

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: P333310-940

Luminaire Tested: **S125DIP-S1270D590U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333310-940  
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-S1270D590U940-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6681.9 lumens  
Efficiency: N/A  
Efficacy: 121.3 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

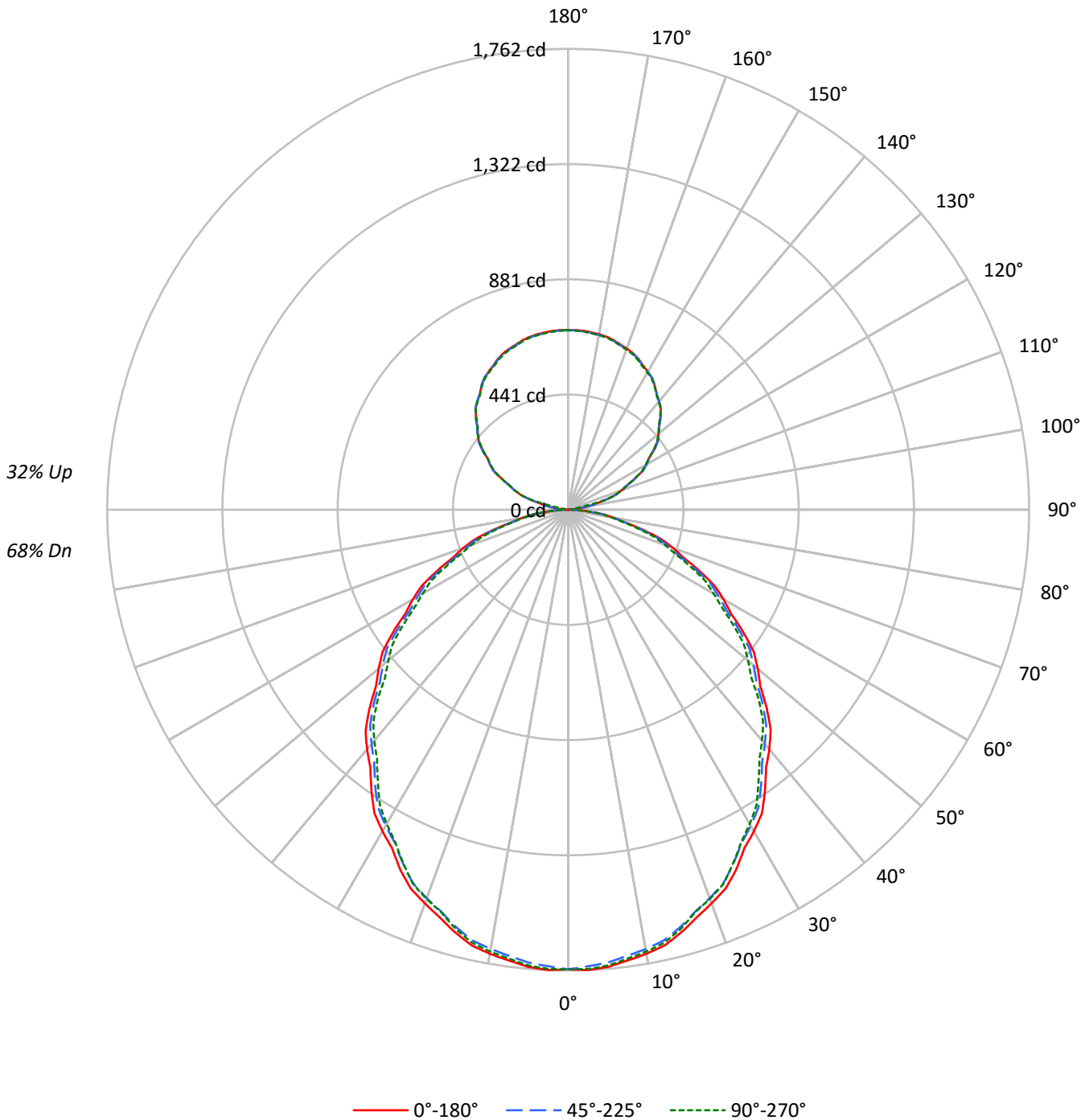
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73	68
1	102	97	93	90	96	92	88	85	82	79	77	73	71	69	64	63	62	57
2	93	85	79	73	87	80	75	70	72	67	64	64	61	58	57	54	52	48
3	85	75	67	61	80	71	64	58	63	58	53	57	52	49	50	47	44	41
4	77	66	58	52	73	63	55	50	56	50	46	50	46	42	45	41	38	35
5	71	59	51	44	67	56	48	43	51	44	39	45	40	36	40	36	33	30
6	66	53	45	39	62	51	43	37	46	39	35	41	36	32	37	32	29	27
7	61	48	40	34	57	46	38	33	41	35	31	37	32	28	34	29	26	24
8	56	44	36	30	53	42	34	29	38	32	27	34	29	25	31	27	23	21
9	53	40	32	27	50	38	31	26	35	29	24	32	26	23	28	24	21	19
10	49	37	29	24	47	35	28	24	32	26	22	29	24	21	26	22	19	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	2.5
10°-20°	468.1	7.0
20°-30°	691.1	10.3
30°-40°	806.4	12.1
40°-50°	809.9	12.1
50°-60°	710.9	10.6
60°-70°	529.7	7.9
70°-80°	302.9	4.5
80°-90°	89.6	1.3
90°-100°	24.9	0.4
100°-110°	153.7	2.3
110°-120°	278.8	4.2
120°-130°	357.8	5.4
130°-140°	384.8	5.8
140°-150°	361.2	5.4
150°-160°	292.2	4.4
160°-170°	189.0	2.8
170°-180°	65.2	1.0
0°-30°	1324.8	19.8
0°-40°	2131.2	31.9
0°-60°	3652.1	54.7
0°-90°	4574.3	68.5
90°-120°	457.4	6.8
90°-150°	1561.2	23.4
90°-180°	2108.0	31.5
0°-180°	6681.9	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°	0	5	8	11	12	5
95°	29	26	8	11	11	37
105°	150	152	152	152	151	159
115°	281	283	284	282	279	278
125°	399	403	403	401	399	357
135°	498	501	500	499	496	384
145°	578	578	578	579	576	361
155°	636	633	634	635	631	293
165°	671	668	668	671	667	189
175°	686	683	684	687	683	65
180°	686	686	686	686	686	



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**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	30.3	30.5	30.7	30.9	30.9	30.9	30.8	30.7	30.6	30.7
90°	0.5	1.4	2.3	3.2	4.1	5.0	5.8	6.6	7.3	8.1	8.7
92.5°	7.8	7.2	6.6	6.0	5.3	5.4	6.1	6.8	7.4	8.1	8.7
95°	29.0	28.6	28.4	28.0	27.6	25.3	21.0	16.8	12.4	8.1	8.7
97.5°	60.5	61.2	61.8	62.3	63.0	59.0	50.6	42.0	33.5	25.1	21.8
100°	85.0	85.3	85.6	86.0	86.3	86.7	87.2	87.7	88.1	88.5	71.7
102.5°	109.8	110.2	110.7	111.1	111.5	111.8	112.1	112.4	112.7	113.0	109.8
105°	149.5	150.0	150.5	151.0	151.4	151.6	151.6	151.6	151.6	151.6	151.6
107.5°	190.9	190.9	190.9	190.9	190.9	191.0	191.2	191.5	191.7	191.9	191.9
110°	217.8	217.8	217.8	217.8	217.8	217.8	218.1	218.3	218.6	218.7	218.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	243.0	243.3	243.5	243.8	244.1	244.2	244.4	244.5	244.7	244.8	244.4
115°	280.8	281.4	282.0	282.5	283.1	283.5	283.6	283.7	283.7	283.9	283.5
117.5°	320.0	319.9	319.9	319.9	319.9	320.1	320.6	321.0	321.4	321.8	321.3
120°	344.5	344.3	344.2	344.1	343.9	344.1	344.5	344.7	345.1	345.4	345.2
122.5°	366.0	366.4	366.8	367.3	367.7	368.0	368.2	368.4	368.5	368.6	368.5
125°	399.4	400.2	400.9	401.7	402.5	403.0	403.0	403.0	403.0	403.0	402.5
127.5°	431.2	431.8	432.4	432.9	433.5	433.7	433.6	433.6	433.5	433.5	433.2
130°	450.8	451.3	451.9	452.5	453.0	453.3	453.4	453.6	453.7	453.8	453.4
132.5°	470.3	470.9	471.6	472.3	472.9	473.1	472.9	472.6	472.3	472.2	472.1
135°	498.1	498.7	499.4	500.1	500.8	501.1	500.8	500.5	500.3	500.1	499.9
137.5°	523.6	524.2	524.8	525.4	525.9	526.2	525.9	525.8	525.6	525.3	525.4
140°	540.3	540.6	540.7	541.0	541.2	541.3	541.2	541.0	540.9	540.8	541.0
142.5°	555.4	555.5	555.6	555.8	555.9	556.1	556.2	556.3	556.5	556.7	556.7
145°	577.5	577.7	577.9	578.1	578.4	578.5	578.5	578.5	578.5	578.5	578.5
147.5°	596.7	596.7	596.6	596.6	596.6	596.6	596.7	596.9	597.0	597.2	597.4
150°	608.9	608.8	608.5	608.3	608.1	608.1	608.3	608.5	608.8	608.9	609.2
152.5°	620.8	620.3	619.8	619.3	618.8	618.7	618.8	619.1	619.3	619.6	619.8
155°	636.0	635.3	634.6	633.9	633.2	633.0	633.2	633.5	633.6	633.9	634.3
157.5°	647.6	647.2	646.8	646.4	646.0	645.9	645.9	645.9	645.9	646.0	646.3
160°	655.8	655.1	654.4	653.7	653.1	652.8	652.9	653.0	653.1	653.3	653.7
162.5°	662.3	661.6	660.9	660.2	659.6	659.3	659.4	659.5	659.6	659.8	660.4
165°	671.0	670.4	669.7	669.1	668.3	668.1	668.2	668.2	668.4	668.5	669.1
167.5°	677.5	676.9	676.2	675.5	674.8	674.5	674.6	674.7	674.8	674.9	675.7
170°	681.3	680.5	679.7	678.9	678.1	677.7	677.8	678.0	678.1	678.1	679.0
172.5°	683.7	682.9	682.1	681.3	680.5	680.2	680.4	680.6	680.8	681.0	681.8
175°	686.3	685.6	684.9	684.3	683.6	683.3	683.4	683.6	683.7	683.8	684.7
177.5°	687.5	687.0	686.4	685.9	685.4	685.1	685.2	685.3	685.4	685.5	686.2
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3



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**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°	30.8	30.9	31.0	30.9	30.4	30.0	29.6	29.2
90°	9.3	9.8	10.4	10.9	11.2	11.5	11.9	12.2
92.5°	9.3	9.8	10.4	10.8	10.9	11.1	11.2	11.4
95°	9.3	9.8	10.4	10.7	10.7	10.7	10.7	10.7
97.5°	18.6	15.4	12.3	10.7	10.7	10.7	10.7	10.7
100°	54.8	38.0	21.1	12.5	12.0	11.6	11.1	10.7
102.5°	106.6	103.3	100.2	94.8	87.0	79.4	71.7	64.0
105°	151.6	151.6	151.6	151.6	151.4	151.3	151.2	151.1
107.5°	192.0	192.0	192.0	191.8	191.5	191.2	190.8	190.5
110°	218.1	217.8	217.4	217.3	217.4	217.5	217.7	217.8





TEST NUMBER: P333310-940

CATALOG NUMBER: S125DIP-S1270D590U940-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	244.0	243.5	243.1	242.8	242.6	242.5	242.4	242.2
115°	282.9	282.5	282.0	281.5	280.8	280.2	279.5	278.8
117.5°	320.7	320.0	319.5	319.1	318.8	318.4	318.2	317.9
120°	345.0	344.7	344.6	344.1	343.6	343.0	342.4	341.9
122.5°	368.2	368.0	367.7	367.3	366.7	366.0	365.3	364.7
125°	402.1	401.5	401.1	400.7	400.4	400.0	399.8	399.4
127.5°	432.9	432.7	432.5	431.9	431.1	430.3	429.4	428.6
130°	453.2	452.8	452.5	452.0	451.5	450.8	450.3	449.8
132.5°	472.0	471.9	471.9	471.5	471.0	470.4	469.8	469.3
135°	499.6	499.4	499.2	498.7	498.1	497.4	496.7	496.1
137.5°	525.4	525.5	525.5	525.2	524.7	524.1	523.5	522.9
140°	541.3	541.4	541.7	541.4	540.8	540.1	539.5	538.8
142.5°	556.8	556.8	556.9	556.5	555.9	555.2	554.5	553.8
145°	578.7	578.8	578.9	578.6	577.9	577.3	576.6	575.9
147.5°	597.4	597.6	597.7	597.4	596.6	595.8	594.9	594.1
150°	609.4	609.7	609.8	609.6	608.7	607.7	606.8	605.9
152.5°	620.0	620.3	620.5	620.2	619.4	618.6	617.7	616.9
155°	634.6	634.9	635.3	635.0	634.1	633.2	632.3	631.3
157.5°	646.7	647.0	647.4	647.1	646.2	645.2	644.4	643.5
160°	654.2	654.6	655.1	654.8	653.9	653.0	652.1	651.2
162.5°	661.0	661.6	662.3	662.1	661.1	660.1	659.2	658.1
165°	669.9	670.6	671.2	671.1	670.2	669.3	668.4	667.4
167.5°	676.5	677.3	678.1	678.1	677.1	676.0	675.0	674.0
170°	680.0	680.9	681.8	681.7	680.7	679.7	678.7	677.7
172.5°	682.6	683.5	684.3	684.2	683.1	682.2	681.1	680.1
175°	685.5	686.4	687.4	687.3	686.3	685.3	684.3	683.2
177.5°	686.8	687.4	688.0	688.0	687.2	686.5	685.8	685.1
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3

(END OF REPORT)