

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P838179

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-6STD-27-120-EDD-90**

Issue Date: 5/21/2024

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08
Report Number: P838179
Test Lab: INNOVATION CENTER(G2)
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORLG-24-4-INS-ASY2R-LD4-6STD-27-120-EDD-90
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and
RFI grid
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

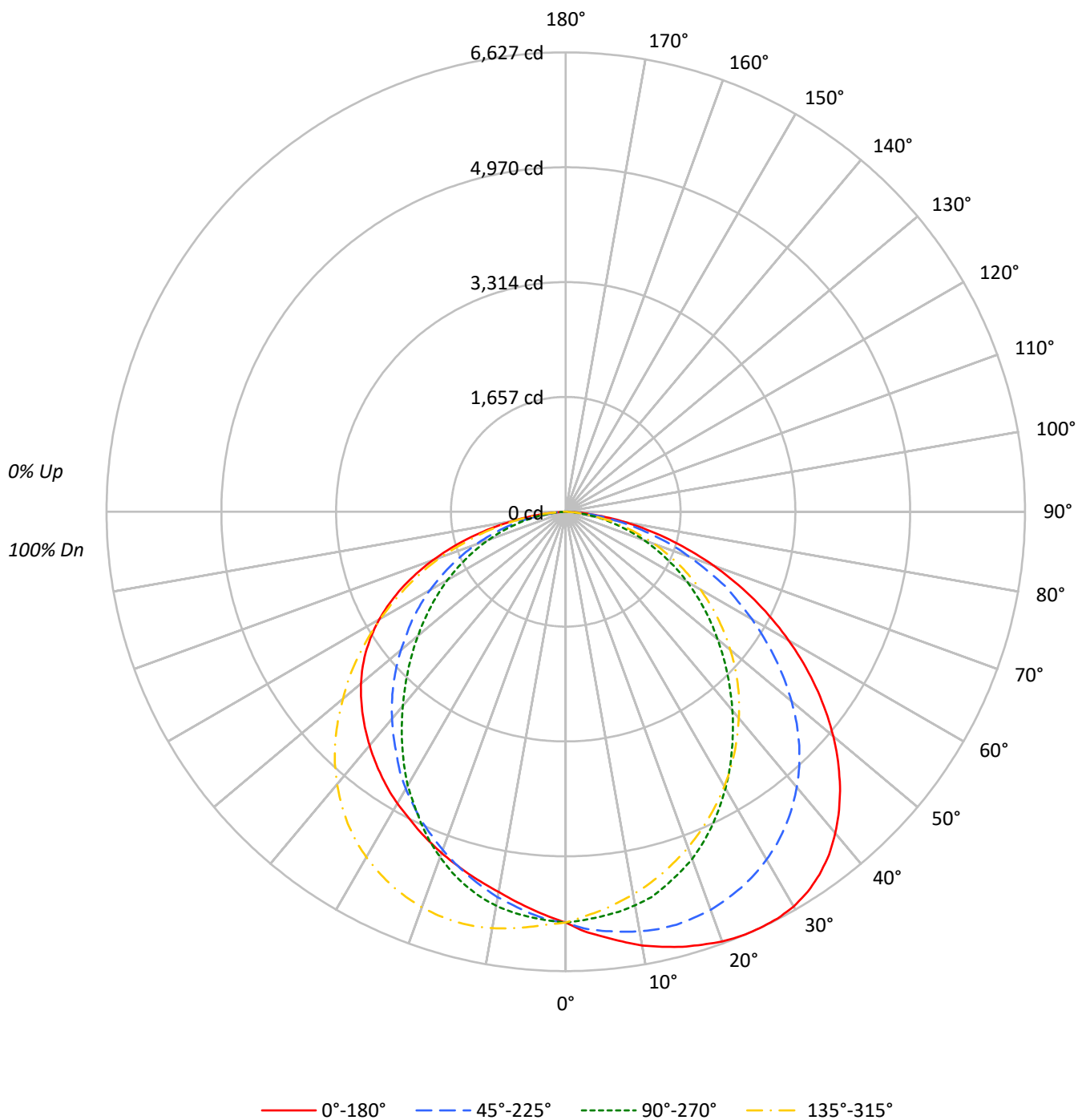
Lumens per Lamp: N/A
Luminaire Lumens: 17386.8 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 199.8
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: 25 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
RW	70	50	30	10	70	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
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	7974	7974	7974	7974
5°	8310	7916	7767	7930
10°	8680	7876	7609	7887
15°	9052	7775	7535	7777
20°	9447	7634	7502	7591
25°	9838	7421	7501	7345
30°	10219	7163	7551	7083
35°	10490	6869	7627	6760
40°	10630	6573	7733	6425
45°	10651	6274	7883	6116
50°	10550	5987	8076	5828
55°	10332	5720	8256	5561
60°	10007	5442	8366	5301
65°	9559	5123	8323	5004
70°	8930	4747	8027	4661
75°	8034	4233	7366	4211
80°	6812	3546	6191	3599
85°	4738	2348	3927	2411

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	562.7	3.2
10°-20°	1629.3	9.4
20°-30°	2497.0	14.4
30°-40°	3036.2	17.5
40°-50°	3156.3	18.2
50°-60°	2851.1	16.4
60°-70°	2167.6	12.5
70°-80°	1208.4	7.0
80°-90°	278.2	1.6
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°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	4689.0	27.0
0°-40°	7725.2	44.4
0°-60°	13732.6	79.0
0°-90°	17386.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17386.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	5926	5926	5926	5926	5926	
5°	6153	5861	5751	5871	6153	593
15°	6499	5582	5409	5583	6499	1843
25°	6627	4999	5053	4948	6627	3061
35°	6387	4182	4643	4115	6387	3989
45°	5597	3297	4143	3214	5597	4309
55°	4404	2438	3520	2371	4404	3932
65°	3002	1609	2614	1572	3002	2967
75°	1546	814	1417	810	1546	1642
85°	307	152	254	156	307	386
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3
2.5°	6057.6	5969.1	5970.5	6047.9	5988.5	6017.5	5934.6	5966.3	5956.7	5963.6	5895.8
5°	6153.0	6057.6	6056.2	6122.6	6056.2	6068.6	5963.6	5984.3	5953.9	5934.6	5861.3
7.5°	6253.9	6158.5	6148.8	6206.9	6119.8	6110.1	5994.0	5994.0	5938.7	5890.3	5821.2
10°	6353.4	6255.3	6242.8	6287.1	6179.2	6147.4	6006.4	5984.3	5911.1	5839.2	5764.5
12.5°	6428.1	6328.5	6318.9	6346.5	6224.9	6166.8	6006.4	5963.6	5855.8	5754.8	5696.8
15°	6498.6	6396.3	6370.0	6383.8	6244.2	6166.8	5987.1	5920.7	5782.5	5649.8	5582.0
17.5°	6548.3	6450.2	6423.9	6422.5	6253.9	6143.3	5945.6	5854.4	5688.5	5528.1	5460.4
20°	6598.1	6499.9	6466.8	6441.9	6251.1	6111.5	5884.8	5761.8	5568.2	5388.5	5331.8
22.5°	6623.0	6522.1	6486.1	6448.8	6233.1	6053.4	5810.1	5653.9	5432.7	5218.5	5171.5
25°	6627.1	6523.4	6484.7	6430.8	6197.2	5984.3	5713.4	5524.0	5276.5	5038.8	4998.7
27.5°	6616.1	6502.7	6464.0	6399.0	6143.3	5900.0	5598.6	5376.1	5110.7	4848.0	4805.1
30°	6577.4	6462.6	6425.3	6341.0	6067.3	5796.3	5472.8	5211.6	4926.8	4647.6	4610.2
32.5°	6499.9	6388.0	6357.6	6273.2	5984.3	5676.0	5326.3	5034.6	4723.6	4456.8	4401.5
35°	6386.6	6274.6	6255.3	6166.8	5868.2	5532.3	5165.9	4841.1	4507.9	4235.6	4181.7
37.5°	6238.7	6144.7	6115.6	6028.6	5731.3	5369.2	4982.1	4631.0	4288.1	3995.1	3961.9
40°	6052.1	5963.6	5941.5	5864.1	5572.4	5188.1	4783.0	4413.9	4061.4	3789.1	3742.1
42.5°	5839.2	5756.2	5743.8	5663.6	5376.1	4987.6	4567.4	4188.6	3825.0	3562.4	3515.4
45°	5597.3	5517.1	5514.3	5438.3	5161.8	4765.1	4340.7	3960.5	3594.2	3321.9	3297.0
47.5°	5330.5	5258.6	5258.6	5188.1	4922.7	4520.4	4107.0	3722.7	3361.9	3121.4	3077.2
50°	5040.2	4972.4	4951.7	4917.1	4658.6	4253.6	3861.0	3490.5	3132.5	2903.0	2860.1
52.5°	4730.5	4672.4	4686.3	4622.7	4372.5	3975.7	3612.2	3229.2	2901.6	2692.9	2650.0
55°	4404.3	4321.3	4333.8	4310.3	4073.9	3689.6	3332.9	3013.6	2674.9	2478.6	2438.5
57.5°	4065.6	3957.8	4002.0	3988.2	3755.9	3396.5	3077.2	2768.9	2449.6	2268.5	2229.8
60°	3718.6	3614.9	3660.5	3648.1	3429.7	3103.4	2813.1	2527.0	2225.6	2061.1	2022.4
62.5°	3361.9	3266.6	3308.0	3298.4	3097.9	2803.5	2550.5	2287.8	2000.3	1852.4	1816.4
65°	3002.5	2911.3	2948.6	2941.7	2756.5	2532.5	2280.9	2040.4	1773.6	1645.0	1609.1
67.5°	2634.8	2550.5	2585.0	2585.0	2415.0	2200.7	2010.0	1790.2	1551.0	1440.4	1407.3
70°	2269.9	2191.1	2221.5	2218.7	2075.0	1900.8	1736.3	1540.0	1325.7	1234.5	1206.8
72.5°	1902.2	1833.0	1860.7	1857.9	1737.7	1625.7	1462.6	1292.5	1105.9	1032.6	1007.8
75°	1545.5	1480.5	1506.8	1504.0	1405.9	1300.8	1191.6	1050.6	890.3	839.1	814.2
77.5°	1205.4	1139.1	1161.2	1161.2	1089.3	1013.3	926.2	817.0	703.6	648.3	630.4
80°	879.2	847.4	836.3	837.7	789.3	739.6	695.3	590.3	507.3	470.0	457.6
82.5°	577.8	551.6	540.5	543.3	515.6	485.2	457.6	384.3	329.0	306.9	300.0
85°	306.9	287.5	277.9	284.8	279.2	262.7	248.8	199.1	164.5	156.2	152.1
87.5°	96.8	84.3	77.4	102.3	87.1	77.4	74.6	59.4	45.6	45.6	44.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3
2.5°	5918.0	5918.0	5864.1	5851.6	5846.1	5853.0	5799.1	5789.4	5866.8	5840.6	5781.1
5°	5871.0	5868.2	5792.2	5778.3	5778.3	5770.0	5709.2	5695.4	5772.8	5750.7	5685.7
7.5°	5812.9	5804.6	5714.8	5705.1	5691.3	5685.7	5618.0	5608.3	5674.7	5660.8	5600.0
10°	5742.4	5734.1	5627.7	5620.8	5605.5	5594.5	5530.9	5524.0	5591.7	5569.6	5521.2
12.5°	5649.8	5634.6	5525.4	5518.5	5506.0	5501.9	5439.7	5436.9	5511.5	5489.4	5438.3
15°	5528.1	5515.7	5394.0	5396.8	5398.2	5398.2	5348.4	5345.7	5418.9	5409.2	5354.0
17.5°	5394.0	5377.5	5261.3	5269.6	5279.3	5290.4	5251.7	5258.6	5336.0	5323.5	5273.8
20°	5242.0	5225.4	5112.0	5135.5	5156.3	5178.4	5153.5	5172.9	5244.7	5239.2	5201.9
22.5°	5071.9	5055.4	4950.3	4986.2	5020.8	5062.3	5051.2	5073.3	5149.4	5148.0	5114.8
25°	4864.6	4868.7	4776.1	4820.4	4878.4	4936.5	4940.6	4976.6	5060.9	5052.6	5022.2
27.5°	4671.1	4676.6	4578.4	4653.1	4730.5	4805.1	4823.1	4872.9	4958.6	4951.7	4925.4
30°	4467.8	4474.8	4379.4	4481.7	4575.7	4666.9	4705.6	4773.4	4860.4	4860.4	4832.8
32.5°	4256.3	4268.8	4169.3	4306.1	4415.3	4521.8	4589.5	4660.0	4759.5	4756.8	4733.3
35°	4039.3	4053.1	3961.9	4136.1	4245.3	4375.2	4459.6	4553.6	4642.0	4643.4	4625.4
37.5°	3818.1	3834.7	3751.8	3942.5	4067.0	4220.4	4328.2	4422.2	4520.4	4525.9	4509.3
40°	3598.3	3616.3	3544.4	3728.3	3885.9	4057.3	4181.7	4292.3	4400.1	4402.9	4391.8
42.5°	3378.5	3397.9	3344.0	3523.7	3702.0	3885.9	4032.4	4158.2	4268.8	4275.7	4263.3
45°	3164.3	3180.9	3142.1	3338.4	3509.9	3710.3	3879.0	4021.3	4133.3	4143.0	4138.8
47.5°	2951.4	2966.6	2932.0	3111.7	3309.4	3522.3	3717.2	3874.8	3993.7	4004.8	4002.0
50°	2742.6	2755.1	2717.8	2905.8	3102.1	3328.8	3532.0	3714.5	3847.2	3858.2	3856.8
52.5°	2535.3	2547.7	2515.9	2713.6	2891.9	3131.1	3352.3	3549.9	3681.3	3697.9	3700.6
55°	2334.8	2340.4	2315.5	2504.9	2677.7	2927.9	3182.2	3374.4	3505.7	3519.5	3527.8
57.5°	2134.4	2135.8	2115.0	2296.1	2462.0	2717.8	2984.6	3186.4	3310.8	3324.6	3337.1
60°	1935.3	1933.9	1910.4	2086.0	2245.0	2498.0	2775.8	2976.3	3096.5	3109.0	3125.6
62.5°	1737.7	1733.5	1712.8	1874.5	2023.8	2274.0	2553.3	2746.8	2861.5	2869.8	2891.9
65°	1541.4	1537.2	1517.9	1667.1	1802.6	2041.8	2315.5	2499.3	2603.0	2614.1	2609.9
67.5°	1347.8	1339.5	1324.3	1458.4	1581.4	1802.6	2065.3	2240.8	2326.5	2336.2	2362.5
70°	1154.3	1144.6	1110.1	1252.4	1360.3	1557.9	1802.6	1958.8	2030.7	2040.4	2036.2
72.5°	963.5	953.8	916.5	1047.8	1139.1	1311.9	1530.3	1660.2	1722.4	1730.7	1730.7
75°	778.3	772.7	749.2	848.8	924.8	1065.8	1251.1	1358.9	1407.3	1416.9	1414.2
77.5°	600.0	595.8	572.3	658.0	717.5	822.5	971.8	1056.1	1092.1	1103.1	1126.6
80°	429.9	428.5	391.2	475.5	501.8	590.3	699.5	764.5	783.8	799.0	815.6
82.5°	275.1	276.5	239.2	311.0	322.1	378.8	446.5	486.6	500.4	512.9	525.3
85°	134.1	139.6	118.9	164.5	165.9	194.9	223.9	239.2	244.7	254.4	265.4
87.5°	34.6	40.1	22.1	47.0	41.5	53.9	62.2	66.4	65.0	71.9	76.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3
2.5°	5800.5	5844.7	5822.6	5894.5	5922.1	5877.9	5955.3	5956.7	5901.4	5966.3	6002.3
5°	5710.6	5756.2	5742.4	5817.0	5851.6	5812.9	5906.9	5924.9	5871.0	5944.2	6002.3
7.5°	5619.4	5673.3	5655.3	5731.3	5772.8	5742.4	5843.3	5872.3	5830.9	5911.1	5988.5
10°	5540.6	5586.2	5566.8	5647.0	5683.0	5658.1	5757.6	5811.5	5772.8	5871.0	5963.6
12.5°	5463.2	5500.5	5478.4	5544.7	5579.3	5547.5	5669.1	5718.9	5691.3	5793.5	5912.4
15°	5363.6	5405.1	5374.7	5434.1	5460.4	5432.7	5532.3	5618.0	5583.4	5695.4	5826.7
17.5°	5287.6	5311.1	5269.6	5316.6	5331.8	5294.5	5395.4	5479.7	5454.9	5576.5	5728.6
20°	5203.3	5222.6	5164.6	5190.8	5189.4	5142.4	5235.1	5318.0	5301.4	5435.5	5608.3
22.5°	5109.3	5118.9	5051.2	5056.7	5054.0	4976.6	5059.5	5143.8	5136.9	5272.4	5465.9
25°	5009.7	5011.1	4924.0	4921.3	4890.9	4799.6	4872.9	4968.3	4947.5	5094.1	5297.3
27.5°	4911.6	4897.8	4792.7	4767.8	4719.4	4610.2	4675.2	4760.9	4748.5	4892.2	5117.6
30°	4806.5	4788.6	4660.0	4614.4	4543.9	4418.1	4472.0	4552.2	4559.1	4684.9	4921.3
32.5°	4707.0	4661.4	4519.0	4452.6	4364.2	4217.6	4246.7	4328.2	4339.3	4466.5	4709.8
35°	4578.4	4548.0	4372.5	4259.1	4172.0	4011.7	4042.1	4098.8	4115.3	4239.8	4487.2
37.5°	4456.8	4408.4	4221.8	4083.5	3971.6	3802.9	3811.2	3869.3	3885.9	4011.7	4256.3
40°	4331.0	4261.9	4061.4	3899.7	3771.1	3594.2	3584.5	3645.3	3657.8	3780.8	4002.0
42.5°	4196.9	4114.0	3888.6	3711.7	3563.8	3384.1	3364.7	3417.2	3431.1	3551.3	3768.4
45°	4061.4	3961.9	3711.7	3518.2	3356.4	3172.6	3153.2	3193.3	3214.0	3327.4	3536.1
47.5°	3917.7	3801.5	3529.2	3313.6	3146.3	2962.4	2938.9	2979.0	2995.6	3107.6	3305.3
50°	3767.0	3626.0	3341.2	3103.4	2937.6	2756.5	2721.9	2768.9	2784.1	2889.2	3082.7
52.5°	3601.1	3444.9	3140.8	2891.9	2726.1	2553.3	2511.8	2557.4	2575.4	2677.7	2856.0
55°	3425.5	3256.9	2938.9	2697.0	2517.3	2348.7	2314.1	2332.1	2370.8	2467.5	2633.4
57.5°	3227.9	3060.6	2726.1	2480.0	2307.2	2145.5	2116.4	2133.0	2169.0	2263.0	2412.3
60°	3017.7	2840.8	2509.0	2263.0	2095.7	1942.2	1916.0	1931.2	1969.9	2055.6	2193.8
62.5°	2810.4	2611.3	2285.1	2040.4	1888.3	1745.9	1739.0	1733.5	1769.4	1852.4	1974.0
65°	2558.8	2368.0	2051.5	1819.2	1681.0	1552.4	1524.8	1537.2	1571.8	1647.8	1775.0
67.5°	2289.2	2116.4	1812.3	1598.0	1475.0	1360.3	1336.8	1342.3	1378.2	1444.6	1555.2
70°	2003.1	1851.0	1567.6	1375.5	1271.8	1164.0	1148.8	1150.1	1184.7	1242.8	1339.5
72.5°	1703.1	1566.2	1320.2	1155.7	1070.0	992.5	978.7	962.1	993.9	1043.7	1126.6
75°	1397.6	1277.3	1074.1	940.0	872.3	807.3	794.9	778.3	810.1	852.9	917.9
77.5°	1089.3	992.5	835.0	731.3	678.7	630.4	619.3	601.3	633.1	664.9	716.1
80°	788.0	717.5	623.5	514.2	496.3	464.5	453.4	434.1	464.5	485.2	523.9
82.5°	508.7	461.7	407.8	331.8	329.0	305.5	300.0	277.9	305.5	317.9	347.0
85°	257.1	235.0	221.2	168.7	174.2	159.0	157.6	134.1	156.2	161.7	178.3
87.5°	73.3	77.4	69.1	41.5	52.5	49.8	49.8	35.9	49.8	49.8	56.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P838179

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CANDELA DISTRIBUTION (continued):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3	5926.3
2.5°	5931.8	5955.3	5960.8	5959.4	5974.6	6057.6	6029.9	6057.6
5°	5945.6	5998.1	6012.0	6031.3	6056.2	6150.2	6119.8	6153.0
7.5°	5953.9	6032.7	6063.1	6100.4	6140.5	6245.6	6220.7	6253.9
10°	5953.9	6056.2	6100.4	6162.6	6216.6	6338.2	6314.7	6353.4
12.5°	5929.0	6060.3	6122.6	6209.6	6278.8	6410.1	6400.4	6428.1
15°	5877.9	6039.6	6125.3	6237.3	6323.0	6469.5	6465.4	6498.6
17.5°	5808.8	6003.7	6107.3	6248.4	6356.2	6520.7	6530.4	6548.3
20°	5721.7	5935.9	6071.4	6244.2	6379.7	6560.8	6573.2	6598.1
22.5°	5606.9	5854.4	6017.5	6226.2	6382.4	6577.4	6599.5	6623.0
25°	5471.5	5756.2	5947.0	6191.7	6368.6	6576.0	6606.4	6627.1
27.5°	5316.6	5629.0	5857.1	6136.4	6329.9	6553.9	6591.2	6616.1
30°	5136.9	5493.6	5754.8	6064.5	6277.4	6512.4	6552.5	6577.4
32.5°	4951.7	5344.3	5633.2	5971.9	6201.4	6446.0	6480.6	6499.9
35°	4749.9	5163.2	5486.7	5853.0	6103.2	6339.6	6365.9	6386.6
37.5°	4530.1	4966.9	5319.4	5718.9	5965.0	6191.7	6215.2	6238.7
40°	4303.3	4760.9	5131.4	5554.4	5800.5	6010.6	6035.5	6052.1
42.5°	4075.3	4532.8	4930.9	5360.9	5605.5	5807.4	5822.6	5839.2
45°	3844.4	4296.4	4705.6	5146.6	5388.5	5577.9	5583.4	5597.3
47.5°	3609.4	4051.8	4458.2	4901.9	5141.1	5313.9	5319.4	5330.5
50°	3373.0	3807.1	4194.1	4637.9	4871.5	5054.0	5029.1	5040.2
52.5°	3140.8	3549.9	3945.3	4353.1	4584.0	4745.7	4752.6	4730.5
55°	2912.7	3298.4	3661.9	4054.5	4274.3	4400.1	4396.0	4404.3
57.5°	2681.8	3044.0	3377.2	3736.6	3950.8	4069.7	4094.6	4065.6
60°	2446.8	2786.9	3085.5	3410.3	3617.7	3717.2	3746.2	3718.6
62.5°	2213.2	2525.6	2796.6	3079.9	3272.1	3395.1	3392.4	3361.9
65°	1979.6	2263.0	2504.9	2745.4	2912.7	3035.7	3030.2	3002.5
67.5°	1763.9	1997.5	2214.6	2409.5	2554.6	2639.0	2668.0	2634.8
70°	1526.1	1728.0	1918.7	2075.0	2195.2	2271.2	2298.9	2269.9
72.5°	1288.4	1459.8	1593.9	1744.6	1837.2	1900.8	1929.8	1902.2
75°	1053.4	1194.4	1303.6	1421.1	1486.1	1540.0	1573.1	1545.5
77.5°	825.3	934.5	1021.6	1107.3	1181.9	1194.4	1223.4	1205.4
80°	608.2	687.0	750.6	807.3	861.2	866.8	890.3	879.2
82.5°	405.0	457.6	474.2	533.6	568.2	562.6	586.1	577.8
85°	214.3	246.1	275.1	293.1	312.4	294.4	315.2	306.9
87.5°	71.9	76.0	66.4	94.0	103.7	88.5	100.9	96.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)