

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: P977175

Luminaire Tested: GRZ-15L-930-17x75-X-UNV-STD-4F

Issue Date: 3/21/2025

Test Information

Test Method: LM-79-2019
Report Number: P977175
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-930-17x75-X-UNV-STD-4F
Description: iO COVIO LED GRAZER WITH 17X75 DEGREE OPTIC.
1500 LUMENS PER FOOT, 4 FOOT FIXTURE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

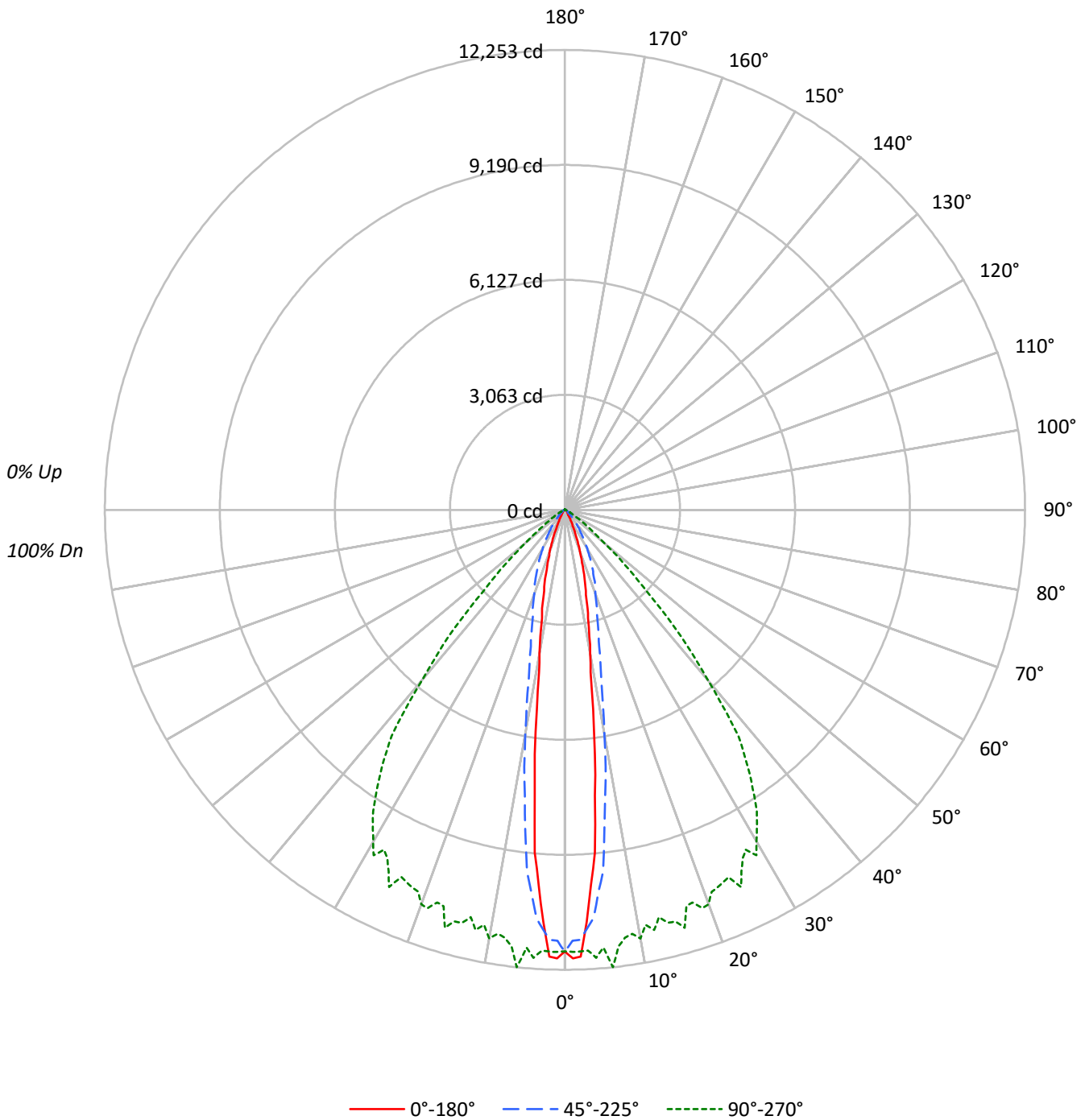
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5659.4 lumens
Efficiency: N/A
Efficacy: 101.1 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		100
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93		93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86		86
3	102	95	90	86	100	93	89	85	91	87	83	88	85	82	86	83	81	79		79
4	96	88	83	78	94	87	82	78	85	80	77	83	79	76	81	78	75	74		74
5	91	83	77	72	90	82	76	72	80	75	71	78	74	71	77	73	70	68		68
6	87	77	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64		64
7	82	73	67	62	81	72	66	62	71	66	62	70	65	62	69	64	61	60		60
8	78	69	63	58	77	68	62	58	67	62	58	66	61	58	65	61	58	56		56
9	75	65	59	55	74	65	59	55	64	58	55	63	58	54	62	57	54	53		53
10	71	62	56	52	70	61	56	52	60	55	52	60	55	52	59	55	51	50		50

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	190016	190016	190016
5°	148668	165780	189800
10°	63679	99173	190168
15°	35458	57802	189757
20°	20137	40775	192142
25°	10008	31146	197493
30°	4875	21850	190336
35°	2864	14605	168867
40°	2245	9493	124636
45°	2101	5861	70775
50°	1824	3893	34184
55°	1500	2863	15814
60°	1408	2503	8131
65°	1479	2036	4627
70°	1374	1600	2974
75°	1210	1210	2115
80°	902	902	1348
85°	889	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 70775 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	864.5	15.3
10°-20°	1386.7	24.5
20°-30°	1407.7	24.9
30°-40°	1140.0	20.1
40°-50°	549.0	9.7
50°-60°	197.4	3.5
60°-70°	77.0	1.4
70°-80°	29.2	0.5
80°-90°	5.6	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°	3658.9	64.7
0°-40°	4799.0	84.8
0°-60°	5545.3	98.0
0°-90°	5657.1	100.0
90°-120°	0.0	0.0
90°-150°	0.9	0.0
90°-180°	2.0	0.0
0°-180°	5659.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11769	11769	11769	11769	11769	
5°	9173	9366	10229	11439	11711	669
15°	2121	2363	3458	7255	11352	595
25°	562	760	1748	4325	11086	275
35°	145	218	741	2446	8567	99
45°	92	111	257	949	3100	70
55°	53	73	102	368	562	50
65°	39	44	53	131	121	37
75°	19	24	19	39	34	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°	11768.7	11768.7	11768.7	11768.7	11768.7	11768.7	11768.7	11768.7	11768.7	11768.7	11768.7
1°	11952.7	11880.1	11744.5	11846.2	11943.0	11923.6	11482.9	12044.7	11914.0	11972.1	11715.4
2°	11914.0	11599.2	11512.0	11381.2	11773.5	11739.6	11463.6	11996.3	11797.7	12035.0	11821.9
3°	10988.9	11081.0	11100.3	10853.3	11352.2	11366.7	11187.5	11463.6	11691.2	11947.9	11962.4
4°	10010.6	10180.1	10199.5	10247.9	10771.0	10843.6	10896.9	11206.9	11303.7	11463.6	11260.1
5°	9172.8	9206.7	9182.5	9366.5	9879.9	10122.0	10228.6	10635.4	11022.8	11439.3	11206.9
6°	7656.9	7715.0	7860.3	7991.1	8712.7	9187.3	9691.0	10010.6	10669.3	11148.8	11192.3
7°	6557.5	6659.2	6727.0	7056.4	7414.7	8368.8	8640.0	9119.5	10160.8	10848.5	10819.4
8°	5366.1	5579.2	5724.5	5869.8	6460.7	7351.8	7676.3	8315.6	9545.7	10591.8	10698.3
9°	4383.0	4663.9	4949.6	4973.8	5530.8	6300.8	6930.4	7453.5	8920.9	10122.0	9836.3
10°	3884.1	3898.7	4140.8	4271.6	4760.7	5603.4	6049.0	6785.1	8456.0	9569.9	9821.8
11°	3428.9	3443.4	3540.3	3705.0	4145.7	4896.3	5346.8	6005.4	7642.4	9124.4	9439.2
12°	2949.4	3012.4	3191.6	3206.1	3646.8	4315.2	4639.7	5322.5	7066.0	8538.3	8950.0
13°	2687.9	2663.7	2847.7	2915.5	3211.0	3816.3	4208.6	4828.5	6426.8	8320.4	8615.8
14°	2324.7	2411.9	2571.7	2571.7	2988.2	3409.5	3753.4	4315.2	6029.6	7652.1	8175.1
15°	2121.3	2164.9	2319.8	2363.4	2644.3	3089.9	3458.0	3942.3	5482.4	7254.9	7642.4
16°	1908.2	1951.8	2043.8	2164.9	2436.1	2828.4	3172.2	3632.3	5109.4	6935.3	7327.6
17°	1670.9	1719.3	1859.7	1927.5	2193.9	2639.5	2920.4	3370.8	4799.5	6547.8	6988.6
18°	1486.8	1554.6	1661.2	1719.3	1976.0	2426.4	2779.9	3143.2	4383.0	6112.0	6581.7
19°	1283.4	1370.6	1462.6	1554.6	1796.8	2218.1	2566.8	2934.9	4184.4	5865.0	6446.1
20°	1172.0	1201.1	1327.0	1390.0	1651.5	2082.5	2373.1	2765.4	3942.3	5341.9	6073.2
21°	1041.3	1070.3	1186.6	1235.0	1496.5	1927.5	2252.0	2620.1	3734.0	5167.6	5656.7
22.5°	837.9	871.8	978.3	1046.1	1273.7	1719.3	2072.8	2392.5	3419.2	4862.4	5351.6
23°	760.4	823.3	929.9	983.1	1205.9	1661.2	1985.7	2344.0	3414.4	4630.0	5172.4
24°	678.0	711.9	823.3	862.1	1099.4	1544.9	1854.9	2208.4	3259.4	4528.3	4954.5
25°	561.8	605.4	707.1	760.4	978.3	1433.5	1748.3	2068.0	3012.4	4324.9	4746.2
26°	474.6	508.5	634.4	673.2	891.1	1278.6	1588.5	1961.4	2901.0	4106.9	4460.5
27°	421.3	435.9	552.1	571.5	799.1	1220.5	1511.0	1806.5	2760.6	3840.6	4291.0
28°	348.7	372.9	479.5	508.5	711.9	1113.9	1385.1	1675.7	2610.4	3637.1	4082.7
29°	310.0	329.3	406.8	445.6	634.4	1012.2	1278.6	1574.0	2465.1	3467.6	3956.8
30°	261.5	285.7	363.2	397.1	566.6	925.0	1172.0	1467.5	2305.3	3254.5	3719.5
32.5°	193.7	208.3	261.5	295.4	426.2	741.0	944.4	1210.8	1995.3	2876.8	3244.9
35°	145.3	155.0	198.6	217.9	329.3	547.3	741.0	978.3	1685.4	2445.8	2760.6
37.5°	121.1	125.9	159.8	174.4	256.7	421.3	581.2	779.7	1370.6	2000.2	2281.1
40°	106.5	111.4	130.8	145.3	203.4	329.3	450.4	615.1	1084.8	1612.7	1816.2
42.5°	96.9	101.7	116.2	125.9	169.5	261.5	343.9	455.2	818.5	1254.4	1394.8
45°	92.0	92.0	106.5	111.4	145.3	203.4	256.7	329.3	615.1	949.2	1070.3
47.5°	82.3	82.3	96.9	101.7	125.9	164.7	193.7	247.0	474.6	736.1	833.0
50°	72.6	72.6	87.2	92.0	111.4	135.6	155.0	179.2	363.2	581.2	658.7
52.5°	63.0	63.0	77.5	82.3	96.9	116.2	125.9	145.3	285.7	464.9	527.9
55°	53.3	53.3	67.8	72.6	87.2	96.9	101.7	111.4	227.6	368.1	411.7
57.5°	48.4	53.3	58.1	63.0	77.5	87.2	87.2	92.0	179.2	300.3	314.8
60°	43.6	48.4	53.3	58.1	63.0	77.5	77.5	77.5	140.4	222.8	237.3
62.5°	38.7	43.6	48.4	48.4	53.3	67.8	63.0	63.0	111.4	169.5	179.2
65°	38.7	38.7	43.6	43.6	48.4	58.1	53.3	48.4	87.2	130.8	130.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
67.5°	33.9	33.9	38.7	38.7	38.7	48.4	43.6	38.7	67.8	96.9	101.7
70°	29.1	29.1	33.9	33.9	33.9	38.7	33.9	33.9	53.3	72.6	72.6
72.5°	24.2	24.2	29.1	29.1	29.1	29.1	29.1	24.2	43.6	53.3	53.3
75°	19.4	19.4	24.2	24.2	24.2	24.2	19.4	19.4	29.1	38.7	33.9
77.5°	14.5	14.5	19.4	19.4	19.4	14.5	14.5	14.5	24.2	24.2	24.2
80°	9.7	14.5	14.5	14.5	14.5	14.5	9.7	9.7	14.5	14.5	14.5
82.5°	9.7	9.7	9.7	9.7	9.7	9.7	4.8	4.8	9.7	9.7	9.7
85°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
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	4.8	4.8	4.8	4.8	4.8
145°	0.0	0.0	0.0	0.0	0.0	4.8	4.8	4.8	0.0	0.0	4.8
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.8	4.8	4.8	0.0	4.8
150°	0.0	0.0	0.0	0.0	0.0	4.8	4.8	4.8	0.0	4.8	4.8
152.5°	0.0	0.0	0.0	0.0	4.8	4.8	0.0	4.8	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	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	4.8	4.8	4.8	4.8	4.8	4.8	4.8	0.0	0.0	0.0
165°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	0.0	0.0	0.0
167.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	0.0	0.0	0.0
170°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
172.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
175°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
177.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
180°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	11768.7	11768.7
1°	11696.0	11773.5
2°	11720.2	11778.4
3°	11676.7	11754.1
4°	11541.0	11962.4
5°	11647.6	11710.6
6°	11366.7	12253.0
7°	11342.5	11710.6
8°	11187.5	11512.0
9°	11027.7	11434.5
10°	10785.5	11599.2
11°	10698.3	11265.0
12°	10591.8	11439.3
13°	10252.8	11139.1
14°	10262.5	11337.6
15°	10131.7	11352.2
16°	9700.7	11579.8
17°	9797.5	11047.1
18°	9589.3	10998.6
19°	9444.0	11221.4
20°	9303.5	11182.7
21°	8974.2	10896.9
22.5°	8906.4	10819.4
23°	8950.0	10780.7
24°	8611.0	10708.0
25°	8238.1	11085.8
26°	8102.5	10717.7
27°	7923.3	10422.3
28°	7637.5	10257.6
29°	7497.1	10519.2
30°	7230.7	10209.2
32.5°	6513.9	9511.8
35°	5613.1	8567.4
37.5°	4562.2	7584.3
40°	3588.7	5913.4
42.5°	2663.7	4591.2
45°	1874.3	3099.6
47.5°	1380.3	2155.2
50°	978.3	1360.9
52.5°	711.9	871.8
55°	508.5	561.8
57.5°	363.2	368.1
60°	251.8	251.8
62.5°	179.2	179.2
65°	130.8	121.1



TEST NUMBER: P977175

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CANDELA DISTRIBUTION (continued):

	80°	90°
67.5°	92.0	92.0
70°	67.8	63.0
72.5°	48.4	48.4
75°	33.9	33.9
77.5°	24.2	24.2
80°	14.5	14.5
82.5°	9.7	9.7
85°	4.8	4.8
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	4.8
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°	4.8	4.8
177.5°	4.8	4.8



TEST NUMBER: P977175

CATALOG NUMBER: GRZ-15L-930-17x75-X-UNV-STD-4F

CANDELA DISTRIBUTION (continued):

	80°	90°
180°	4.8	4.8

(END OF REPORT)