

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: P333730-830

Luminaire Tested: **S125RDIW-S1270D1050U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333730-830  
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: S125RDIW-S1270D1050U830-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1050 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8548.1 lumens  
Efficiency: N/A  
Efficacy: 126.8 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: General Diffuse

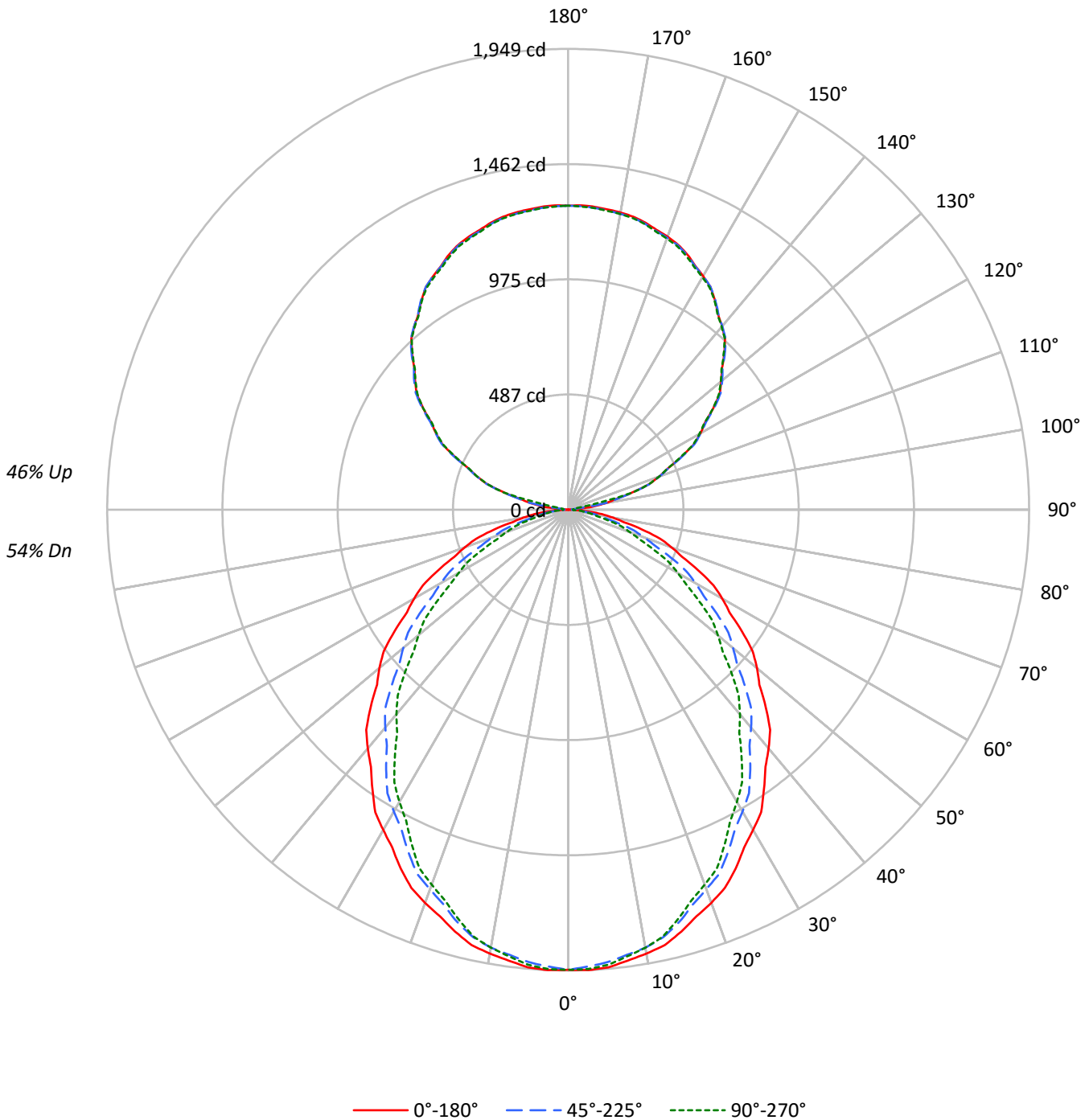
Input Watts (W): 67.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	60	60	60	54
1	99	95	91	87	92	88	85	82	75	73	71	64	62	60	53	52	51	46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	39
3	82	73	66	60	76	68	62	57	59	54	50	50	46	43	42	39	37	33
4	76	65	57	51	70	60	53	48	52	47	43	45	41	37	37	34	32	29
5	69	58	50	44	64	54	47	41	47	41	37	40	36	32	34	31	28	25
6	64	52	44	38	59	49	41	36	42	37	32	36	32	28	31	27	25	22
7	59	47	39	34	55	44	37	32	38	33	29	33	29	25	28	25	22	20
8	55	43	35	30	51	40	33	28	35	29	25	30	26	23	26	22	20	18
9	51	39	32	27	48	37	30	25	32	27	23	28	24	20	24	21	18	16
10	48	36	29	24	45	34	27	23	30	24	21	26	22	18	22	19	16	14

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

	0°	45°	90°
0°	12566	12566	12566
5°	12595	12452	12528
10°	12499	12336	12336
15°	12351	12085	11987
20°	12160	11736	11595
25°	11938	11393	11142
30°	11660	10992	10641
35°	11378	10578	10080
40°	11113	10146	9528
45°	10791	9664	8925
50°	10468	9139	8298
55°	10094	8637	7629
60°	9719	8029	6909
65°	9274	7321	6085
70°	8769	6437	5246
75°	8067	5425	4362
80°	7107	4262	3663
85°	5995	3483	3268



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.0	2.1
10°-20°	511.3	6.0
20°-30°	741.4	8.7
30°-40°	845.0	9.9
40°-50°	823.6	9.6
50°-60°	693.3	8.1
60°-70°	486.0	5.7
70°-80°	249.8	2.9
80°-90°	65.8	0.8
90°-100°	46.7	0.5
100°-110°	288.0	3.4
110°-120°	522.3	6.1
120°-130°	670.4	7.8
130°-140°	721.0	8.4
140°-150°	676.8	7.9
150°-160°	547.5	6.4
160°-170°	354.1	4.1
170°-180°	122.1	1.4
0°-30°	1435.7	16.8
0°-40°	2280.6	26.7
0°-60°	3797.6	44.4
0°-90°	4599.2	53.8
90°-120°	857.1	10.0
90°-150°	2925.3	34.2
90°-180°	3949.0	46.2
0°-180°	8548.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1946	1946	1946	1946	1946	
5°	1943	1936	1921	1934	1932	184
15°	1847	1837	1808	1805	1793	520
25°	1675	1651	1599	1580	1564	770
35°	1443	1406	1342	1300	1278	903
45°	1182	1137	1058	1001	977	911
55°	896	847	767	703	678	802
65°	607	555	479	422	398	601
75°	323	278	217	186	175	342
85°	81	55	47	46	44	91
90°	1	8	15	20	23	6
95°	54	50	15	20	20	69
105°	280	284	284	284	283	297
115°	526	531	532	528	522	521
125°	748	755	755	751	748	668
135°	933	939	937	935	929	719
145°	1082	1084	1084	1084	1079	676
155°	1192	1186	1188	1190	1183	549
165°	1257	1252	1252	1258	1251	355
175°	1286	1281	1281	1288	1280	122
180°	1286	1286	1286	1286	1286	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7
2.5°	1949.2	1948.4	1947.6	1946.8	1946.1	1944.4	1941.7	1939.1	1936.5	1933.9	1936.5
5°	1942.8	1941.4	1940.1	1938.8	1937.5	1935.0	1931.5	1927.9	1924.3	1920.7	1923.9
7.5°	1923.6	1922.4	1921.2	1919.9	1918.6	1915.9	1911.6	1907.2	1903.0	1898.7	1900.9
10°	1906.0	1905.0	1904.0	1903.1	1902.1	1899.3	1894.7	1890.2	1885.6	1881.0	1882.0
12.5°	1886.0	1884.8	1883.5	1882.3	1881.0	1877.4	1871.2	1865.1	1858.9	1852.8	1853.5
15°	1847.2	1845.2	1843.3	1841.4	1839.4	1834.9	1828.1	1821.3	1814.4	1807.5	1807.2
17.5°	1803.4	1800.4	1797.4	1794.4	1791.4	1785.6	1777.0	1768.3	1759.7	1751.1	1749.5
20°	1769.3	1766.0	1762.7	1759.5	1756.2	1749.4	1739.0	1728.5	1718.1	1707.6	1706.0
22.5°	1731.7	1728.4	1725.1	1721.9	1718.6	1711.6	1700.5	1689.6	1678.6	1667.6	1664.4
25°	1675.3	1670.4	1665.5	1660.6	1655.7	1647.2	1635.1	1623.1	1610.9	1598.8	1594.6
27.5°	1610.6	1604.7	1598.7	1592.8	1586.9	1577.4	1564.4	1551.5	1538.6	1525.7	1519.8
30°	1563.6	1557.4	1551.1	1545.0	1538.8	1528.8	1515.0	1501.4	1487.6	1473.9	1466.4
32.5°	1517.8	1510.5	1503.3	1496.0	1488.7	1478.1	1464.1	1450.2	1436.2	1422.2	1413.9
35°	1443.1	1435.2	1427.4	1419.6	1411.7	1400.4	1385.7	1371.1	1356.4	1341.7	1332.2
37.5°	1369.9	1360.4	1350.9	1341.3	1331.7	1319.4	1304.3	1289.1	1273.9	1258.8	1247.5
40°	1318.1	1308.3	1298.5	1288.7	1279.0	1266.2	1250.6	1234.9	1219.2	1203.5	1191.2
42.5°	1264.1	1254.1	1244.0	1233.9	1223.9	1210.7	1194.6	1178.4	1162.2	1145.9	1134.1
45°	1181.5	1172.1	1162.5	1153.1	1143.6	1129.9	1111.9	1094.0	1076.0	1058.1	1045.0
47.5°	1096.0	1086.0	1076.0	1066.0	1056.0	1042.0	1023.9	1005.8	987.7	969.6	956.1
50°	1041.9	1031.1	1020.3	1009.6	998.8	984.1	965.4	946.9	928.2	909.6	895.9
52.5°	983.1	972.0	961.0	950.0	939.0	924.6	907.1	889.6	871.9	854.4	839.6
55°	896.5	886.0	875.5	865.1	854.6	840.3	822.0	803.7	785.4	767.1	752.4
57.5°	808.8	797.7	786.5	775.3	764.1	749.8	732.2	714.4	696.8	679.2	664.9
60°	752.4	740.9	729.5	718.1	706.7	692.1	674.5	656.9	639.2	621.6	607.3
62.5°	692.5	681.6	670.6	659.7	648.8	634.4	616.5	598.6	580.7	562.8	549.5
65°	606.9	595.8	584.8	573.6	562.5	548.3	531.0	513.7	496.3	479.1	466.0
67.5°	522.0	510.9	499.7	488.7	477.6	463.7	447.1	430.6	414.0	397.4	385.4
70°	464.4	453.3	442.1	431.0	420.0	406.2	389.9	373.6	357.2	340.9	330.8
72.5°	407.9	397.1	386.3	375.4	364.6	351.5	336.2	320.9	305.7	290.4	281.1
75°	323.3	313.5	303.7	293.9	284.1	272.4	258.6	245.0	231.2	217.4	210.3
77.5°	239.2	231.4	223.6	215.7	207.9	198.5	187.5	176.5	165.6	154.6	149.6
80°	191.1	183.2	175.4	167.5	159.7	151.2	142.0	132.9	123.8	114.6	111.7
82.5°	144.0	137.0	129.9	122.8	115.8	109.1	102.8	96.6	90.3	84.1	82.7
85°	80.9	74.9	69.1	63.2	57.3	53.5	51.9	50.3	48.6	47.0	46.7
87.5°	27.2	25.7	24.2	22.7	21.3	20.5	20.5	20.6	20.6	20.6	20.9
90°	0.9	2.6	4.3	6.0	7.7	9.3	10.8	12.3	13.8	15.3	16.3
92.5°	14.7	13.5	12.3	11.1	9.9	10.0	11.3	12.6	13.9	15.3	16.3
95°	54.3	53.7	53.1	52.4	51.8	47.4	39.4	31.4	23.3	15.3	16.3
97.5°	113.5	114.6	115.7	116.9	118.0	110.7	94.7	78.8	62.9	46.9	40.9
100°	159.2	159.9	160.4	161.1	161.7	162.5	163.3	164.2	165.0	165.9	134.3
102.5°	205.8	206.5	207.4	208.1	209.0	209.6	210.1	210.6	211.1	211.6	205.7
105°	280.2	281.1	281.9	282.8	283.6	284.1	284.1	284.1	284.1	284.1	284.1
107.5°	357.7	357.7	357.7	357.7	357.7	357.9	358.3	358.7	359.1	359.6	359.6
110°	408.0	408.0	408.0	408.0	408.0	408.2	408.6	409.1	409.4	409.9	409.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	455.2	455.8	456.3	456.8	457.3	457.7	458.0	458.2	458.5	458.7	457.9
115°	526.2	527.3	528.3	529.3	530.5	531.0	531.3	531.5	531.7	531.9	531.0
117.5°	599.6	599.6	599.6	599.5	599.5	599.8	600.6	601.4	602.2	603.0	601.9
120°	645.4	645.2	644.9	644.7	644.5	644.7	645.4	646.0	646.6	647.2	646.9
122.5°	685.8	686.5	687.4	688.2	689.0	689.6	689.8	690.1	690.4	690.7	690.3
125°	748.3	749.8	751.3	752.7	754.2	755.0	755.0	755.0	755.0	755.0	754.1
127.5°	807.9	809.1	810.1	811.2	812.2	812.7	812.6	812.5	812.3	812.2	811.7
130°	844.6	845.6	846.7	847.7	848.9	849.4	849.7	849.9	850.1	850.3	849.7
132.5°	881.2	882.4	883.6	884.9	886.1	886.5	886.0	885.5	885.0	884.7	884.5
135°	933.2	934.5	935.8	937.1	938.3	938.8	938.3	937.9	937.5	937.1	936.6
137.5°	981.1	982.2	983.3	984.4	985.5	985.9	985.5	985.1	984.7	984.3	984.4
140°	1012.4	1012.8	1013.2	1013.6	1014.1	1014.2	1014.0	1013.7	1013.5	1013.3	1013.7
142.5°	1040.6	1040.8	1041.1	1041.3	1041.6	1041.9	1042.2	1042.5	1042.7	1043.0	1043.1
145°	1081.9	1082.4	1082.8	1083.3	1083.6	1083.8	1083.8	1083.8	1083.8	1083.8	1084.1
147.5°	1118.1	1118.1	1118.0	1117.9	1117.9	1117.9	1118.1	1118.4	1118.7	1118.9	1119.2
150°	1141.0	1140.7	1140.2	1139.8	1139.3	1139.3	1139.8	1140.2	1140.7	1141.0	1141.5
152.5°	1163.2	1162.2	1161.3	1160.4	1159.4	1159.2	1159.6	1160.1	1160.5	1160.8	1161.3
155°	1191.6	1190.3	1189.0	1187.8	1186.5	1186.1	1186.5	1186.9	1187.3	1187.8	1188.4
157.5°	1213.5	1212.8	1212.0	1211.3	1210.4	1210.1	1210.1	1210.1	1210.2	1210.2	1211.0
160°	1228.8	1227.5	1226.2	1224.9	1223.7	1223.1	1223.3	1223.6	1223.8	1224.0	1224.8
162.5°	1241.0	1239.7	1238.4	1237.2	1235.9	1235.3	1235.6	1235.8	1236.0	1236.1	1237.4
165°	1257.4	1256.1	1254.8	1253.6	1252.3	1251.7	1252.0	1252.2	1252.4	1252.5	1253.9
167.5°	1269.5	1268.3	1267.0	1265.6	1264.3	1263.8	1263.9	1264.1	1264.4	1264.6	1266.1
170°	1276.4	1275.0	1273.5	1272.0	1270.5	1269.9	1270.1	1270.3	1270.5	1270.7	1272.4
172.5°	1281.0	1279.5	1278.0	1276.6	1275.1	1274.5	1274.9	1275.3	1275.6	1276.0	1277.5
175°	1285.9	1284.7	1283.4	1282.1	1280.8	1280.3	1280.5	1280.7	1281.0	1281.2	1282.9
177.5°	1288.3	1287.2	1286.2	1285.2	1284.2	1283.7	1283.9	1284.1	1284.2	1284.4	1285.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7
2.5°	1939.1	1941.7	1944.4	1945.5	1945.3	1945.0	1944.7	1944.5
5°	1927.2	1930.5	1933.7	1935.0	1934.4	1933.7	1933.1	1932.4
7.5°	1903.2	1905.5	1907.8	1908.6	1907.8	1907.1	1906.4	1905.7
10°	1882.9	1884.0	1884.9	1884.9	1884.0	1882.9	1882.0	1881.0
12.5°	1854.3	1854.9	1855.7	1855.3	1853.8	1852.3	1850.8	1849.3
15°	1806.9	1806.6	1806.2	1804.6	1801.7	1798.7	1795.7	1792.8
17.5°	1747.9	1746.2	1744.6	1742.6	1740.1	1737.7	1735.3	1732.9
20°	1704.3	1702.7	1701.1	1698.7	1695.8	1692.9	1690.0	1687.1
22.5°	1661.2	1658.0	1654.8	1652.0	1649.6	1647.2	1644.7	1642.4
25°	1590.4	1586.1	1581.9	1577.9	1574.3	1570.7	1567.2	1563.6
27.5°	1513.8	1507.9	1501.9	1497.2	1493.7	1490.3	1486.8	1483.4
30°	1459.0	1451.4	1443.9	1438.7	1435.8	1432.8	1429.8	1426.9
32.5°	1405.6	1397.3	1389.0	1383.0	1379.3	1375.5	1371.9	1368.1
35°	1322.8	1313.2	1303.8	1296.8	1292.2	1287.6	1283.1	1278.5
37.5°	1236.1	1224.7	1213.3	1205.4	1201.0	1196.6	1192.1	1187.7
40°	1178.7	1166.3	1154.0	1145.8	1141.8	1137.9	1134.0	1130.1
42.5°	1122.2	1110.3	1098.4	1089.6	1083.8	1078.1	1072.3	1066.6
45°	1031.9	1018.9	1005.8	996.8	991.9	987.0	982.1	977.2
47.5°	942.7	929.3	915.8	906.3	900.9	895.5	890.0	884.7
50°	882.2	868.5	854.8	845.5	840.6	835.7	830.8	825.9
52.5°	824.8	810.1	795.3	785.5	780.6	775.7	770.8	765.9
55°	737.7	723.0	708.3	698.3	693.1	687.9	682.7	677.5
57.5°	650.4	636.1	621.7	612.3	607.6	602.9	598.3	593.7
60°	592.9	578.5	564.1	554.5	549.6	544.7	539.8	534.9
62.5°	536.2	522.8	509.5	500.4	495.5	490.6	485.7	480.8
65°	453.0	439.9	426.8	417.8	412.9	408.0	403.1	398.2
67.5°	373.4	361.5	349.6	341.6	337.7	333.8	329.9	325.9
70°	320.7	310.6	300.5	293.4	289.5	285.6	281.6	277.8
72.5°	271.7	262.4	253.0	247.0	244.4	241.9	239.2	236.6
75°	203.1	196.0	188.8	184.0	181.7	179.5	177.2	174.8
77.5°	144.5	139.5	134.5	131.1	129.4	127.7	126.0	124.3
80°	108.8	105.8	102.8	101.0	100.4	99.7	99.2	98.5
82.5°	81.3	79.9	78.6	77.7	77.3	76.9	76.5	76.2
85°	46.4	46.1	45.7	45.4	45.1	44.8	44.4	44.1
87.5°	21.1	21.3	21.5	21.6	21.4	21.3	21.2	21.0
90°	17.3	18.5	19.5	20.4	21.0	21.6	22.2	22.9
92.5°	17.3	18.5	19.5	20.2	20.5	20.7	21.0	21.4
95°	17.3	18.5	19.5	20.0	20.0	20.0	20.0	20.0
97.5°	35.0	28.9	23.0	20.0	20.0	20.0	20.0	20.0
100°	102.7	71.2	39.6	23.4	22.5	21.7	20.8	20.0
102.5°	199.6	193.7	187.8	177.6	163.2	148.7	134.3	119.9
105°	284.1	284.1	284.1	284.0	283.8	283.5	283.3	283.1
107.5°	359.7	359.7	359.8	359.5	358.8	358.2	357.5	356.9
110°	408.6	408.0	407.4	407.2	407.4	407.6	407.7	408.0





TEST NUMBER: P333730-830

CATALOG NUMBER: S125RDIW-S1270D1050U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	457.1	456.3	455.5	455.0	454.7	454.3	454.0	453.7
115°	530.2	529.3	528.5	527.4	526.2	524.9	523.7	522.4
117.5°	600.9	599.7	598.6	597.8	597.3	596.7	596.2	595.6
120°	646.4	646.0	645.5	644.8	643.8	642.7	641.7	640.6
122.5°	689.8	689.5	689.0	688.2	687.0	685.8	684.6	683.3
125°	753.3	752.4	751.6	750.8	750.3	749.6	748.9	748.3
127.5°	811.2	810.8	810.3	809.3	807.8	806.2	804.6	803.0
130°	849.0	848.4	847.7	846.9	845.8	844.8	843.8	842.7
132.5°	884.4	884.2	884.1	883.5	882.5	881.4	880.3	879.3
135°	936.2	935.8	935.4	934.5	933.2	932.0	930.7	929.4
137.5°	984.5	984.6	984.7	984.2	983.1	981.9	980.9	979.8
140°	1014.2	1014.6	1015.0	1014.6	1013.3	1012.0	1010.8	1009.5
142.5°	1043.2	1043.3	1043.4	1042.8	1041.5	1040.3	1039.0	1037.7
145°	1084.3	1084.5	1084.7	1084.2	1082.9	1081.7	1080.3	1079.1
147.5°	1119.5	1119.7	1119.9	1119.4	1117.8	1116.3	1114.7	1113.2
150°	1141.9	1142.4	1142.7	1142.1	1140.4	1138.7	1137.0	1135.3
152.5°	1161.7	1162.2	1162.5	1162.1	1160.5	1159.0	1157.4	1155.9
155°	1189.0	1189.7	1190.3	1189.8	1188.1	1186.4	1184.7	1183.0
157.5°	1211.6	1212.3	1213.0	1212.5	1210.8	1209.1	1207.4	1205.7
160°	1225.7	1226.5	1227.4	1226.9	1225.3	1223.6	1221.9	1220.2
162.5°	1238.6	1239.7	1241.0	1240.6	1238.7	1236.9	1235.0	1233.1
165°	1255.1	1256.4	1257.6	1257.4	1255.7	1254.1	1252.4	1250.7
167.5°	1267.6	1269.1	1270.7	1270.5	1268.6	1266.7	1264.8	1262.9
170°	1274.1	1275.8	1277.5	1277.3	1275.4	1273.6	1271.7	1269.7
172.5°	1279.1	1280.6	1282.1	1282.0	1280.1	1278.1	1276.2	1274.3
175°	1284.6	1286.3	1288.0	1287.9	1285.9	1284.0	1282.1	1280.3
177.5°	1286.8	1288.0	1289.2	1289.1	1287.7	1286.4	1285.1	1283.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9

(END OF REPORT)