

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: P333256-840

Luminaire Tested: **S125DIP-S1090D365U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333256-840
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-S1090D365U840-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5963.8 lumens
Efficiency: N/A
Efficacy: 137.1 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

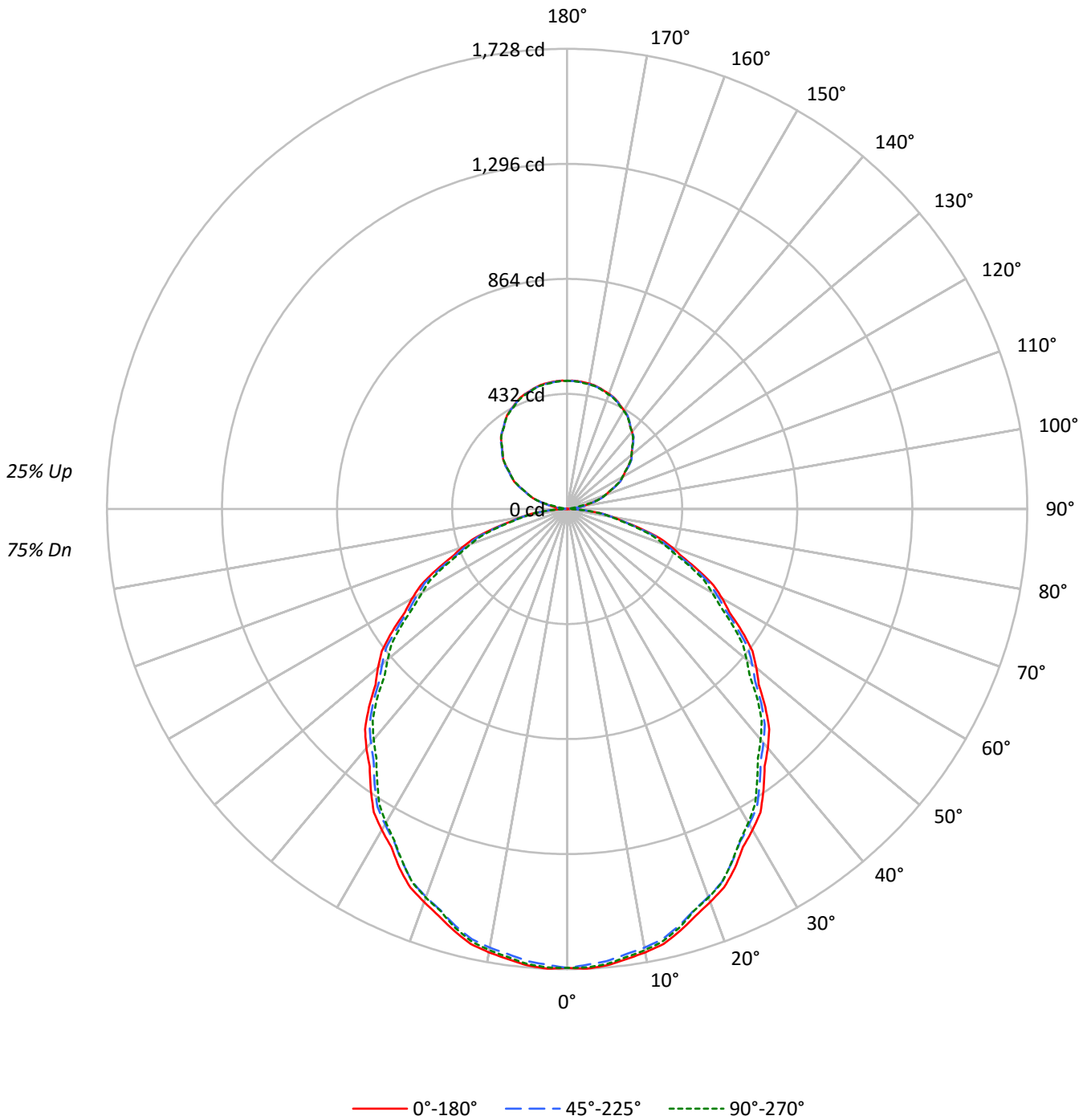
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	75
1	103	99	95	91	98	94	91	87	85	83	80	77	75	73	70	68	67	63
2	94	86	80	74	89	82	77	72	75	70	66	68	64	61	62	59	56	53
3	86	76	68	62	81	72	65	60	66	60	56	60	56	52	55	51	48	45
4	79	67	59	53	74	64	57	51	59	52	48	54	48	44	49	45	41	38
5	72	60	52	45	68	58	50	44	53	46	41	48	43	39	44	39	36	33
6	67	54	46	39	63	52	44	38	48	41	36	44	38	34	40	35	32	29
7	62	49	41	35	59	47	39	34	43	37	32	40	34	30	36	32	28	26
8	57	45	36	31	55	43	35	30	40	33	28	36	31	27	33	29	25	23
9	54	41	33	28	51	39	32	27	36	30	26	34	28	24	31	26	23	21
10	50	38	30	25	48	36	29	24	34	27	23	31	26	22	29	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11129	11129	11129
5°	11154	11048	11119
10°	11086	10970	11032
15°	10965	10838	10884
20°	10794	10653	10672
25°	10608	10434	10424
30°	10380	10197	10147
35°	10136	9942	9802
40°	9885	9666	9528
45°	9613	9414	9227
50°	9315	9109	8835
55°	9026	8765	8519
60°	8681	8418	8117
65°	8270	8000	7728
70°	7878	7517	7260
75°	7177	6939	6700
80°	6390	6289	6133
85°	5550	5654	5350



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	2.7
10°-20°	459.0	7.7
20°-30°	677.7	11.4
30°-40°	790.7	13.3
40°-50°	794.2	13.3
50°-60°	697.1	11.7
60°-70°	519.5	8.7
70°-80°	297.0	5.0
80°-90°	87.4	1.5
90°-100°	17.5	0.3
100°-110°	107.8	1.8
110°-120°	195.6	3.3
120°-130°	251.0	4.2
130°-140°	270.0	4.5
140°-150°	253.4	4.2
150°-160°	205.0	3.4
160°-170°	132.6	2.2
170°-180°	45.7	0.8
0°-30°	1299.1	21.8
0°-40°	2089.8	35.0
0°-60°	3581.2	60.0
0°-90°	4485.0	75.2
90°-120°	321.0	5.4
90°-150°	1095.4	18.4
90°-180°	1479.0	24.8
0°-180°	5963.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1723	1723	1723	1723	1723	
5°	1720	1717	1704	1716	1715	163
15°	1640	1635	1621	1627	1628	462
25°	1489	1481	1464	1466	1463	685
35°	1286	1279	1261	1254	1243	804
45°	1052	1046	1031	1015	1010	811
55°	802	797	778	766	757	715
65°	541	538	524	512	506	537
75°	288	285	278	274	268	307
85°	75	76	76	75	72	84
90°	0	3	6	7	9	5
95°	20	19	6	7	8	26
105°	105	106	106	106	106	111
115°	197	199	199	198	196	195
125°	280	283	283	281	280	250
135°	350	351	351	350	348	269
145°	405	406	406	406	404	253
155°	446	444	445	446	443	206
165°	471	469	469	471	468	133
175°	482	480	480	482	479	46
180°	482	482	482	482	482	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2
2.5°	1727.6	1726.9	1726.1	1725.4	1724.6	1723.0	1720.6	1718.2	1715.8	1713.3	1715.8
5°	1720.5	1719.9	1719.3	1718.7	1718.1	1716.3	1713.2	1710.2	1707.2	1704.1	1706.9
7.5°	1704.7	1704.0	1703.4	1702.8	1702.2	1700.2	1696.9	1693.5	1690.2	1686.9	1689.6
10°	1690.5	1689.9	1689.3	1688.7	1688.1	1686.1	1682.7	1679.4	1676.1	1672.7	1675.2
12.5°	1673.0	1671.9	1670.8	1669.7	1668.7	1666.6	1663.4	1660.4	1657.3	1654.2	1656.2
15°	1640.0	1639.1	1638.2	1637.3	1636.4	1634.3	1630.9	1627.6	1624.3	1620.9	1622.4
17.5°	1602.2	1600.8	1599.4	1598.1	1596.8	1594.4	1590.9	1587.5	1584.1	1580.5	1582.5
20°	1570.5	1569.9	1569.3	1568.7	1568.1	1565.8	1561.9	1557.9	1554.0	1550.0	1552.2
22.5°	1538.8	1537.8	1536.7	1535.6	1534.5	1532.1	1528.4	1524.7	1521.1	1517.3	1518.7
25°	1488.7	1487.2	1485.7	1484.2	1482.7	1480.0	1476.0	1472.1	1468.1	1464.2	1464.8
27.5°	1430.1	1429.2	1428.3	1427.3	1426.4	1424.0	1419.9	1415.8	1411.8	1407.8	1407.9
30°	1391.9	1391.0	1390.1	1389.2	1388.3	1385.5	1381.0	1376.4	1371.9	1367.4	1366.8
32.5°	1350.5	1349.1	1347.7	1346.3	1344.9	1342.2	1338.1	1334.0	1330.0	1326.0	1324.8
35°	1285.6	1284.3	1283.1	1281.9	1280.7	1278.0	1273.7	1269.5	1265.3	1261.0	1259.5
37.5°	1218.2	1216.7	1215.2	1213.7	1212.1	1209.4	1205.4	1201.4	1197.4	1193.5	1191.1
40°	1172.5	1170.9	1169.4	1167.9	1166.4	1163.5	1159.2	1155.0	1150.7	1146.5	1143.8
42.5°	1123.4	1122.1	1120.8	1119.5	1118.2	1115.5	1111.3	1107.0	1102.8	1098.5	1096.0
45°	1052.5	1051.3	1050.1	1048.8	1047.6	1045.2	1041.6	1037.9	1034.3	1030.7	1027.0
47.5°	976.1	976.1	976.2	976.3	976.3	974.2	969.9	965.4	961.1	956.7	953.0
50°	927.1	926.1	925.2	924.3	923.4	921.1	917.5	913.8	910.2	906.6	902.6
52.5°	876.9	876.2	875.6	874.8	874.2	871.9	868.1	864.1	860.3	856.4	852.9
55°	801.6	800.7	799.8	798.9	798.0	795.4	791.1	786.9	782.6	778.4	775.7
57.5°	722.3	721.8	721.3	720.8	720.3	718.3	714.7	711.1	707.6	704.0	700.4
60°	672.1	670.9	669.6	668.4	667.2	665.0	661.7	658.3	655.0	651.7	648.6
62.5°	619.8	618.7	617.8	616.8	615.9	614.0	611.1	608.2	605.4	602.6	599.3
65°	541.2	540.6	540.0	539.4	538.8	536.8	533.5	530.2	526.8	523.5	520.8
67.5°	465.1	463.8	462.6	461.3	460.1	458.2	455.7	453.2	450.7	448.3	446.0
70°	417.2	415.7	414.1	412.6	411.1	409.0	406.3	403.5	400.8	398.1	396.3
72.5°	364.9	363.8	362.7	361.7	360.7	359.3	357.6	355.8	354.1	352.2	350.2
75°	287.6	287.0	286.4	285.8	285.2	284.2	282.7	281.1	279.6	278.1	277.2
77.5°	216.5	216.2	216.0	215.8	215.5	215.0	214.1	213.3	212.5	211.6	211.1
80°	171.8	171.8	171.8	171.8	171.8	171.5	170.9	170.3	169.7	169.1	168.7
82.5°	132.5	132.0	131.6	131.1	130.6	130.3	130.2	130.1	129.9	129.8	129.3
85°	74.9	75.2	75.5	75.8	76.1	76.3	76.3	76.3	76.3	76.3	76.0
87.5°	29.5	29.7	29.8	29.9	30.0	30.0	29.9	29.8	29.6	29.5	29.6
90°	0.4	1.0	1.6	2.2	2.9	3.5	4.0	4.6	5.2	5.8	6.1
92.5°	5.5	5.0	4.6	4.1	3.7	3.7	4.2	4.7	5.3	5.8	6.1
95°	20.3	20.1	19.9	19.6	19.4	17.8	14.7	11.7	8.7	5.8	6.1
97.5°	42.5	42.9	43.3	43.7	44.2	41.4	35.4	29.5	23.5	17.6	15.3
100°	59.6	59.9	60.1	60.3	60.6	60.8	61.2	61.5	61.8	62.1	50.3
102.5°	77.1	77.4	77.7	78.0	78.3	78.5	78.7	78.9	79.1	79.3	77.1
105°	104.9	105.2	105.6	105.9	106.2	106.3	106.3	106.3	106.3	106.3	106.3
107.5°	133.9	133.9	133.9	133.9	133.9	134.0	134.2	134.3	134.5	134.6	134.6
110°	152.8	152.8	152.8	152.8	152.8	152.9	153.0	153.2	153.3	153.5	153.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	170.5	170.7	170.9	171.1	171.3	171.4	171.5	171.6	171.7	171.8	171.5
115°	197.0	197.4	197.8	198.2	198.6	198.8	198.9	199.0	199.1	199.1	198.8
117.5°	224.5	224.5	224.5	224.5	224.5	224.6	224.9	225.2	225.5	225.8	225.4
120°	241.7	241.6	241.6	241.5	241.4	241.5	241.7	241.9	242.2	242.4	242.3
122.5°	256.8	257.1	257.4	257.7	258.0	258.2	258.3	258.4	258.5	258.6	258.5
125°	280.2	280.7	281.3	281.9	282.5	282.8	282.8	282.8	282.8	282.8	282.4
127.5°	302.6	303.0	303.4	303.8	304.2	304.4	304.3	304.3	304.2	304.2	304.0
130°	316.3	316.7	317.1	317.5	317.9	318.1	318.2	318.2	318.3	318.4	318.2
132.5°	330.0	330.4	330.9	331.3	331.8	331.9	331.8	331.6	331.4	331.2	331.2
135°	349.5	349.9	350.4	350.9	351.3	351.5	351.3	351.2	351.0	350.9	350.7
137.5°	367.4	367.8	368.2	368.6	369.0	369.2	369.0	368.9	368.7	368.6	368.6
140°	379.1	379.3	379.4	379.6	379.7	379.8	379.7	379.6	379.5	379.5	379.6
142.5°	389.7	389.8	389.9	389.9	390.0	390.1	390.3	390.4	390.5	390.6	390.6
145°	405.2	405.4	405.5	405.7	405.8	405.9	405.9	405.9	405.9	405.9	406.0
147.5°	418.7	418.7	418.7	418.6	418.6	418.6	418.7	418.8	418.9	419.0	419.1
150°	427.3	427.2	427.0	426.8	426.7	426.7	426.8	427.0	427.2	427.3	427.5
152.5°	435.6	435.3	434.8	434.5	434.1	434.0	434.2	434.4	434.5	434.7	434.8
155°	446.3	445.8	445.2	444.7	444.3	444.1	444.3	444.4	444.6	444.7	445.0
157.5°	454.4	454.1	453.8	453.5	453.3	453.1	453.1	453.2	453.2	453.2	453.4
160°	460.1	459.7	459.2	458.7	458.3	458.1	458.1	458.2	458.3	458.4	458.7
162.5°	464.7	464.2	463.7	463.2	462.8	462.6	462.7	462.7	462.8	462.9	463.3
165°	470.8	470.4	469.9	469.4	469.0	468.8	468.8	468.9	469.0	469.1	469.5
167.5°	475.4	474.9	474.4	473.9	473.4	473.2	473.3	473.4	473.5	473.5	474.1
170°	478.0	477.5	476.9	476.4	475.7	475.5	475.6	475.6	475.7	475.8	476.5
172.5°	479.7	479.2	478.6	478.1	477.5	477.3	477.4	477.6	477.7	477.9	478.4
175°	481.5	481.1	480.6	480.1	479.7	479.5	479.5	479.6	479.7	479.8	480.4
177.5°	482.4	482.0	481.6	481.3	480.9	480.7	480.8	480.9	480.9	481.0	481.4
180°	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2	1723.2
2.5°	1718.2	1720.6	1723.0	1724.1	1723.9	1723.6	1723.4	1723.2
5°	1709.6	1712.3	1715.1	1716.3	1716.0	1715.7	1715.4	1715.1
7.5°	1692.2	1695.0	1697.6	1698.8	1698.5	1698.2	1697.9	1697.6
10°	1677.6	1680.0	1682.4	1683.5	1683.2	1682.9	1682.6	1682.3
12.5°	1658.1	1660.0	1661.9	1662.9	1662.8	1662.7	1662.7	1662.6
15°	1624.0	1625.5	1627.0	1627.8	1627.8	1627.8	1627.8	1627.8
17.5°	1584.4	1586.2	1588.1	1588.3	1586.8	1585.3	1583.8	1582.3
20°	1554.3	1556.4	1558.5	1558.8	1557.3	1555.8	1554.3	1552.8
22.5°	1520.1	1521.6	1522.9	1523.1	1522.1	1521.1	1520.0	1518.9
25°	1465.4	1466.0	1466.6	1466.4	1465.5	1464.6	1463.7	1462.8
27.5°	1408.0	1408.1	1408.3	1407.9	1406.9	1406.0	1405.1	1404.2
30°	1366.1	1365.5	1364.9	1364.2	1363.3	1362.4	1361.5	1360.6
32.5°	1323.7	1322.6	1321.6	1320.2	1318.6	1317.0	1315.2	1313.6
35°	1258.0	1256.5	1255.0	1253.0	1250.6	1248.2	1245.8	1243.3
37.5°	1188.9	1186.7	1184.5	1182.7	1181.2	1179.8	1178.4	1177.1
40°	1141.0	1138.3	1135.6	1133.8	1132.9	1132.0	1131.0	1130.1
42.5°	1093.6	1091.1	1088.6	1086.6	1085.3	1083.9	1082.5	1081.1
45°	1023.4	1019.8	1016.1	1013.8	1012.9	1012.0	1011.1	1010.2
47.5°	949.4	945.6	942.0	939.1	937.0	934.8	932.7	930.6
50°	898.7	894.7	890.8	887.8	885.7	883.5	881.4	879.3
52.5°	849.5	846.1	842.6	839.7	837.3	835.0	832.6	830.2
55°	773.0	770.2	767.5	765.1	763.0	760.8	758.7	756.6
57.5°	697.0	693.5	689.9	687.6	686.5	685.3	684.2	683.0
60°	645.6	642.6	639.5	636.9	634.8	632.7	630.6	628.4
62.5°	596.0	592.8	589.5	587.0	585.4	583.8	582.1	580.5
65°	518.1	515.3	512.6	510.6	509.4	508.2	507.0	505.7
67.5°	443.6	441.3	439.0	437.5	436.8	436.1	435.4	434.6
70°	394.5	392.6	390.8	389.3	388.1	386.9	385.7	384.5
72.5°	348.2	346.1	344.1	342.4	341.2	340.0	338.8	337.6
75°	276.3	275.4	274.5	273.4	272.2	270.9	269.7	268.5
77.5°	210.5	210.0	209.4	208.7	207.8	207.0	206.1	205.3
80°	168.4	168.1	167.8	167.3	166.7	166.1	165.5	164.9
82.5°	128.7	128.2	127.6	127.2	127.1	127.0	126.9	126.7
85°	75.7	75.4	75.1	74.6	74.0	73.4	72.8	72.2
87.5°	29.7	29.7	29.8	29.6	29.2	28.8	28.3	27.9
90°	6.5	6.9	7.3	7.6	7.9	8.1	8.3	8.6
92.5°	6.5	6.9	7.3	7.6	7.7	7.8	7.9	8.0
95°	6.5	6.9	7.3	7.5	7.5	7.5	7.5	7.5
97.5°	13.1	10.8	8.6	7.5	7.5	7.5	7.5	7.5
100°	38.5	26.7	14.8	8.8	8.5	8.2	7.8	7.5
102.5°	74.7	72.5	70.3	66.4	61.1	55.7	50.3	44.9
105°	106.3	106.3	106.3	106.3	106.2	106.1	106.1	106.0
107.5°	134.7	134.7	134.7	134.6	134.4	134.1	133.9	133.6
110°	153.0	152.8	152.6	152.5	152.6	152.6	152.7	152.8



TEST NUMBER: P333256-840

CATALOG NUMBER: S125DIP-S1090D365U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	171.2	170.9	170.6	170.4	170.3	170.2	170.1	170.0
115°	198.5	198.2	197.9	197.5	197.0	196.6	196.1	195.6
117.5°	225.0	224.6	224.2	223.9	223.7	223.5	223.3	223.1
120°	242.1	241.9	241.8	241.5	241.1	240.7	240.2	239.8
122.5°	258.3	258.2	258.0	257.7	257.2	256.8	256.3	255.9
125°	282.1	281.8	281.4	281.1	280.9	280.7	280.4	280.2
127.5°	303.8	303.6	303.5	303.1	302.5	301.8	301.3	300.7
130°	317.9	317.7	317.5	317.1	316.8	316.4	316.0	315.6
132.5°	331.1	331.1	331.0	330.8	330.4	330.0	329.6	329.3
135°	350.6	350.4	350.2	349.9	349.5	349.0	348.5	348.0
137.5°	368.7	368.7	368.7	368.5	368.1	367.7	367.3	366.9
140°	379.8	379.9	380.1	379.9	379.5	379.0	378.5	378.0
142.5°	390.6	390.7	390.7	390.5	390.0	389.5	389.1	388.6
145°	406.1	406.1	406.2	406.0	405.6	405.1	404.6	404.0
147.5°	419.2	419.3	419.4	419.2	418.6	418.0	417.5	416.9
150°	427.6	427.8	427.9	427.7	427.1	426.5	425.8	425.2
152.5°	435.0	435.2	435.4	435.2	434.5	434.0	433.4	432.8
155°	445.2	445.5	445.8	445.6	444.9	444.2	443.6	443.0
157.5°	453.7	453.9	454.2	454.0	453.4	452.7	452.1	451.5
160°	459.0	459.3	459.6	459.5	458.8	458.2	457.6	457.0
162.5°	463.8	464.2	464.7	464.5	463.8	463.1	462.5	461.8
165°	470.0	470.5	471.0	470.9	470.3	469.6	469.0	468.4
167.5°	474.7	475.2	475.8	475.7	475.0	474.3	473.6	472.9
170°	477.1	477.8	478.4	478.4	477.7	477.0	476.2	475.4
172.5°	479.0	479.6	480.1	480.1	479.4	478.6	477.9	477.2
175°	481.0	481.7	482.3	482.3	481.5	480.8	480.1	479.4
177.5°	481.9	482.3	482.7	482.7	482.2	481.7	481.2	480.7
180°	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5

(END OF REPORT)