

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: NEO-RAY

Report Number: P333659

Luminaire Tested: **S125RDIW-S375D1560U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333659
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIW-S375D1560U835-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 375 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6857.6 lumens
Efficiency: N/A
Efficacy: 128.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Indirect

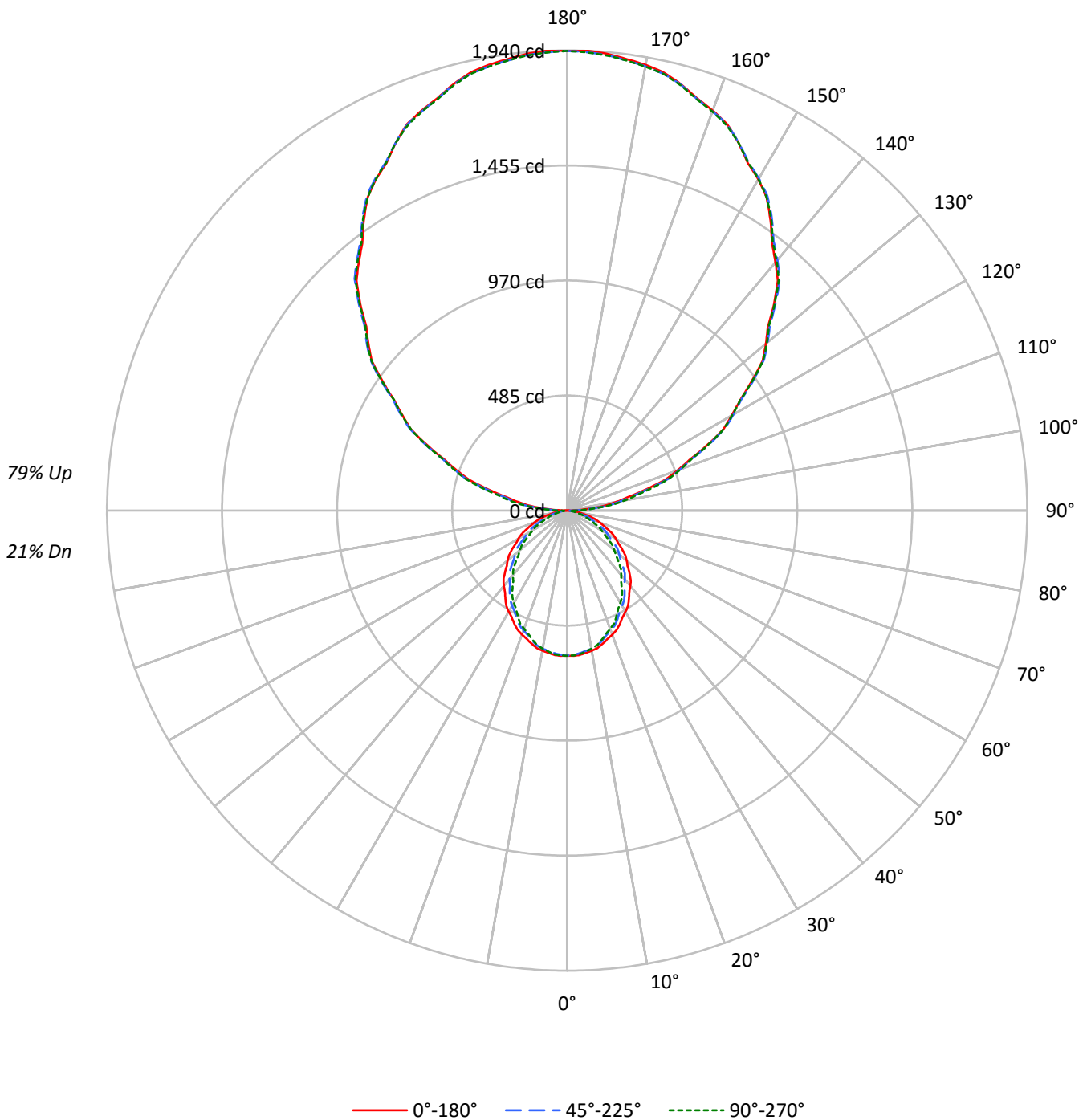
Input Watts (W): 53.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	84	80	81	77	74	72	59	57	55	42	41	40	26	26	25	18
2	83	76	70	66	73	68	63	59	52	48	46	37	35	33	23	22	21	15
3	76	67	60	55	67	60	54	49	46	42	38	33	30	28	21	19	18	13
4	69	59	52	46	61	53	46	42	40	36	33	29	26	24	18	17	16	11
5	64	53	45	39	56	47	40	35	36	32	28	26	23	21	17	15	14	10
6	58	47	39	34	52	42	35	31	32	28	24	23	20	18	15	13	12	9
7	54	42	35	29	48	38	31	27	29	25	21	21	18	16	14	12	11	8
8	50	38	31	26	44	34	28	23	27	22	19	19	16	14	13	11	10	7
9	46	35	28	23	41	31	25	21	24	20	17	18	15	13	12	10	9	6
10	43	32	25	20	38	28	22	18	22	18	15	16	13	11	11	9	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3952	3952	3952
5°	3961	3916	3940
10°	3931	3880	3880
15°	3884	3801	3770
20°	3824	3691	3647
25°	3755	3583	3504
30°	3667	3457	3347
35°	3578	3327	3170
40°	3495	3191	2996
45°	3394	3040	2807
50°	3293	2875	2609
55°	3174	2716	2399
60°	3056	2525	2173
65°	2917	2303	1913
70°	2757	2024	1648
75°	2538	1707	1372
80°	2235	1339	1153
85°	1882	1097	1030



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	0.8
10°-20°	160.8	2.3
20°-30°	233.2	3.4
30°-40°	265.7	3.9
40°-50°	259.0	3.8
50°-60°	218.0	3.2
60°-70°	152.8	2.2
70°-80°	78.6	1.1
80°-90°	24.1	0.4
90°-100°	129.8	1.9
100°-110°	383.3	5.6
110°-120°	649.2	9.5
120°-130°	854.4	12.5
130°-140°	957.4	14.0
140°-150°	938.3	13.7
150°-160°	788.1	11.5
160°-170°	523.9	7.6
170°-180°	183.3	2.7
0°-30°	451.5	6.6
0°-40°	717.3	10.5
0°-60°	1194.3	17.4
0°-90°	1449.8	21.1
90°-120°	1162.3	16.9
90°-150°	3912.5	57.1
90°-180°	5408.0	78.9
0°-180°	6857.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	612	612	612	612	612	
5°	611	609	604	608	608	58
15°	581	578	568	568	564	164
25°	527	519	503	497	492	242
35°	454	442	422	409	402	284
45°	372	358	333	315	307	287
55°	282	267	241	221	213	252
65°	191	175	151	133	125	189
75°	102	88	68	59	55	108
85°	25	17	15	14	14	29
90°	2	13	24	32	36	7
95°	98	102	116	126	130	105
105°	344	352	360	369	374	367
115°	650	656	659	658	656	643
125°	949	957	959	956	955	849
135°	1234	1242	1244	1244	1238	951
145°	1495	1501	1505	1505	1501	934
155°	1710	1710	1712	1717	1710	787
165°	1860	1857	1858	1863	1855	524
175°	1934	1928	1927	1935	1926	184
180°	1938	1938	1938	1938	1938	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	611.9	611.9	611.9	611.9	611.9	611.9	611.9	611.9	611.9	611.9	611.9
2.5°	613.0	612.8	612.5	612.3	612.0	611.5	610.7	609.8	609.0	608.2	609.0
5°	611.0	610.6	610.2	609.7	609.3	608.6	607.4	606.3	605.2	604.0	605.1
7.5°	605.0	604.6	604.2	603.8	603.4	602.5	601.2	599.8	598.5	597.1	597.8
10°	599.4	599.1	598.8	598.5	598.2	597.3	595.9	594.4	593.0	591.6	591.9
12.5°	593.1	592.7	592.4	592.0	591.6	590.4	588.5	586.6	584.6	582.7	582.9
15°	580.9	580.3	579.7	579.1	578.5	577.1	574.9	572.8	570.6	568.5	568.4
17.5°	567.2	566.2	565.3	564.3	563.4	561.6	558.8	556.1	553.4	550.7	550.2
20°	556.4	555.4	554.4	553.4	552.3	550.2	546.9	543.6	540.3	537.0	536.5
22.5°	544.6	543.6	542.6	541.5	540.5	538.3	534.8	531.4	527.9	524.5	523.5
25°	526.9	525.3	523.8	522.2	520.7	518.0	514.2	510.4	506.6	502.8	501.5
27.5°	506.5	504.7	502.8	500.9	499.0	496.1	492.0	487.9	483.9	479.8	477.9
30°	491.7	489.8	487.8	485.9	483.9	480.8	476.5	472.2	467.9	463.5	461.2
32.5°	477.3	475.0	472.8	470.5	468.2	464.9	460.5	456.1	451.7	447.3	444.7
35°	453.8	451.4	448.9	446.4	444.0	440.4	435.8	431.2	426.6	422.0	419.0
37.5°	430.8	427.8	424.8	421.8	418.8	414.9	410.2	405.4	400.7	395.9	392.3
40°	414.6	411.5	408.4	405.3	402.2	398.2	393.3	388.4	383.4	378.5	374.6
42.5°	397.5	394.4	391.2	388.1	384.9	380.8	375.7	370.6	365.5	360.4	356.7
45°	371.6	368.6	365.6	362.6	359.7	355.3	349.7	344.1	338.4	332.8	328.6
47.5°	344.7	341.5	338.4	335.2	332.1	327.7	322.0	316.3	310.6	304.9	300.7
50°	327.7	324.3	320.9	317.5	314.1	309.5	303.6	297.8	291.9	286.1	281.8
52.5°	309.2	305.7	302.2	298.8	295.3	290.8	285.3	279.7	274.2	268.7	264.1
55°	281.9	278.6	275.3	272.1	268.8	264.3	258.5	252.7	247.0	241.2	236.6
57.5°	254.4	250.9	247.3	243.8	240.3	235.8	230.2	224.7	219.2	213.6	209.1
60°	236.6	233.0	229.4	225.8	222.2	217.7	212.1	206.6	201.0	195.5	191.0
62.5°	217.8	214.3	210.9	207.5	204.0	199.5	193.9	188.3	182.6	177.0	172.8
65°	190.9	187.4	183.9	180.4	176.9	172.4	167.0	161.6	156.1	150.7	146.6
67.5°	164.2	160.7	157.2	153.7	150.2	145.8	140.6	135.4	130.2	125.0	121.2
70°	146.0	142.6	139.1	135.6	132.1	127.8	122.6	117.5	112.4	107.2	104.0
72.5°	128.3	124.9	121.5	118.1	114.7	110.5	105.7	100.9	96.1	91.3	88.4
75°	101.7	98.6	95.5	92.4	89.4	85.7	81.3	77.0	72.7	68.4	66.1
77.5°	75.2	72.8	70.3	67.8	65.4	62.4	59.0	55.5	52.1	48.6	47.0
80°	60.1	57.6	55.2	52.7	50.2	47.6	44.7	41.8	38.9	36.0	35.1
82.5°	45.3	43.1	40.9	38.6	36.4	34.3	32.4	30.4	28.4	26.4	26.0
85°	25.4	23.6	21.7	19.9	18.0	16.8	16.3	15.8	15.3	14.8	14.7
87.5°	8.8	8.8	8.7	8.7	8.6	8.8	9.2	9.6	10.0	10.4	10.7
90°	1.5	4.2	6.9	9.6	12.2	14.7	17.1	19.4	21.8	24.1	25.8
92.5°	36.5	38.4	40.3	42.1	44.0	46.4	49.3	52.1	55.0	57.9	60.1
95°	98.0	98.7	99.4	100.0	100.7	102.7	106.1	109.4	112.8	116.1	118.5
97.5°	162.9	163.1	163.4	163.7	164.0	166.4	171.0	175.7	180.3	184.9	187.1
100°	211.1	211.1	211.1	211.1	211.1	213.3	217.7	222.0	226.4	230.7	233.8
102.5°	263.0	264.4	265.7	267.0	268.4	270.2	272.4	274.6	276.8	279.0	282.3
105°	343.9	345.5	347.2	348.9	350.6	352.4	354.4	356.4	358.4	360.5	362.5
107.5°	433.1	434.8	436.5	438.2	439.8	441.5	443.0	444.5	446.1	447.6	448.6
110°	494.7	496.4	498.0	499.7	501.4	502.7	503.7	504.7	505.7	506.7	507.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	557.4	558.3	559.2	560.0	560.9	562.0	563.2	564.5	565.8	567.1	567.5
115°	650.0	651.4	652.7	654.0	655.4	656.4	657.1	657.7	658.4	659.1	658.7
117.5°	742.9	743.5	744.1	744.7	745.3	745.9	746.5	747.1	747.7	748.4	748.6
120°	800.8	802.5	804.2	805.9	807.5	808.5	808.9	809.2	809.5	809.9	809.9
122.5°	863.6	864.2	864.8	865.4	866.0	866.7	867.6	868.5	869.3	870.2	869.9
125°	948.6	950.6	952.7	954.7	956.7	957.9	958.2	958.5	958.9	959.2	958.5
127.5°	1039.1	1040.3	1041.4	1042.5	1043.7	1044.5	1044.9	1045.3	1045.7	1046.1	1045.7
130°	1093.4	1095.1	1096.8	1098.4	1100.1	1101.3	1102.0	1102.6	1103.3	1104.0	1103.6
132.5°	1147.7	1150.5	1153.2	1156.0	1158.7	1160.0	1159.9	1159.7	1159.6	1159.5	1159.1
135°	1233.7	1235.7	1237.7	1239.7	1241.7	1242.9	1243.2	1243.6	1243.9	1244.2	1244.2
137.5°	1314.5	1316.5	1318.4	1320.3	1322.3	1323.6	1324.4	1325.1	1325.8	1326.6	1327.0
140°	1366.4	1368.1	1369.7	1371.4	1373.1	1374.4	1375.4	1376.5	1377.5	1378.5	1379.1
142.5°	1418.3	1419.7	1421.1	1422.5	1423.9	1425.2	1426.5	1427.8	1429.1	1430.3	1430.7
145°	1494.6	1495.9	1497.3	1498.6	1500.0	1501.1	1502.1	1503.1	1504.1	1505.1	1505.1
147.5°	1565.2	1565.9	1566.6	1567.4	1568.1	1568.9	1569.7	1570.5	1571.3	1572.1	1572.9
150°	1612.2	1611.9	1611.6	1611.2	1610.9	1611.4	1612.7	1614.1	1615.4	1616.8	1616.8
152.5°	1650.8	1651.3	1651.8	1652.2	1652.7	1653.2	1653.8	1654.3	1654.8	1655.4	1656.2
155°	1710.3	1710.3	1710.3	1710.3	1710.3	1710.4	1710.8	1711.1	1711.4	1711.8	1713.1
157.5°	1763.3	1762.6	1761.9	1761.1	1760.4	1760.2	1760.5	1760.9	1761.2	1761.5	1762.9
160°	1794.7	1793.7	1792.7	1791.7	1790.7	1790.4	1790.7	1791.0	1791.4	1791.7	1793.0
162.5°	1822.5	1821.7	1821.0	1820.3	1819.5	1819.2	1819.2	1819.3	1819.4	1819.4	1821.1
165°	1859.6	1858.9	1858.2	1857.6	1856.9	1856.7	1857.1	1857.4	1857.7	1858.1	1859.4
167.5°	1890.9	1889.6	1888.3	1886.9	1885.6	1884.9	1884.9	1884.9	1884.9	1884.9	1886.9
170°	1907.8	1906.5	1905.1	1903.8	1902.5	1901.8	1901.8	1901.8	1901.8	1901.8	1903.8
172.5°	1919.9	1918.6	1917.2	1915.9	1914.5	1913.9	1913.9	1913.9	1913.9	1913.9	1915.9
175°	1933.5	1932.1	1930.8	1929.4	1928.1	1927.4	1927.4	1927.4	1927.4	1927.4	1929.4
177.5°	1940.4	1939.3	1938.3	1937.2	1936.1	1935.4	1935.2	1934.9	1934.6	1934.4	1936.0
180°	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	611.9	611.9	611.9	611.9	611.9	611.9	611.9	611.9
2.5°	609.8	610.7	611.5	611.9	611.8	611.7	611.6	611.5
5°	606.1	607.1	608.1	608.6	608.4	608.1	607.9	607.7
7.5°	598.5	599.3	600.0	600.2	600.0	599.8	599.6	599.3
10°	592.2	592.5	592.8	592.8	592.5	592.2	591.9	591.6
12.5°	583.1	583.4	583.6	583.5	583.0	582.5	582.1	581.6
15°	568.2	568.1	568.0	567.5	566.6	565.7	564.8	563.8
17.5°	549.7	549.2	548.7	548.0	547.3	546.5	545.7	545.0
20°	536.0	535.5	535.0	534.3	533.3	532.4	531.5	530.6
22.5°	522.4	521.4	520.4	519.5	518.8	518.0	517.3	516.5
25°	500.2	498.8	497.5	496.3	495.1	494.0	492.9	491.7
27.5°	476.1	474.2	472.3	470.9	469.8	468.7	467.6	466.5
30°	458.8	456.5	454.1	452.5	451.5	450.6	449.7	448.8
32.5°	442.1	439.5	436.8	435.0	433.8	432.6	431.4	430.3
35°	416.0	413.0	410.0	407.8	406.4	405.0	403.5	402.1
37.5°	388.7	385.2	381.6	379.1	377.7	376.3	374.9	373.5
40°	370.7	366.8	362.9	360.3	359.1	357.9	356.6	355.4
42.5°	352.9	349.2	345.4	342.7	340.9	339.0	337.2	335.4
45°	324.5	320.4	316.3	313.5	312.0	310.4	308.9	307.3
47.5°	296.5	292.2	288.0	285.0	283.3	281.6	279.9	278.2
50°	277.4	273.1	268.8	265.9	264.4	262.8	261.3	259.7
52.5°	259.4	254.8	250.1	247.0	245.5	244.0	242.4	240.9
55°	232.0	227.4	222.8	219.6	218.0	216.3	214.7	213.1
57.5°	204.6	200.1	195.5	192.5	191.1	189.6	188.2	186.7
60°	186.5	181.9	177.4	174.4	172.8	171.3	169.8	168.2
62.5°	168.6	164.4	160.2	157.4	155.8	154.3	152.8	151.2
65°	142.4	138.3	134.2	131.4	129.9	128.3	126.8	125.2
67.5°	117.4	113.7	109.9	107.4	106.2	105.0	103.7	102.5
70°	100.9	97.7	94.5	92.3	91.0	89.8	88.6	87.3
72.5°	85.4	82.5	79.6	77.7	76.9	76.1	75.2	74.4
75°	63.9	61.6	59.4	57.9	57.2	56.4	55.7	55.0
77.5°	45.5	43.9	42.3	41.2	40.7	40.2	39.6	39.1
80°	34.2	33.3	32.4	31.8	31.6	31.4	31.2	31.0
82.5°	25.6	25.1	24.7	24.4	24.3	24.2	24.1	23.9
85°	14.6	14.5	14.4	14.3	14.2	14.1	14.0	13.9
87.5°	11.0	11.4	11.7	11.9	12.1	12.2	12.3	12.4
90°	27.5	29.2	30.8	32.2	33.2	34.2	35.2	36.2
92.5°	62.3	64.5	66.8	68.2	69.0	69.7	70.4	71.2
95°	120.8	123.2	125.5	127.0	127.7	128.4	129.0	129.7
97.5°	189.3	191.5	193.7	195.1	195.5	195.9	196.3	196.7
100°	236.8	239.8	242.8	244.7	245.3	246.0	246.7	247.3
102.5°	285.6	288.9	292.1	294.3	295.2	296.1	297.1	298.0
105°	364.5	366.5	368.5	370.0	371.0	372.0	373.0	374.0
107.5°	449.6	450.6	451.6	452.1	452.0	452.0	451.9	451.8
110°	508.8	509.8	510.8	511.1	510.8	510.4	510.1	509.8



TEST NUMBER: P333659

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	568.0	568.5	568.9	568.9	568.3	567.7	567.1	566.5
115°	658.4	658.1	657.7	657.4	657.1	656.7	656.4	656.1
117.5°	748.9	749.2	749.4	748.9	747.5	746.2	744.9	743.5
120°	809.9	809.9	809.9	809.2	807.9	806.5	805.2	803.9
122.5°	869.7	869.4	869.1	868.5	867.4	866.3	865.2	864.2
125°	957.9	957.2	956.5	956.0	955.7	955.3	955.0	954.7
127.5°	1045.4	1045.1	1044.7	1044.2	1043.5	1042.9	1042.2	1041.5
130°	1103.3	1103.0	1102.6	1102.1	1101.5	1100.8	1100.1	1099.5
132.5°	1158.8	1158.5	1158.1	1157.5	1156.6	1155.6	1154.7	1153.7
135°	1244.2	1244.2	1244.2	1243.6	1242.2	1240.9	1239.5	1238.2
137.5°	1327.4	1327.8	1328.2	1327.6	1325.9	1324.2	1322.5	1320.8
140°	1379.8	1380.5	1381.1	1380.6	1379.0	1377.3	1375.6	1373.9
142.5°	1431.1	1431.5	1432.0	1431.3	1429.6	1428.0	1426.3	1424.6
145°	1505.1	1505.1	1505.1	1504.6	1503.6	1502.6	1501.6	1500.6
147.5°	1573.7	1574.5	1575.3	1574.6	1572.3	1570.0	1567.8	1565.5
150°	1616.8	1616.8	1616.8	1616.4	1615.7	1615.1	1614.4	1613.7
152.5°	1657.0	1657.8	1658.6	1658.4	1657.2	1656.0	1654.8	1653.6
155°	1714.4	1715.8	1717.1	1717.0	1715.3	1713.6	1711.9	1710.3
157.5°	1764.2	1765.6	1766.9	1766.5	1764.2	1762.0	1759.8	1757.6
160°	1794.4	1795.7	1797.1	1796.9	1795.2	1793.5	1791.9	1790.2
162.5°	1822.7	1824.3	1825.9	1825.7	1823.8	1821.8	1819.9	1817.9
165°	1860.7	1862.1	1863.4	1863.1	1861.1	1859.1	1857.1	1855.0
167.5°	1888.9	1890.9	1892.9	1892.9	1890.8	1888.8	1886.7	1884.6
170°	1905.8	1907.8	1909.8	1909.7	1907.3	1905.0	1902.6	1900.3
172.5°	1917.9	1919.9	1921.9	1921.9	1919.8	1917.7	1915.6	1913.6
175°	1931.5	1933.5	1935.5	1935.3	1933.0	1930.6	1928.3	1925.9
177.5°	1937.6	1939.2	1940.8	1940.7	1938.8	1936.9	1935.0	1933.2
180°	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0	1938.0

(END OF REPORT)