

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: P332795-830

Luminaire Tested: **S124DIW-S795D1340U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332795-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S795D1340U830-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8112.7 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

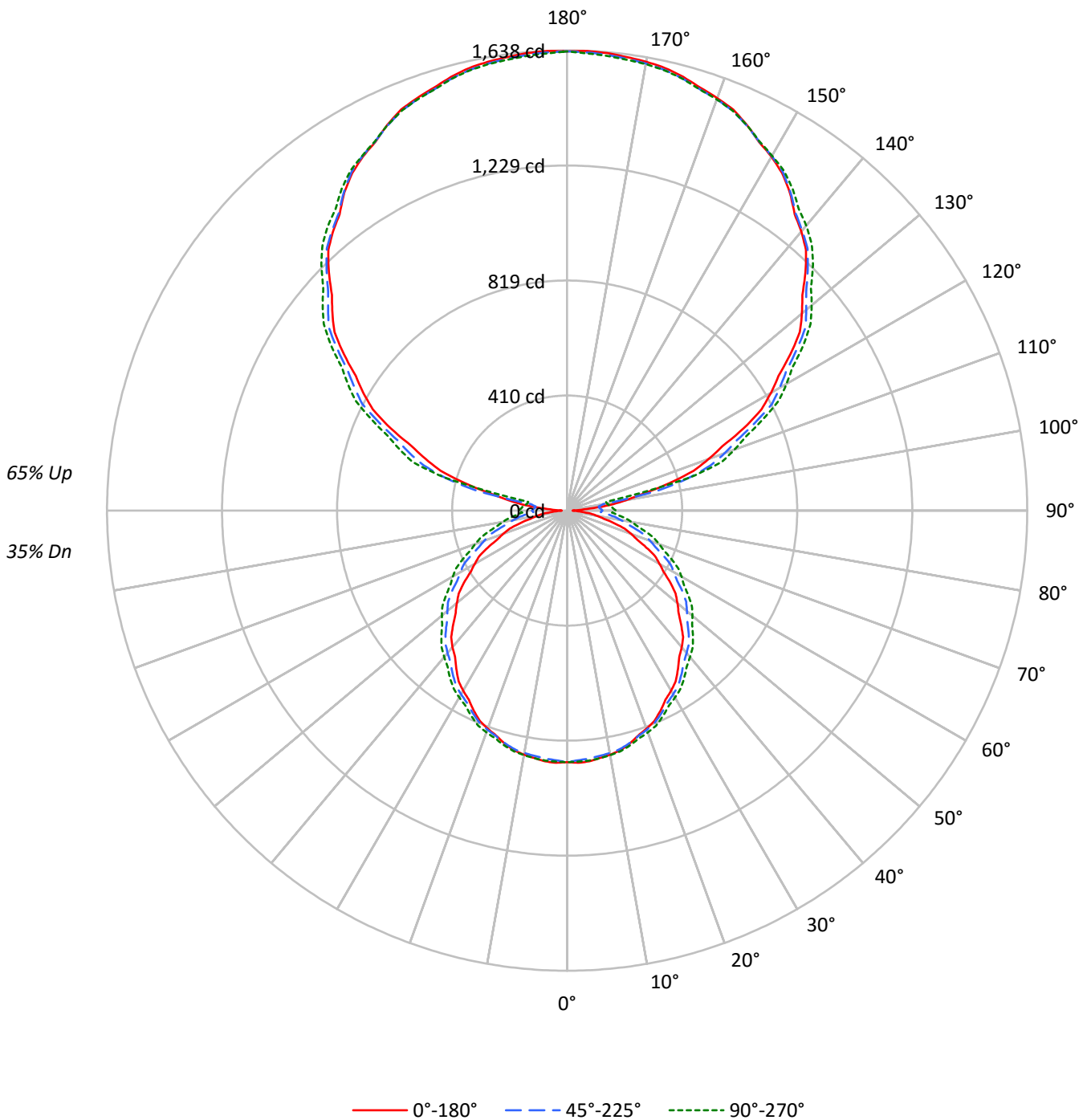
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332795-830

CATALOG NUMBER: S124DIW-S795D1340U830-4F0-1E-UDD-D

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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	94	89	85	81	84	81	77	74	64	62	60	50	48	47	36	35	34	28
2	85	77	71	66	76	70	65	60	56	52	49	43	41	38	31	30	28	23
3	77	68	60	54	69	61	55	50	49	45	41	38	35	32	28	25	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16
5	65	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	31	35	29	25	27	23	20	20	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	21	18	18	15	13	11
8	51	38	31	26	46	35	28	24	28	23	20	22	19	16	16	14	12	9
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	13	11	8
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7228	7228	7228
5°	7250	7064	7083
10°	7205	6948	6943
15°	7141	6814	6777
20°	7044	6667	6616
25°	6934	6501	6439
30°	6815	6336	6256
35°	6681	6168	6097
40°	6573	6008	5930
45°	6413	5859	5787
50°	6278	5689	5636
55°	6138	5529	5459
60°	5920	5324	5298
65°	5683	5104	5098
70°	5394	4853	4868
75°	4992	4579	4659
80°	4540	4312	4453
85°	3980	4075	4334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	1.0
10°-20°	242.9	3.0
20°-30°	367.3	4.5
30°-40°	444.4	5.5
40°-50°	469.8	5.8
50°-60°	442.2	5.5
60°-70°	366.8	4.5
70°-80°	257.7	3.2
80°-90°	150.4	1.9
90°-100°	142.4	1.8
100°-110°	420.5	5.2
110°-120°	724.8	8.9
120°-130°	889.8	11.0
130°-140°	936.6	11.5
140°-150°	868.2	10.7
150°-160°	698.4	8.6
160°-170°	450.5	5.6
170°-180°	155.3	1.9
0°-30°	695.0	8.6
0°-40°	1139.4	14.0
0°-60°	2051.4	25.3
0°-90°	2826.3	34.8
90°-120°	1287.7	15.9
90°-150°	3982.3	49.1
90°-180°	5286.0	65.2
0°-180°	8112.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	896	893	886	894	893	85
15°	859	860	857	866	865	242
25°	786	792	795	806	807	362
35°	688	700	710	723	727	431
45°	573	593	612	628	634	443
55°	449	471	500	520	526	400
65°	311	343	377	401	410	308
75°	172	210	252	279	289	183
85°	53	95	140	169	180	57
90°	20	73	126	161	173	14
95°	80	75	114	147	159	97
105°	377	405	448	480	448	395
115°	693	707	737	760	768	682
125°	970	975	996	1018	1026	866
135°	1200	1200	1211	1229	1238	925
145°	1382	1385	1385	1392	1399	864
155°	1515	1516	1512	1517	1514	698
165°	1598	1592	1592	1600	1590	451
175°	1635	1628	1628	1638	1625	156
180°	1635	1635	1635	1635	1635	



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CATALOG NUMBER: S124DIW-S795D1340U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	898.5	898.0	897.4	896.9	896.4	895.4	893.9	892.5	891.1	889.7	890.9
5°	896.3	895.6	894.9	894.3	893.6	892.5	890.9	889.4	887.8	886.3	888.1
7.5°	888.6	888.3	887.9	887.5	887.0	886.2	885.0	883.6	882.3	881.1	883.1
10°	882.2	882.0	881.8	881.6	881.4	880.7	879.6	878.4	877.3	876.2	878.3
12.5°	873.5	873.4	873.4	873.3	873.3	872.9	872.1	871.3	870.5	869.8	871.7
15°	859.2	859.4	859.6	859.9	860.1	859.9	859.2	858.6	857.8	857.1	859.2
17.5°	839.7	840.4	841.0	841.8	842.4	842.6	842.5	842.4	842.3	842.2	844.2
20°	826.1	826.8	827.5	828.1	828.8	829.2	829.4	829.6	829.9	830.1	832.4
22.5°	810.9	811.7	812.6	813.4	814.3	814.9	815.3	815.7	816.1	816.5	818.7
25°	786.0	787.3	788.7	790.0	791.4	792.4	793.1	793.7	794.4	795.0	797.5
27.5°	758.4	760.3	762.2	764.2	766.2	767.7	768.7	769.7	770.7	771.8	774.0
30°	739.9	741.7	743.5	745.3	747.1	748.7	750.3	751.8	753.4	754.9	757.3
32.5°	719.8	722.0	724.2	726.2	728.4	730.3	732.1	733.8	735.6	737.3	740.1
35°	687.8	690.4	693.1	695.8	698.4	700.9	703.1	705.4	707.6	709.8	712.9
37.5°	655.4	658.6	661.7	664.7	667.8	670.7	673.4	676.2	679.0	681.7	684.9
40°	634.6	637.5	640.4	643.3	646.2	649.2	652.3	655.4	658.6	661.7	665.1
42.5°	610.6	613.8	617.1	620.3	623.6	627.0	630.7	634.3	638.0	641.6	645.4
45°	573.4	577.7	581.9	586.2	590.4	594.7	598.9	603.1	607.3	611.5	615.4
47.5°	538.0	542.3	546.7	551.1	555.4	560.1	565.0	569.9	574.8	579.7	583.6
50°	512.3	517.2	522.1	527.0	531.9	536.8	541.7	546.6	551.5	556.4	560.9
52.5°	486.6	491.5	496.4	501.3	506.2	511.5	517.1	522.7	528.4	534.0	538.4
55°	449.1	453.8	458.5	463.2	467.9	473.5	480.2	486.9	493.6	500.3	504.7
57.5°	407.3	413.0	418.9	424.6	430.4	436.6	443.3	449.9	456.6	463.2	468.4
60°	379.9	385.8	391.5	397.4	403.1	409.7	417.1	424.4	431.8	439.1	444.2
62.5°	353.5	359.9	366.2	372.5	378.8	385.7	393.0	400.4	407.7	415.1	420.2
65°	310.8	317.9	325.1	332.2	339.3	346.7	354.2	361.8	369.4	376.9	382.5
67.5°	269.7	277.3	284.8	292.4	300.0	307.8	315.9	324.0	332.2	340.3	345.9
70°	241.6	249.2	256.7	264.4	271.9	279.9	288.4	296.9	305.3	313.8	319.8
72.5°	214.3	222.1	229.9	237.6	245.3	253.7	262.8	271.7	280.8	289.7	295.6
75°	172.5	180.7	188.9	197.2	205.4	214.2	223.6	232.9	242.3	251.7	257.9
77.5°	133.4	142.0	150.8	159.6	168.2	177.6	187.4	197.2	207.0	216.8	223.1
80°	109.2	118.2	127.1	136.0	145.0	154.3	164.1	173.9	183.7	193.5	200.2
82.5°	85.2	94.4	103.8	113.0	122.2	131.9	141.7	151.5	161.3	171.1	177.9
85°	53.2	62.5	71.8	81.2	90.6	100.3	110.3	120.3	130.4	140.3	147.0
87.5°	30.4	40.1	49.8	59.5	69.2	79.1	89.3	99.4	109.7	119.9	126.7
90°	19.7	31.6	43.5	55.4	67.3	79.2	90.9	102.6	114.4	126.1	134.2
92.5°	30.6	38.8	47.0	55.2	63.3	73.3	85.1	96.9	108.6	120.4	128.3
95°	80.3	78.4	76.5	74.6	72.8	76.5	85.9	95.3	104.7	114.1	121.8
97.5°	154.6	166.7	178.8	190.9	202.9	198.4	177.1	155.8	134.6	113.3	119.3
100°	211.5	222.3	232.9	243.6	254.3	245.2	216.4	187.6	158.8	130.0	131.4
102.5°	276.1	284.7	293.4	302.1	310.8	316.9	320.5	324.1	327.7	331.4	287.4
105°	377.0	383.0	389.2	395.3	401.3	409.2	418.8	428.4	438.0	447.6	455.6
107.5°	472.4	476.8	481.4	485.8	490.3	497.4	507.0	516.6	526.3	535.9	542.6
110°	536.1	540.1	544.0	548.0	551.9	558.6	568.0	577.4	586.8	596.3	601.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	597.9	602.2	606.4	610.7	614.8	621.0	629.2	637.4	645.6	653.8	658.7
115°	693.1	695.9	698.7	701.5	704.4	709.2	716.0	722.9	729.8	736.6	742.1
117.5°	779.7	781.9	784.3	786.6	788.8	793.6	800.9	808.0	815.3	822.6	827.1
120°	837.5	839.3	841.0	842.8	844.6	848.6	854.7	860.9	867.1	873.3	878.3
122.5°	892.3	893.2	893.9	894.7	895.5	899.1	905.6	912.1	918.6	925.0	929.8
125°	969.8	970.6	971.6	972.4	973.3	976.2	981.3	986.3	991.3	996.4	1001.4
127.5°	1044.0	1044.0	1044.1	1044.1	1044.1	1046.9	1052.4	1058.0	1063.5	1069.0	1072.9
130°	1091.1	1091.1	1091.2	1091.2	1091.3	1093.4	1097.9	1102.2	1106.6	1111.0	1115.3
132.5°	1135.1	1135.3	1135.6	1135.9	1136.1	1138.2	1142.1	1145.9	1149.9	1153.8	1157.8
135°	1200.0	1199.9	1199.6	1199.3	1199.0	1200.1	1202.9	1205.5	1208.2	1210.8	1214.8
137.5°	1258.5	1258.4	1258.3	1258.2	1258.1	1259.0	1260.9	1262.9	1264.8	1266.8	1270.6
140°	1296.7	1297.0	1297.3	1297.6	1298.0	1298.4	1299.3	1300.0	1300.8	1301.6	1305.2
142.5°	1330.1	1331.1	1332.0	1332.8	1333.8	1334.4	1334.5	1334.7	1334.9	1335.2	1338.3
145°	1382.4	1383.1	1383.7	1384.2	1384.9	1385.2	1385.2	1385.2	1385.2	1385.2	1386.8
147.5°	1424.3	1425.6	1426.9	1428.1	1429.5	1430.0	1429.7	1429.5	1429.2	1428.9	1429.3
150°	1454.6	1455.5	1456.3	1457.2	1458.0	1458.3	1458.1	1457.8	1457.5	1457.3	1457.3
152.5°	1479.2	1480.1	1480.8	1481.7	1482.5	1482.7	1482.2	1481.7	1481.2	1480.7	1481.2
155°	1514.8	1514.9	1515.2	1515.5	1515.8	1515.5	1514.8	1513.9	1513.1	1512.3	1513.3
157.5°	1544.8	1544.6	1544.5	1544.3	1544.2	1543.6	1542.7	1541.7	1540.9	1539.9	1541.3
160°	1562.4	1561.6	1560.8	1559.9	1559.2	1558.6	1558.3	1558.0	1557.7	1557.6	1559.2
162.5°	1578.0	1577.0	1576.0	1575.0	1574.0	1573.3	1573.0	1572.7	1572.4	1572.2	1573.8
165°	1597.9	1596.5	1595.2	1593.7	1592.4	1591.8	1591.8	1591.8	1591.8	1591.8	1593.9
167.5°	1613.5	1612.1	1610.7	1609.3	1607.9	1607.0	1606.9	1606.8	1606.6	1606.4	1608.8
170°	1622.3	1620.7	1619.0	1617.4	1615.8	1615.1	1615.3	1615.6	1615.9	1616.2	1618.3
172.5°	1628.1	1626.5	1624.9	1623.2	1621.6	1621.0	1621.3	1621.6	1621.7	1622.0	1624.2
175°	1634.6	1632.9	1631.3	1629.7	1628.0	1627.3	1627.6	1627.9	1628.1	1628.4	1630.9
177.5°	1637.5	1636.0	1634.4	1632.9	1631.4	1630.8	1631.3	1631.7	1632.1	1632.6	1634.3
180°	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	892.1	893.4	894.7	895.2	895.0	894.8	894.7	894.5
5°	889.9	891.6	893.3	894.2	893.9	893.7	893.5	893.2
7.5°	885.0	887.0	889.1	889.9	889.8	889.5	889.3	889.1
10°	880.2	882.2	884.3	885.1	885.0	884.7	884.5	884.3
12.5°	873.5	875.3	877.1	878.0	878.0	877.9	877.9	877.8
15°	861.2	863.2	865.2	866.1	865.9	865.6	865.4	865.2
17.5°	846.2	848.3	850.4	851.3	851.1	850.9	850.7	850.6
20°	834.5	836.8	839.1	840.2	840.2	840.2	840.2	840.2
22.5°	821.0	823.1	825.4	826.7	827.1	827.4	827.7	828.1
25°	799.9	802.4	804.8	806.2	806.3	806.6	806.8	807.1
27.5°	776.3	778.5	780.9	782.1	782.4	782.7	783.0	783.2
30°	759.8	762.2	764.7	766.2	766.7	767.0	767.5	768.0
32.5°	742.9	745.7	748.5	750.2	750.5	751.0	751.5	752.0
35°	716.0	719.2	722.3	724.2	724.8	725.5	726.2	726.9
37.5°	688.1	691.3	694.4	696.4	697.0	697.8	698.4	699.2
40°	668.4	671.8	675.0	677.1	678.1	678.9	679.9	680.7
42.5°	649.0	652.7	656.4	658.6	659.3	660.1	660.8	661.5
45°	619.2	622.9	626.7	629.1	630.3	631.4	632.5	633.6
47.5°	587.5	591.4	595.4	597.9	599.4	600.7	602.0	603.3
50°	565.3	569.8	574.2	577.1	578.4	579.9	581.2	582.5
52.5°	542.9	547.3	551.8	554.7	556.0	557.3	558.6	560.1
55°	509.2	513.7	518.1	521.0	522.4	523.7	525.0	526.3
57.5°	473.8	479.1	484.4	487.7	488.9	490.1	491.4	492.7
60°	449.4	454.5	459.6	463.1	464.9	466.7	468.4	470.2
62.5°	425.3	430.5	435.5	439.0	440.8	442.6	444.3	446.1
65°	388.1	393.7	399.3	402.9	404.7	406.5	408.2	410.0
67.5°	351.6	357.2	362.9	366.6	368.3	370.0	371.8	373.5
70°	325.8	331.9	337.9	341.7	343.2	344.8	346.3	347.9
72.5°	301.4	307.3	313.1	316.9	318.6	320.4	322.1	323.9
75°	264.1	270.3	276.6	280.7	282.8	284.7	286.7	288.7
77.5°	229.4	235.7	242.0	246.3	248.5	250.5	252.7	254.9
80°	206.9	213.6	220.3	224.4	226.2	228.0	229.8	231.6
82.5°	184.7	191.6	198.5	202.9	204.8	206.8	208.8	210.8
85°	153.7	160.4	167.1	171.5	173.8	176.0	178.2	180.5
87.5°	133.5	140.3	147.0	151.5	153.5	155.6	157.7	159.8
90°	142.3	150.4	158.5	163.7	166.1	168.3	170.7	173.1
92.5°	136.2	144.1	152.0	156.9	158.8	160.7	162.6	164.5
95°	129.4	137.0	144.7	149.7	151.9	154.2	156.5	158.7
97.5°	125.3	131.3	137.3	141.4	143.5	145.7	148.0	150.1
100°	132.8	134.2	135.5	137.1	139.0	140.8	142.7	144.5
102.5°	243.4	199.4	155.4	134.3	136.1	137.9	139.7	141.5
105°	463.6	471.6	479.7	479.7	471.6	463.6	455.6	447.7
107.5°	549.3	555.9	562.6	567.3	570.0	572.6	575.2	577.8
110°	607.7	613.3	619.0	623.1	625.7	628.3	630.8	633.5



TEST NUMBER: P332795-830

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	663.5	668.4	673.3	677.0	679.9	682.7	685.5	688.3
115°	747.5	753.0	758.4	762.0	763.5	765.1	766.6	768.2
117.5°	831.6	836.1	840.7	843.8	845.5	847.1	848.8	850.5
120°	883.4	888.3	893.3	896.5	897.7	898.9	900.1	901.4
122.5°	934.6	939.4	944.1	947.1	948.2	949.2	950.3	951.3
125°	1006.4	1011.4	1016.5	1019.8	1021.4	1023.0	1024.6	1026.2
127.5°	1076.8	1080.5	1084.4	1087.0	1088.3	1089.6	1090.9	1092.2
130°	1119.6	1123.8	1128.1	1131.0	1132.3	1133.6	1134.9	1136.2
132.5°	1162.0	1166.0	1170.2	1172.8	1173.9	1175.0	1176.1	1177.2
135°	1219.0	1223.1	1227.2	1230.2	1232.1	1234.0	1235.9	1237.7
137.5°	1274.5	1278.4	1282.2	1284.6	1285.5	1286.5	1287.4	1288.4
140°	1309.0	1312.7	1316.4	1319.0	1320.3	1321.7	1323.1	1324.5
142.5°	1341.4	1344.5	1347.7	1349.8	1350.8	1351.8	1352.7	1353.8
145°	1388.4	1390.0	1391.6	1393.1	1394.5	1395.9	1397.4	1398.8
147.5°	1429.6	1430.1	1430.5	1431.2	1432.2	1433.1	1434.1	1435.1
150°	1457.3	1457.3	1457.3	1457.4	1457.6	1457.9	1458.2	1458.5
152.5°	1481.6	1482.1	1482.4	1482.6	1482.4	1482.2	1482.1	1482.0
155°	1514.5	1515.5	1516.6	1516.7	1516.0	1515.1	1514.3	1513.5
157.5°	1542.8	1544.2	1545.6	1545.6	1544.2	1542.8	1541.3	1539.9
160°	1560.8	1562.4	1564.1	1564.1	1562.4	1560.8	1559.2	1557.6
162.5°	1575.5	1577.1	1578.7	1578.6	1576.8	1574.9	1573.0	1571.2
165°	1596.1	1598.3	1600.4	1600.2	1597.9	1595.4	1593.0	1590.5
167.5°	1611.2	1613.5	1616.0	1615.8	1613.1	1610.3	1607.7	1605.0
170°	1620.5	1622.7	1624.8	1624.6	1621.9	1619.2	1616.5	1613.7
172.5°	1626.4	1628.6	1630.8	1630.4	1627.4	1624.5	1621.6	1618.6
175°	1633.3	1635.8	1638.2	1637.8	1634.6	1631.3	1628.0	1624.8
177.5°	1636.1	1637.8	1639.6	1639.1	1636.4	1633.9	1631.3	1628.6
180°	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6	1634.6

(END OF REPORT)