

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: P333312-935

Luminaire Tested: **S125DIP-S1270D590U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333312-935
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-S1270D590U935-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6243.6 lumens
Efficiency: N/A
Efficacy: 113.3 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

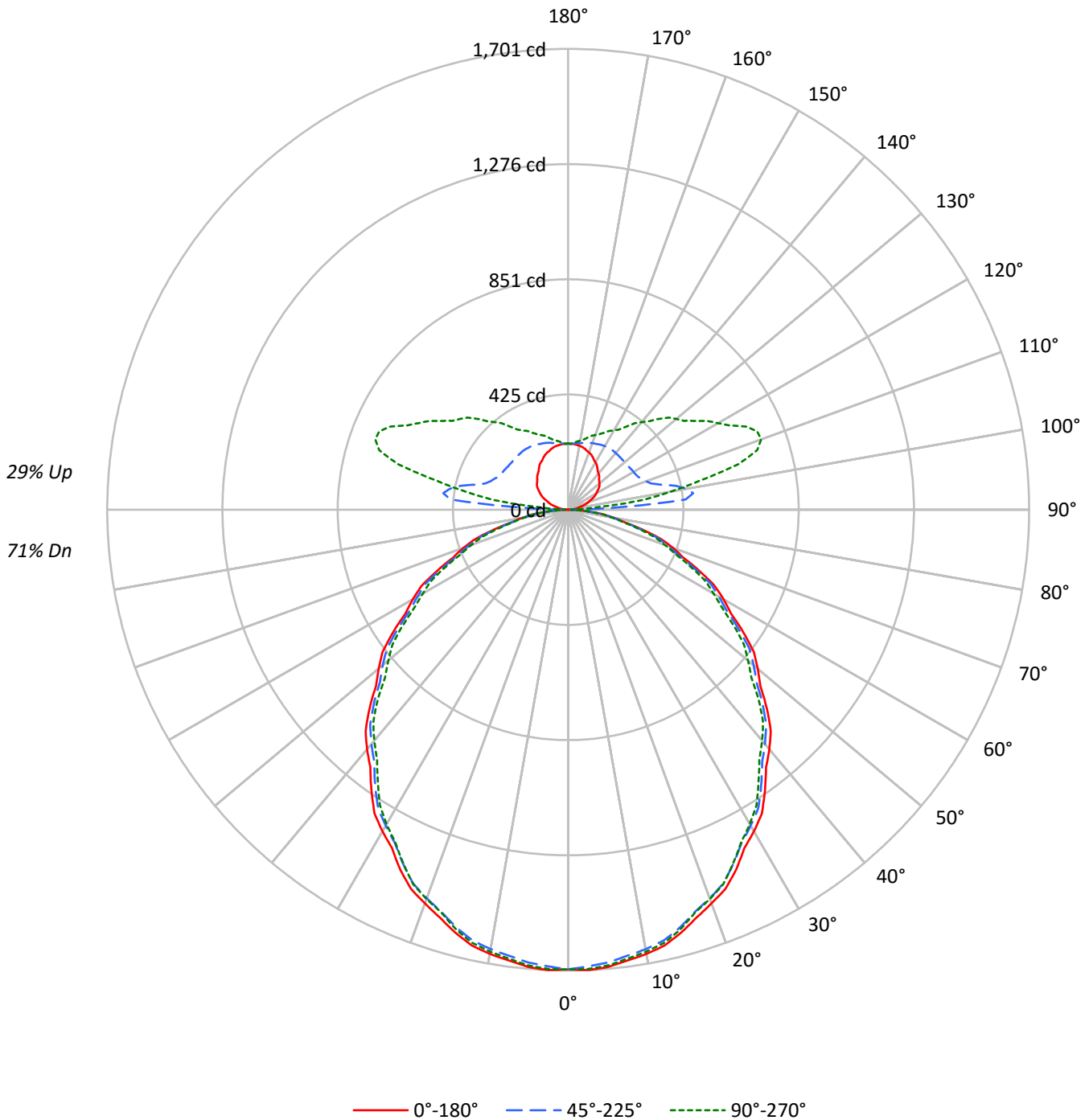
Input Watts (W): 55.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	95	95	95	85	85	85	75	75	75	71
1	102	98	94	90	97	93	89	86	83	80	78	74	72	70	66	65	63	59
2	93	85	79	74	88	81	75	71	73	68	64	65	62	59	58	56	53	50
3	85	75	67	61	80	71	64	59	64	59	54	58	53	50	52	48	45	42
4	78	67	58	52	73	63	56	50	57	51	46	51	47	43	46	42	39	36
5	72	59	51	45	67	57	49	43	51	45	40	46	41	37	42	37	34	31
6	66	53	45	39	62	51	43	38	46	40	35	42	37	32	38	33	30	27
7	61	48	40	34	58	46	39	33	42	36	31	38	33	29	35	30	27	24
8	57	44	36	30	54	42	35	30	38	32	28	35	30	26	32	27	24	22
9	53	40	33	27	50	39	31	26	35	29	25	32	27	23	29	25	22	20
10	50	37	30	25	47	36	29	24	33	27	22	30	25	21	27	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10959	10959	10959
5°	10983	10878	10949
10°	10916	10802	10864
15°	10797	10672	10717
20°	10628	10490	10509
25°	10446	10274	10264
30°	10221	10041	9991
35°	9980	9790	9653
40°	9732	9517	9382
45°	9465	9270	9085
50°	9171	8969	8699
55°	8888	8631	8389
60°	8548	8289	7994
65°	8145	7878	7610
70°	7757	7402	7149
75°	7069	6835	6598
80°	6289	6189	6044
85°	5476	5572	5269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.0	2.6
10°-20°	451.9	7.2
20°-30°	667.3	10.7
30°-40°	778.6	12.5
40°-50°	782.0	12.5
50°-60°	686.5	11.0
60°-70°	511.5	8.2
70°-80°	292.5	4.7
80°-90°	86.4	1.4
90°-100°	176.6	2.8
100°-110°	379.6	6.1
110°-120°	356.2	5.7
120°-130°	288.7	4.6
130°-140°	231.7	3.7
140°-150°	174.8	2.8
150°-160°	123.1	2.0
160°-170°	72.5	1.2
170°-180°	23.6	0.4
0°-30°	1279.2	20.5
0°-40°	2057.8	33.0
0°-60°	3526.3	56.5
0°-90°	4416.7	70.7
90°-120°	912.4	14.6
90°-150°	1607.6	25.7
90°-180°	1827.0	29.3
0°-180°	6243.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1697	1697	1697	1697	1697	
5°	1694	1691	1678	1689	1689	161
15°	1615	1610	1596	1602	1603	455
25°	1466	1459	1442	1444	1440	674
35°	1266	1260	1242	1235	1224	791
45°	1036	1030	1015	999	995	798
55°	789	784	766	755	745	704
65°	533	530	516	504	498	529
75°	283	280	274	270	264	302
85°	74	75	75	74	71	82
90°	0	4	8	10	11	5
95°	16	48	435	197	116	17
105°	56	78	356	701	651	59
115°	99	120	286	616	725	98
125°	138	161	274	490	571	122
135°	161	194	272	411	474	125
145°	188	215	273	340	374	118
155°	214	230	266	301	314	99
165°	234	240	255	271	275	66
175°	243	243	245	248	247	23
180°	244	244	244	244	244	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8
2.5°	1701.1	1700.4	1699.7	1698.9	1698.2	1696.7	1694.3	1691.9	1689.5	1687.1	1689.5
5°	1694.1	1693.5	1692.9	1692.3	1691.7	1690.0	1687.0	1683.9	1681.0	1678.0	1680.7
7.5°	1678.5	1677.9	1677.3	1676.7	1676.1	1674.2	1670.9	1667.7	1664.4	1661.1	1663.7
10°	1664.6	1664.0	1663.4	1662.8	1662.2	1660.3	1657.0	1653.7	1650.4	1647.1	1649.5
12.5°	1647.4	1646.3	1645.3	1644.2	1643.1	1641.1	1638.0	1635.0	1631.9	1628.8	1630.8
15°	1614.9	1614.0	1613.1	1612.2	1611.4	1609.2	1605.9	1602.7	1599.4	1596.1	1597.6
17.5°	1577.6	1576.3	1574.9	1573.6	1572.4	1569.9	1566.6	1563.1	1559.8	1556.3	1558.2
20°	1546.4	1545.8	1545.2	1544.6	1544.0	1541.8	1537.9	1534.0	1530.2	1526.3	1528.4
22.5°	1515.3	1514.2	1513.1	1512.1	1511.0	1508.6	1505.0	1501.4	1497.7	1494.1	1495.5
25°	1465.9	1464.4	1462.9	1461.5	1459.9	1457.2	1453.4	1449.5	1445.6	1441.7	1442.3
27.5°	1408.2	1407.3	1406.4	1405.5	1404.6	1402.1	1398.2	1394.1	1390.2	1386.1	1386.3
30°	1370.6	1369.7	1368.8	1367.9	1367.0	1364.3	1359.9	1355.4	1350.9	1346.4	1345.8
32.5°	1329.8	1328.4	1327.1	1325.7	1324.3	1321.6	1317.6	1313.6	1309.6	1305.6	1304.6
35°	1265.8	1264.7	1263.5	1262.3	1261.1	1258.4	1254.2	1250.1	1245.9	1241.7	1240.3
37.5°	1199.5	1198.1	1196.6	1195.1	1193.6	1190.8	1187.0	1183.0	1179.1	1175.2	1172.9
40°	1154.4	1153.0	1151.5	1150.0	1148.5	1145.6	1141.5	1137.3	1133.2	1128.9	1126.3
42.5°	1106.1	1104.9	1103.6	1102.3	1101.1	1098.4	1094.2	1090.0	1085.9	1081.7	1079.3
45°	1036.3	1035.2	1034.0	1032.8	1031.6	1029.2	1025.6	1022.0	1018.5	1014.9	1011.2
47.5°	961.1	961.2	961.3	961.3	961.4	959.2	955.0	950.7	946.4	942.1	938.5
50°	912.8	912.0	911.0	910.2	909.2	907.0	903.4	899.8	896.3	892.7	888.8
52.5°	863.4	862.8	862.1	861.4	860.8	858.6	854.7	850.9	847.1	843.3	839.9
55°	789.4	788.4	787.6	786.6	785.7	783.3	779.0	774.9	770.7	766.5	763.8
57.5°	711.2	710.8	710.2	709.8	709.3	707.3	703.8	700.3	696.7	693.2	689.7
60°	661.8	660.6	659.4	658.2	657.0	654.8	651.5	648.2	645.0	641.7	638.7
62.5°	610.3	609.3	608.4	607.3	606.4	604.6	601.8	598.9	596.2	593.3	590.1
65°	533.0	532.4	531.8	531.2	530.5	528.6	525.3	522.0	518.8	515.5	512.8
67.5°	458.1	456.8	455.6	454.3	453.1	451.2	448.8	446.3	443.8	441.3	439.1
70°	410.8	409.3	407.8	406.3	404.8	402.7	400.0	397.4	394.7	392.0	390.2
72.5°	359.2	358.2	357.2	356.2	355.2	353.8	352.1	350.3	348.6	346.9	344.8
75°	283.3	282.7	282.1	281.5	280.9	279.8	278.4	276.8	275.3	273.9	272.9
77.5°	213.2	212.9	212.7	212.5	212.2	211.7	210.9	210.0	209.1	208.4	207.8
80°	169.1	169.1	169.1	169.1	169.1	168.8	168.2	167.6	167.0	166.4	166.2
82.5°	130.4	130.0	129.5	129.1	128.5	128.3	128.1	128.0	127.9	127.8	127.3
85°	73.9	74.1	74.4	74.7	75.0	75.2	75.2	75.2	75.2	75.2	74.9
87.5°	29.1	29.2	29.4	29.6	29.8	29.9	29.7	29.7	29.5	29.5	29.6
90°	0.5	0.9	2.0	2.9	4.0	4.9	5.4	6.4	6.9	7.8	8.4
92.5°	6.0	7.2	11.4	17.5	25.9	40.3	67.1	112.1	160.9	158.3	128.2
95°	16.2	16.7	20.7	26.0	36.9	59.0	111.5	219.6	355.1	435.1	425.9
97.5°	26.9	27.5	30.2	35.6	45.4	61.3	96.1	175.2	317.1	464.7	538.8
100°	34.4	35.4	37.4	42.7	52.1	66.8	95.3	159.1	282.9	443.5	566.3
102.5°	42.6	43.2	44.8	50.6	59.2	73.4	98.8	152.5	256.9	406.1	549.7
105°	55.5	55.5	57.9	62.9	70.7	84.5	106.1	149.8	231.8	356.1	497.1
107.5°	68.1	69.1	71.4	75.4	83.6	96.0	116.9	154.3	221.2	321.6	443.2
110°	77.1	78.1	80.1	84.5	91.9	104.6	124.8	158.6	218.1	305.5	412.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	86.2	87.1	88.7	93.2	100.5	112.9	132.2	164.1	218.1	296.1	389.8
115°	99.2	100.2	101.7	106.1	113.5	125.7	143.9	172.4	219.6	285.9	364.9
117.5°	111.0	112.4	114.1	118.5	126.8	138.7	155.9	181.8	222.7	280.9	350.1
120°	118.8	120.4	122.3	126.7	135.1	147.3	164.5	188.1	225.9	278.4	341.8
122.5°	127.1	128.2	129.8	134.1	143.4	155.6	172.8	195.2	228.7	276.6	334.8
125°	137.5	138.5	140.9	145.3	154.7	167.5	183.7	204.8	233.3	274.1	325.1
127.5°	145.7	147.1	150.3	155.9	165.8	178.6	194.2	213.6	238.5	272.9	316.3
130°	150.8	152.2	156.2	162.6	172.9	185.6	200.9	219.6	241.7	272.1	310.4
132.5°	154.7	156.6	161.3	168.5	179.2	191.9	207.2	224.6	245.2	272.1	305.7
135°	161.1	163.1	168.9	176.8	187.1	200.4	215.6	231.8	249.9	272.1	300.1
137.5°	169.2	170.7	176.2	184.0	194.1	207.8	221.6	237.1	254.4	272.7	295.1
140°	173.8	175.3	181.2	189.1	198.5	211.7	225.9	240.6	256.4	273.1	292.7
142.5°	179.3	180.5	186.0	193.8	202.8	215.2	228.7	242.6	257.5	273.5	290.8
145°	187.6	188.6	193.5	200.4	209.2	220.5	233.3	245.6	258.8	273.1	287.8
147.5°	196.2	196.8	201.0	207.4	215.1	225.1	236.3	247.4	259.3	271.8	284.7
150°	201.4	202.3	205.8	212.2	219.0	227.4	238.2	248.5	259.3	270.6	282.4
152.5°	206.9	207.4	210.5	216.1	222.6	230.1	240.1	249.3	258.9	269.1	279.7
155°	214.1	214.1	217.1	222.0	226.9	233.8	242.1	249.9	257.9	266.2	275.0
157.5°	220.6	220.5	222.9	227.1	231.4	236.6	243.8	250.5	256.6	263.2	270.7
160°	225.0	224.5	226.4	229.9	233.8	238.2	244.6	250.5	255.4	261.3	267.2
162.5°	228.5	228.0	230.0	233.0	236.2	239.8	245.4	250.1	254.3	258.9	264.1
165°	233.8	232.8	234.3	236.7	238.7	241.7	245.6	249.5	252.4	255.4	259.3
167.5°	237.3	236.9	237.7	239.1	240.5	242.3	245.6	248.3	249.7	251.9	254.7
170°	239.7	239.2	239.7	240.6	241.7	243.1	245.6	247.5	248.5	249.9	251.9
172.5°	241.3	240.4	240.8	241.9	242.5	243.1	245.2	246.8	246.9	247.6	249.2
175°	243.1	242.1	242.6	243.1	243.1	243.1	244.6	245.6	245.0	245.0	245.6
177.5°	244.0	243.2	243.2	243.6	243.2	243.2	244.0	244.4	243.6	243.6	244.0
180°	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8	1696.8
2.5°	1691.9	1694.3	1696.7	1697.7	1697.5	1697.3	1697.0	1696.8
5°	1683.3	1686.1	1688.8	1690.0	1689.6	1689.4	1689.0	1688.8
7.5°	1666.3	1669.0	1671.5	1672.8	1672.5	1672.1	1671.9	1671.5
10°	1651.9	1654.3	1656.7	1657.7	1657.4	1657.1	1656.8	1656.6
12.5°	1632.7	1634.6	1636.5	1637.4	1637.4	1637.3	1637.3	1637.2
15°	1599.1	1600.6	1602.1	1602.8	1602.8	1602.8	1602.8	1602.8
17.5°	1560.0	1561.9	1563.7	1563.9	1562.5	1561.0	1559.4	1558.0
20°	1530.5	1532.6	1534.6	1535.0	1533.4	1532.0	1530.5	1529.0
22.5°	1496.8	1498.2	1499.6	1499.8	1498.7	1497.7	1496.7	1495.7
25°	1442.9	1443.6	1444.2	1444.0	1443.1	1442.2	1441.3	1440.4
27.5°	1386.4	1386.6	1386.6	1386.2	1385.3	1384.5	1383.5	1382.7
30°	1345.2	1344.6	1344.0	1343.3	1342.4	1341.5	1340.6	1339.7
32.5°	1303.5	1302.4	1301.3	1299.9	1298.4	1296.8	1295.1	1293.6
35°	1238.7	1237.3	1235.8	1233.8	1231.4	1229.1	1226.7	1224.3
37.5°	1170.7	1168.5	1166.3	1164.5	1163.1	1161.7	1160.4	1159.0
40°	1123.6	1120.9	1118.2	1116.5	1115.5	1114.7	1113.7	1112.8
42.5°	1076.9	1074.4	1071.9	1070.1	1068.7	1067.3	1065.9	1064.5
45°	1007.7	1004.1	1000.6	998.3	997.4	996.5	995.6	994.7
47.5°	934.8	931.2	927.6	924.7	922.6	920.5	918.4	916.4
50°	884.9	881.1	877.2	874.2	872.1	870.0	868.0	865.8
52.5°	836.5	833.1	829.7	826.8	824.5	822.2	819.8	817.5
55°	761.1	758.5	755.8	753.4	751.3	749.2	747.1	745.0
57.5°	686.3	682.9	679.4	677.1	676.0	674.9	673.6	672.5
60°	635.7	632.7	629.7	627.2	625.1	623.0	621.0	618.9
62.5°	586.9	583.7	580.5	578.1	576.4	574.8	573.2	571.6
65°	510.1	507.4	504.7	502.8	501.6	500.4	499.2	498.0
67.5°	436.9	434.5	432.3	430.8	430.1	429.4	428.7	427.9
70°	388.4	386.6	384.8	383.3	382.1	380.9	379.8	378.6
72.5°	342.9	340.8	338.8	337.2	336.0	334.8	333.6	332.3
75°	272.1	271.1	270.3	269.2	268.0	266.8	265.6	264.4
77.5°	207.2	206.7	206.2	205.5	204.7	203.8	203.0	202.2
80°	165.8	165.6	165.2	164.8	164.2	163.6	163.0	162.5
82.5°	126.7	126.2	125.6	125.4	125.2	125.1	124.9	124.8
85°	74.6	74.3	74.0	73.5	72.9	72.3	71.7	71.1
87.5°	29.7	29.8	29.9	29.9	29.4	28.9	28.5	28.1
90°	8.9	9.3	9.8	10.8	10.8	10.8	11.3	11.3
92.5°	87.0	63.2	47.5	40.3	34.0	32.8	32.1	31.3
95°	353.1	278.4	218.1	176.8	142.0	127.2	123.3	115.5
97.5°	525.9	473.6	414.7	357.3	327.0	299.5	285.2	279.0
100°	604.1	580.1	529.4	478.4	444.4	409.1	391.0	383.1
102.5°	630.4	645.2	621.0	586.4	550.2	525.0	505.3	499.4
105°	614.9	682.2	703.8	698.4	682.7	666.5	656.7	650.7
107.5°	559.5	649.3	704.8	730.4	738.4	738.3	735.0	731.1
110°	518.7	612.0	681.2	723.0	745.0	754.4	757.9	757.9



TEST NUMBER: P333312-935

CATALOG NUMBER: S125DIP-S1270D590U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	486.5	575.1	645.1	694.3	726.6	742.6	751.1	754.7
115°	445.9	522.1	589.4	642.9	681.2	704.8	718.5	725.0
117.5°	419.8	485.4	543.4	592.5	630.9	655.2	668.8	672.8
120°	405.7	464.6	518.7	561.9	598.2	621.8	635.1	638.9
122.5°	395.1	449.7	497.8	538.3	570.7	592.3	605.5	609.1
125°	379.6	429.7	472.5	507.8	535.4	555.5	566.3	571.2
127.5°	363.9	410.7	450.6	483.7	508.6	526.4	536.6	538.8
130°	354.1	397.4	435.7	467.5	492.1	508.3	518.1	521.1
132.5°	344.3	384.8	419.6	450.3	474.8	491.0	500.1	503.4
135°	331.5	365.4	396.8	424.8	446.4	462.6	471.5	474.4
137.5°	320.7	348.1	374.3	398.0	417.3	432.1	440.2	443.5
140°	314.8	337.9	360.5	381.2	399.3	412.1	419.4	421.9
142.5°	309.7	329.2	348.7	366.6	382.0	392.8	399.8	401.8
145°	303.1	318.2	333.5	346.7	358.5	366.9	372.3	374.3
147.5°	296.8	309.1	320.8	330.8	340.2	346.8	350.0	350.9
150°	293.2	304.0	313.3	322.2	329.6	335.4	337.4	337.9
152.5°	289.3	298.9	307.5	314.4	320.6	325.2	327.2	327.7
155°	283.4	291.3	298.1	303.5	308.4	311.9	313.3	313.8
157.5°	277.5	284.0	289.3	293.5	297.3	300.1	301.5	301.4
160°	273.5	278.4	283.4	286.8	290.2	292.7	293.7	293.2
162.5°	269.2	273.8	277.8	280.9	283.6	285.7	285.9	285.8
165°	263.2	266.7	269.7	272.1	274.1	275.0	275.0	275.0
167.5°	257.5	259.8	262.1	263.8	264.8	265.7	265.3	265.2
170°	254.4	255.9	257.4	258.3	259.3	259.8	259.8	259.3
172.5°	250.9	252.4	253.4	254.0	254.3	255.1	254.3	253.8
175°	247.0	247.0	248.1	248.1	248.1	248.5	247.5	247.0
177.5°	244.4	244.8	244.8	244.8	244.4	244.8	243.6	243.6
180°	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6

(END OF REPORT)