

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: P333471-940

Luminaire Tested: **S125DIW-S1270D770U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333471-940  
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: S125DIW-S1270D770U940-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6948.3 lumens  
Efficiency: N/A  
Efficacy: 116.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct

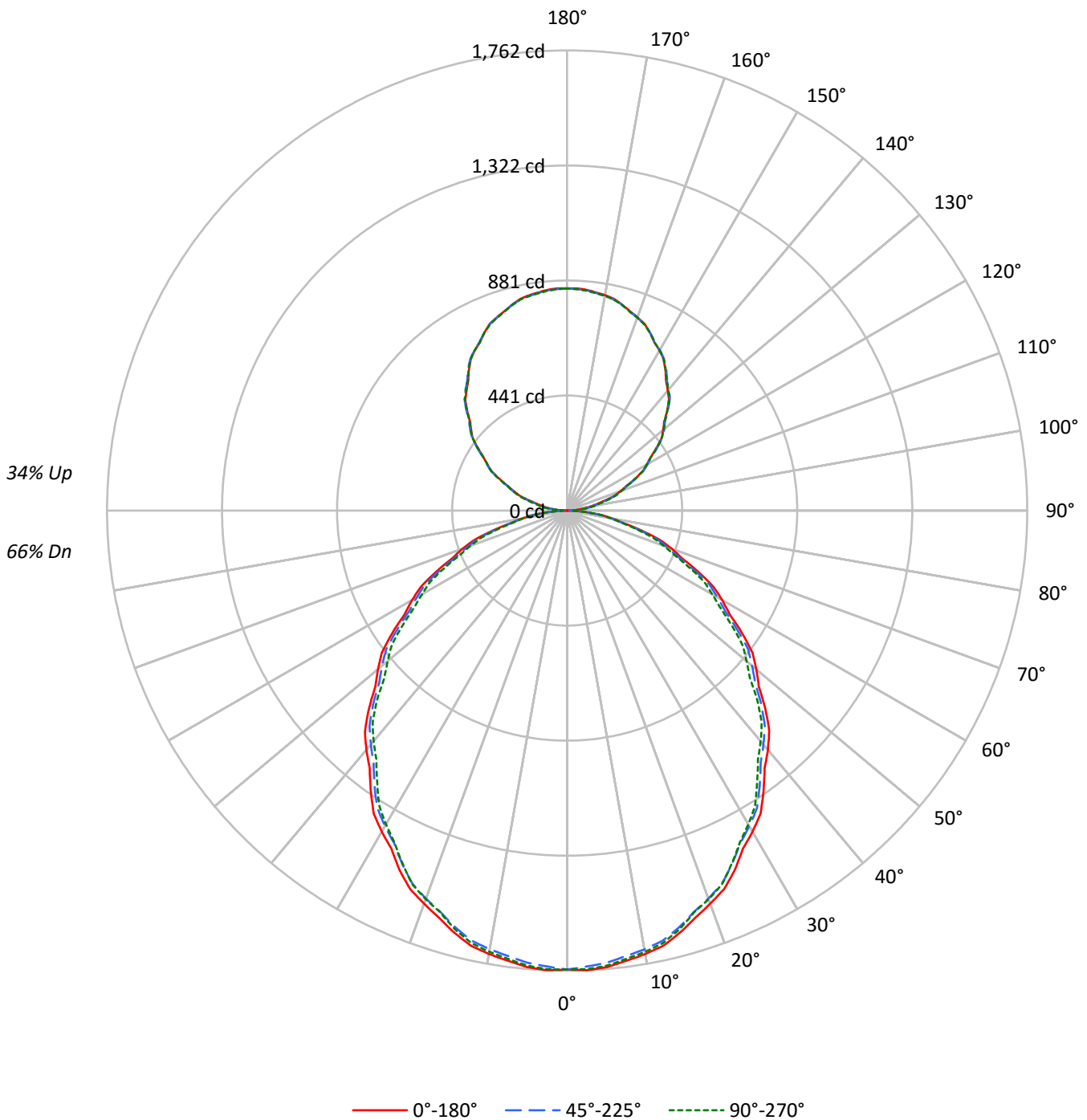
Input Watts (W): 59.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	101	97	93	89	95	91	88	84	81	78	76	71	69	67	62	61	60	55
2	92	84	78	73	86	80	74	69	71	66	63	62	59	56	55	52	50	46
3	84	74	67	61	79	70	63	58	62	57	53	55	51	48	49	45	43	39
4	77	66	58	51	72	62	55	49	55	50	45	49	45	41	43	40	37	34
5	71	59	50	44	66	56	48	42	50	44	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	39	34	40	35	31	36	31	28	26
7	60	48	40	34	57	45	38	32	41	35	30	36	31	28	32	28	25	23
8	56	43	35	30	53	41	34	29	37	31	27	33	28	25	30	26	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	28	23	20	18
10	49	37	29	24	46	35	28	23	32	26	22	28	24	20	26	21	18	17

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

	0°	45°	90°
0°	11349	11349	11349
5°	11374	11267	11339
10°	11305	11187	11252
15°	11183	11053	11099
20°	11008	10864	10883
25°	10819	10641	10630
30°	10586	10399	10347
35°	10336	10139	9996
40°	10080	9857	9716
45°	9803	9600	9409
50°	9499	9289	9010
55°	9205	8939	8688
60°	8853	8584	8280
65°	8436	8159	7882
70°	8033	7666	7404
75°	7321	7079	6832
80°	6512	6412	6259
85°	5669	5765	5461



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.7	2.4
10°-20°	468.1	6.7
20°-30°	691.1	9.9
30°-40°	806.4	11.6
40°-50°	809.9	11.7
50°-60°	710.9	10.2
60°-70°	529.7	7.6
70°-80°	302.9	4.4
80°-90°	90.0	1.3
90°-100°	57.0	0.8
100°-110°	168.2	2.4
110°-120°	285.0	4.1
120°-130°	375.0	5.4
130°-140°	420.2	6.0
140°-150°	411.8	5.9
150°-160°	345.9	5.0
160°-170°	229.9	3.3
170°-180°	80.5	1.2
0°-30°	1324.8	19.1
0°-40°	2131.2	30.7
0°-60°	3652.1	52.6
0°-90°	4574.7	65.8
90°-120°	510.2	7.3
90°-150°	1717.2	24.7
90°-180°	2374.0	34.2
0°-180°	6948.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1757	1757	1757	1757	1757	
5°	1754	1751	1738	1750	1749	166
15°	1672	1668	1653	1660	1660	471
25°	1518	1511	1493	1496	1492	698
35°	1311	1305	1286	1279	1268	820
45°	1073	1067	1051	1035	1030	827
55°	818	812	794	781	772	730
65°	552	548	534	522	516	548
75°	293	290	284	279	274	313
85°	76	78	78	76	74	85
90°	1	6	11	14	16	6
95°	43	45	51	55	57	46
105°	151	154	158	162	164	161
115°	285	288	289	289	288	282
125°	416	420	421	420	419	373
135°	541	545	546	546	544	417
145°	656	659	661	661	659	410
155°	751	751	751	754	751	346
165°	816	815	816	818	814	230
175°	849	846	846	849	845	81
180°	851	851	851	851	851	



TEST NUMBER: P333471-940

CATALOG NUMBER: S125DIW-S1270D770U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1757.3	1757.3	1757.3	1757.3	1757.3	1757.3	1757.3	1757.3	1757.3	1757.3	1757.3
2.5°	1761.8	1761.0	1760.3	1759.5	1758.8	1757.2	1754.7	1752.2	1749.8	1747.3	1749.8
5°	1754.5	1753.9	1753.3	1752.7	1752.0	1750.2	1747.1	1744.0	1741.0	1737.9	1740.6
7.5°	1738.4	1737.8	1737.1	1736.5	1735.9	1733.9	1730.5	1727.2	1723.8	1720.4	1723.1
10°	1723.9	1723.3	1722.7	1722.1	1721.4	1719.5	1716.1	1712.7	1709.2	1705.8	1708.3
12.5°	1706.1	1705.0	1704.0	1702.8	1701.7	1699.6	1696.4	1693.3	1690.1	1686.9	1689.0
15°	1672.5	1671.6	1670.6	1669.7	1668.8	1666.6	1663.2	1659.8	1656.4	1653.1	1654.6
17.5°	1633.9	1632.5	1631.1	1629.8	1628.4	1625.9	1622.5	1618.9	1615.4	1611.9	1613.8
20°	1601.6	1601.0	1600.4	1599.7	1599.1	1596.8	1592.8	1588.8	1584.7	1580.7	1582.9
22.5°	1569.3	1568.3	1567.1	1566.0	1564.9	1562.5	1558.7	1555.0	1551.1	1547.4	1548.8
25°	1518.2	1516.6	1515.1	1513.6	1512.0	1509.2	1505.2	1501.2	1497.2	1493.2	1493.8
27.5°	1458.4	1457.5	1456.5	1455.6	1454.7	1452.2	1448.0	1443.9	1439.8	1435.6	1435.7
30°	1419.5	1418.5	1417.6	1416.7	1415.8	1413.0	1408.4	1403.7	1399.1	1394.5	1393.8
32.5°	1377.2	1375.8	1374.4	1373.0	1371.5	1368.8	1364.6	1360.5	1356.3	1352.2	1351.1
35°	1311.0	1309.8	1308.6	1307.3	1306.1	1303.3	1299.0	1294.7	1290.3	1286.0	1284.5
37.5°	1242.3	1240.8	1239.3	1237.7	1236.2	1233.3	1229.3	1225.2	1221.1	1217.1	1214.8
40°	1195.6	1194.1	1192.6	1191.0	1189.5	1186.5	1182.2	1177.9	1173.6	1169.2	1166.4
42.5°	1145.6	1144.3	1143.0	1141.7	1140.4	1137.6	1133.3	1128.9	1124.6	1120.3	1117.8
45°	1073.3	1072.1	1070.9	1069.6	1068.4	1065.9	1062.2	1058.5	1054.8	1051.1	1047.3
47.5°	995.4	995.5	995.6	995.6	995.7	993.5	989.1	984.6	980.2	975.7	972.0
50°	945.4	944.5	943.5	942.6	941.6	939.3	935.7	931.9	928.3	924.5	920.5
52.5°	894.2	893.6	892.9	892.2	891.5	889.2	885.2	881.3	877.4	873.3	869.9
55°	817.5	816.5	815.6	814.7	813.8	811.2	806.8	802.5	798.2	793.9	791.0
57.5°	736.6	736.1	735.6	735.1	734.6	732.5	728.9	725.2	721.6	717.9	714.3
60°	685.4	684.2	683.0	681.7	680.5	678.1	674.8	671.4	668.0	664.6	661.5
62.5°	632.0	631.1	630.1	629.0	628.0	626.2	623.2	620.3	617.4	614.5	611.2
65°	552.0	551.3	550.7	550.1	549.5	547.4	544.0	540.6	537.3	533.9	531.1
67.5°	474.4	473.1	471.8	470.5	469.2	467.3	464.8	462.2	459.7	457.1	454.8
70°	425.4	423.9	422.3	420.8	419.3	417.1	414.3	411.5	408.8	406.0	404.1
72.5°	372.0	371.0	370.0	368.9	367.8	366.4	364.6	362.8	361.1	359.3	357.1
75°	293.4	292.7	292.1	291.5	290.9	289.8	288.3	286.7	285.2	283.7	282.7
77.5°	220.8	220.5	220.3	220.1	219.8	219.3	218.4	217.5	216.6	215.8	215.3
80°	175.1	175.1	175.1	175.1	175.1	174.9	174.2	173.6	173.0	172.4	172.1
82.5°	135.1	134.6	134.1	133.7	133.1	132.9	132.7	132.6	132.5	132.3	131.8
85°	76.5	76.8	77.0	77.4	77.7	77.8	77.8	77.8	77.8	77.8	77.6
87.5°	30.1	30.4	30.7	30.9	31.1	31.2	31.1	31.1	31.1	31.0	31.2
90°	0.6	1.9	3.0	4.2	5.4	6.5	7.5	8.6	9.5	10.6	11.3
92.5°	16.1	16.9	17.7	18.5	19.4	20.3	21.7	22.9	24.2	25.4	26.4
95°	43.1	43.3	43.6	43.9	44.2	45.1	46.5	48.1	49.5	51.0	52.0
97.5°	71.5	71.6	71.7	71.9	72.0	73.0	75.1	77.1	79.1	81.1	82.1
100°	92.6	92.6	92.6	92.6	92.6	93.6	95.5	97.5	99.3	101.3	102.6
102.5°	115.5	116.0	116.6	117.2	117.8	118.6	119.6	120.6	121.5	122.4	123.9
105°	151.0	151.7	152.4	153.1	153.9	154.7	155.6	156.4	157.3	158.2	159.1
107.5°	190.1	190.8	191.6	192.3	193.1	193.8	194.5	195.1	195.8	196.4	196.9
110°	217.1	217.8	218.6	219.4	220.1	220.6	221.1	221.5	221.9	222.4	222.8



TEST NUMBER: P333471-940

CATALOG NUMBER: S125DIW-S1270D770U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	244.7	245.0	245.4	245.8	246.2	246.6	247.2	247.8	248.3	248.9	249.1
115°	285.3	285.9	286.5	287.0	287.7	288.1	288.4	288.6	289.0	289.3	289.1
117.5°	326.1	326.4	326.6	326.9	327.2	327.4	327.7	328.0	328.2	328.5	328.6
120°	351.5	352.2	352.9	353.7	354.5	354.9	355.0	355.2	355.3	355.4	355.4
122.5°	379.1	379.3	379.6	379.9	380.1	380.4	380.8	381.2	381.6	381.9	381.8
125°	416.3	417.2	418.1	419.0	419.9	420.4	420.5	420.7	420.9	421.0	420.7
127.5°	456.1	456.6	457.1	457.6	458.1	458.4	458.6	458.8	459.0	459.1	459.0
130°	479.9	480.6	481.4	482.1	482.9	483.4	483.7	483.9	484.3	484.6	484.4
132.5°	503.7	505.0	506.1	507.4	508.5	509.2	509.1	509.0	509.0	508.9	508.8
135°	541.4	542.3	543.2	544.1	545.0	545.5	545.6	545.8	546.0	546.1	546.1
137.5°	576.9	577.8	578.6	579.5	580.4	580.9	581.3	581.6	581.9	582.3	582.5
140°	599.8	600.5	601.2	601.9	602.7	603.2	603.7	604.1	604.6	605.0	605.3
142.5°	622.5	623.1	623.8	624.4	625.0	625.5	626.2	626.7	627.2	627.8	627.9
145°	656.0	656.6	657.2	657.7	658.4	658.9	659.3	659.8	660.2	660.7	660.7
147.5°	687.0	687.3	687.6	688.0	688.3	688.6	688.9	689.3	689.6	690.0	690.4
150°	707.7	707.5	707.3	707.2	707.0	707.3	707.8	708.5	709.0	709.6	709.6
152.5°	724.6	724.8	725.0	725.2	725.4	725.6	725.9	726.1	726.3	726.6	726.9
155°	750.6	750.6	750.6	750.6	750.6	750.7	750.9	751.0	751.2	751.4	751.9
157.5°	774.0	773.6	773.3	773.0	772.7	772.6	772.8	772.8	773.0	773.2	773.7
160°	787.7	787.3	786.8	786.4	786.0	785.8	786.0	786.1	786.2	786.4	787.0
162.5°	800.0	799.6	799.2	799.0	798.6	798.4	798.5	798.5	798.5	798.6	799.3
165°	816.2	815.9	815.6	815.3	815.0	814.9	815.1	815.2	815.4	815.6	816.1
167.5°	830.0	829.4	828.8	828.2	827.6	827.3	827.3	827.3	827.3	827.3	828.2
170°	837.4	836.8	836.2	835.6	835.0	834.7	834.7	834.7	834.7	834.7	835.6
172.5°	842.7	842.0	841.5	840.9	840.3	840.0	840.0	840.0	840.0	840.0	840.9
175°	848.6	848.0	847.5	846.9	846.2	846.0	846.0	846.0	846.0	846.0	846.9
177.5°	851.7	851.2	850.7	850.2	849.8	849.5	849.4	849.3	849.2	849.0	849.7
180°	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6



TEST NUMBER: P333471-940

CATALOG NUMBER: S125DIW-S1270D770U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1757.3	1757.3	1757.3	1757.3	1757.3	1757.3	1757.3	1757.3
2.5°	1752.2	1754.7	1757.2	1758.3	1758.1	1757.8	1757.6	1757.3
5°	1743.4	1746.2	1749.0	1750.2	1749.9	1749.6	1749.3	1749.0
7.5°	1725.7	1728.5	1731.2	1732.4	1732.1	1731.8	1731.5	1731.2
10°	1710.8	1713.3	1715.7	1716.8	1716.5	1716.2	1715.9	1715.7
12.5°	1691.0	1692.9	1694.9	1695.9	1695.8	1695.7	1695.7	1695.6
15°	1656.2	1657.7	1659.2	1660.0	1660.0	1660.0	1660.0	1660.0
17.5°	1615.7	1617.7	1619.5	1619.7	1618.2	1616.7	1615.1	1613.6
20°	1585.1	1587.2	1589.4	1589.7	1588.1	1586.6	1585.1	1583.5
22.5°	1550.2	1551.7	1553.1	1553.3	1552.2	1551.1	1550.1	1549.1
25°	1494.4	1495.0	1495.7	1495.5	1494.6	1493.6	1492.7	1491.7
27.5°	1435.8	1436.0	1436.1	1435.7	1434.8	1433.9	1432.9	1432.0
30°	1393.2	1392.6	1392.0	1391.2	1390.3	1389.4	1388.4	1387.5
32.5°	1350.0	1348.9	1347.7	1346.3	1344.7	1343.0	1341.3	1339.7
35°	1282.9	1281.4	1279.9	1277.8	1275.3	1272.9	1270.4	1267.9
37.5°	1212.5	1210.2	1207.9	1206.0	1204.6	1203.2	1201.8	1200.3
40°	1163.7	1160.9	1158.1	1156.3	1155.3	1154.4	1153.4	1152.5
42.5°	1115.3	1112.7	1110.2	1108.2	1106.8	1105.4	1103.9	1102.5
45°	1043.7	1039.9	1036.3	1033.9	1033.0	1032.1	1031.1	1030.2
47.5°	968.1	964.4	960.6	957.7	955.5	953.3	951.2	949.0
50°	916.5	912.5	908.5	905.4	903.2	901.1	898.9	896.7
52.5°	866.3	862.8	859.3	856.3	853.9	851.5	849.1	846.7
55°	788.3	785.5	782.7	780.2	778.1	776.0	773.7	771.6
57.5°	710.8	707.2	703.6	701.2	700.1	698.9	697.7	696.5
60°	658.4	655.3	652.2	649.6	647.4	645.2	643.1	641.0
62.5°	607.8	604.5	601.2	598.7	597.0	595.3	593.6	592.0
65°	528.3	525.5	522.7	520.8	519.5	518.3	517.0	515.8
67.5°	452.5	450.0	447.7	446.2	445.4	444.7	444.0	443.2
70°	402.3	400.4	398.5	397.0	395.7	394.5	393.3	392.1
72.5°	355.1	352.9	350.9	349.2	347.9	346.7	345.4	344.2
75°	281.8	280.8	279.9	278.8	277.6	276.3	275.1	273.8
77.5°	214.6	214.1	213.6	212.9	212.0	211.1	210.3	209.4
80°	171.7	171.5	171.1	170.7	170.0	169.4	168.8	168.3
82.5°	131.3	130.7	130.1	129.8	129.7	129.6	129.4	129.3
85°	77.2	77.0	76.6	76.2	75.5	74.9	74.3	73.7
87.5°	31.3	31.5	31.7	31.5	31.1	30.7	30.3	29.9
90°	12.0	12.8	13.6	14.1	14.5	15.0	15.4	15.9
92.5°	27.4	28.4	29.3	30.0	30.3	30.6	30.9	31.2
95°	53.1	54.0	55.1	55.7	56.1	56.4	56.6	56.9
97.5°	83.1	84.1	85.1	85.6	85.8	86.0	86.1	86.3
100°	103.9	105.2	106.6	107.4	107.7	108.0	108.3	108.5
102.5°	125.4	126.8	128.2	129.1	129.6	130.0	130.4	130.8
105°	160.0	160.9	161.8	162.4	162.8	163.3	163.7	164.2
107.5°	197.3	197.8	198.2	198.4	198.4	198.4	198.3	198.3
110°	223.3	223.7	224.2	224.4	224.2	224.0	223.9	223.7





TEST NUMBER: P333471-940

CATALOG NUMBER: S125DIW-S1270D770U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	249.3	249.5	249.7	249.7	249.4	249.1	248.9	248.6
115°	289.0	288.8	288.6	288.6	288.4	288.3	288.1	287.9
117.5°	328.7	328.8	329.0	328.7	328.1	327.5	326.9	326.4
120°	355.4	355.4	355.4	355.2	354.6	354.0	353.4	352.8
122.5°	381.7	381.6	381.5	381.2	380.7	380.2	379.8	379.3
125°	420.4	420.1	419.8	419.6	419.5	419.3	419.2	419.0
127.5°	458.9	458.7	458.5	458.3	458.1	457.7	457.4	457.2
130°	484.3	484.1	483.9	483.8	483.5	483.1	482.9	482.6
132.5°	508.6	508.5	508.4	508.0	507.7	507.2	506.8	506.4
135°	546.1	546.1	546.1	545.8	545.2	544.7	544.0	543.5
137.5°	582.6	582.8	583.0	582.6	581.9	581.2	580.5	579.7
140°	605.6	605.9	606.2	606.0	605.3	604.5	603.8	603.1
142.5°	628.1	628.3	628.5	628.2	627.5	626.8	626.0	625.3
145°	660.7	660.7	660.7	660.4	660.0	659.5	659.1	658.6
147.5°	690.7	691.1	691.4	691.1	690.1	689.1	688.1	687.2
150°	709.6	709.6	709.6	709.4	709.2	708.9	708.6	708.3
152.5°	727.3	727.6	728.0	727.9	727.4	726.8	726.3	725.8
155°	752.5	753.0	753.7	753.6	752.9	752.2	751.4	750.6
157.5°	774.4	774.9	775.5	775.3	774.4	773.4	772.4	771.4
160°	787.6	788.2	788.7	788.7	787.9	787.2	786.5	785.8
162.5°	800.0	800.7	801.4	801.4	800.5	799.6	798.8	797.9
165°	816.7	817.3	817.9	817.7	816.9	816.0	815.1	814.2
167.5°	829.1	830.0	830.8	830.8	829.9	829.0	828.1	827.2
170°	836.5	837.4	838.3	838.2	837.1	836.2	835.1	834.1
172.5°	841.8	842.7	843.6	843.6	842.7	841.7	840.8	839.9
175°	847.7	848.6	849.5	849.4	848.4	847.4	846.3	845.3
177.5°	850.4	851.1	851.9	851.8	851.0	850.2	849.4	848.5
180°	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6

(END OF REPORT)