

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: P333319-830

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333319-830
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: S125DIP-S1270D810U830-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7889.1 lumens
Efficiency: N/A
Efficacy: 130.0 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

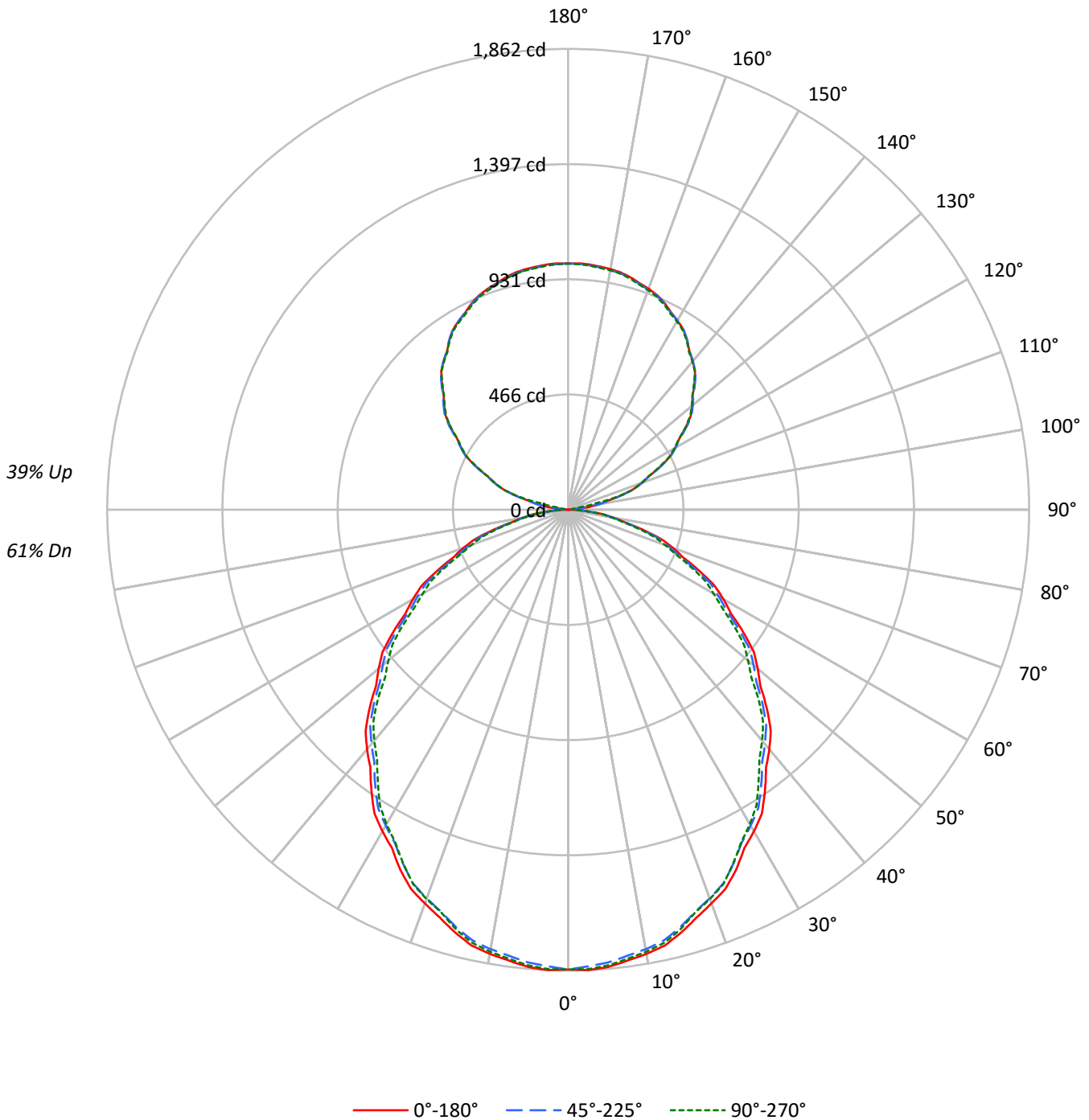
Input Watts (W): 60.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	103	103	103	90	90	90	78	78	78	66	66	66	61
1	100	96	92	88	94	90	86	83	79	76	74	68	66	65	59	57	56	51
2	91	84	77	72	85	78	73	68	69	65	61	60	57	54	52	49	47	43
3	83	74	66	60	78	69	62	57	61	55	51	53	49	46	46	43	40	36
4	76	65	57	51	71	61	54	48	54	48	44	47	43	39	41	37	35	31
5	70	58	50	44	65	55	47	42	48	42	38	42	38	34	37	33	30	27
6	65	52	44	38	60	49	42	36	44	37	33	38	33	30	33	30	27	24
7	60	47	39	33	56	45	37	32	40	33	29	35	30	26	30	27	24	21
8	55	43	35	30	52	41	33	28	36	30	26	32	27	23	28	24	21	19
9	52	39	32	26	48	37	30	25	33	27	23	29	25	21	26	22	19	17
10	48	36	29	24	45	34	27	23	31	25	21	27	22	19	24	20	17	15

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	2.2
10°-20°	494.7	6.3
20°-30°	730.5	9.3
30°-40°	852.4	10.8
40°-50°	856.1	10.9
50°-60°	751.5	9.5
60°-70°	559.9	7.1
70°-80°	320.2	4.1
80°-90°	95.2	1.2
90°-100°	36.1	0.5
100°-110°	222.7	2.8
110°-120°	403.9	5.1
120°-130°	518.4	6.6
130°-140°	557.5	7.1
140°-150°	523.3	6.6
150°-160°	423.3	5.4
160°-170°	273.8	3.5
170°-180°	94.4	1.2
0°-30°	1400.3	17.8
0°-40°	2252.7	28.6
0°-60°	3860.3	48.9
0°-90°	4835.6	61.3
90°-120°	662.7	8.4
90°-150°	2262.0	28.7
90°-180°	3054.0	38.7
0°-180°	7889.1	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	18	6
95°	42	38	12	15	16	54
105°	217	219	220	220	219	230
115°	407	410	411	408	404	403
125°	579	584	584	581	579	517
135°	722	726	725	723	719	556
145°	837	838	838	839	834	523
155°	921	917	918	920	915	424
165°	972	968	969	972	967	275
175°	994	990	991	996	990	95
180°	994	994	994	994	994	



TEST NUMBER: P333319-830

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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	32.7	32.9	33.1	33.0	33.0	33.0	32.9	33.1
90°	0.8	2.1	3.4	4.7	5.9	7.2	8.4	9.5	10.7	11.8	12.6
92.5°	11.3	10.5	9.5	8.6	7.7	7.7	8.8	9.8	10.7	11.8	12.6
95°	42.0	41.6	41.0	40.5	40.1	36.7	30.4	24.2	18.0	11.8	12.6
97.5°	87.8	88.6	89.4	90.4	91.2	85.6	73.2	60.9	48.5	36.3	31.7
100°	123.1	123.6	124.0	124.6	125.1	125.6	126.3	127.0	127.6	128.3	103.9
102.5°	159.1	159.7	160.3	160.9	161.6	162.0	162.5	162.9	163.2	163.6	159.0
105°	216.7	217.4	218.0	218.7	219.3	219.6	219.6	219.6	219.6	219.6	219.6
107.5°	276.5	276.5	276.5	276.5	276.5	276.7	277.0	277.4	277.7	278.1	278.1
110°	315.5	315.5	315.5	315.5	315.5	315.7	315.9	316.3	316.6	317.0	316.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	352.0	352.4	352.8	353.3	353.6	353.9	354.1	354.3	354.5	354.7	354.1
115°	406.9	407.7	408.5	409.3	410.2	410.7	410.9	410.9	411.1	411.3	410.7
117.5°	463.6	463.6	463.5	463.5	463.5	463.8	464.4	465.1	465.7	466.3	465.4
120°	499.0	498.9	498.7	498.5	498.3	498.5	499.0	499.5	500.0	500.5	500.2
122.5°	530.3	530.9	531.5	532.2	532.7	533.2	533.4	533.7	533.9	534.1	533.8
125°	578.6	579.8	580.9	582.1	583.2	583.8	583.8	583.8	583.8	583.8	583.2
127.5°	624.8	625.6	626.4	627.3	628.0	628.4	628.3	628.2	628.1	628.0	627.6
130°	653.1	653.9	654.7	655.5	656.4	656.9	657.0	657.1	657.3	657.5	657.0
132.5°	681.4	682.3	683.2	684.2	685.2	685.5	685.1	684.8	684.4	684.0	683.9
135°	721.6	722.6	723.6	724.6	725.6	725.9	725.6	725.2	724.9	724.6	724.2
137.5°	758.7	759.5	760.3	761.2	762.0	762.3	762.0	761.8	761.5	761.1	761.2
140°	782.8	783.2	783.4	783.8	784.1	784.2	784.0	783.9	783.7	783.5	783.9
142.5°	804.6	804.8	805.0	805.2	805.4	805.6	805.9	806.1	806.3	806.5	806.6
145°	836.6	837.0	837.3	837.6	837.9	838.1	838.1	838.1	838.1	838.1	838.3
147.5°	864.6	864.6	864.5	864.4	864.4	864.4	864.6	864.8	865.1	865.3	865.4
150°	882.3	882.0	881.7	881.4	881.0	881.0	881.4	881.7	882.0	882.3	882.7
152.5°	899.5	898.7	898.0	897.3	896.5	896.4	896.6	897.0	897.3	897.7	898.0
155°	921.4	920.4	919.5	918.4	917.5	917.1	917.5	917.8	918.1	918.4	918.9
157.5°	938.3	937.7	937.2	936.6	935.9	935.7	935.8	935.8	935.8	935.9	936.3
160°	950.2	949.1	948.2	947.2	946.2	945.8	945.9	946.1	946.3	946.4	947.1
162.5°	959.6	958.6	957.6	956.6	955.6	955.3	955.4	955.5	955.7	955.9	956.8
165°	972.2	971.3	970.3	969.3	968.3	967.9	968.1	968.3	968.4	968.6	969.6
167.5°	981.7	980.7	979.7	978.6	977.6	977.2	977.3	977.5	977.7	977.9	979.0
170°	987.0	985.8	984.7	983.5	982.4	981.9	982.0	982.2	982.4	982.6	983.9
172.5°	990.5	989.4	988.3	987.1	985.9	985.5	985.8	986.1	986.4	986.7	987.9
175°	994.4	993.3	992.4	991.5	990.4	990.0	990.1	990.3	990.5	990.7	992.0
177.5°	996.2	995.3	994.6	993.8	993.0	992.7	992.8	992.9	993.1	993.2	994.1
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4



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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°	33.3	33.5	33.6	33.5	33.0	32.6	32.1	31.8
90°	13.5	14.2	15.1	15.7	16.2	16.7	17.2	17.7
92.5°	13.5	14.2	15.1	15.6	15.8	16.0	16.3	16.5
95°	13.5	14.2	15.1	15.5	15.5	15.5	15.5	15.5
97.5°	27.1	22.4	17.8	15.5	15.5	15.5	15.5	15.5
100°	79.5	55.0	30.6	18.1	17.4	16.8	16.1	15.5
102.5°	154.4	149.8	145.2	137.3	126.1	115.0	103.9	92.7
105°	219.6	219.6	219.6	219.6	219.4	219.2	219.0	219.0
107.5°	278.1	278.1	278.1	278.0	277.5	276.9	276.4	276.0
110°	315.9	315.5	315.0	314.8	315.0	315.2	315.3	315.5



TEST NUMBER: P333319-830

CATALOG NUMBER: S125DIP-S1270D810U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	353.5	352.8	352.2	351.8	351.6	351.3	351.1	350.9
115°	410.0	409.3	408.7	407.8	406.9	405.9	404.9	404.0
117.5°	464.6	463.7	462.9	462.2	461.8	461.4	461.0	460.5
120°	499.8	499.5	499.2	498.6	497.8	497.0	496.2	495.3
122.5°	533.5	533.1	532.8	532.2	531.2	530.3	529.3	528.4
125°	582.5	581.8	581.2	580.6	580.1	579.6	579.1	578.6
127.5°	627.3	627.0	626.6	625.8	624.6	623.4	622.2	620.9
130°	656.5	656.0	655.5	654.9	654.0	653.3	652.4	651.6
132.5°	683.8	683.7	683.6	683.2	682.4	681.6	680.7	680.0
135°	724.0	723.6	723.3	722.6	721.6	720.7	719.6	718.7
137.5°	761.3	761.3	761.4	761.0	760.2	759.3	758.5	757.6
140°	784.2	784.6	784.9	784.6	783.5	782.6	781.6	780.6
142.5°	806.7	806.7	806.8	806.3	805.4	804.4	803.4	802.4
145°	838.4	838.6	838.8	838.3	837.4	836.4	835.4	834.4
147.5°	865.6	865.8	866.0	865.5	864.3	863.2	862.0	860.8
150°	883.0	883.4	883.6	883.2	881.8	880.5	879.2	877.9
152.5°	898.3	898.6	899.0	898.5	897.4	896.2	895.0	893.8
155°	919.5	919.9	920.4	920.0	918.7	917.4	916.1	914.7
157.5°	936.9	937.5	937.9	937.5	936.2	934.9	933.6	932.3
160°	947.7	948.4	949.0	948.8	947.4	946.1	944.8	943.5
162.5°	957.7	958.7	959.5	959.3	957.8	956.4	955.0	953.6
165°	970.5	971.5	972.5	972.3	971.0	969.7	968.4	967.0
167.5°	980.2	981.4	982.6	982.4	980.9	979.5	978.0	976.6
170°	985.1	986.5	987.8	987.7	986.3	984.8	983.3	981.8
172.5°	989.0	990.2	991.5	991.3	989.8	988.4	986.8	985.3
175°	993.3	994.6	995.9	995.8	994.4	992.9	991.5	990.0
177.5°	995.0	995.9	996.8	996.8	995.7	994.7	993.6	992.6
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4

(END OF REPORT)