

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: P333310-930

Luminaire Tested: **S125DIP-S1270D590U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333310-930
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-S1270D590U930-4F0-1E-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: 6109.3 lumens
Efficiency: N/A
Efficacy: 110.9 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

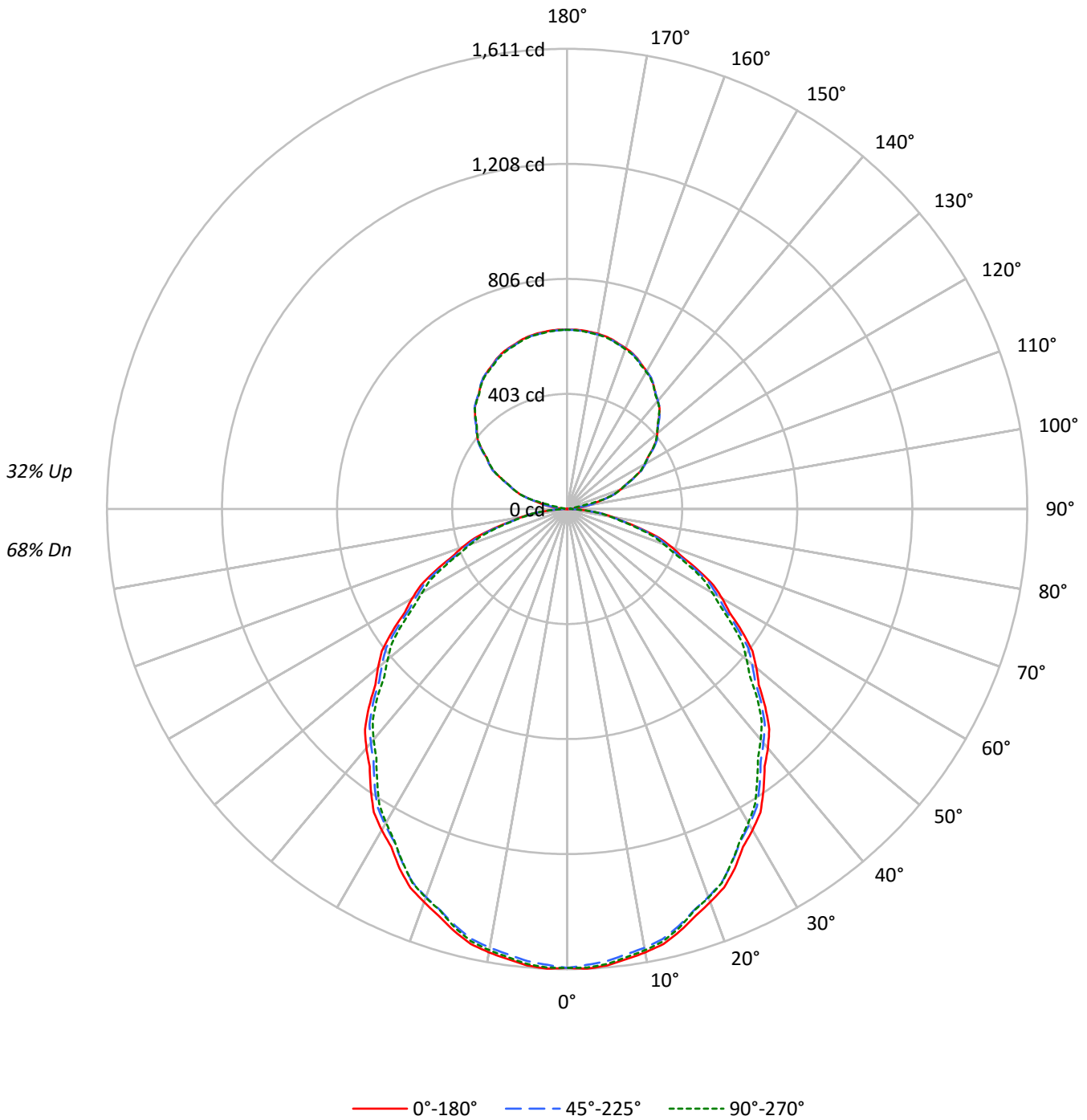
Input Watts (W): 55.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10377	10377	10377
5°	10400	10301	10367
10°	10337	10228	10287
15°	10224	10105	10148
20°	10065	9933	9950
25°	9892	9728	9719
30°	9679	9508	9461
35°	9451	9270	9140
40°	9217	9012	8884
45°	8963	8777	8603
50°	8685	8493	8238
55°	8417	8173	7944
60°	8094	7848	7569
65°	7713	7459	7207
70°	7345	7009	6770
75°	6692	6470	6248
80°	5954	5861	5720
85°	5187	5276	4987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.5	2.5
10°-20°	427.9	7.0
20°-30°	631.9	10.3
30°-40°	737.3	12.1
40°-50°	740.5	12.1
50°-60°	650.0	10.6
60°-70°	484.3	7.9
70°-80°	276.9	4.5
80°-90°	81.9	1.3
90°-100°	22.8	0.4
100°-110°	140.5	2.3
110°-120°	254.9	4.2
120°-130°	327.1	5.4
130°-140°	351.8	5.8
140°-150°	330.3	5.4
150°-160°	267.1	4.4
160°-170°	172.8	2.8
170°-180°	59.6	1.0
0°-30°	1211.3	19.8
0°-40°	1948.6	31.9
0°-60°	3339.1	54.7
0°-90°	4182.3	68.5
90°-120°	418.2	6.8
90°-150°	1427.4	23.4
90°-180°	1927.0	31.5
0°-180°	6109.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1607	1607	1607	1607	1607	
5°	1604	1601	1589	1600	1599	152
15°	1529	1525	1511	1517	1518	431
25°	1388	1381	1365	1367	1364	638
35°	1199	1193	1176	1169	1159	749
45°	981	976	961	946	942	756
55°	748	743	726	715	706	667
65°	505	501	488	477	472	501
75°	268	266	259	255	250	286
85°	70	71	71	70	67	78
90°	0	4	7	10	11	5
95°	26	24	7	10	10	34
105°	137	138	139	139	138	145
115°	257	259	260	258	255	254
125°	365	368	368	367	365	326
135°	455	458	457	456	454	351
145°	528	529	529	529	526	330
155°	582	579	580	581	577	268
165°	614	611	611	614	610	173
175°	628	625	625	628	625	60
180°	628	628	628	628	628	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1606.7	1606.7	1606.7	1606.7	1606.7	1606.7	1606.7	1606.7	1606.7	1606.7	1606.7
2.5°	1610.8	1610.1	1609.5	1608.7	1608.1	1606.6	1604.3	1602.1	1599.9	1597.6	1599.9
5°	1604.2	1603.6	1603.0	1602.5	1601.9	1600.3	1597.4	1594.6	1591.8	1588.9	1591.5
7.5°	1589.4	1588.9	1588.3	1587.7	1587.1	1585.3	1582.3	1579.2	1576.1	1573.0	1575.4
10°	1576.2	1575.6	1575.1	1574.5	1573.9	1572.1	1569.0	1565.9	1562.8	1559.7	1562.0
12.5°	1559.9	1558.9	1558.0	1556.9	1555.9	1554.0	1551.0	1548.2	1545.3	1542.4	1544.3
15°	1529.2	1528.4	1527.5	1526.6	1525.8	1523.8	1520.7	1517.6	1514.5	1511.4	1512.8
17.5°	1493.9	1492.6	1491.3	1490.1	1488.9	1486.6	1483.4	1480.2	1477.0	1473.7	1475.5
20°	1464.4	1463.8	1463.2	1462.6	1462.1	1460.0	1456.3	1452.6	1448.9	1445.3	1447.2
22.5°	1434.8	1433.9	1432.8	1431.8	1430.8	1428.6	1425.1	1421.7	1418.2	1414.8	1416.1
25°	1388.1	1386.7	1385.3	1383.9	1382.4	1379.9	1376.2	1372.6	1368.9	1365.2	1365.8
27.5°	1333.4	1332.6	1331.7	1330.9	1330.1	1327.7	1324.0	1320.1	1316.4	1312.6	1312.7
30°	1297.9	1297.0	1296.2	1295.3	1294.5	1291.9	1287.7	1283.4	1279.2	1275.0	1274.4
32.5°	1259.2	1257.9	1256.6	1255.3	1254.0	1251.5	1247.7	1243.9	1240.1	1236.3	1235.3
35°	1198.7	1197.6	1196.5	1195.3	1194.2	1191.6	1187.6	1183.7	1179.7	1175.8	1174.4
37.5°	1135.9	1134.5	1133.1	1131.6	1130.2	1127.6	1124.0	1120.2	1116.5	1112.8	1110.7
40°	1093.2	1091.8	1090.4	1088.9	1087.5	1084.8	1080.9	1076.9	1073.0	1069.0	1066.5
42.5°	1047.4	1046.3	1045.1	1043.8	1042.7	1040.1	1036.2	1032.2	1028.3	1024.3	1022.0
45°	981.3	980.2	979.1	978.0	976.8	974.5	971.2	967.8	964.4	961.0	957.6
47.5°	910.1	910.2	910.3	910.3	910.4	908.3	904.3	900.3	896.2	892.1	888.7
50°	864.4	863.6	862.7	861.9	861.0	858.8	855.5	852.1	848.7	845.3	841.6
52.5°	817.6	817.0	816.4	815.7	815.1	813.0	809.3	805.8	802.2	798.5	795.3
55°	747.5	746.6	745.8	744.9	744.0	741.7	737.7	733.8	729.8	725.9	723.3
57.5°	673.4	673.0	672.5	672.1	671.6	669.8	666.4	663.1	659.7	656.4	653.1
60°	626.6	625.6	624.4	623.3	622.2	620.0	616.9	613.8	610.7	607.6	604.8
62.5°	577.9	577.0	576.1	575.1	574.2	572.5	569.8	567.1	564.5	561.8	558.8
65°	504.7	504.1	503.5	503.0	502.4	500.5	497.4	494.3	491.2	488.1	485.6
67.5°	433.7	432.5	431.4	430.2	429.0	427.2	424.9	422.6	420.3	417.9	415.8
70°	389.0	387.6	386.1	384.7	383.4	381.3	378.8	376.3	373.7	371.2	369.5
72.5°	340.1	339.2	338.3	337.3	336.3	335.0	333.4	331.7	330.1	328.5	326.5
75°	268.2	267.7	267.1	266.5	266.0	265.0	263.6	262.1	260.7	259.3	258.4
77.5°	201.9	201.6	201.4	201.2	201.0	200.5	199.7	198.9	198.0	197.3	196.8
80°	160.1	160.1	160.1	160.1	160.1	159.9	159.3	158.7	158.2	157.6	157.4
82.5°	123.5	123.1	122.6	122.2	121.7	121.5	121.3	121.2	121.2	121.0	120.5
85°	70.0	70.2	70.4	70.8	71.0	71.2	71.2	71.2	71.2	71.2	70.9
87.5°	27.6	27.7	27.9	28.0	28.2	28.3	28.2	28.1	28.0	28.0	28.0
90°	0.5	1.3	2.1	2.9	3.8	4.6	5.3	6.0	6.7	7.4	8.0
92.5°	7.2	6.6	6.0	5.5	4.8	4.9	5.5	6.2	6.8	7.4	8.0
95°	26.5	26.2	25.9	25.6	25.3	23.2	19.2	15.3	11.3	7.4	8.0
97.5°	55.4	55.9	56.5	57.0	57.6	54.0	46.2	38.4	30.7	22.9	20.0
100°	77.7	78.0	78.3	78.6	78.9	79.2	79.7	80.1	80.6	81.0	65.6
102.5°	100.4	100.8	101.2	101.6	101.9	102.2	102.5	102.8	103.1	103.3	100.4
105°	136.7	137.1	137.6	138.0	138.4	138.6	138.6	138.6	138.6	138.6	138.6
107.5°	174.6	174.6	174.6	174.6	174.6	174.6	174.8	175.0	175.3	175.5	175.5
110°	199.1	199.1	199.1	199.1	199.1	199.2	199.4	199.6	199.8	200.0	199.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	222.2	222.4	222.7	222.9	223.1	223.3	223.5	223.6	223.7	223.8	223.5
115°	256.7	257.3	257.8	258.3	258.9	259.2	259.3	259.3	259.4	259.6	259.2
117.5°	292.6	292.5	292.5	292.5	292.5	292.7	293.1	293.5	293.8	294.2	293.8
120°	315.0	314.8	314.7	314.6	314.5	314.6	315.0	315.2	315.5	315.8	315.6
122.5°	334.6	335.0	335.4	335.8	336.2	336.5	336.6	336.8	336.9	337.0	336.9
125°	365.2	365.9	366.6	367.3	368.0	368.4	368.4	368.4	368.4	368.4	368.0
127.5°	394.3	394.8	395.3	395.8	396.3	396.6	396.5	396.5	396.4	396.3	396.1
130°	412.1	412.6	413.2	413.7	414.2	414.5	414.6	414.7	414.8	414.9	414.6
132.5°	430.0	430.6	431.2	431.8	432.4	432.6	432.4	432.1	431.9	431.7	431.6
135°	455.4	456.0	456.6	457.2	457.9	458.1	457.9	457.6	457.5	457.2	457.1
137.5°	478.7	479.3	479.8	480.4	480.9	481.1	480.9	480.7	480.5	480.3	480.4
140°	494.0	494.2	494.4	494.6	494.8	494.9	494.8	494.6	494.6	494.5	494.6
142.5°	507.8	507.9	508.0	508.2	508.3	508.4	508.6	508.7	508.8	509.0	509.0
145°	528.0	528.2	528.4	528.6	528.8	528.9	528.9	528.9	528.9	528.9	529.0
147.5°	545.6	545.6	545.5	545.5	545.4	545.5	545.6	545.8	545.8	546.0	546.2
150°	556.8	556.6	556.4	556.2	556.0	556.0	556.2	556.4	556.6	556.8	557.0
152.5°	567.6	567.1	566.7	566.2	565.7	565.7	565.8	566.1	566.2	566.5	566.7
155°	581.5	580.8	580.2	579.6	578.9	578.8	578.9	579.2	579.4	579.6	579.9
157.5°	592.2	591.7	591.4	591.0	590.7	590.5	590.5	590.5	590.5	590.6	590.9
160°	599.6	599.0	598.3	597.7	597.1	596.9	597.0	597.0	597.1	597.3	597.7
162.5°	605.5	605.0	604.3	603.6	603.1	602.8	602.9	603.0	603.1	603.2	603.8
165°	613.5	612.9	612.3	611.7	611.1	610.8	610.9	611.0	611.1	611.2	611.8
167.5°	619.5	618.9	618.2	617.6	616.9	616.7	616.8	616.9	616.9	617.1	617.8
170°	622.9	622.2	621.4	620.7	620.0	619.6	619.7	619.9	620.0	620.0	620.9
172.5°	625.1	624.4	623.6	622.9	622.2	621.9	622.1	622.3	622.5	622.6	623.4
175°	627.5	626.9	626.2	625.7	625.0	624.8	624.8	625.0	625.1	625.2	626.0
177.5°	628.6	628.1	627.6	627.1	626.6	626.4	626.5	626.6	626.6	626.7	627.4
180°	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1606.7	1606.7	1606.7	1606.7	1606.7	1606.7	1606.7	1606.7
2.5°	1602.1	1604.3	1606.6	1607.6	1607.4	1607.2	1607.0	1606.7
5°	1594.0	1596.6	1599.1	1600.3	1599.9	1599.7	1599.4	1599.1
7.5°	1577.8	1580.4	1582.8	1584.0	1583.7	1583.4	1583.1	1582.8
10°	1564.2	1566.5	1568.7	1569.7	1569.5	1569.1	1568.9	1568.6
12.5°	1546.1	1547.8	1549.6	1550.5	1550.5	1550.4	1550.4	1550.3
15°	1514.3	1515.6	1517.0	1517.8	1517.8	1517.8	1517.8	1517.8
17.5°	1477.2	1479.0	1480.7	1480.9	1479.5	1478.1	1476.7	1475.3
20°	1449.3	1451.2	1453.2	1453.5	1452.0	1450.7	1449.3	1447.8
22.5°	1417.4	1418.7	1420.0	1420.2	1419.2	1418.2	1417.2	1416.3
25°	1366.4	1366.9	1367.5	1367.3	1366.5	1365.6	1364.8	1363.9
27.5°	1312.8	1313.0	1313.0	1312.6	1311.8	1311.0	1310.1	1309.3
30°	1273.8	1273.3	1272.7	1272.0	1271.1	1270.3	1269.4	1268.6
32.5°	1234.3	1233.3	1232.2	1230.9	1229.5	1227.9	1226.4	1224.9
35°	1173.0	1171.6	1170.2	1168.3	1166.0	1163.8	1161.6	1159.3
37.5°	1108.6	1106.5	1104.4	1102.7	1101.4	1100.1	1098.8	1097.5
40°	1064.0	1061.4	1058.8	1057.2	1056.3	1055.5	1054.6	1053.8
42.5°	1019.7	1017.3	1015.0	1013.3	1011.9	1010.6	1009.3	1008.0
45°	954.2	950.8	947.5	945.3	944.4	943.6	942.7	941.9
47.5°	885.2	881.7	878.3	875.6	873.6	871.6	869.7	867.7
50°	838.0	834.3	830.6	827.8	825.8	823.9	821.9	819.9
52.5°	792.1	788.9	785.6	782.9	780.7	778.5	776.3	774.1
55°	720.7	718.2	715.7	713.4	711.4	709.5	707.4	705.5
57.5°	649.9	646.6	643.4	641.2	640.1	639.0	637.9	636.8
60°	601.9	599.2	596.3	593.9	591.9	590.0	588.0	586.0
62.5°	555.7	552.7	549.7	547.4	545.8	544.3	542.7	541.3
65°	483.1	480.5	477.9	476.1	475.0	473.9	472.7	471.6
67.5°	413.7	411.5	409.4	408.0	407.2	406.6	405.9	405.2
70°	367.8	366.1	364.4	363.0	361.8	360.7	359.6	358.5
72.5°	324.7	322.7	320.8	319.3	318.1	317.0	315.8	314.7
75°	257.6	256.7	255.9	254.9	253.8	252.7	251.5	250.4
77.5°	196.2	195.8	195.3	194.6	193.8	193.0	192.2	191.4
80°	157.0	156.8	156.5	156.0	155.5	154.9	154.3	153.8
82.5°	120.0	119.5	119.0	118.7	118.5	118.5	118.3	118.2
85°	70.6	70.4	70.0	69.6	69.1	68.5	67.9	67.3
87.5°	28.1	28.2	28.4	28.2	27.8	27.4	27.1	26.7
90°	8.5	9.0	9.5	9.9	10.3	10.5	10.8	11.2
92.5°	8.5	9.0	9.5	9.9	9.9	10.1	10.3	10.4
95°	8.5	9.0	9.5	9.8	9.8	9.8	9.8	9.8
97.5°	17.0	14.1	11.3	9.8	9.8	9.8	9.8	9.8
100°	50.1	34.7	19.3	11.4	11.0	10.6	10.2	9.8
102.5°	97.4	94.5	91.6	86.7	79.6	72.6	65.6	58.5
105°	138.6	138.6	138.6	138.6	138.4	138.4	138.3	138.1
107.5°	175.5	175.5	175.5	175.4	175.1	174.8	174.5	174.1
110°	199.4	199.1	198.8	198.7	198.8	198.9	199.0	199.1



TEST NUMBER: P333310-930

CATALOG NUMBER: S125DIP-S1270D590U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	223.1	222.7	222.3	222.0	221.8	221.7	221.6	221.4
115°	258.7	258.3	257.9	257.4	256.7	256.2	255.5	254.9
117.5°	293.2	292.6	292.1	291.7	291.5	291.1	290.9	290.7
120°	315.4	315.2	315.0	314.6	314.1	313.6	313.1	312.6
122.5°	336.6	336.5	336.2	335.8	335.3	334.6	334.0	333.5
125°	367.6	367.1	366.7	366.4	366.1	365.7	365.5	365.2
127.5°	395.8	395.7	395.4	394.9	394.1	393.4	392.6	391.8
130°	414.3	414.0	413.7	413.3	412.8	412.2	411.7	411.2
132.5°	431.5	431.5	431.5	431.1	430.6	430.1	429.6	429.1
135°	456.8	456.6	456.4	456.0	455.4	454.8	454.1	453.6
137.5°	480.4	480.5	480.5	480.2	479.7	479.2	478.7	478.1
140°	494.9	495.0	495.3	495.0	494.5	493.8	493.3	492.6
142.5°	509.1	509.1	509.2	508.8	508.3	507.6	507.0	506.4
145°	529.1	529.2	529.3	529.0	528.4	527.8	527.2	526.5
147.5°	546.3	546.4	546.5	546.2	545.4	544.7	544.0	543.2
150°	557.2	557.4	557.6	557.3	556.5	555.6	554.8	554.0
152.5°	566.9	567.1	567.3	567.0	566.3	565.6	564.8	564.0
155°	580.2	580.5	580.8	580.6	579.8	578.9	578.1	577.2
157.5°	591.3	591.6	591.9	591.7	590.8	590.0	589.1	588.3
160°	598.1	598.5	598.9	598.7	597.9	597.0	596.2	595.4
162.5°	604.4	605.0	605.5	605.4	604.5	603.6	602.7	601.7
165°	612.5	613.1	613.7	613.6	612.8	612.0	611.1	610.3
167.5°	618.6	619.3	620.0	620.0	619.1	618.1	617.2	616.2
170°	621.7	622.6	623.4	623.3	622.4	621.4	620.5	619.6
172.5°	624.1	624.9	625.7	625.6	624.6	623.7	622.7	621.8
175°	626.8	627.6	628.5	628.4	627.5	626.6	625.7	624.7
177.5°	627.9	628.5	629.1	629.0	628.4	627.7	627.0	626.4
180°	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5

(END OF REPORT)