

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: P977171

Luminaire Tested: GRZ-15L-927-17x75-X-UNV-STD-2F

Issue Date: 3/21/2025

Test Information

Test Method: LM-79-2019
Report Number: P977171
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-2F
Description: iO COVIO LED GRAZER WITH 17X75 DEGREE OPTIC.
1500 LUMENS PER FOOT, 2 FOOT FIXTURE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

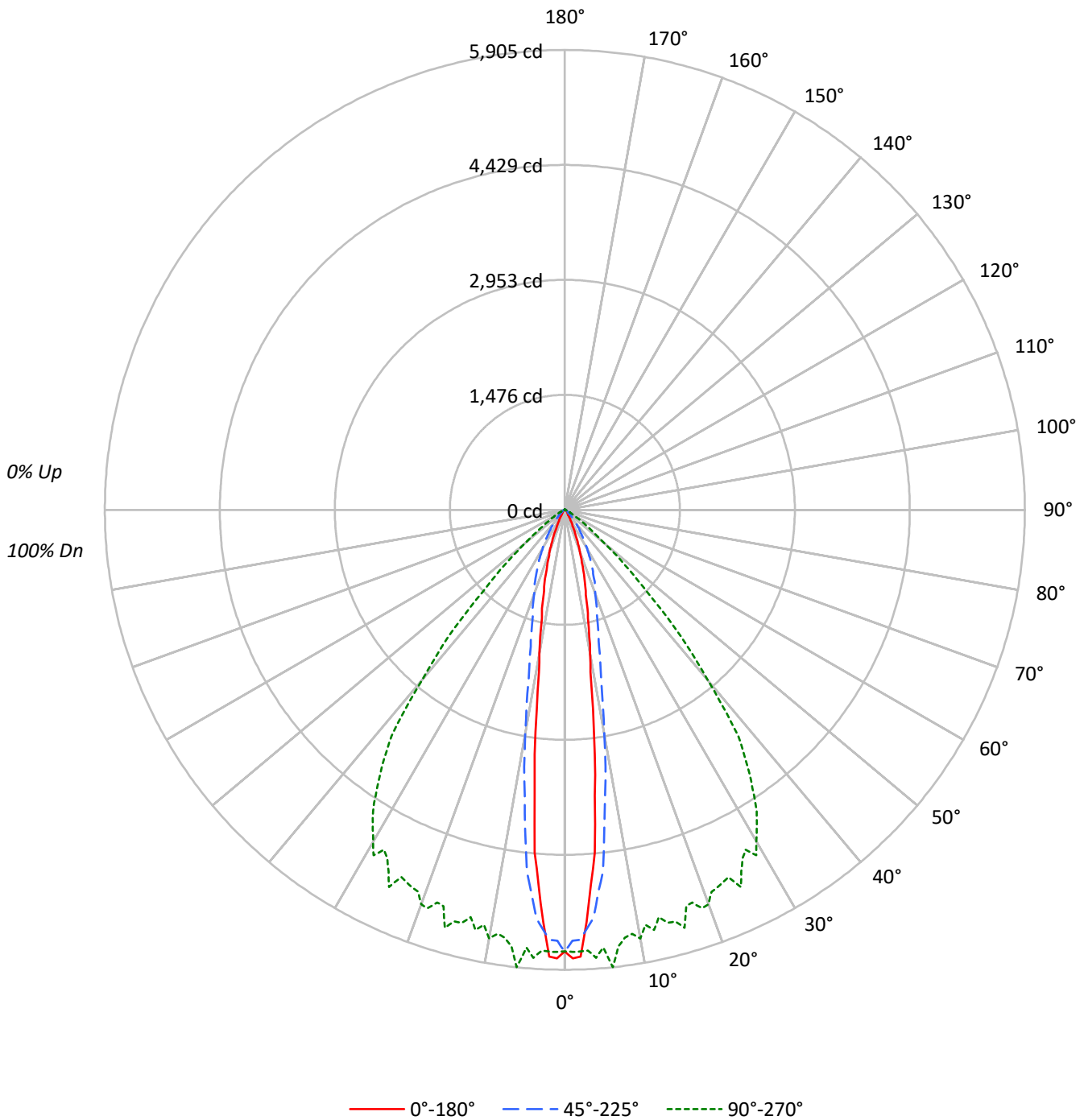
Lumens per Lamp: N/A
Luminaire Lumens: 2727.4 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 0.26 / 1.25 / 0.42
Luminous Opening: Rectangular (W 2' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 29
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°	61379	95589	183292
15°	34176	55712	182897
20°	19409	39302	185195
25°	9645	30022	190353
30°	4698	21060	183457
35°	2759	14077	162761
40°	2162	9152	120130
45°	2023	5649	68218
50°	1758	3753	32950
55°	1447	2759	15240
60°	1356	2409	7840
65°	1429	1964	4455
70°	1322	1539	2861
75°	1160	1160	2034
80°	874	874	1302
85°	852	852	852

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 68218 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	416.6	15.3
10°-20°	668.3	24.5
20°-30°	678.4	24.9
30°-40°	549.4	20.1
40°-50°	264.6	9.7
50°-60°	95.1	3.5
60°-70°	37.1	1.4
70°-80°	14.1	0.5
80°-90°	2.7	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°	0.4	0.0
150°-160°	0.2	0.0
160°-170°	0.3	0.0
170°-180°	0.2	0.0
0°-30°	1763.3	64.7
0°-40°	2312.7	84.8
0°-60°	2672.4	98.0
0°-90°	2726.3	100.0
90°-120°	0.0	0.0
90°-150°	0.4	0.0
90°-180°	1.0	0.0
0°-180°	2727.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5672	5672	5672	5672	5672	
5°	4421	4514	4929	5513	5644	322
15°	1022	1139	1666	3496	5471	287
25°	271	366	843	2084	5342	132
35°	70	105	357	1179	4129	48
45°	44	54	124	458	1494	33
55°	26	35	49	177	271	24
65°	19	21	26	63	58	18
75°	9	12	9	19	16	10
85°	2	2	2	2	2	3
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	2	0	0	0
155°	0	0	0	0	0	0
165°	2	2	2	0	0	0
175°	2	2	2	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	5671.6	5671.6	5671.6	5671.6	5671.6	5671.6	5671.6	5671.6	5671.6	5671.6	5671.6
1°	5760.3	5725.3	5659.9	5708.9	5755.6	5746.3	5533.9	5804.6	5741.6	5769.6	5645.9
2°	5741.6	5589.9	5547.9	5484.9	5673.9	5657.6	5524.6	5781.3	5685.6	5800.0	5697.3
3°	5295.8	5340.2	5349.5	5230.5	5470.9	5477.9	5391.5	5524.6	5634.3	5758.0	5765.0
4°	4824.4	4906.1	4915.4	4938.7	5190.8	5225.8	5251.5	5400.9	5447.5	5524.6	5426.5
5°	4420.6	4436.9	4425.2	4513.9	4761.3	4878.0	4929.4	5125.4	5312.2	5512.9	5400.9
6°	3690.0	3718.0	3788.1	3851.1	4198.9	4427.6	4670.3	4824.4	5141.8	5372.9	5393.9
7°	3160.2	3209.2	3241.9	3400.6	3573.3	4033.1	4163.8	4394.9	4896.7	5228.1	5214.1
8°	2586.1	2688.8	2758.8	2828.8	3113.5	3543.0	3699.4	4007.5	4600.3	5104.4	5155.8
9°	2112.3	2247.6	2385.3	2397.0	2665.4	3036.5	3339.9	3592.0	4299.2	4878.0	4740.3
10°	1871.9	1878.9	1995.6	2058.6	2294.3	2700.4	2915.2	3269.9	4075.2	4612.0	4733.3
11°	1652.5	1659.5	1706.1	1785.5	1997.9	2359.7	2576.7	2894.2	3683.0	4397.2	4549.0
12°	1421.4	1451.7	1538.1	1545.1	1757.5	2079.6	2236.0	2565.1	3405.3	4114.8	4313.2
13°	1295.4	1283.7	1372.4	1405.1	1547.4	1839.2	2028.2	2327.0	3097.2	4009.8	4152.2
14°	1120.3	1162.3	1239.3	1239.3	1440.1	1643.1	1808.8	2079.6	2905.8	3687.7	3939.8
15°	1022.3	1043.3	1118.0	1139.0	1274.4	1489.1	1666.5	1899.9	2642.1	3496.3	3683.0
16°	919.6	940.6	984.9	1043.3	1174.0	1363.1	1528.8	1750.5	2462.4	3342.3	3531.3
17°	805.2	828.6	896.3	928.9	1057.3	1272.0	1407.4	1624.5	2313.0	3155.6	3368.0
18°	716.5	749.2	800.6	828.6	952.3	1169.3	1339.7	1514.8	2112.3	2945.5	3171.9
19°	618.5	660.5	704.9	749.2	865.9	1069.0	1237.0	1414.4	2016.6	2826.5	3106.5
20°	564.8	578.8	639.5	669.9	795.9	1003.6	1143.7	1332.7	1899.9	2574.4	2926.8
21°	501.8	515.8	571.8	595.2	721.2	928.9	1085.3	1262.7	1799.5	2490.4	2726.1
22.5°	403.8	420.1	471.5	504.1	613.8	828.6	998.9	1153.0	1647.8	2343.3	2579.1
23°	366.4	396.8	448.1	473.8	581.2	800.6	956.9	1129.7	1645.5	2231.3	2492.7
24°	326.8	343.1	396.8	415.5	529.8	744.5	893.9	1064.3	1570.8	2182.3	2387.7
25°	270.7	291.7	340.8	366.4	471.5	690.9	842.6	996.6	1451.7	2084.3	2287.3
26°	228.7	245.1	305.8	324.4	429.5	616.2	765.5	945.3	1398.1	1979.2	2149.6
27°	203.1	210.1	266.1	275.4	385.1	588.2	728.2	870.6	1330.4	1850.9	2067.9
28°	168.0	179.7	231.1	245.1	343.1	536.8	667.5	807.6	1258.0	1752.8	1967.6
29°	149.4	158.7	196.1	214.7	305.8	487.8	616.2	758.5	1188.0	1671.1	1906.9
30°	126.0	137.7	175.0	191.4	273.1	445.8	564.8	707.2	1111.0	1568.4	1792.5
32.5°	93.4	100.4	126.0	142.4	205.4	357.1	455.1	583.5	961.6	1386.4	1563.8
35°	70.0	74.7	95.7	105.0	158.7	263.7	357.1	471.5	812.2	1178.7	1330.4
37.5°	58.3	60.7	77.0	84.0	123.7	203.1	280.1	375.8	660.5	963.9	1099.3
40°	51.3	53.7	63.0	70.0	98.0	158.7	217.1	296.4	522.8	777.2	875.2
42.5°	46.7	49.0	56.0	60.7	81.7	126.0	165.7	219.4	394.4	604.5	672.2
45°	44.3	44.3	51.3	53.7	70.0	98.0	123.7	158.7	296.4	457.5	515.8
47.5°	39.7	39.7	46.7	49.0	60.7	79.4	93.4	119.0	228.7	354.8	401.4
50°	35.0	35.0	42.0	44.3	53.7	65.4	74.7	86.4	175.0	280.1	317.4
52.5°	30.3	30.3	37.3	39.7	46.7	56.0	60.7	70.0	137.7	224.1	254.4
55°	25.7	25.7	32.7	35.0	42.0	46.7	49.0	53.7	109.7	177.4	198.4
57.5°	23.3	25.7	28.0	30.3	37.3	42.0	42.0	44.3	86.4	144.7	151.7
60°	21.0	23.3	25.7	28.0	30.3	37.3	37.3	37.3	67.7	107.4	114.4
62.5°	18.7	21.0	23.3	23.3	25.7	32.7	30.3	30.3	53.7	81.7	86.4
65°	18.7	18.7	21.0	21.0	23.3	28.0	25.7	23.3	42.0	63.0	63.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
67.5°	16.3	16.3	18.7	18.7	18.7	23.3	21.0	18.7	32.7	46.7	49.0
70°	14.0	14.0	16.3	16.3	16.3	18.7	16.3	16.3	25.7	35.0	35.0
72.5°	11.7	11.7	14.0	14.0	14.0	14.0	14.0	11.7	21.0	25.7	25.7
75°	9.3	9.3	11.7	11.7	11.7	11.7	9.3	9.3	14.0	18.7	16.3
77.5°	7.0	7.0	9.3	9.3	9.3	7.0	7.0	7.0	11.7	11.7	11.7
80°	4.7	7.0	7.0	7.0	7.0	7.0	4.7	4.7	7.0	7.0	7.0
82.5°	4.7	4.7	4.7	4.7	4.7	4.7	2.3	2.3	4.7	4.7	4.7
85°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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	2.3	2.3	2.3	2.3	2.3
145°	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	0.0	0.0	2.3
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	0.0	2.3
150°	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3	0.0	2.3	2.3
152.5°	0.0	0.0	0.0	0.0	2.3	2.3	0.0	2.3	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	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	2.3	2.3	2.3	2.3	2.3	2.3	2.3	0.0	0.0	0.0
165°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	0.0	0.0	0.0
167.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	0.0	0.0	0.0
170°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
172.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
175°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
177.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	5671.6	5671.6
1°	5636.6	5673.9
2°	5648.3	5676.3
3°	5627.3	5664.6
4°	5561.9	5765.0
5°	5613.3	5643.6
6°	5477.9	5905.0
7°	5466.2	5643.6
8°	5391.5	5547.9
9°	5314.5	5510.6
10°	5197.8	5589.9
11°	5155.8	5428.9
12°	5104.4	5512.9
13°	4941.1	5368.2
14°	4945.7	5463.9
15°	4882.7	5470.9
16°	4675.0	5580.6
17°	4721.7	5323.8
18°	4621.3	5300.5
19°	4551.3	5407.9
20°	4483.6	5389.2
21°	4324.9	5251.5
22.5°	4292.2	5214.1
23°	4313.2	5195.5
24°	4149.8	5160.5
25°	3970.1	5342.5
26°	3904.8	5165.1
27°	3818.4	5022.8
28°	3680.7	4943.4
29°	3613.0	5069.4
30°	3484.7	4920.1
32.5°	3139.2	4584.0
35°	2705.1	4128.8
37.5°	2198.6	3655.0
40°	1729.5	2849.8
42.5°	1283.7	2212.6
45°	903.3	1493.8
47.5°	665.2	1038.6
50°	471.5	655.9
52.5°	343.1	420.1
55°	245.1	270.7
57.5°	175.0	177.4
60°	121.4	121.4
62.5°	86.4	86.4
65°	63.0	58.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
67.5°	44.3	44.3
70°	32.7	30.3
72.5°	23.3	23.3
75°	16.3	16.3
77.5°	11.7	11.7
80°	7.0	7.0
82.5°	4.7	4.7
85°	2.3	2.3
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	2.3
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°	2.3	2.3
177.5°	2.3	2.3



TEST NUMBER: P977171

CATALOG NUMBER: GRZ-15L-927-17x75-X-UNV-STD-2F

CANDELA DISTRIBUTION (continued):

	80°	90°
180°	2.3	2.3

(END OF REPORT)