

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: P333471-830

Luminaire Tested: **S125DIW-S1270D770U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333471-830
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-S1270D770U830-4F0-1E-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: 7344.4 lumens
Efficiency: N/A
Efficacy: 122.8 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

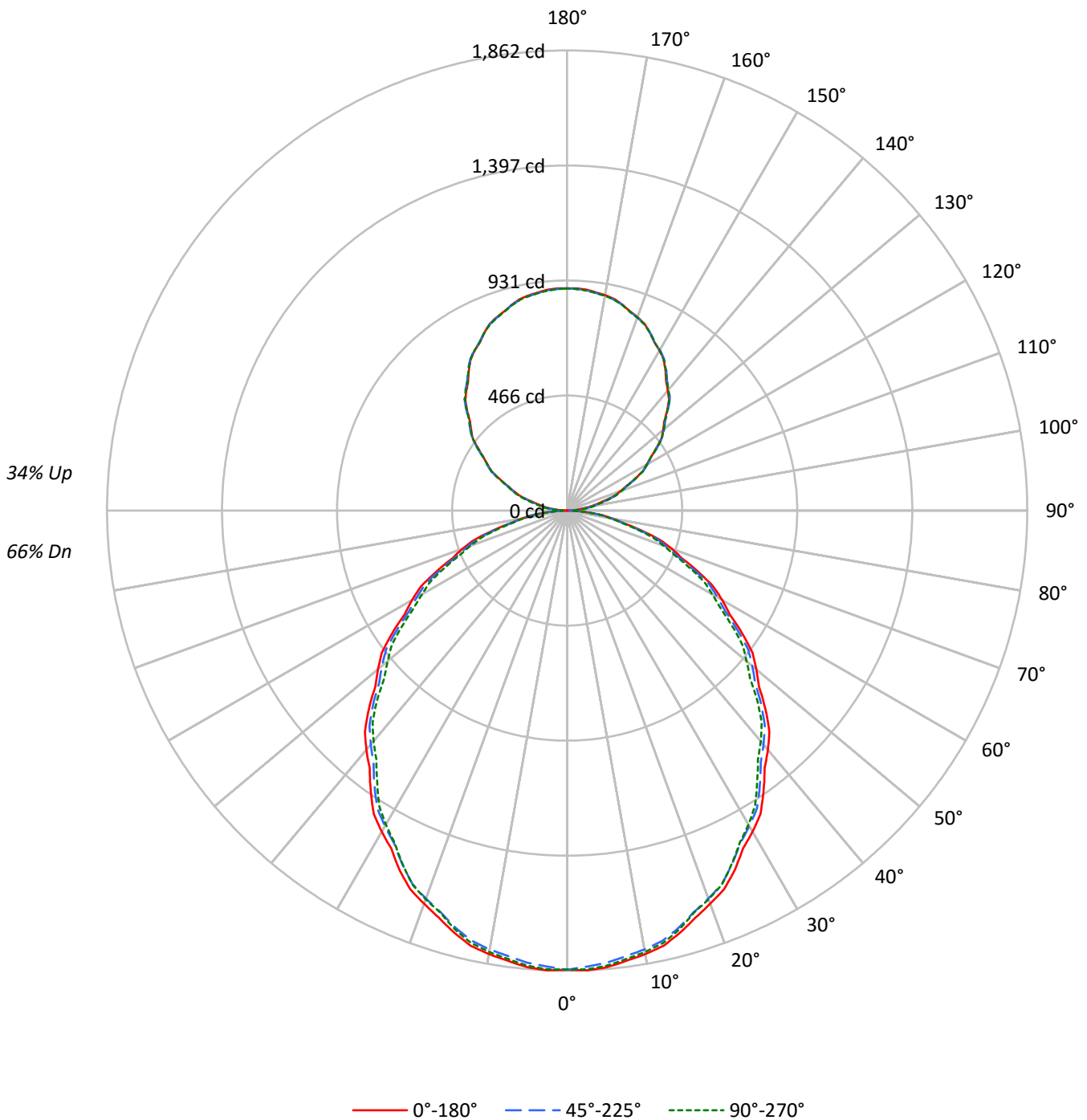
Input Watts (W): 59.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	11996	11996	11996
5°	12023	11909	11985
10°	11950	11825	11893
15°	11820	11683	11732
20°	11635	11483	11504
25°	11436	11247	11236
30°	11189	10992	10937
35°	10925	10717	10566
40°	10655	10420	10270
45°	10361	10147	9945
50°	10040	9818	9523
55°	9730	9448	9183
60°	9357	9074	8751
65°	8915	8623	8332
70°	8492	8103	7825
75°	7738	7481	7224
80°	6884	6776	6616
85°	5995	6099	5772



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.1	2.4
10°-20°	494.7	6.7
20°-30°	730.5	9.9
30°-40°	852.4	11.6
40°-50°	856.1	11.7
50°-60°	751.5	10.2
60°-70°	559.9	7.6
70°-80°	320.2	4.4
80°-90°	95.1	1.3
90°-100°	60.2	0.8
100°-110°	177.8	2.4
110°-120°	301.2	4.1
120°-130°	396.4	5.4
130°-140°	444.2	6.0
140°-150°	435.3	5.9
150°-160°	365.6	5.0
160°-170°	243.1	3.3
170°-180°	85.1	1.2
0°-30°	1400.3	19.1
0°-40°	2252.7	30.7
0°-60°	3860.3	52.6
0°-90°	4835.5	65.8
90°-120°	539.3	7.3
90°-150°	1815.1	24.7
90°-180°	2509.0	34.2
0°-180°	7344.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1858	1858	1858	1858	1858	
5°	1854	1851	1837	1849	1849	176
15°	1768	1763	1747	1754	1755	498
25°	1605	1597	1578	1581	1577	738
35°	1386	1379	1359	1352	1340	866
45°	1134	1128	1111	1094	1089	874
55°	864	859	839	826	816	771
65°	583	580	564	551	545	579
75°	310	307	300	295	290	331
85°	81	82	82	81	78	90
90°	1	6	11	15	17	7
95°	46	47	54	59	60	49
105°	160	163	167	171	174	170
115°	302	304	306	305	304	298
125°	440	444	445	444	443	394
135°	572	576	577	577	574	441
145°	693	696	698	698	696	433
155°	793	793	794	797	793	365
165°	863	861	862	864	861	243
175°	897	894	894	898	894	85
180°	899	899	899	899	899	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1857.5	1857.5	1857.5	1857.5	1857.5	1857.5	1857.5	1857.5	1857.5	1857.5	1857.5
2.5°	1862.2	1861.4	1860.7	1859.8	1859.1	1857.4	1854.7	1852.1	1849.6	1846.9	1849.6
5°	1854.5	1853.9	1853.2	1852.6	1851.9	1850.0	1846.7	1843.4	1840.2	1836.9	1839.8
7.5°	1837.5	1836.8	1836.2	1835.5	1834.8	1832.8	1829.2	1825.6	1822.0	1818.4	1821.3
10°	1822.2	1821.6	1820.9	1820.2	1819.6	1817.5	1813.9	1810.3	1806.7	1803.1	1805.7
12.5°	1803.4	1802.2	1801.1	1799.9	1798.7	1796.5	1793.1	1789.8	1786.5	1783.1	1785.3
15°	1767.8	1766.9	1765.9	1764.9	1764.0	1761.6	1758.0	1754.4	1750.9	1747.3	1748.9
17.5°	1727.0	1725.6	1724.1	1722.7	1721.3	1718.6	1715.0	1711.2	1707.5	1703.7	1705.8
20°	1692.9	1692.2	1691.6	1690.9	1690.3	1687.8	1683.6	1679.3	1675.1	1670.8	1673.1
22.5°	1658.8	1657.6	1656.4	1655.3	1654.1	1651.5	1647.6	1643.6	1639.6	1635.6	1637.1
25°	1604.8	1603.1	1601.5	1599.9	1598.2	1595.3	1591.0	1586.8	1582.5	1578.3	1578.9
27.5°	1541.5	1540.6	1539.5	1538.6	1537.7	1534.9	1530.6	1526.2	1521.8	1517.4	1517.6
30°	1500.4	1499.4	1498.5	1497.4	1496.5	1493.6	1488.7	1483.8	1478.8	1473.9	1473.3
32.5°	1455.8	1454.2	1452.7	1451.2	1449.7	1446.8	1442.4	1438.0	1433.6	1429.3	1428.1
35°	1385.7	1384.5	1383.2	1381.9	1380.5	1377.6	1373.0	1368.5	1363.9	1359.3	1357.7
37.5°	1313.2	1311.5	1309.9	1308.2	1306.6	1303.6	1299.4	1295.1	1290.7	1286.5	1284.0
40°	1263.8	1262.2	1260.6	1258.9	1257.3	1254.1	1249.6	1245.0	1240.5	1235.9	1232.9
42.5°	1210.9	1209.6	1208.2	1206.7	1205.4	1202.4	1197.9	1193.3	1188.7	1184.1	1181.5
45°	1134.4	1133.2	1131.9	1130.6	1129.3	1126.6	1122.8	1118.8	1114.9	1111.0	1107.0
47.5°	1052.2	1052.3	1052.3	1052.3	1052.4	1050.1	1045.5	1040.8	1036.0	1031.3	1027.4
50°	999.3	998.3	997.3	996.4	995.3	992.9	989.0	985.1	981.2	977.2	973.0
52.5°	945.2	944.5	943.8	943.0	942.4	939.9	935.7	931.5	927.4	923.1	919.5
55°	864.1	863.1	862.1	861.1	860.2	857.4	852.8	848.3	843.7	839.1	836.1
57.5°	778.5	778.1	777.5	777.0	776.5	774.3	770.4	766.6	762.7	758.8	755.1
60°	724.4	723.2	721.9	720.6	719.3	716.8	713.2	709.6	706.1	702.5	699.2
62.5°	668.1	667.0	666.0	664.9	663.8	661.9	658.7	655.6	652.6	649.5	646.0
65°	583.4	582.8	582.1	581.5	580.8	578.6	575.0	571.5	567.9	564.3	561.4
67.5°	501.4	500.0	498.7	497.3	496.0	493.9	491.3	488.5	485.9	483.1	480.7
70°	449.7	448.1	446.4	444.8	443.2	440.8	437.9	435.0	432.1	429.1	427.2
72.5°	393.2	392.1	391.1	389.9	388.8	387.3	385.4	383.5	381.6	379.8	377.5
75°	310.1	309.4	308.8	308.1	307.5	306.3	304.7	303.0	301.4	299.8	298.8
77.5°	233.4	233.1	232.8	232.6	232.3	231.8	230.8	229.9	228.9	228.1	227.5
80°	185.1	185.1	185.1	185.1	185.1	184.8	184.2	183.5	182.9	182.2	181.9
82.5°	142.8	142.3	141.8	141.3	140.7	140.4	140.3	140.2	140.1	139.9	139.3
85°	80.9	81.2	81.4	81.8	82.1	82.3	82.3	82.3	82.3	82.3	82.0
87.5°	31.9	32.1	32.4	32.6	32.9	33.0	32.9	32.9	32.9	32.8	33.0
90°	0.7	2.0	3.2	4.4	5.7	6.9	7.9	9.0	10.1	11.2	12.0
92.5°	17.0	17.8	18.7	19.5	20.5	21.5	22.9	24.2	25.5	26.9	27.9
95°	45.5	45.8	46.1	46.4	46.8	47.7	49.2	50.8	52.3	53.9	55.0
97.5°	75.6	75.7	75.8	76.0	76.1	77.2	79.4	81.5	83.6	85.8	86.8
100°	97.9	97.9	97.9	97.9	97.9	99.0	100.9	103.0	105.0	107.1	108.5
102.5°	122.1	122.6	123.3	123.9	124.5	125.4	126.4	127.4	128.4	129.4	131.0
105°	159.6	160.3	161.1	161.8	162.7	163.5	164.5	165.3	166.3	167.2	168.1
107.5°	201.0	201.7	202.6	203.3	204.1	204.8	205.6	206.2	207.0	207.6	208.1
110°	229.5	230.3	231.0	231.9	232.6	233.2	233.7	234.1	234.6	235.1	235.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	258.6	259.0	259.4	259.9	260.2	260.7	261.3	261.9	262.5	263.1	263.3
115°	301.6	302.2	302.8	303.4	304.1	304.5	304.8	305.1	305.5	305.8	305.6
117.5°	344.7	345.0	345.3	345.5	345.8	346.1	346.4	346.7	346.9	347.2	347.3
120°	371.6	372.3	373.1	373.9	374.7	375.1	375.2	375.4	375.6	375.7	375.7
122.5°	400.7	401.0	401.2	401.5	401.8	402.1	402.5	402.9	403.3	403.7	403.6
125°	440.1	441.0	442.0	442.9	443.8	444.4	444.5	444.7	444.9	445.0	444.7
127.5°	482.1	482.6	483.1	483.7	484.2	484.6	484.7	484.9	485.1	485.3	485.1
130°	507.3	508.0	508.9	509.6	510.4	511.0	511.2	511.5	511.9	512.2	512.0
132.5°	532.4	533.8	535.0	536.3	537.5	538.2	538.1	538.0	538.0	537.9	537.8
135°	572.3	573.3	574.2	575.1	576.1	576.6	576.7	576.9	577.1	577.2	577.2
137.5°	609.8	610.8	611.6	612.6	613.5	614.1	614.4	614.7	615.1	615.5	615.7
140°	634.0	634.7	635.5	636.2	637.1	637.6	638.1	638.6	639.0	639.5	639.8
142.5°	658.0	658.6	659.3	660.0	660.6	661.2	661.9	662.4	663.0	663.5	663.7
145°	693.4	694.0	694.7	695.2	695.9	696.4	696.9	697.4	697.9	698.3	698.3
147.5°	726.1	726.5	726.8	727.2	727.5	727.8	728.2	728.6	729.0	729.3	729.7
150°	748.0	747.8	747.6	747.5	747.3	747.6	748.2	748.9	749.4	750.1	750.1
152.5°	765.9	766.1	766.3	766.6	766.8	766.9	767.2	767.5	767.7	768.0	768.4
155°	793.4	793.4	793.4	793.4	793.4	793.5	793.7	793.8	794.0	794.2	794.8
157.5°	818.1	817.7	817.4	817.1	816.7	816.6	816.8	816.9	817.1	817.3	817.8
160°	832.6	832.2	831.7	831.2	830.8	830.6	830.8	830.9	831.0	831.2	831.9
162.5°	845.6	845.2	844.8	844.5	844.1	844.0	844.0	844.0	844.0	844.1	844.9
165°	862.7	862.4	862.1	861.8	861.5	861.4	861.6	861.7	861.9	862.0	862.6
167.5°	877.3	876.7	876.0	875.4	874.8	874.5	874.5	874.5	874.5	874.5	875.4
170°	885.1	884.5	883.8	883.3	882.6	882.3	882.3	882.3	882.3	882.3	883.3
172.5°	890.7	890.0	889.5	888.8	888.3	887.9	887.9	887.9	887.9	887.9	888.8
175°	897.0	896.4	895.8	895.1	894.5	894.2	894.2	894.2	894.2	894.2	895.1
177.5°	900.2	899.8	899.2	898.7	898.2	898.0	897.8	897.7	897.6	897.4	898.1
180°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1857.5	1857.5	1857.5	1857.5	1857.5	1857.5	1857.5	1857.5
2.5°	1852.1	1854.7	1857.4	1858.5	1858.3	1858.0	1857.8	1857.5
5°	1842.8	1845.8	1848.7	1850.0	1849.6	1849.4	1849.0	1848.7
7.5°	1824.1	1827.0	1829.9	1831.2	1830.9	1830.5	1830.2	1829.9
10°	1808.4	1811.0	1813.5	1814.7	1814.4	1814.0	1813.7	1813.5
12.5°	1787.3	1789.4	1791.5	1792.5	1792.4	1792.3	1792.3	1792.2
15°	1750.6	1752.2	1753.8	1754.6	1754.6	1754.6	1754.6	1754.6
17.5°	1707.8	1709.9	1711.8	1712.0	1710.4	1708.8	1707.1	1705.5
20°	1675.5	1677.7	1680.0	1680.4	1678.7	1677.1	1675.5	1673.8
22.5°	1638.6	1640.1	1641.6	1641.8	1640.7	1639.6	1638.4	1637.4
25°	1579.6	1580.3	1580.9	1580.7	1579.8	1578.8	1577.8	1576.8
27.5°	1517.7	1517.9	1518.0	1517.5	1516.6	1515.6	1514.6	1513.6
30°	1472.6	1472.0	1471.3	1470.6	1469.5	1468.6	1467.5	1466.6
32.5°	1426.9	1425.8	1424.6	1423.1	1421.4	1419.6	1417.8	1416.1
35°	1356.0	1354.4	1352.8	1350.7	1348.0	1345.5	1342.8	1340.2
37.5°	1281.6	1279.2	1276.8	1274.8	1273.3	1271.8	1270.3	1268.8
40°	1230.0	1227.1	1224.1	1222.2	1221.2	1220.2	1219.2	1218.2
42.5°	1178.8	1176.1	1173.5	1171.4	1169.9	1168.4	1166.9	1165.4
45°	1103.2	1099.2	1095.3	1092.9	1091.8	1090.9	1089.9	1088.9
47.5°	1023.3	1019.4	1015.4	1012.3	1009.9	1007.7	1005.4	1003.1
50°	968.7	964.5	960.3	957.0	954.7	952.4	950.2	947.8
52.5°	915.7	912.0	908.2	905.1	902.6	900.0	897.5	894.9
55°	833.2	830.3	827.4	824.7	822.5	820.2	817.8	815.6
57.5°	751.3	747.5	743.8	741.2	740.0	738.8	737.4	736.2
60°	695.9	692.7	689.4	686.6	684.3	682.0	679.8	677.5
62.5°	642.4	638.9	635.5	632.8	631.0	629.2	627.5	625.8
65°	558.5	555.4	552.5	550.4	549.1	547.8	546.5	545.2
67.5°	478.2	475.7	473.3	471.6	470.8	470.0	469.3	468.4
70°	425.2	423.2	421.2	419.6	418.3	417.0	415.8	414.4
72.5°	375.3	373.1	370.9	369.1	367.8	366.5	365.1	363.8
75°	297.8	296.8	295.9	294.7	293.4	292.1	290.8	289.5
77.5°	226.9	226.3	225.7	225.0	224.0	223.1	222.3	221.3
80°	181.5	181.3	180.9	180.4	179.7	179.1	178.4	177.9
82.5°	138.7	138.2	137.5	137.2	137.0	137.0	136.8	136.7
85°	81.6	81.3	81.0	80.5	79.8	79.2	78.5	77.9
87.5°	33.1	33.3	33.5	33.3	32.9	32.4	32.0	31.6
90°	12.7	13.6	14.3	14.9	15.4	15.8	16.3	16.8
92.5°	28.9	30.0	31.0	31.7	32.0	32.3	32.7	33.0
95°	56.1	57.1	58.2	58.9	59.3	59.6	59.9	60.1
97.5°	87.8	88.9	89.9	90.5	90.7	90.9	91.0	91.2
100°	109.8	111.2	112.6	113.5	113.9	114.1	114.4	114.7
102.5°	132.5	134.0	135.5	136.5	137.0	137.4	137.8	138.3
105°	169.1	170.0	171.0	171.6	172.1	172.6	173.1	173.5
107.5°	208.6	209.1	209.5	209.7	209.7	209.7	209.6	209.6
110°	236.0	236.5	237.0	237.1	237.0	236.8	236.7	236.5



TEST NUMBER: P333471-830

CATALOG NUMBER: S125DIW-S1270D770U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	263.5	263.7	263.9	263.9	263.6	263.3	263.1	262.8
115°	305.5	305.3	305.1	305.0	304.8	304.7	304.5	304.3
117.5°	347.4	347.5	347.7	347.4	346.9	346.2	345.5	345.0
120°	375.7	375.7	375.7	375.4	374.8	374.2	373.5	373.0
122.5°	403.5	403.3	403.2	402.9	402.4	401.9	401.4	401.0
125°	444.4	444.0	443.7	443.6	443.4	443.2	443.1	442.9
127.5°	485.0	484.8	484.7	484.5	484.2	483.8	483.5	483.2
130°	511.9	511.7	511.5	511.3	511.0	510.7	510.4	510.1
132.5°	537.6	537.4	537.3	537.0	536.6	536.1	535.7	535.3
135°	577.2	577.2	577.2	576.9	576.3	575.7	575.0	574.5
137.5°	615.9	616.0	616.2	615.9	615.1	614.3	613.6	612.7
140°	640.2	640.5	640.7	640.6	639.8	638.9	638.2	637.4
142.5°	663.9	664.1	664.3	664.0	663.3	662.5	661.7	660.9
145°	698.3	698.3	698.3	698.0	697.6	697.1	696.6	696.2
147.5°	730.1	730.5	730.8	730.5	729.4	728.4	727.4	726.3
150°	750.1	750.1	750.1	749.9	749.6	749.3	748.9	748.7
152.5°	768.7	769.1	769.5	769.4	768.8	768.3	767.7	767.1
155°	795.4	796.0	796.6	796.5	795.8	795.0	794.2	793.4
157.5°	818.5	819.1	819.7	819.5	818.5	817.5	816.4	815.4
160°	832.5	833.1	833.7	833.7	832.8	832.1	831.3	830.6
162.5°	845.6	846.3	847.1	847.1	846.1	845.2	844.3	843.4
165°	863.3	863.9	864.5	864.3	863.5	862.5	861.6	860.6
167.5°	876.4	877.3	878.2	878.2	877.2	876.3	875.3	874.3
170°	884.2	885.1	886.1	886.0	884.9	883.8	882.7	881.7
172.5°	889.8	890.7	891.6	891.6	890.7	889.7	888.7	887.8
175°	896.1	897.0	898.0	897.9	896.7	895.7	894.6	893.5
177.5°	898.9	899.7	900.4	900.3	899.5	898.6	897.8	896.8
180°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1

(END OF REPORT)