGREE OPTIC.  
1500 LUMENS PER FOOT, 4 FOOT FIXTURE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

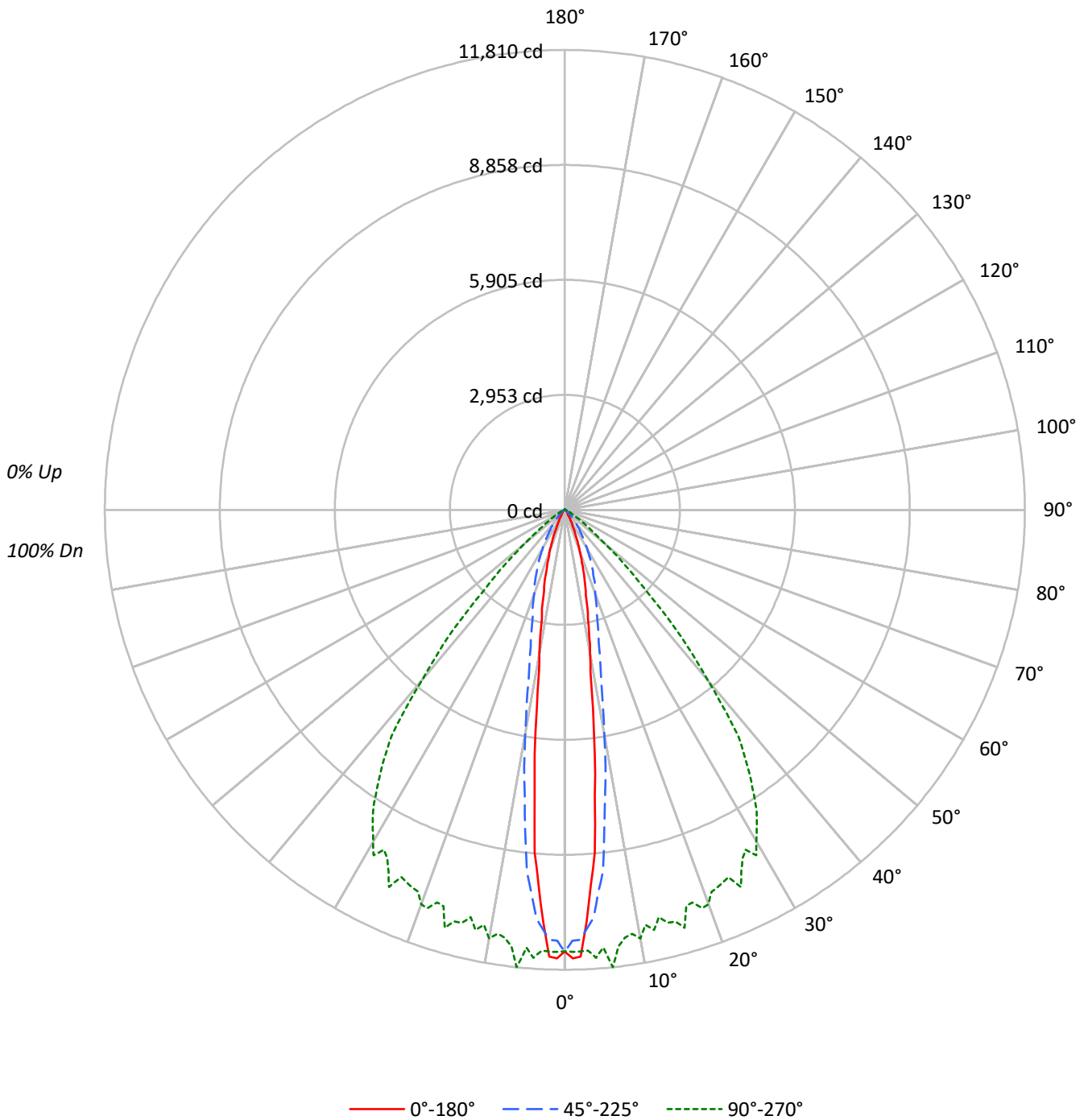
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5454.8 lumens  
Efficiency: N/A  
Efficacy: 97.4 lumens/watt  
Spacing Criteria (0/90/45): 0.26 / 1.25 / 0.42  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: Direct

Input Watts (W): 56  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20			
RC	80				70				50				30				10		0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93		
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86		
3	102	95	90	86	100	93	89	85	91	87	83	88	85	82	86	83	81	79		
4	96	88	83	78	94	87	82	78	85	80	77	83	79	76	81	78	75	74		
5	91	83	77	72	90	82	76	72	80	75	71	78	74	71	77	73	70	68		
6	87	77	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64		
7	82	73	67	62	81	72	66	62	71	66	62	70	65	62	69	64	61	60		
8	78	69	63	58	77	68	62	58	67	62	58	66	61	58	65	61	58	56		
9	75	65	59	55	74	65	59	55	64	58	55	63	58	54	62	57	54	53		
10	71	62	56	52	70	61	56	52	60	55	52	60	55	52	59	55	51	50		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	183145	183145	183145
5°	143294	159787	182937
10°	61378	95587	183292
15°	34176	55711	182897
20°	19411	39300	185195
25°	9647	30020	190353
30°	4700	21062	183455
35°	2759	14077	162763
40°	2165	9149	120130
45°	2025	5649	68216
50°	1758	3753	32948
55°	1444	2759	15243
60°	1356	2412	7837
65°	1425	1960	4458
70°	1322	1544	2865
75°	1167	1167	2040
80°	865	865	1302
85°	871	871	871

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 68216 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	833.2	15.3
10°-20°	1336.6	24.5
20°-30°	1356.8	24.9
30°-40°	1098.8	20.1
40°-50°	529.1	9.7
50°-60°	190.2	3.5
60°-70°	74.2	1.4
70°-80°	28.1	0.5
80°-90°	5.4	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.9	0.0
150°-160°	0.3	0.0
160°-170°	0.7	0.0
170°-180°	0.4	0.0
0°-30°	3526.6	64.7
0°-40°	4625.5	84.8
0°-60°	5344.8	98.0
0°-90°	5452.6	100.0
90°-120°	0.0	0.0
90°-150°	0.9	0.0
90°-180°	2.0	0.0
0°-180°	5454.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11343	11343	11343	11343	11343	
5°	8841	9028	9859	11026	11287	645
15°	2045	2278	3333	6993	10942	573
25°	542	733	1685	4168	10685	265
35°	140	210	714	2357	8258	96
45°	89	107	247	915	2988	67
55°	51	70	98	355	542	48
65°	37	42	51	126	117	35
75°	19	23	19	37	33	20
85°	5	5	5	5	5	5
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	5	0	0	0
155°	0	0	0	0	0	0
165°	5	5	5	0	0	1
175°	5	5	5	5	5	0
180°	5	5	5	5	5	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	11343.2	11343.2	11343.2	11343.2	11343.2	11343.2	11343.2	11343.2	11343.2	11343.2	11343.2
1°	11520.6	11450.6	11319.9	11417.9	11511.3	11492.6	11067.8	11609.3	11483.2	11539.3	11291.9
2°	11483.2	11179.8	11095.8	10969.8	11347.9	11315.2	11049.1	11562.6	11371.2	11599.9	11394.6
3°	10591.7	10680.3	10699.0	10461.0	10941.8	10955.8	10783.0	11049.1	11268.5	11515.9	11529.9
4°	9648.7	9812.1	9830.8	9877.5	10381.6	10451.6	10503.0	10801.7	10895.1	11049.1	10853.1
5°	8841.2	8873.8	8850.5	9027.9	9522.7	9756.1	9858.8	10250.9	10624.3	11025.8	10801.7
6°	7380.1	7436.1	7576.1	7702.2	8397.7	8855.2	9340.6	9648.7	10283.6	10745.7	10787.7
7°	6320.5	6418.5	6483.8	6801.3	7146.7	8066.3	8327.7	8789.8	9793.4	10456.3	10428.3
8°	5172.1	5377.5	5517.6	5657.6	6227.1	7086.0	7398.8	8014.9	9200.6	10208.9	10311.6
9°	4224.5	4495.3	4770.7	4794.0	5330.8	6073.0	6679.9	7184.0	8598.4	9756.1	9480.7
10°	3743.7	3757.7	3991.1	4117.2	4588.6	5400.9	5830.3	6539.8	8150.3	9223.9	9466.7
11°	3304.9	3318.9	3412.3	3571.0	3995.8	4719.3	5153.5	5788.3	7366.1	8794.5	9097.9
12°	2842.8	2903.5	3076.2	3090.2	3515.0	4159.2	4471.9	5130.1	6810.6	8229.7	8626.4
13°	2590.7	2567.4	2744.8	2810.1	3094.9	3678.4	4056.5	4654.0	6194.4	8019.6	8304.3
14°	2240.6	2324.7	2478.7	2478.7	2880.1	3286.3	3617.7	4159.2	5811.6	7375.4	7879.6
15°	2044.6	2086.6	2236.0	2278.0	2548.7	2978.2	3332.9	3799.7	5284.2	6992.6	7366.1
16°	1839.2	1881.2	1969.9	2086.6	2348.0	2726.1	3057.5	3501.0	4924.7	6684.6	7062.7
17°	1610.5	1657.1	1792.5	1857.9	2114.6	2544.1	2814.8	3248.9	4626.0	6311.1	6735.9
18°	1433.1	1498.4	1601.1	1657.1	1904.5	2338.7	2679.4	3029.5	4224.5	5891.0	6343.8
19°	1237.0	1321.0	1409.7	1498.4	1731.8	2137.9	2474.0	2828.8	4033.1	5652.9	6213.1
20°	1129.7	1157.7	1279.0	1339.7	1591.8	2007.2	2287.3	2665.4	3799.7	5148.8	5853.7
21°	1003.6	1031.6	1143.7	1190.3	1442.4	1857.9	2170.6	2525.4	3599.0	4980.7	5452.2
22.5°	807.6	840.2	942.9	1008.3	1227.7	1657.1	1997.9	2306.0	3295.6	4686.7	5158.1
23°	732.9	793.6	896.3	947.6	1162.3	1601.1	1913.9	2259.3	3290.9	4462.6	4985.4
24°	653.5	686.2	793.6	830.9	1059.6	1489.1	1787.8	2128.6	3141.6	4364.6	4775.3
25°	541.5	583.5	681.5	732.9	942.9	1381.7	1685.1	1993.2	2903.5	4168.5	4574.6
26°	457.5	490.1	611.5	648.8	858.9	1232.3	1531.1	1890.5	2796.1	3958.5	4299.2
27°	406.1	420.1	532.2	550.8	770.2	1176.3	1456.4	1741.2	2660.8	3701.7	4135.8
28°	336.1	359.4	462.1	490.1	686.2	1073.6	1335.0	1615.1	2516.0	3505.7	3935.1
29°	298.8	317.4	392.1	429.5	611.5	975.6	1232.3	1517.1	2376.0	3342.3	3813.7
30°	252.1	275.4	350.1	382.8	546.2	891.6	1129.7	1414.4	2222.0	3136.9	3585.0
32.5°	186.7	200.7	252.1	284.7	410.8	714.2	910.3	1167.0	1923.2	2772.8	3127.5
35°	140.0	149.4	191.4	210.1	317.4	527.5	714.2	942.9	1624.5	2357.3	2660.8
37.5°	116.7	121.4	154.0	168.0	247.4	406.1	560.2	751.5	1321.0	1927.9	2198.6
40°	102.7	107.4	126.0	140.0	196.1	317.4	434.1	592.8	1045.6	1554.4	1750.5
42.5°	93.4	98.0	112.0	121.4	163.4	252.1	331.4	438.8	788.9	1209.0	1344.4
45°	88.7	88.7	102.7	107.4	140.0	196.1	247.4	317.4	592.8	914.9	1031.6
47.5°	79.4	79.4	93.4	98.0	121.4	158.7	186.7	238.1	457.5	709.5	802.9
50°	70.0	70.0	84.0	88.7	107.4	130.7	149.4	172.7	350.1	560.2	634.8
52.5°	60.7	60.7	74.7	79.4	93.4	112.0	121.4	140.0	275.4	448.1	508.8
55°	51.3	51.3	65.4	70.0	84.0	93.4	98.0	107.4	219.4	354.8	396.8
57.5°	46.7	51.3	56.0	60.7	74.7	84.0	84.0	88.7	172.7	289.4	303.4
60°	42.0	46.7	51.3	56.0	60.7	74.7	74.7	74.7	135.4	214.7	228.7
62.5°	37.3	42.0	46.7	46.7	51.3	65.4	60.7	60.7	107.4	163.4	172.7
65°	37.3	37.3	42.0	42.0	46.7	56.0	51.3	46.7	84.0	126.0	126.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
67.5°	32.7	32.7	37.3	37.3	37.3	46.7	42.0	37.3	65.4	93.4	98.0
70°	28.0	28.0	32.7	32.7	32.7	37.3	32.7	32.7	51.3	70.0	70.0
72.5°	23.3	23.3	28.0	28.0	28.0	28.0	28.0	23.3	42.0	51.3	51.3
75°	18.7	18.7	23.3	23.3	23.3	23.3	18.7	18.7	28.0	37.3	32.7
77.5°	14.0	14.0	18.7	18.7	18.7	14.0	14.0	14.0	23.3	23.3	23.3
80°	9.3	14.0	14.0	14.0	14.0	14.0	9.3	9.3	14.0	14.0	14.0
82.5°	9.3	9.3	9.3	9.3	9.3	9.3	4.7	4.7	9.3	9.3	9.3
85°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.7	4.7	4.7	4.7	4.7
145°	0.0	0.0	0.0	0.0	0.0	4.7	4.7	4.7	0.0	0.0	4.7
147.5°	0.0	0.0	0.0	0.0	0.0	4.7	4.7	4.7	4.7	0.0	4.7
150°	0.0	0.0	0.0	0.0	0.0	4.7	4.7	4.7	0.0	4.7	4.7
152.5°	0.0	0.0	0.0	0.0	4.7	4.7	0.0	4.7	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	4.7	4.7	4.7	4.7	4.7	4.7	4.7	0.0	0.0	0.0
165°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	0.0	0.0	0.0
167.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	0.0	0.0	0.0
170°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
172.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
175°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
177.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
180°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	11343.2	11343.2
1°	11273.2	11347.9
2°	11296.5	11352.5
3°	11254.5	11329.2
4°	11123.8	11529.9
5°	11226.5	11287.2
6°	10955.8	11810.0
7°	10932.4	11287.2
8°	10783.0	11095.8
9°	10629.0	11021.1
10°	10395.6	11179.8
11°	10311.6	10857.7
12°	10208.9	11025.8
13°	9882.1	10736.4
14°	9891.5	10927.8
15°	9765.4	10941.8
16°	9350.0	11161.2
17°	9443.3	10647.7
18°	9242.6	10601.0
19°	9102.6	10815.7
20°	8967.2	10778.4
21°	8649.8	10503.0
22.5°	8584.4	10428.3
23°	8626.4	10390.9
24°	8299.7	10320.9
25°	7940.2	10685.0
26°	7809.5	10330.3
27°	7636.8	10045.5
28°	7361.4	9886.8
29°	7226.0	10138.9
30°	6969.3	9840.1
32.5°	6278.4	9167.9
35°	5410.2	8257.7
37.5°	4397.2	7310.1
40°	3459.0	5699.6
42.5°	2567.4	4425.2
45°	1806.5	2987.5
47.5°	1330.4	2077.3
50°	942.9	1311.7
52.5°	686.2	840.2
55°	490.1	541.5
57.5°	350.1	354.8
60°	242.7	242.7
62.5°	172.7	172.7
65°	126.0	116.7



TEST NUMBER: P977172

CATALOG NUMBER: GRZ-15L-927-17x75-X-UNV-STD-4F

**CANDELA DISTRIBUTION (continued):**

	80°	90°
67.5°	88.7	88.7
70°	65.4	60.7
72.5°	46.7	46.7
75°	32.7	32.7
77.5°	23.3	23.3
80°	14.0	14.0
82.5°	9.3	9.3
85°	4.7	4.7
87.5°	0.0	0.0
90°	0.0	0.0
92.5°	0.0	0.0
95°	0.0	0.0
97.5°	0.0	0.0
100°	0.0	0.0
102.5°	0.0	0.0
105°	0.0	0.0
107.5°	0.0	0.0
110°	0.0	0.0
112.5°	0.0	0.0
115°	0.0	0.0
117.5°	0.0	0.0
120°	0.0	0.0
122.5°	0.0	0.0
125°	0.0	0.0
127.5°	0.0	0.0
130°	0.0	0.0
132.5°	0.0	0.0
135°	0.0	0.0
137.5°	0.0	0.0
140°	0.0	0.0
142.5°	0.0	4.7
145°	0.0	0.0
147.5°	0.0	0.0
150°	0.0	0.0
152.5°	0.0	0.0
155°	0.0	0.0
157.5°	0.0	0.0
160°	0.0	0.0
162.5°	0.0	0.0
165°	0.0	0.0
167.5°	0.0	0.0
170°	0.0	0.0
172.5°	0.0	0.0
175°	4.7	4.7
177.5°	4.7	4.7



TEST NUMBER: P977172

CATALOG NUMBER: GRZ-15L-927-17x75-X-UNV-STD-4F

**CANDELA DISTRIBUTION (continued):**

	80°	90°
180°	4.7	4.7

(END OF REPORT)