

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: P333321-830

Luminaire Tested: **S125DIP-S1270D810U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333321-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S1270D810U830-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7576.8 lumens  
Efficiency: N/A  
Efficacy: 124.8 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

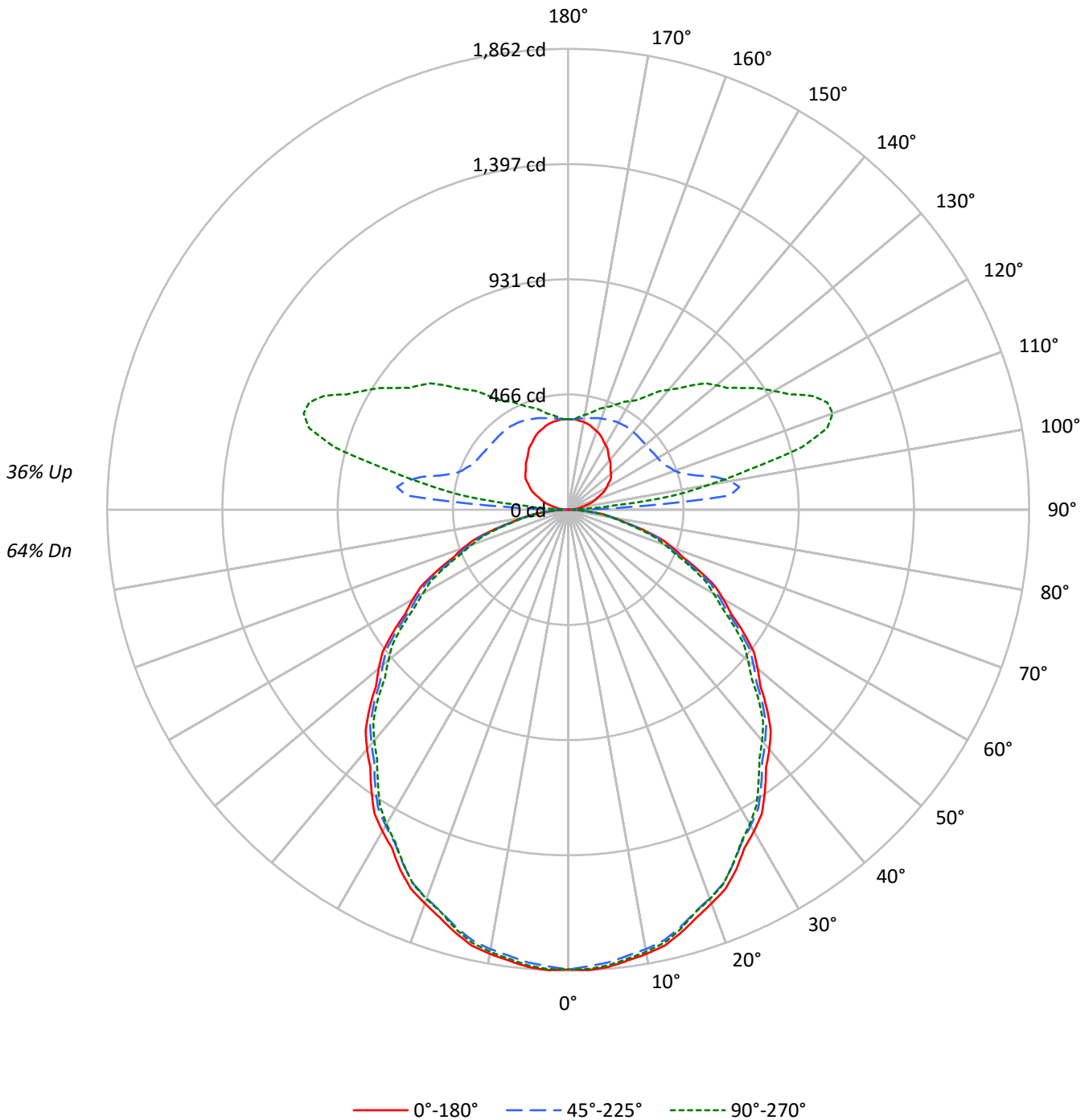
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	110	110	110	104	104	104	104	91	91	91		79	79	79		69	69	69	64
1	101	96	92	89	94	91	87	84	80	77	75		70	68	66		61	59	58	54
2	92	84	78	72	86	79	74	69	70	66	62		61	58	55		53	51	49	45
3	84	74	66	60	78	70	63	58	62	56	52		54	50	47		47	44	41	38
4	77	65	57	51	72	62	54	49	55	49	44		48	44	40		42	39	36	33
5	70	58	50	44	66	55	48	42	49	43	38		43	39	35		38	34	31	28
6	65	52	44	38	61	50	42	37	44	38	33		39	34	30		35	31	27	25
7	60	47	39	34	56	45	38	32	40	34	30		36	31	27		32	28	24	22
8	56	43	35	30	52	41	34	29	37	31	26		33	28	24		29	25	22	20
9	52	39	32	27	49	38	30	26	34	28	24		30	25	22		27	23	20	18
10	49	36	29	24	46	35	28	23	31	25	21		28	23	20		25	21	18	16

**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	2.3
10°-20°	494.7	6.5
20°-30°	730.5	9.6
30°-40°	852.4	11.2
40°-50°	856.1	11.3
50°-60°	751.5	9.9
60°-70°	559.9	7.4
70°-80°	320.2	4.2
80°-90°	95.2	1.3
90°-100°	264.9	3.5
100°-110°	569.6	7.5
110°-120°	534.5	7.1
120°-130°	433.2	5.7
130°-140°	347.7	4.6
140°-150°	262.4	3.5
150°-160°	184.7	2.4
160°-170°	108.8	1.4
170°-180°	35.4	0.5
0°-30°	1400.3	18.5
0°-40°	2252.7	29.7
0°-60°	3860.3	50.9
0°-90°	4835.6	63.8
90°-120°	1369.1	18.1
90°-150°	2412.3	31.8
90°-180°	2741.0	36.2
0°-180°	7576.8	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	7	12	15	17	6
95°	24	72	653	296	173	26
105°	83	116	534	1052	976	88
115°	149	179	429	925	1088	146
125°	206	242	411	736	857	183
135°	242	291	408	616	712	188
145°	282	322	410	510	562	176
155°	321	346	399	451	471	148
165°	351	360	383	406	413	99
175°	365	365	368	372	371	35
180°	366	366	366	366	366	



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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	32.0	32.3	32.6	32.9	33.1	33.0	33.0	32.9	32.9	33.1
90°	0.8	1.5	2.9	4.4	5.9	7.4	8.1	9.6	10.3	11.8	12.5
92.5°	9.0	10.9	17.1	26.2	38.9	60.4	100.7	168.1	241.4	237.6	192.4
95°	24.3	25.1	30.9	39.0	55.2	88.4	167.3	329.4	532.8	653.0	638.9
97.5°	40.3	41.3	45.4	53.5	68.1	92.0	144.1	263.0	475.8	697.3	808.4
100°	51.6	53.1	56.0	64.1	78.1	100.2	143.0	238.7	424.5	665.5	849.7
102.5°	64.0	64.8	67.2	75.9	88.7	110.3	148.3	228.8	385.6	609.4	825.0
105°	83.3	83.3	87.0	94.3	106.1	126.8	159.2	224.8	347.9	534.3	745.8
107.5°	102.2	103.6	107.2	113.2	125.5	144.0	175.4	231.6	332.0	482.6	665.1
110°	115.7	117.2	120.1	126.8	137.8	156.9	187.2	238.1	327.3	458.4	619.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	129.2	130.7	133.1	139.7	150.8	169.4	198.4	246.3	327.3	444.2	584.8
115°	148.8	150.3	152.6	159.2	170.2	188.7	215.9	258.6	329.4	429.0	547.5
117.5°	166.5	168.8	171.2	177.8	190.3	208.1	233.9	272.9	334.3	421.4	525.3
120°	178.3	180.6	183.5	190.1	202.6	221.1	246.9	282.3	339.0	417.8	512.9
122.5°	190.8	192.4	194.7	201.3	215.1	233.5	259.3	292.8	343.1	414.9	502.3
125°	206.3	207.8	211.5	218.1	232.1	251.3	275.6	307.3	350.1	411.2	487.9
127.5°	218.6	220.8	225.6	233.9	248.8	268.0	291.4	320.6	357.9	409.4	474.6
130°	226.2	228.5	234.3	243.9	259.4	278.6	301.4	329.4	362.6	408.3	465.8
132.5°	232.1	235.0	242.0	252.8	268.8	288.0	310.9	337.1	367.9	408.3	458.7
135°	241.8	244.7	253.5	265.3	280.8	300.7	323.6	347.9	375.1	408.3	450.3
137.5°	253.8	256.0	264.3	276.1	291.2	311.7	332.5	355.8	381.7	409.2	442.8
140°	260.9	263.1	271.9	283.7	297.7	317.6	339.0	361.1	384.7	409.7	439.2
142.5°	269.1	270.8	279.0	290.8	304.3	322.9	343.1	364.1	386.4	410.4	436.3
145°	281.5	283.0	290.4	300.7	314.0	330.9	350.1	368.4	388.4	409.7	431.9
147.5°	294.5	295.4	301.7	311.3	322.8	337.7	354.5	371.2	389.1	407.8	427.3
150°	302.2	303.6	308.8	318.4	328.7	341.2	357.4	372.9	389.1	406.0	423.8
152.5°	310.4	311.3	315.8	324.2	334.0	345.3	360.3	374.1	388.5	403.7	419.6
155°	321.3	321.3	325.7	333.1	340.4	350.8	363.4	375.1	386.9	399.4	412.7
157.5°	331.0	330.9	334.4	340.7	347.2	355.1	365.8	375.9	385.0	395.0	406.2
160°	337.5	336.8	339.8	344.9	350.8	357.4	367.0	375.9	383.2	392.1	401.0
162.5°	342.8	342.1	345.1	349.6	354.3	359.8	368.2	375.2	381.4	388.5	396.2
165°	350.8	349.3	351.6	355.2	358.2	362.6	368.4	374.4	378.8	383.2	389.1
167.5°	356.1	355.3	356.7	358.7	360.8	363.6	368.4	372.6	374.7	378.1	382.2
170°	359.7	358.9	359.7	361.1	362.6	364.8	368.4	371.5	372.9	375.1	378.1
172.5°	362.0	360.7	361.4	362.9	363.7	364.8	367.9	370.2	370.5	371.6	373.9
175°	364.8	363.4	364.1	364.8	364.8	364.8	367.0	368.4	367.8	367.8	368.4
177.5°	366.1	365.0	365.0	365.5	365.0	365.0	366.1	366.7	365.5	365.5	366.1
180°	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5



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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°	33.2	33.4	33.6	33.6	33.0	32.5	32.1	31.6
90°	13.3	14.0	14.7	16.2	16.2	16.2	17.0	17.0
92.5°	130.6	94.8	71.4	60.4	51.0	49.2	48.2	47.0
95°	529.9	417.8	327.3	265.3	213.0	190.9	185.0	173.1
97.5°	789.2	710.6	622.3	536.2	490.7	449.4	428.0	418.6
100°	906.4	870.3	794.5	717.8	666.9	613.9	586.6	574.9
102.5°	945.9	968.3	931.8	880.0	825.6	787.8	758.2	749.3
105°	922.7	1023.7	1056.1	1048.0	1024.4	1000.0	985.3	976.5
107.5°	839.5	974.3	1057.5	1096.0	1108.0	1107.8	1103.0	1097.0
110°	778.3	918.2	1022.2	1084.8	1117.9	1132.0	1137.2	1137.2





TEST NUMBER: P333321-830

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	729.9	862.8	967.9	1041.8	1090.2	1114.3	1127.1	1132.5
115°	669.2	783.4	884.4	964.7	1022.2	1057.5	1078.2	1087.8
117.5°	630.0	728.4	815.4	889.1	946.6	983.1	1003.6	1009.5
120°	608.7	697.2	778.3	843.1	897.6	933.0	952.9	958.8
122.5°	592.9	674.8	747.0	807.8	856.4	888.8	908.7	914.0
125°	569.7	644.9	709.0	762.0	803.3	833.5	849.7	857.1
127.5°	546.1	616.2	676.1	725.8	763.2	789.9	805.2	808.4
130°	531.3	596.3	653.7	701.6	738.5	762.8	777.5	781.9
132.5°	516.6	577.3	629.5	675.6	712.5	736.8	750.4	755.4
135°	497.5	548.3	595.5	637.4	669.9	694.2	707.5	711.9
137.5°	481.3	522.4	561.6	597.2	626.3	648.4	660.6	665.5
140°	472.4	507.0	540.9	571.8	599.2	618.3	629.3	633.0
142.5°	464.8	494.1	523.2	550.1	573.3	589.5	599.9	602.9
145°	454.7	477.6	500.4	520.3	538.0	550.5	558.6	561.6
147.5°	445.3	463.8	481.4	496.4	510.4	520.5	525.2	526.5
150°	440.0	456.2	470.1	483.4	494.6	503.3	506.3	507.0
152.5°	434.0	448.6	461.4	471.6	481.0	488.0	491.0	491.7
155°	425.3	437.1	447.3	455.4	462.8	468.0	470.1	470.9
157.5°	416.4	426.1	434.0	440.5	446.2	450.4	452.5	452.3
160°	410.5	417.8	425.3	430.4	435.5	439.2	440.7	440.0
162.5°	404.0	410.8	417.0	421.5	425.6	428.6	429.0	428.8
165°	395.0	400.2	404.6	408.3	411.2	412.7	412.7	412.7
167.5°	386.4	389.8	393.2	395.9	397.4	398.7	398.1	397.9
170°	381.7	384.0	386.2	387.7	389.1	389.8	389.8	389.1
172.5°	376.5	378.6	380.3	381.2	381.4	382.8	381.6	380.9
175°	370.7	370.7	372.2	372.2	372.2	372.9	371.5	370.7
177.5°	366.7	367.3	367.3	367.3	366.7	367.3	365.5	365.5
180°	365.5	365.5	365.5	365.5	365.5	365.5	365.5	365.5

(END OF REPORT)