

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: P333074-930

Luminaire Tested: **S124RDIW-S795D1560U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333074-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIW-S795D1560U930-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 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: 7031.5 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

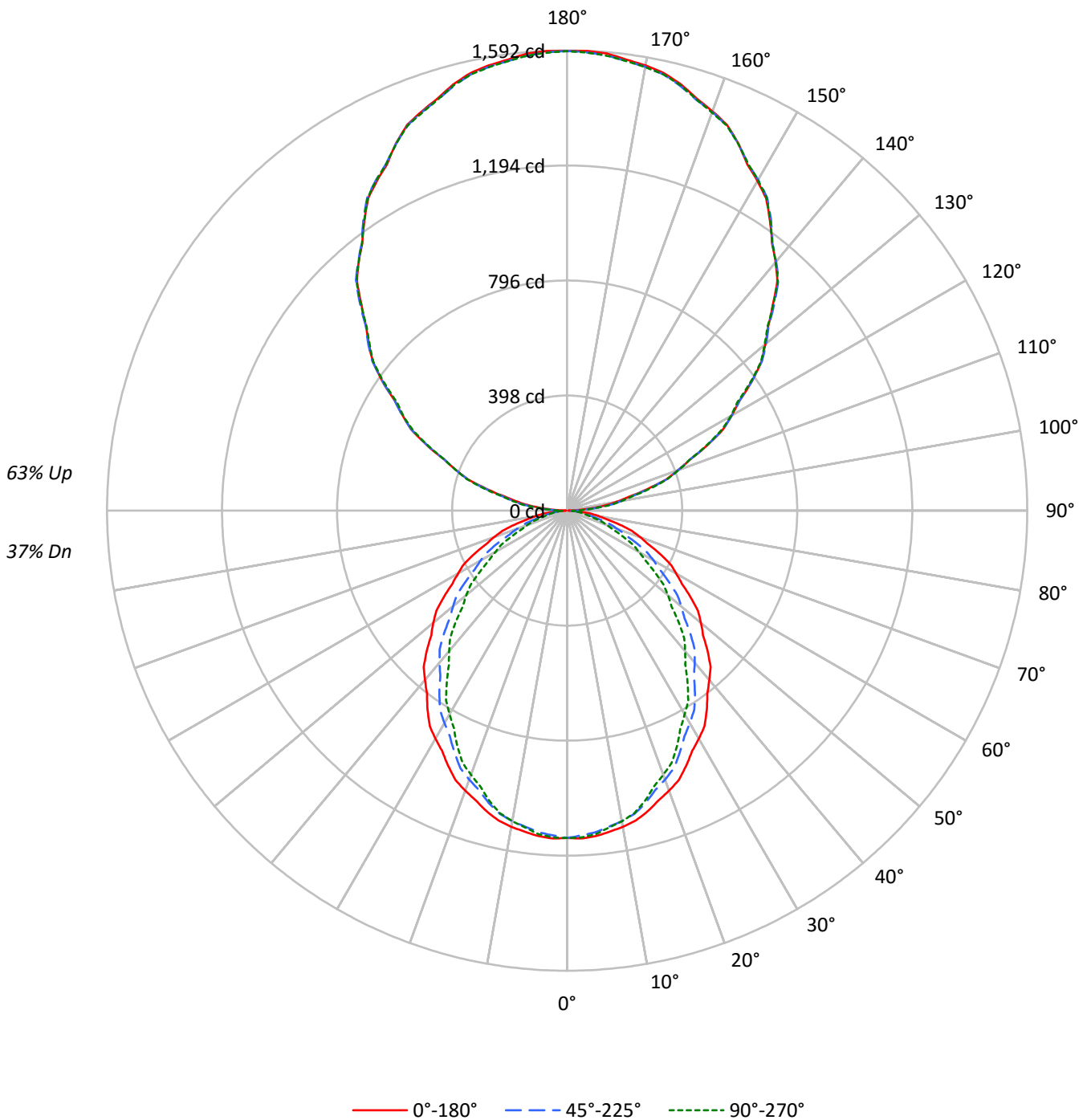
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333074-930

CATALOG NUMBER: S124RDIW-S795D1560U930-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P333074-930

CATALOG NUMBER: S124RDIW-S795D1560U930-4F0-1E-UDD-F1

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	76	76	76	60	60	60	44	44	44	37
1	95	91	87	84	86	83	79	77	67	65	63	53	51	50	40	39	38	32
2	87	80	74	69	78	72	67	63	59	55	52	47	44	42	35	34	32	27
3	79	70	63	57	72	64	58	53	52	48	44	41	38	36	31	29	28	23
4	73	62	54	49	66	57	50	45	46	42	38	37	33	31	28	26	24	20
5	67	55	47	42	60	51	44	39	42	36	33	33	29	27	25	23	21	17
6	61	50	42	36	55	45	39	34	37	32	28	30	26	23	23	20	18	15
7	57	45	37	32	51	41	34	29	34	29	25	27	23	21	21	18	16	14
8	53	41	33	28	48	37	31	26	31	26	22	25	21	18	19	17	15	12
9	49	37	30	25	44	34	28	23	28	23	20	23	19	17	18	15	13	11
10	46	34	27	22	41	31	25	21	26	21	18	21	18	15	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9143	9143	9143
5°	9164	9052	9108
10°	9107	8943	8943
15°	9002	8756	8690
20°	8858	8508	8352
25°	8675	8219	8011
30°	8496	7914	7582
35°	8298	7597	7154
40°	8061	7238	6690
45°	7841	6882	6218
50°	7592	6469	5718
55°	7323	6042	5175
60°	7030	5572	4621
65°	6758	4988	4076
70°	6366	4338	3460
75°	5870	3599	2813
80°	5119	2738	2580
85°	4335	2492	2325



TEST NUMBER: P333074-930

CATALOG NUMBER: S124RDIW-S795D1560U930-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.4	1.5
10°-20°	296.7	4.2
20°-30°	428.4	6.1
30°-40°	485.6	6.9
40°-50°	468.9	6.7
50°-60°	389.9	5.5
60°-70°	269.3	3.8
70°-80°	136.5	1.9
80°-90°	39.8	0.6
90°-100°	104.8	1.5
100°-110°	310.6	4.4
110°-120°	527.1	7.5
120°-130°	695.1	9.9
130°-140°	780.6	11.1
140°-150°	767.1	10.9
150°-160°	645.2	9.2
160°-170°	429.2	6.1
170°-180°	150.3	2.1
0°-30°	831.5	11.8
0°-40°	1317.1	18.7
0°-60°	2176.0	30.9
0°-90°	2621.5	37.3
90°-120°	942.5	13.4
90°-150°	3185.3	45.3
90°-180°	4410.0	62.7
0°-180°	7031.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1133	1133	1133	1133	1133	
5°	1131	1127	1117	1125	1124	107
15°	1077	1069	1048	1046	1040	303
25°	974	957	923	908	899	449
35°	842	813	771	742	726	526
45°	687	654	603	562	545	529
55°	520	484	429	386	368	465
65°	354	316	261	225	213	349
75°	188	156	115	96	90	199
85°	47	30	27	25	25	53
90°	4	17	27	34	37	7
95°	74	85	93	97	97	82
105°	286	288	293	296	300	304
115°	536	536	534	532	531	528
125°	781	781	779	777	774	695
135°	1007	1014	1014	1012	1008	779
145°	1223	1228	1229	1228	1224	765
155°	1401	1401	1400	1405	1400	645
165°	1526	1522	1520	1526	1522	430
175°	1587	1581	1580	1587	1580	151
180°	1590	1590	1590	1590	1590	



TEST NUMBER: P333074-930

CATALOG NUMBER: S124RDIW-S795D1560U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6
2.5°	1135.4	1134.7	1134.1	1133.5	1132.9	1131.7	1130.0	1128.4	1126.7	1124.9	1126.7
5°	1130.8	1130.1	1129.3	1128.5	1127.7	1126.3	1123.9	1121.6	1119.2	1117.0	1118.9
7.5°	1120.6	1119.8	1119.0	1118.2	1117.4	1115.5	1112.5	1109.5	1106.4	1103.4	1104.6
10°	1110.9	1109.9	1109.0	1108.0	1107.0	1104.8	1101.4	1097.9	1094.5	1091.0	1091.7
12.5°	1098.4	1097.3	1096.2	1095.0	1094.0	1091.4	1087.3	1083.1	1079.0	1075.0	1075.5
15°	1077.1	1075.4	1073.6	1071.9	1070.2	1066.9	1062.0	1057.2	1052.4	1047.6	1047.2
17.5°	1051.2	1048.7	1046.2	1043.7	1041.2	1037.1	1031.3	1025.5	1019.7	1013.9	1012.8
20°	1031.1	1028.6	1026.1	1023.6	1021.1	1016.6	1010.0	1003.5	996.9	990.3	988.8
22.5°	1008.9	1006.1	1003.3	1000.5	997.7	992.7	985.7	978.7	971.7	964.7	962.4
25°	973.9	970.4	966.9	963.4	960.0	954.3	946.4	938.5	930.6	922.7	919.4
27.5°	937.1	932.8	928.4	924.1	919.7	913.3	904.8	896.4	887.9	879.5	875.5
30°	911.4	906.6	901.8	897.0	892.2	885.3	876.2	867.2	858.0	849.0	844.2
32.5°	884.4	879.0	873.5	868.0	862.7	855.2	845.9	836.5	827.1	817.7	812.2
35°	842.0	835.9	829.7	823.5	817.4	809.5	799.9	790.2	780.6	770.9	764.4
37.5°	796.8	790.4	784.1	777.7	771.4	762.9	752.2	741.5	730.8	720.2	712.8
40°	764.9	758.6	752.2	745.8	739.5	730.8	719.7	708.8	697.8	686.8	678.7
42.5°	734.3	727.7	721.1	714.4	707.7	698.6	687.2	675.7	664.3	652.8	644.6
45°	686.8	679.7	672.5	665.4	658.3	649.0	637.4	625.8	614.2	602.8	593.3
47.5°	637.7	630.4	623.1	615.6	608.3	598.6	586.6	574.5	562.6	550.5	540.7
50°	604.5	597.0	589.4	581.9	574.4	564.4	552.1	539.8	527.4	515.1	505.5
52.5°	570.5	563.1	555.7	548.4	541.0	531.0	518.4	505.7	493.1	480.5	470.7
55°	520.3	512.6	504.9	497.2	489.5	479.4	466.8	454.3	441.8	429.3	419.2
57.5°	470.8	462.7	454.7	446.7	438.6	428.4	416.1	403.8	391.5	379.1	369.0
60°	435.4	427.6	420.0	412.2	404.5	394.5	382.1	369.8	357.5	345.1	335.1
62.5°	403.4	395.4	387.4	379.4	371.4	361.0	348.4	335.7	323.1	310.5	301.2
65°	353.8	345.5	337.2	329.0	320.7	310.4	298.0	285.7	273.4	261.1	252.7
67.5°	302.3	294.4	286.4	278.5	270.5	260.9	249.4	238.0	226.5	215.1	207.9
70°	269.7	261.6	253.5	245.4	237.3	227.8	216.8	205.8	194.9	183.8	177.5
72.5°	235.1	227.7	220.4	213.0	205.7	196.9	186.5	176.1	165.8	155.4	149.9
75°	188.2	181.1	173.9	166.8	159.6	151.6	142.5	133.5	124.4	115.4	110.9
77.5°	140.6	134.6	128.6	122.5	116.4	109.7	102.5	95.1	87.8	80.5	77.9
80°	110.1	104.5	99.0	93.4	87.8	82.1	76.3	70.5	64.7	58.9	58.4
82.5°	83.8	78.7	73.5	68.4	63.3	59.0	55.8	52.4	49.1	45.8	45.3
85°	46.8	43.0	39.1	35.3	31.4	29.2	28.6	28.0	27.5	26.9	26.5
87.5°	16.7	16.1	15.4	14.8	14.2	14.0	14.3	14.6	14.8	15.1	15.3
90°	3.7	6.7	9.7	12.7	15.7	18.3	20.5	22.7	24.9	27.1	28.7
92.5°	26.3	29.8	33.2	36.6	40.1	42.6	44.1	45.7	47.1	48.7	49.7
95°	73.8	76.2	78.7	81.1	83.6	85.8	87.7	89.6	91.6	93.4	94.2
97.5°	128.8	130.8	132.7	134.8	136.7	138.8	141.0	143.2	145.5	147.7	148.7
100°	172.1	173.2	174.3	175.4	176.5	178.2	180.8	183.2	185.6	188.1	188.7
102.5°	217.4	217.8	218.3	218.7	219.1	220.5	222.7	224.9	227.1	229.4	230.2
105°	286.4	286.7	287.0	287.2	287.6	288.2	289.3	290.4	291.5	292.6	293.4
107.5°	359.0	359.3	359.6	360.0	360.3	360.5	360.7	360.9	361.0	361.2	361.9
110°	408.1	408.7	409.2	409.8	410.3	410.5	410.2	409.9	409.6	409.4	408.8



TEST NUMBER: P333074-930

CATALOG NUMBER: S124RDIW-S795D1560U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	459.3	459.4	459.5	459.6	459.7	459.5	459.0	458.5	458.0	457.5	457.5
115°	536.0	536.0	536.0	536.0	536.0	535.7	535.2	534.6	534.1	533.5	533.3
117.5°	608.3	608.5	608.7	608.9	609.2	609.1	608.7	608.3	607.9	607.6	606.6
120°	656.5	657.5	658.7	659.7	660.8	661.0	660.1	659.3	658.5	657.7	656.3
122.5°	706.6	707.0	707.5	707.9	708.3	708.4	708.0	707.6	707.3	706.9	706.0
125°	780.6	780.6	780.6	780.6	780.6	780.5	780.2	779.9	779.7	779.4	778.9
127.5°	847.7	848.6	849.4	850.2	851.0	851.3	850.8	850.4	849.9	849.5	848.9
130°	895.0	895.8	896.6	897.4	898.2	898.6	898.6	898.6	898.6	898.6	898.1
132.5°	943.1	943.8	944.4	944.9	945.6	945.7	945.5	945.3	945.1	944.9	944.4
135°	1006.8	1008.4	1010.1	1011.8	1013.4	1014.2	1014.2	1014.2	1014.2	1014.2	1013.7
137.5°	1076.2	1076.9	1077.7	1078.5	1079.2	1079.9	1080.3	1080.7	1081.2	1081.6	1080.8
140°	1122.4	1122.9	1123.5	1124.1	1124.5	1124.9	1124.9	1124.9	1124.9	1124.9	1124.5
142.5°	1164.7	1165.2	1165.8	1166.3	1166.9	1167.0	1166.8	1166.6	1166.4	1166.1	1166.1
145°	1223.2	1224.3	1225.4	1226.5	1227.6	1228.2	1228.5	1228.8	1229.1	1229.3	1229.1
147.5°	1281.2	1282.5	1283.9	1285.2	1286.5	1287.0	1286.8	1286.5	1286.4	1286.1	1285.9
150°	1316.6	1317.7	1318.8	1319.9	1321.0	1321.5	1321.5	1321.5	1321.5	1321.5	1321.5
152.5°	1350.1	1350.7	1351.4	1352.0	1352.7	1353.2	1353.3	1353.6	1353.8	1354.0	1354.6
155°	1401.4	1401.4	1401.4	1401.4	1401.4	1401.3	1401.0	1400.8	1400.5	1400.2	1401.3
157.5°	1444.7	1444.2	1443.7	1443.2	1442.8	1442.5	1442.4	1442.3	1442.3	1442.3	1443.1
160°	1470.3	1470.0	1469.7	1469.5	1469.2	1468.9	1468.7	1468.4	1468.1	1467.9	1468.7
162.5°	1493.9	1493.2	1492.5	1491.8	1491.0	1490.5	1490.3	1490.0	1489.7	1489.5	1490.9
165°	1525.6	1524.8	1524.0	1523.1	1522.3	1521.7	1521.1	1520.5	1520.0	1519.5	1521.1
167.5°	1550.0	1548.8	1547.7	1546.5	1545.4	1544.8	1544.9	1544.9	1545.0	1545.1	1546.7
170°	1563.7	1562.4	1561.0	1559.6	1558.3	1557.7	1558.0	1558.3	1558.5	1558.8	1560.4
172.5°	1573.5	1572.4	1571.2	1570.1	1569.0	1568.4	1568.5	1568.6	1568.6	1568.6	1570.5
175°	1587.1	1585.7	1584.4	1583.0	1581.6	1580.8	1580.5	1580.2	1580.0	1579.7	1581.6
177.5°	1591.5	1590.4	1589.3	1588.2	1587.1	1586.6	1586.6	1586.6	1586.6	1586.6	1588.1
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5



TEST NUMBER: P333074-930

CATALOG NUMBER: S124RDIW-S795D1560U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6	1132.6
2.5°	1128.4	1130.0	1131.7	1132.5	1132.4	1132.2	1132.0	1131.9
5°	1120.8	1122.7	1124.7	1125.4	1125.0	1124.7	1124.3	1123.9
7.5°	1105.9	1107.2	1108.4	1108.6	1108.1	1107.4	1106.9	1106.2
10°	1092.5	1093.2	1094.1	1094.1	1093.2	1092.5	1091.7	1091.0
12.5°	1076.0	1076.4	1076.8	1076.5	1075.5	1074.4	1073.3	1072.2
15°	1046.8	1046.4	1046.0	1045.2	1043.8	1042.4	1041.1	1039.8
17.5°	1011.8	1010.7	1009.6	1008.0	1006.0	1004.0	1001.9	999.9
20°	987.2	985.7	984.1	982.2	979.7	977.1	974.6	972.2
22.5°	960.1	957.7	955.4	953.2	951.2	949.2	947.1	945.1
25°	916.2	912.9	909.6	907.0	905.1	903.2	901.2	899.3
27.5°	871.4	867.4	863.3	859.9	857.1	854.4	851.6	848.8
30°	839.4	834.5	829.7	825.7	822.7	819.6	816.5	813.4
32.5°	806.6	801.0	795.4	791.2	788.2	785.3	782.4	779.4
35°	757.8	751.3	744.8	739.7	736.3	732.8	729.3	725.9
37.5°	705.5	698.1	690.8	685.4	682.0	678.5	675.1	671.6
40°	670.7	662.5	654.4	648.7	645.2	641.7	638.3	634.8
42.5°	636.3	628.1	619.9	613.9	610.3	606.7	603.1	599.4
45°	583.8	574.4	564.9	558.5	555.0	551.5	548.0	544.6
47.5°	530.9	521.1	511.4	504.5	500.8	496.9	493.1	489.3
50°	495.9	486.2	476.5	469.9	466.3	462.6	458.9	455.3
52.5°	460.9	451.1	441.2	434.5	430.6	426.8	423.1	419.2
55°	409.2	399.2	389.2	382.4	378.7	375.0	371.4	367.7
57.5°	358.8	348.6	338.4	332.0	329.2	326.4	323.7	320.9
60°	325.1	315.1	305.1	298.5	295.5	292.4	289.3	286.2
62.5°	292.0	282.7	273.5	267.6	265.1	262.7	260.2	257.7
65°	244.4	236.2	227.9	222.6	220.3	217.9	215.6	213.4
67.5°	200.8	193.7	186.5	181.7	179.2	176.6	174.1	171.5
70°	171.1	164.8	158.4	154.3	152.4	150.4	148.5	146.6
72.5°	144.6	139.1	133.6	130.0	128.3	126.5	124.7	122.9
75°	106.5	102.1	97.6	94.8	93.7	92.5	91.3	90.2
77.5°	75.3	72.7	70.1	68.6	68.3	68.0	67.7	67.3
80°	57.8	57.2	56.7	56.3	56.1	55.8	55.7	55.5
82.5°	44.9	44.5	44.1	43.8	43.6	43.4	43.2	43.0
85°	26.1	25.8	25.4	25.1	25.1	25.1	25.1	25.1
87.5°	15.5	15.7	15.8	16.1	16.3	16.6	16.8	17.1
90°	30.3	32.0	33.6	34.7	35.2	35.8	36.4	36.9
92.5°	50.6	51.6	52.6	53.2	53.6	53.9	54.2	54.5
95°	95.1	95.9	96.7	97.1	97.1	97.1	97.1	97.1
97.5°	149.8	150.7	151.7	152.2	152.2	152.2	152.2	152.2
100°	189.1	189.7	190.3	190.5	190.5	190.5	190.5	190.5
102.5°	230.9	231.7	232.4	232.9	233.2	233.4	233.6	233.8
105°	294.2	295.1	295.9	296.7	297.5	298.3	299.1	299.9
107.5°	362.7	363.5	364.3	364.6	364.5	364.5	364.4	364.4
110°	408.3	407.7	407.2	407.3	408.1	409.0	409.8	410.6



TEST NUMBER: P333074-930

CATALOG NUMBER: S124RDIW-S795D1560U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	457.3	457.2	457.1	457.1	457.3	457.5	457.6	457.8
115°	533.0	532.7	532.5	532.1	531.9	531.7	531.3	531.1
117.5°	605.7	604.8	603.8	603.1	602.5	602.0	601.4	600.9
120°	654.9	653.6	652.2	651.8	652.4	652.9	653.5	654.0
122.5°	705.0	704.1	703.2	702.2	701.2	700.3	699.3	698.3
125°	778.3	777.8	777.2	776.7	776.1	775.6	775.0	774.5
127.5°	848.4	847.8	847.3	846.8	846.4	846.0	845.5	845.1
130°	897.6	897.0	896.4	895.6	894.5	893.5	892.3	891.3
132.5°	943.8	943.2	942.6	942.2	941.8	941.3	940.9	940.4
135°	1013.1	1012.6	1012.0	1011.3	1010.5	1009.7	1008.9	1008.0
137.5°	1080.2	1079.5	1078.7	1078.5	1078.6	1078.8	1079.0	1079.1
140°	1124.3	1124.1	1123.7	1123.5	1123.2	1122.9	1122.7	1122.4
142.5°	1166.0	1166.0	1166.0	1165.9	1165.8	1165.8	1165.7	1165.6
145°	1228.8	1228.5	1228.2	1227.7	1226.9	1226.0	1225.2	1224.4
147.5°	1285.7	1285.5	1285.2	1285.0	1284.7	1284.5	1284.2	1283.9
150°	1321.5	1321.5	1321.5	1321.4	1321.1	1320.9	1320.6	1320.3
152.5°	1355.3	1355.9	1356.6	1356.6	1355.8	1355.2	1354.5	1353.7
155°	1402.4	1403.5	1404.6	1404.6	1403.5	1402.4	1401.3	1400.2
157.5°	1443.9	1444.7	1445.5	1445.4	1444.5	1443.7	1442.7	1441.8
160°	1469.5	1470.3	1471.1	1470.8	1469.5	1468.1	1466.7	1465.3
162.5°	1492.4	1493.9	1495.3	1495.4	1494.0	1492.7	1491.3	1490.0
165°	1522.7	1524.4	1526.0	1526.3	1525.2	1524.1	1523.0	1521.9
167.5°	1548.3	1550.0	1551.6	1551.6	1549.9	1548.2	1546.5	1544.7
170°	1562.1	1563.7	1565.4	1565.2	1563.3	1561.4	1559.5	1557.5
172.5°	1572.4	1574.2	1576.1	1576.1	1574.1	1572.2	1570.3	1568.4
175°	1583.6	1585.4	1587.4	1587.4	1585.4	1583.6	1581.6	1579.7
177.5°	1589.7	1591.1	1592.7	1592.6	1590.8	1589.1	1587.4	1585.6
180°	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5	1589.5

(END OF REPORT)