

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: P333456-930

Luminaire Tested: **S125DIW-S1090D1560U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333456-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S1090D1560U930-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8564.8 lumens  
Efficiency: N/A  
Efficacy: 111.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

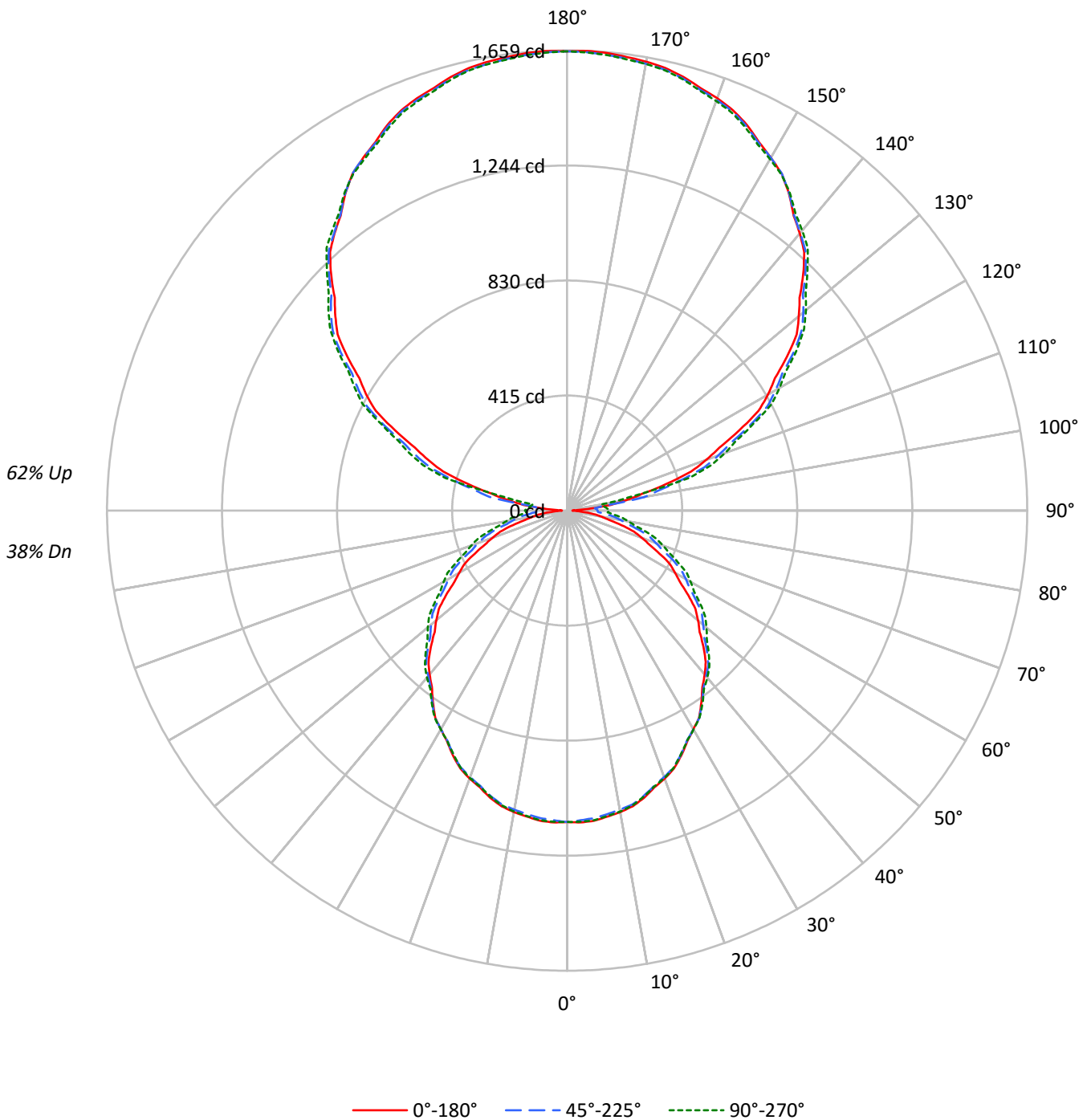
Input Watts (W): 76.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P333456-930

CATALOG NUMBER: S125DIW-S1090D1560U930-4F0-1E-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	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	95	90	86	82	86	82	78	75	66	64	62	52	51	49	39	38	37	31
2	86	78	72	67	78	71	66	61	58	54	51	45	43	40	34	32	31	25
3	78	69	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21
4	71	61	53	47	64	55	48	43	45	40	36	35	32	29	27	24	22	18
5	65	54	46	40	59	49	42	37	40	35	31	32	28	25	24	21	19	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	43	35	30	50	40	33	28	33	27	23	26	22	19	20	17	15	12
8	51	39	32	26	47	36	29	24	30	24	21	24	20	17	18	15	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	17	14	12	10
10	45	33	25	21	40	30	24	19	25	20	16	20	16	14	15	13	11	9

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7251	7251	7251
5°	7265	7116	7139
10°	7213	6989	6979
15°	7128	6837	6775
20°	7012	6650	6572
25°	6874	6448	6320
30°	6707	6226	6092
35°	6552	6023	5884
40°	6393	5809	5674
45°	6214	5626	5487
50°	6043	5427	5322
55°	5837	5239	5128
60°	5611	5024	4931
65°	5377	4800	4709
70°	5112	4494	4480
75°	4688	4200	4198
80°	4134	3842	3893
85°	3621	3600	3798



TEST NUMBER: P333456-930

CATALOG NUMBER: S125DIW-S1090D1560U930-4F0-1E-UDD-D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.2	1.2
10°-20°	301.3	3.5
20°-30°	448.2	5.2
30°-40°	530.9	6.2
40°-50°	548.9	6.4
50°-60°	505.6	5.9
60°-70°	408.7	4.8
70°-80°	273.7	3.2
80°-90°	145.4	1.7
90°-100°	139.8	1.6
100°-110°	429.5	5.0
110°-120°	711.9	8.3
120°-130°	885.4	10.3
130°-140°	938.1	11.0
140°-150°	873.3	10.2
150°-160°	704.9	8.2
160°-170°	455.9	5.3
170°-180°	157.2	1.8
0°-30°	855.7	10.0
0°-40°	1386.5	16.2
0°-60°	2441.0	28.5
0°-90°	3268.8	38.2
90°-120°	1281.2	15.0
90°-150°	3978.1	46.4
90°-180°	5296.0	61.8
0°-180°	8564.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1123	1120	1113	1121	1120	106
15°	1072	1073	1065	1071	1068	302
25°	974	977	971	975	970	448
35°	843	850	848	851	851	527
45°	694	706	712	719	721	536
55°	534	551	569	581	586	477
65°	368	393	419	435	440	365
75°	202	232	266	287	294	215
85°	60	97	135	159	168	64
90°	19	64	110	140	153	15
95°	84	107	100	129	138	100
105°	371	394	426	447	455	393
115°	684	699	728	742	742	678
125°	968	976	997	1009	1012	864
135°	1204	1210	1215	1226	1225	928
145°	1394	1395	1396	1402	1399	871
155°	1534	1527	1529	1532	1523	707
165°	1619	1612	1613	1619	1610	457
175°	1656	1649	1650	1658	1648	158
180°	1656	1656	1656	1656	1656	



TEST NUMBER: P333456-930

CATALOG NUMBER: S125DIW-S1090D1560U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1125.3	1124.9	1124.5	1124.1	1123.7	1122.8	1121.4	1120.1	1118.8	1117.4	1118.8
5°	1122.7	1122.2	1121.7	1121.2	1120.7	1119.6	1117.9	1116.1	1114.4	1112.7	1114.7
7.5°	1112.7	1112.6	1112.3	1112.1	1112.0	1111.0	1109.2	1107.4	1105.7	1103.9	1105.6
10°	1103.9	1103.9	1103.9	1103.9	1103.9	1102.9	1101.0	1099.0	1097.1	1095.1	1096.8
12.5°	1091.6	1091.8	1092.0	1092.2	1092.4	1091.7	1090.1	1088.6	1087.0	1085.4	1086.8
15°	1072.0	1072.3	1072.5	1072.8	1073.0	1072.3	1070.6	1068.9	1067.1	1065.4	1066.9
17.5°	1046.4	1046.9	1047.4	1047.9	1048.4	1047.8	1046.1	1044.4	1042.7	1041.0	1042.1
20°	1028.0	1028.5	1029.0	1029.5	1030.0	1029.3	1027.6	1025.9	1024.2	1022.5	1023.2
22.5°	1006.8	1007.7	1008.6	1009.5	1010.4	1009.8	1008.0	1006.1	1004.1	1002.2	1003.1
25°	974.0	974.8	975.5	976.2	977.0	976.6	975.2	973.7	972.2	970.8	971.8
27.5°	937.5	938.6	939.6	940.8	941.8	941.5	939.9	938.2	936.5	934.9	935.6
30°	910.2	911.7	913.1	914.6	916.1	916.1	914.6	913.1	911.7	910.2	910.7
32.5°	885.6	886.8	888.1	889.4	890.6	890.7	889.7	888.6	887.5	886.5	887.0
35°	843.1	844.8	846.5	848.2	849.9	850.4	849.7	849.0	848.2	847.5	848.2
37.5°	800.6	802.2	803.7	805.3	806.8	807.6	807.3	807.1	806.8	806.6	807.6
40°	771.5	773.5	775.4	777.4	779.3	780.2	780.0	779.8	779.5	779.3	780.2
42.5°	739.8	742.4	744.9	747.5	750.0	751.5	752.1	752.6	753.2	753.7	754.9
45°	694.5	697.2	699.9	702.5	705.2	707.2	708.4	709.6	710.9	712.1	713.8
47.5°	648.1	650.5	653.1	655.5	658.0	660.3	662.4	664.6	666.7	668.7	671.2
50°	616.4	619.1	621.7	624.4	627.1	629.8	632.5	635.2	637.9	640.6	643.3
52.5°	582.9	586.2	589.5	592.7	596.0	599.2	602.6	605.8	609.1	612.4	615.3
55°	533.8	537.7	541.6	545.5	549.4	553.3	557.3	561.2	565.1	569.0	571.7
57.5°	483.6	488.3	493.0	497.7	502.4	507.0	511.5	516.0	520.5	525.0	528.1
60°	450.1	455.0	459.9	464.8	469.7	474.6	479.5	484.4	489.3	494.2	497.8
62.5°	417.6	422.5	427.4	432.3	437.2	442.2	447.5	452.8	458.1	463.3	467.4
65°	367.6	373.2	378.9	384.5	390.1	395.8	401.7	407.6	413.4	419.3	423.0
67.5°	320.5	326.0	331.3	336.8	342.2	347.9	353.9	359.9	365.8	371.8	376.3
70°	286.2	291.8	297.4	303.0	308.7	314.6	321.0	327.3	333.7	340.1	344.7
72.5°	252.7	258.5	264.3	270.2	276.0	282.3	289.3	296.3	303.2	310.1	315.2
75°	202.5	208.9	215.2	221.6	228.0	235.1	242.9	250.7	258.5	266.4	271.3
77.5°	154.3	161.7	169.0	176.3	183.7	191.1	198.6	206.2	213.7	221.2	226.6
80°	124.3	131.7	139.0	146.3	153.7	161.5	169.8	178.1	186.5	194.8	200.2
82.5°	97.1	104.8	112.5	120.3	128.0	136.1	144.6	153.1	161.7	170.2	175.4
85°	60.5	68.6	76.6	84.7	92.8	101.1	109.7	118.2	126.8	135.3	140.7
87.5°	34.6	42.9	51.1	59.4	67.7	76.1	84.8	93.5	102.2	110.9	116.8
90°	18.8	28.9	38.9	48.8	58.9	69.0	79.2	89.4	99.6	109.9	116.9
92.5°	34.7	40.4	46.1	51.9	57.6	65.6	75.7	85.9	96.1	106.4	113.2
95°	84.3	89.8	95.3	100.9	106.4	108.2	106.2	104.1	102.0	100.0	106.7
97.5°	159.1	166.2	173.4	180.6	187.8	185.2	172.7	160.2	147.7	135.3	132.6
100°	217.0	223.0	229.0	235.0	240.9	248.3	257.2	266.2	275.1	284.0	248.5
102.5°	276.1	281.8	287.6	293.4	299.2	306.2	314.5	322.8	331.1	339.4	336.6
105°	370.7	375.8	380.7	385.7	390.8	396.9	404.2	411.6	418.9	426.2	431.1
107.5°	469.0	472.4	475.7	479.1	482.4	487.9	495.5	503.0	510.6	518.2	523.1
110°	533.0	535.9	538.8	541.8	544.7	549.9	557.3	564.7	572.1	579.5	583.3



TEST NUMBER: P333456-930

CATALOG NUMBER: S125DIW-S1090D1560U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	593.9	596.9	599.9	602.9	605.8	610.9	617.8	624.8	631.8	638.8	642.2
115°	684.1	687.1	690.2	693.3	696.3	701.2	707.8	714.5	721.1	727.7	731.1
117.5°	777.5	778.5	779.6	780.7	781.8	785.9	792.9	800.0	807.0	814.1	816.8
120°	836.4	836.8	837.3	837.8	838.2	841.7	848.2	854.6	861.0	867.5	871.1
122.5°	887.5	888.9	890.3	891.7	893.1	896.7	902.5	908.3	914.1	919.9	923.3
125°	967.8	969.5	971.2	972.8	974.5	977.8	982.7	987.6	992.5	997.4	1000.2
127.5°	1043.6	1044.7	1045.8	1046.9	1048.1	1050.5	1054.3	1058.3	1062.1	1065.9	1068.9
130°	1090.7	1091.8	1092.9	1094.1	1095.2	1097.6	1101.3	1105.0	1108.6	1112.4	1115.0
132.5°	1136.9	1138.5	1140.0	1141.6	1143.0	1144.8	1146.9	1148.9	1151.0	1153.0	1156.3
135°	1203.7	1205.1	1206.6	1207.9	1209.3	1210.6	1211.8	1212.9	1214.1	1215.3	1217.9
137.5°	1265.1	1266.3	1267.5	1268.8	1270.0	1270.8	1271.1	1271.5	1271.8	1272.2	1275.1
140°	1304.5	1305.0	1305.6	1306.1	1306.7	1306.9	1306.9	1306.9	1306.8	1306.8	1310.1
142.5°	1340.8	1341.0	1341.1	1341.2	1341.3	1341.7	1342.1	1342.5	1343.0	1343.4	1345.8
145°	1394.1	1394.4	1394.7	1395.0	1395.3	1395.5	1395.5	1395.5	1395.5	1395.5	1396.9
147.5°	1439.7	1439.5	1439.4	1439.3	1439.2	1439.3	1439.7	1440.0	1440.3	1440.6	1441.4
150°	1469.1	1468.5	1468.0	1467.5	1466.9	1466.9	1467.5	1468.0	1468.5	1469.1	1469.7
152.5°	1497.5	1496.4	1495.2	1494.0	1492.7	1492.4	1493.0	1493.5	1494.1	1494.6	1495.2
155°	1534.1	1532.5	1530.9	1529.3	1527.6	1527.1	1527.6	1528.1	1528.7	1529.3	1530.1
157.5°	1562.4	1561.4	1560.4	1559.4	1558.4	1558.0	1558.0	1558.1	1558.1	1558.2	1559.1
160°	1582.0	1580.4	1578.7	1577.1	1575.5	1574.8	1575.1	1575.3	1575.6	1575.9	1577.0
162.5°	1597.7	1596.1	1594.5	1592.8	1591.1	1590.5	1590.7	1591.1	1591.3	1591.5	1593.1
165°	1618.9	1617.2	1615.5	1613.9	1612.3	1611.6	1611.8	1612.2	1612.4	1612.7	1614.3
167.5°	1634.5	1632.9	1631.2	1629.5	1627.7	1627.1	1627.3	1627.6	1627.9	1628.2	1630.1
170°	1643.4	1641.4	1639.6	1637.6	1635.7	1634.9	1635.2	1635.5	1635.7	1636.0	1638.2
172.5°	1649.3	1647.4	1645.4	1643.6	1641.6	1641.0	1641.4	1641.9	1642.4	1642.9	1644.9
175°	1655.6	1654.0	1652.4	1650.7	1649.1	1648.5	1648.7	1648.9	1649.3	1649.5	1651.7
177.5°	1658.6	1657.3	1656.0	1654.6	1653.3	1652.8	1653.0	1653.3	1653.4	1653.7	1655.2
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6



TEST NUMBER: P333456-930

CATALOG NUMBER: S125DIW-S1090D1560U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1120.1	1121.4	1122.8	1123.4	1123.2	1123.0	1122.8	1122.7
5°	1116.6	1118.6	1120.5	1121.4	1121.2	1121.0	1120.7	1120.5
7.5°	1107.3	1109.1	1110.8	1111.5	1111.3	1111.0	1110.8	1110.5
10°	1098.5	1100.2	1102.0	1102.7	1102.4	1102.2	1102.0	1101.7
12.5°	1088.1	1089.4	1090.7	1091.0	1090.5	1089.8	1089.2	1088.5
15°	1068.4	1069.8	1071.3	1071.5	1070.6	1069.6	1068.6	1067.6
17.5°	1043.3	1044.3	1045.5	1045.7	1045.1	1044.6	1044.0	1043.4
20°	1023.9	1024.7	1025.4	1025.8	1025.8	1025.8	1025.8	1025.8
22.5°	1004.1	1005.0	1005.9	1006.1	1005.5	1004.9	1004.4	1003.8
25°	972.7	973.7	974.7	974.5	973.3	972.1	970.9	969.6
27.5°	936.2	936.9	937.6	937.8	937.3	936.9	936.4	936.0
30°	911.2	911.7	912.2	912.3	912.1	911.8	911.6	911.3
32.5°	887.5	887.9	888.4	888.5	888.3	888.0	887.8	887.5
35°	849.0	849.7	850.4	850.8	850.8	850.8	850.8	850.8
37.5°	808.5	809.5	810.5	810.9	810.8	810.7	810.6	810.5
40°	781.2	782.2	783.2	783.9	784.4	784.9	785.4	785.9
42.5°	756.0	757.2	758.4	759.0	759.1	759.2	759.4	759.5
45°	715.5	717.2	718.9	719.9	720.2	720.4	720.6	720.9
47.5°	673.8	676.2	678.7	680.2	680.8	681.3	681.8	682.4
50°	646.0	648.7	651.3	653.1	653.8	654.5	655.3	656.0
52.5°	618.2	621.0	623.9	625.7	626.1	626.7	627.3	627.8
55°	574.4	577.1	579.8	581.6	582.6	583.6	584.6	585.5
57.5°	531.2	534.3	537.4	539.2	540.0	540.7	541.4	542.2
60°	501.5	505.2	508.8	511.0	511.8	512.5	513.2	514.0
62.5°	471.5	475.6	479.6	482.1	483.1	484.0	484.9	485.8
65°	426.6	430.3	434.0	436.3	437.3	438.3	439.3	440.3
67.5°	380.7	385.1	389.6	392.5	393.7	395.0	396.2	397.5
70°	349.4	354.0	358.7	361.7	363.2	364.7	366.2	367.6
72.5°	320.2	325.3	330.3	333.4	334.4	335.5	336.6	337.7
75°	276.1	281.0	285.9	288.9	290.2	291.4	292.6	293.8
77.5°	232.0	237.3	242.7	245.9	246.9	247.9	248.8	249.8
80°	205.5	210.9	216.3	219.5	220.5	221.4	222.4	223.4
82.5°	180.5	185.7	190.9	194.4	196.2	197.9	199.7	201.4
85°	146.1	151.5	156.9	160.5	162.5	164.4	166.4	168.4
87.5°	122.7	128.6	134.5	138.4	140.2	142.1	144.0	145.9
90°	123.8	130.9	137.9	142.6	145.1	147.7	150.2	152.7
92.5°	119.9	126.8	133.5	137.9	140.1	142.2	144.2	146.3
95°	113.5	120.3	126.9	131.2	132.9	134.6	136.3	138.0
97.5°	130.1	127.6	125.0	124.6	126.2	127.9	129.6	131.2
100°	213.0	177.5	142.0	124.4	124.8	125.1	125.6	126.0
102.5°	333.9	331.1	328.4	318.5	301.4	284.3	267.3	250.1
105°	436.0	440.9	445.8	449.0	450.5	451.9	453.3	454.8
107.5°	528.0	532.9	537.8	540.5	541.3	542.0	542.7	543.4
110°	587.1	590.9	594.8	597.7	599.7	601.7	603.6	605.6





TEST NUMBER: P333456-930

CATALOG NUMBER: S125DIW-S1090D1560U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	645.6	649.1	652.5	654.8	656.2	657.5	658.8	660.1
115°	734.4	737.7	741.0	742.6	742.4	742.2	742.1	741.9
117.5°	819.5	822.2	825.0	826.9	827.8	828.8	829.7	830.6
120°	874.7	878.3	881.9	883.8	883.9	883.9	884.1	884.2
122.5°	926.8	930.2	933.6	935.2	935.1	935.0	934.9	934.7
125°	1003.0	1005.8	1008.6	1010.2	1010.6	1011.1	1011.5	1011.9
127.5°	1072.0	1075.0	1078.0	1079.2	1078.6	1078.0	1077.4	1076.8
130°	1117.6	1120.2	1122.8	1124.1	1123.9	1123.7	1123.6	1123.5
132.5°	1159.5	1162.8	1166.0	1167.5	1167.2	1166.9	1166.5	1166.2
135°	1220.5	1223.2	1225.8	1226.9	1226.5	1226.0	1225.6	1225.2
137.5°	1278.1	1281.2	1284.2	1285.4	1285.0	1284.6	1284.1	1283.7
140°	1313.3	1316.5	1319.8	1321.0	1320.4	1319.7	1319.1	1318.4
142.5°	1348.2	1350.6	1353.0	1353.9	1353.2	1352.6	1351.9	1351.3
145°	1398.5	1400.0	1401.4	1401.8	1401.2	1400.5	1399.9	1399.2
147.5°	1442.0	1442.8	1443.5	1443.1	1441.5	1440.1	1438.5	1437.0
150°	1470.1	1470.7	1471.3	1470.6	1468.7	1466.7	1464.8	1462.8
152.5°	1495.7	1496.2	1496.8	1496.2	1494.2	1492.3	1490.4	1488.5
155°	1530.9	1531.7	1532.5	1531.8	1529.7	1527.5	1525.3	1523.1
157.5°	1559.9	1560.8	1561.7	1561.1	1558.9	1556.7	1554.4	1552.3
160°	1578.0	1579.2	1580.2	1579.7	1577.5	1575.3	1573.1	1571.0
162.5°	1594.6	1596.2	1597.7	1597.3	1594.9	1592.4	1590.1	1587.6
165°	1615.9	1617.6	1619.3	1618.9	1616.8	1614.6	1612.4	1610.2
167.5°	1632.1	1634.0	1636.0	1635.7	1633.3	1630.8	1628.4	1626.0
170°	1640.4	1642.6	1644.7	1644.6	1642.2	1639.7	1637.2	1634.8
172.5°	1646.8	1648.8	1650.7	1650.5	1648.0	1645.6	1643.2	1640.7
175°	1653.8	1656.0	1658.2	1658.1	1655.6	1653.2	1650.7	1648.3
177.5°	1656.8	1658.2	1659.8	1659.7	1657.9	1656.2	1654.4	1652.7
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6

(END OF REPORT)