

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

Luminaire Tested: **S125DIP-S1090D365U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333256
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-S1090D365U835-4F0-1E-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: 5905.5 lumens
Efficiency: N/A
Efficacy: 135.8 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

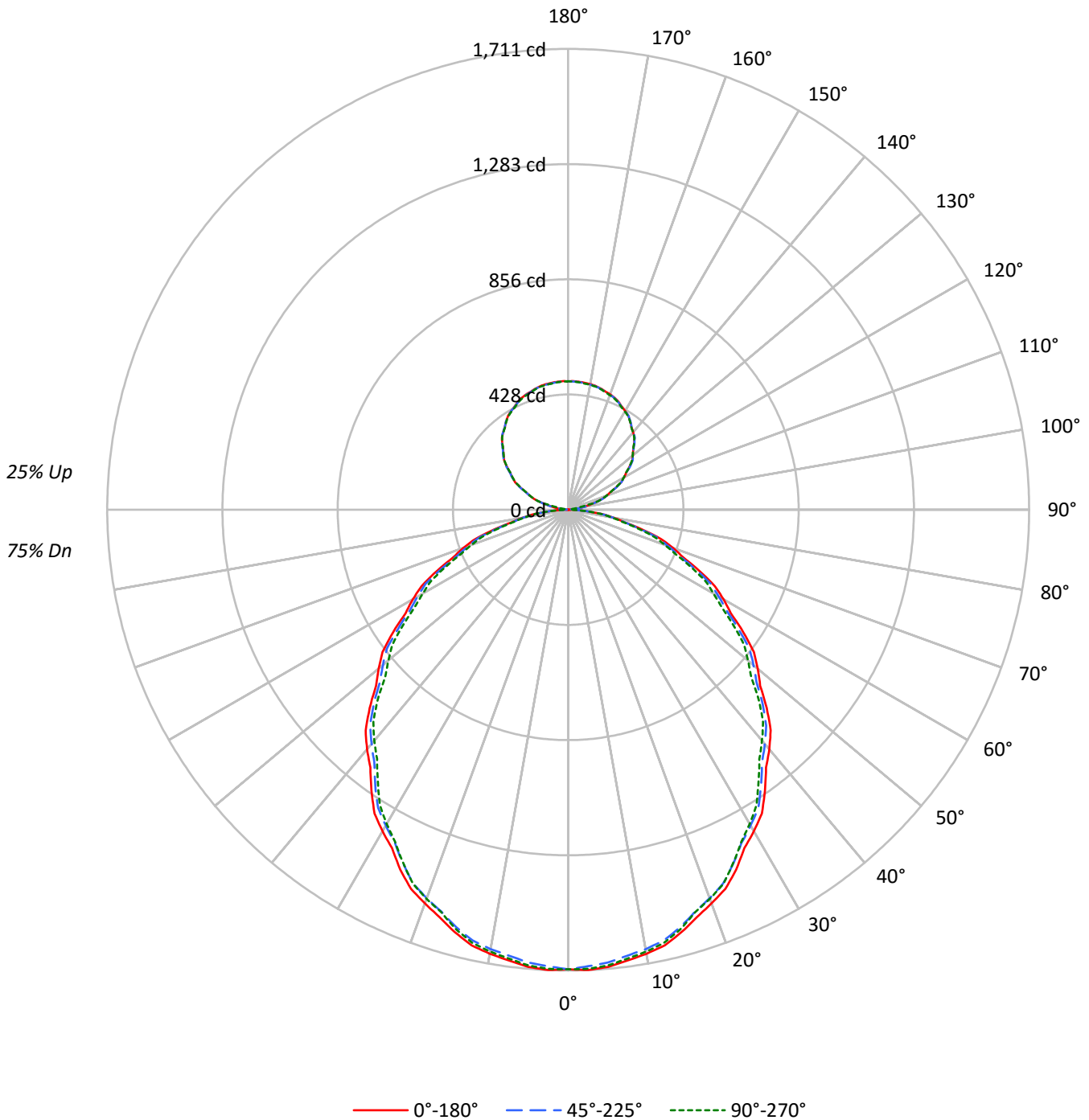
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	11021	11021	11021
5°	11045	10940	11010
10°	10978	10863	10925
15°	10858	10732	10777
20°	10689	10549	10568
25°	10505	10332	10322
30°	10279	10097	10047
35°	10037	9845	9707
40°	9788	9571	9435
45°	9519	9322	9136
50°	9224	9020	8748
55°	8938	8679	8436
60°	8596	8335	8038
65°	8189	7922	7653
70°	7801	7444	7189
75°	7107	6872	6635
80°	6326	6226	6073
85°	5498	5602	5298



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.9	2.7
10°-20°	454.5	7.7
20°-30°	671.0	11.4
30°-40°	783.0	13.3
40°-50°	786.4	13.3
50°-60°	690.3	11.7
60°-70°	514.4	8.7
70°-80°	294.1	5.0
80°-90°	86.6	1.5
90°-100°	17.3	0.3
100°-110°	106.8	1.8
110°-120°	193.7	3.3
120°-130°	248.6	4.2
130°-140°	267.4	4.5
140°-150°	251.0	4.2
150°-160°	203.0	3.4
160°-170°	131.3	2.2
170°-180°	45.3	0.8
0°-30°	1286.4	21.8
0°-40°	2069.4	35.0
0°-60°	3546.2	60.0
0°-90°	4441.2	75.2
90°-120°	317.8	5.4
90°-150°	1084.7	18.4
90°-180°	1464.0	24.8
0°-180°	5905.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1706	1706	1706	1706	1706	
5°	1704	1700	1688	1699	1698	162
15°	1624	1619	1605	1612	1612	458
25°	1474	1467	1450	1452	1448	678
35°	1273	1267	1249	1242	1231	796
45°	1042	1036	1021	1005	1000	803
55°	794	789	771	759	749	708
65°	536	533	518	507	501	532
75°	285	282	275	271	266	304
85°	74	76	76	74	72	83
90°	0	3	6	7	8	5
95°	20	18	6	7	7	26
105°	104	105	105	105	105	110
115°	195	197	197	196	194	193
125°	278	280	280	279	278	248
135°	346	348	348	347	345	267
145°	401	402	402	402	400	251
155°	442	440	440	441	439	203
165°	466	464	464	466	464	132
175°	477	475	475	478	475	45
180°	477	477	477	477	477	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4
2.5°	1710.7	1710.0	1709.2	1708.5	1707.8	1706.2	1703.8	1701.4	1699.0	1696.6	1699.0
5°	1703.7	1703.1	1702.5	1701.9	1701.3	1699.5	1696.5	1693.5	1690.5	1687.5	1690.2
7.5°	1688.0	1687.4	1686.8	1686.2	1685.6	1683.6	1680.3	1677.0	1673.7	1670.4	1673.1
10°	1674.0	1673.4	1672.8	1672.2	1671.6	1669.6	1666.3	1663.0	1659.7	1656.4	1658.8
12.5°	1656.7	1655.6	1654.5	1653.4	1652.4	1650.3	1647.2	1644.2	1641.1	1638.0	1640.0
15°	1624.0	1623.1	1622.2	1621.3	1620.4	1618.3	1615.0	1611.7	1608.4	1605.1	1606.6
17.5°	1586.5	1585.2	1583.8	1582.5	1581.2	1578.8	1575.4	1572.0	1568.6	1565.1	1567.0
20°	1555.2	1554.6	1554.0	1553.4	1552.8	1550.5	1546.6	1542.7	1538.8	1534.9	1537.0
22.5°	1523.8	1522.8	1521.7	1520.6	1519.5	1517.1	1513.5	1509.8	1506.2	1502.5	1503.9
25°	1474.2	1472.7	1471.2	1469.7	1468.2	1465.5	1461.6	1457.7	1453.8	1449.9	1450.5
27.5°	1416.1	1415.2	1414.3	1413.4	1412.5	1410.1	1406.0	1402.0	1398.0	1394.0	1394.1
30°	1378.3	1377.4	1376.5	1375.6	1374.7	1372.0	1367.5	1363.0	1358.5	1354.0	1353.4
32.5°	1337.3	1335.9	1334.5	1333.1	1331.8	1329.1	1325.0	1321.0	1317.0	1313.0	1311.9
35°	1273.0	1271.8	1270.6	1269.4	1268.2	1265.5	1261.3	1257.1	1252.9	1248.7	1247.2
37.5°	1206.3	1204.8	1203.3	1201.8	1200.3	1197.6	1193.6	1189.7	1185.7	1181.8	1179.5
40°	1161.0	1159.5	1158.0	1156.5	1155.0	1152.1	1147.9	1143.7	1139.5	1135.3	1132.6
42.5°	1112.4	1111.1	1109.9	1108.6	1107.3	1104.6	1100.4	1096.2	1092.0	1087.8	1085.3
45°	1042.2	1041.0	1039.8	1038.6	1037.4	1035.0	1031.4	1027.8	1024.2	1020.6	1017.0
47.5°	966.6	966.6	966.7	966.8	966.8	964.7	960.4	956.0	951.7	947.4	943.7
50°	918.0	917.1	916.2	915.3	914.4	912.1	908.5	904.9	901.3	897.7	893.8
52.5°	868.3	867.6	867.0	866.3	865.7	863.4	859.6	855.7	851.9	848.0	844.6
55°	793.8	792.9	792.0	791.1	790.2	787.6	783.4	779.2	775.0	770.8	768.1
57.5°	715.2	714.7	714.3	713.8	713.3	711.3	707.7	704.2	700.7	697.1	693.6
60°	665.5	664.3	663.1	661.9	660.7	658.5	655.2	651.9	648.6	645.3	642.3
62.5°	613.7	612.7	611.8	610.8	609.9	608.0	605.1	602.3	599.5	596.7	593.4
65°	535.9	535.3	534.7	534.1	533.5	531.6	528.3	525.0	521.7	518.4	515.7
67.5°	460.6	459.3	458.1	456.8	455.6	453.7	451.2	448.8	446.3	443.9	441.6
70°	413.1	411.6	410.1	408.6	407.1	405.0	402.3	399.6	396.9	394.2	392.4
72.5°	361.3	360.2	359.2	358.2	357.2	355.8	354.1	352.3	350.6	348.8	346.8
75°	284.8	284.2	283.6	283.0	282.4	281.4	279.9	278.4	276.9	275.4	274.5
77.5°	214.4	214.1	213.9	213.7	213.4	212.9	212.0	211.2	210.4	209.5	209.0
80°	170.1	170.1	170.1	170.1	170.1	169.8	169.2	168.6	168.0	167.4	167.1
82.5°	131.2	130.7	130.3	129.8	129.3	129.0	128.9	128.8	128.6	128.5	128.0
85°	74.2	74.5	74.8	75.1	75.4	75.6	75.6	75.6	75.6	75.6	75.3
87.5°	29.2	29.4	29.5	29.6	29.7	29.7	29.6	29.5	29.3	29.2	29.3
90°	0.4	1.0	1.6	2.2	2.9	3.5	4.0	4.6	5.1	5.7	6.0
92.5°	5.4	5.0	4.6	4.1	3.7	3.7	4.2	4.7	5.2	5.7	6.0
95°	20.1	19.9	19.7	19.4	19.2	17.6	14.6	11.6	8.6	5.7	6.0
97.5°	42.1	42.5	42.9	43.3	43.8	41.0	35.1	29.2	23.3	17.4	15.2
100°	59.0	59.3	59.5	59.7	60.0	60.2	60.6	60.9	61.2	61.5	49.8
102.5°	76.3	76.6	76.9	77.2	77.5	77.7	77.9	78.1	78.3	78.5	76.3
105°	103.9	104.2	104.6	104.9	105.2	105.3	105.3	105.3	105.3	105.3	105.3
107.5°	132.6	132.6	132.6	132.6	132.6	132.7	132.9	133.0	133.2	133.3	133.3
110°	151.3	151.3	151.3	151.3	151.3	151.4	151.5	151.7	151.8	152.0	151.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	168.8	169.0	169.2	169.4	169.6	169.7	169.8	169.9	170.0	170.1	169.8
115°	195.1	195.5	195.9	196.3	196.7	196.9	197.0	197.1	197.2	197.2	196.9
117.5°	222.3	222.3	222.3	222.3	222.3	222.4	222.7	223.0	223.3	223.6	223.2
120°	239.3	239.2	239.2	239.1	239.0	239.1	239.3	239.5	239.8	240.0	239.9
122.5°	254.3	254.6	254.9	255.2	255.5	255.7	255.8	255.9	256.0	256.1	256.0
125°	277.5	278.0	278.6	279.1	279.7	280.0	280.0	280.0	280.0	280.0	279.6
127.5°	299.6	300.0	300.4	300.8	301.2	301.4	301.3	301.3	301.2	301.2	301.0
130°	313.2	313.6	314.0	314.4	314.8	315.0	315.1	315.1	315.2	315.3	315.1
132.5°	326.8	327.2	327.7	328.1	328.6	328.7	328.6	328.4	328.2	328.0	328.0
135°	346.1	346.5	347.0	347.5	347.9	348.1	347.9	347.8	347.6	347.5	347.3
137.5°	363.8	364.2	364.6	365.0	365.4	365.6	365.4	365.3	365.1	365.0	365.0
140°	375.4	375.6	375.7	375.9	376.0	376.1	376.0	375.9	375.8	375.8	375.9
142.5°	385.9	386.0	386.1	386.1	386.2	386.3	386.5	386.6	386.7	386.8	386.8
145°	401.2	401.4	401.5	401.7	401.8	401.9	401.9	401.9	401.9	401.9	402.0
147.5°	414.6	414.6	414.6	414.5	414.5	414.5	414.6	414.7	414.8	414.9	415.0
150°	423.1	423.0	422.8	422.6	422.5	422.5	422.6	422.8	423.0	423.1	423.3
152.5°	431.3	431.0	430.6	430.3	429.9	429.8	430.0	430.2	430.3	430.5	430.6
155°	441.9	441.4	440.9	440.4	440.0	439.8	440.0	440.1	440.3	440.4	440.7
157.5°	450.0	449.7	449.4	449.1	448.9	448.7	448.7	448.8	448.8	448.8	449.0
160°	455.6	455.2	454.7	454.2	453.8	453.6	453.6	453.7	453.8	453.9	454.2
162.5°	460.2	459.7	459.2	458.7	458.3	458.1	458.2	458.2	458.3	458.4	458.8
165°	466.2	465.8	465.3	464.8	464.4	464.2	464.2	464.3	464.4	464.5	464.9
167.5°	470.8	470.3	469.8	469.3	468.8	468.6	468.7	468.8	468.9	468.9	469.5
170°	473.3	472.8	472.2	471.7	471.1	470.9	471.0	471.0	471.1	471.2	471.8
172.5°	475.0	474.5	473.9	473.4	472.8	472.6	472.7	472.9	473.0	473.2	473.7
175°	476.8	476.4	475.9	475.4	475.0	474.8	474.8	474.9	475.0	475.1	475.7
177.5°	477.7	477.3	476.9	476.6	476.2	476.0	476.1	476.2	476.2	476.3	476.7
180°	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4	1706.4
2.5°	1701.4	1703.8	1706.2	1707.3	1707.1	1706.8	1706.6	1706.4
5°	1692.9	1695.6	1698.3	1699.5	1699.2	1698.9	1698.6	1698.3
7.5°	1675.7	1678.4	1681.0	1682.2	1681.9	1681.6	1681.3	1681.0
10°	1661.2	1663.6	1666.0	1667.1	1666.8	1666.5	1666.2	1665.9
12.5°	1641.9	1643.8	1645.7	1646.7	1646.6	1646.5	1646.5	1646.4
15°	1608.1	1609.6	1611.1	1611.9	1611.9	1611.9	1611.9	1611.9
17.5°	1568.9	1570.7	1572.6	1572.8	1571.3	1569.8	1568.3	1566.8
20°	1539.1	1541.2	1543.3	1543.6	1542.1	1540.6	1539.1	1537.6
22.5°	1505.3	1506.7	1508.0	1508.2	1507.2	1506.2	1505.2	1504.1
25°	1451.1	1451.7	1452.3	1452.1	1451.2	1450.3	1449.4	1448.5
27.5°	1394.2	1394.3	1394.5	1394.1	1393.2	1392.3	1391.4	1390.5
30°	1352.8	1352.2	1351.6	1350.9	1350.0	1349.1	1348.2	1347.3
32.5°	1310.8	1309.7	1308.7	1307.3	1305.7	1304.1	1302.4	1300.8
35°	1245.7	1244.2	1242.7	1240.8	1238.4	1236.0	1233.6	1231.2
37.5°	1177.3	1175.1	1172.9	1171.1	1169.7	1168.3	1166.9	1165.6
40°	1129.9	1127.2	1124.5	1122.7	1121.8	1120.9	1120.0	1119.1
42.5°	1082.9	1080.4	1078.0	1076.0	1074.7	1073.3	1071.9	1070.5
45°	1013.4	1009.8	1006.2	1003.9	1003.0	1002.1	1001.2	1000.3
47.5°	940.1	936.4	932.8	929.9	927.8	925.7	923.6	921.5
50°	889.9	886.0	882.1	879.1	877.0	874.9	872.8	870.7
52.5°	841.2	837.8	834.4	831.5	829.1	826.8	824.5	822.1
55°	765.4	762.7	760.0	757.6	755.5	753.4	751.3	749.2
57.5°	690.2	686.7	683.2	680.9	679.8	678.6	677.5	676.3
60°	639.3	636.3	633.3	630.7	628.6	626.5	624.4	622.3
62.5°	590.2	587.0	583.7	581.3	579.7	578.1	576.4	574.8
65°	513.0	510.3	507.6	505.6	504.4	503.2	502.0	500.8
67.5°	439.3	437.0	434.7	433.2	432.5	431.8	431.1	430.4
70°	390.6	388.8	387.0	385.5	384.3	383.1	381.9	380.7
72.5°	344.8	342.7	340.7	339.1	337.9	336.7	335.5	334.3
75°	273.6	272.7	271.8	270.7	269.5	268.3	267.1	265.9
77.5°	208.4	207.9	207.4	206.7	205.8	205.0	204.1	203.3
80°	166.8	166.5	166.2	165.7	165.1	164.5	163.9	163.3
82.5°	127.4	126.9	126.4	126.0	125.9	125.8	125.7	125.5
85°	75.0	74.7	74.4	73.9	73.3	72.7	72.1	71.5
87.5°	29.4	29.4	29.5	29.3	28.9	28.5	28.0	27.6
90°	6.4	6.8	7.2	7.5	7.8	8.0	8.2	8.5
92.5°	6.4	6.8	7.2	7.5	7.6	7.7	7.8	7.9
95°	6.4	6.8	7.2	7.4	7.4	7.4	7.4	7.4
97.5°	13.0	10.7	8.5	7.4	7.4	7.4	7.4	7.4
100°	38.1	26.4	14.7	8.7	8.4	8.1	7.7	7.4
102.5°	74.0	71.8	69.6	65.8	60.5	55.2	49.8	44.5
105°	105.3	105.3	105.3	105.3	105.2	105.1	105.1	105.0
107.5°	133.4	133.4	133.4	133.3	133.1	132.8	132.6	132.3
110°	151.5	151.3	151.1	151.0	151.1	151.1	151.2	151.3



TEST NUMBER: P333256

CATALOG NUMBER: S125DIP-S1090D365U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	169.5	169.2	168.9	168.7	168.6	168.5	168.4	168.3
115°	196.6	196.3	196.0	195.6	195.1	194.7	194.2	193.7
117.5°	222.8	222.4	222.0	221.7	221.5	221.3	221.1	220.9
120°	239.7	239.5	239.4	239.1	238.7	238.3	237.9	237.5
122.5°	255.8	255.7	255.5	255.2	254.7	254.3	253.8	253.4
125°	279.3	279.0	278.7	278.4	278.2	278.0	277.7	277.5
127.5°	300.8	300.6	300.5	300.1	299.5	298.9	298.4	297.8
130°	314.8	314.6	314.4	314.0	313.7	313.3	312.9	312.5
132.5°	327.9	327.9	327.8	327.6	327.2	326.8	326.4	326.1
135°	347.2	347.0	346.8	346.5	346.1	345.6	345.1	344.6
137.5°	365.1	365.1	365.1	364.9	364.5	364.1	363.7	363.3
140°	376.1	376.2	376.4	376.2	375.8	375.3	374.8	374.3
142.5°	386.8	386.9	386.9	386.7	386.2	385.7	385.3	384.8
145°	402.1	402.1	402.2	402.0	401.6	401.1	400.6	400.1
147.5°	415.1	415.2	415.3	415.1	414.5	413.9	413.4	412.8
150°	423.4	423.6	423.7	423.5	422.9	422.3	421.6	421.0
152.5°	430.8	430.9	431.1	430.9	430.3	429.8	429.2	428.6
155°	440.9	441.1	441.4	441.2	440.6	439.9	439.3	438.7
157.5°	449.3	449.5	449.8	449.6	449.0	448.3	447.7	447.1
160°	454.5	454.8	455.1	455.0	454.3	453.7	453.1	452.5
162.5°	459.3	459.7	460.2	460.0	459.3	458.6	458.0	457.3
165°	465.4	465.9	466.4	466.3	465.7	465.0	464.4	463.8
167.5°	470.1	470.6	471.2	471.1	470.4	469.7	469.0	468.3
170°	472.4	473.1	473.7	473.7	473.0	472.3	471.5	470.8
172.5°	474.3	474.9	475.4	475.4	474.7	473.9	473.2	472.5
175°	476.3	477.0	477.6	477.6	476.8	476.1	475.4	474.7
177.5°	477.2	477.6	478.0	478.0	477.5	477.0	476.5	476.0
180°	476.8	476.8	476.8	476.8	476.8	476.8	476.8	476.8

(END OF REPORT)