

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: P333256-830

Luminaire Tested: **S125DIP-S1090D365U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333256-830
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-S1090D365U830-4F0-1E-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: 5566.2 lumens
Efficiency: N/A
Efficacy: 128.0 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

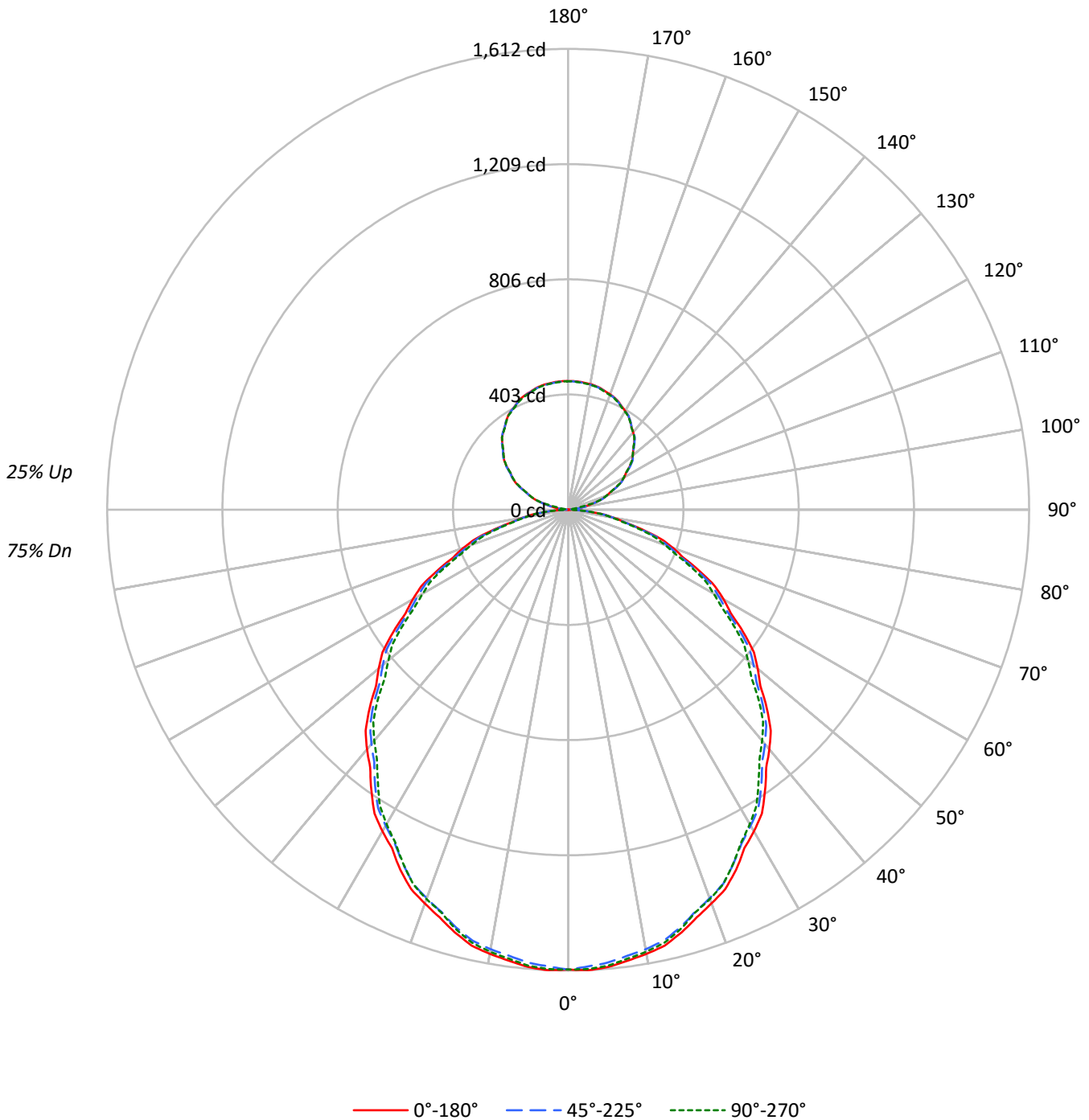
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10388	10388	10388
5°	10410	10311	10377
10°	10347	10238	10297
15°	10235	10116	10158
20°	10074	9943	9961
25°	9902	9738	9729
30°	9688	9517	9470
35°	9460	9280	9150
40°	9226	9022	8893
45°	8972	8786	8611
50°	8694	8501	8246
55°	8425	8180	7952
60°	8103	7856	7576
65°	7719	7467	7213
70°	7353	7017	6775
75°	6697	6478	6253
80°	5962	5869	5724
85°	5180	5283	4994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.6	2.7
10°-20°	428.4	7.7
20°-30°	632.5	11.4
30°-40°	738.0	13.3
40°-50°	741.2	13.3
50°-60°	650.7	11.7
60°-70°	484.8	8.7
70°-80°	277.2	5.0
80°-90°	81.6	1.5
90°-100°	16.3	0.3
100°-110°	100.7	1.8
110°-120°	182.6	3.3
120°-130°	234.3	4.2
130°-140°	252.0	4.5
140°-150°	236.5	4.2
150°-160°	191.3	3.4
160°-170°	123.8	2.2
170°-180°	42.7	0.8
0°-30°	1212.5	21.8
0°-40°	1950.5	35.0
0°-60°	3342.4	60.0
0°-90°	4186.0	75.2
90°-120°	299.6	5.4
90°-150°	1022.4	18.4
90°-180°	1380.0	24.8
0°-180°	5566.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1608	1608	1608	1608	1608	
5°	1606	1603	1590	1601	1601	152
15°	1531	1526	1513	1519	1519	431
25°	1390	1383	1367	1369	1365	639
35°	1200	1194	1177	1170	1160	750
45°	982	977	962	947	943	757
55°	748	744	726	715	706	668
65°	505	502	489	477	472	501
75°	268	266	260	256	251	286
85°	70	71	71	70	67	78
90°	0	3	5	7	8	5
95°	19	17	5	7	7	24
105°	98	99	99	99	99	104
115°	184	186	186	185	183	182
125°	262	264	264	263	262	234
135°	326	328	328	327	325	251
145°	378	379	379	379	377	236
155°	416	415	415	416	414	192
165°	439	438	438	440	437	124
175°	449	448	448	450	447	43
180°	449	449	449	449	449	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1612.4	1611.7	1611.0	1610.3	1609.7	1608.2	1605.9	1603.6	1601.4	1599.1	1601.4
5°	1605.8	1605.2	1604.7	1604.1	1603.5	1601.9	1599.0	1596.2	1593.4	1590.5	1593.1
7.5°	1591.0	1590.4	1589.9	1589.3	1588.7	1586.9	1583.8	1580.6	1577.5	1574.4	1577.0
10°	1577.8	1577.3	1576.7	1576.1	1575.6	1573.7	1570.6	1567.4	1564.3	1561.2	1563.5
12.5°	1561.5	1560.5	1559.4	1558.4	1557.5	1555.5	1552.6	1549.7	1546.8	1543.9	1545.8
15°	1530.7	1529.8	1529.0	1528.1	1527.3	1525.3	1522.2	1519.1	1516.0	1512.9	1514.3
17.5°	1495.3	1494.1	1492.8	1491.6	1490.3	1488.1	1484.9	1481.7	1478.5	1475.2	1477.0
20°	1465.8	1465.3	1464.7	1464.1	1463.6	1461.4	1457.7	1454.1	1450.4	1446.7	1448.7
22.5°	1436.2	1435.3	1434.3	1433.2	1432.2	1429.9	1426.5	1423.1	1419.7	1416.2	1417.5
25°	1389.5	1388.1	1386.7	1385.3	1383.8	1381.3	1377.6	1373.9	1370.3	1366.6	1367.2
27.5°	1334.7	1333.9	1333.0	1332.2	1331.3	1329.1	1325.2	1321.4	1317.7	1313.9	1314.0
30°	1299.1	1298.3	1297.4	1296.6	1295.7	1293.2	1288.9	1284.7	1280.4	1276.2	1275.6
32.5°	1260.5	1259.1	1257.8	1256.5	1255.3	1252.7	1248.9	1245.1	1241.3	1237.6	1236.5
35°	1199.9	1198.7	1197.6	1196.5	1195.3	1192.8	1188.8	1184.9	1180.9	1177.0	1175.5
37.5°	1137.0	1135.6	1134.2	1132.7	1131.3	1128.8	1125.0	1121.3	1117.6	1113.9	1111.7
40°	1094.3	1092.9	1091.5	1090.1	1088.6	1085.9	1081.9	1078.0	1074.0	1070.1	1067.5
42.5°	1048.5	1047.3	1046.1	1044.9	1043.7	1041.1	1037.2	1033.2	1029.3	1025.3	1022.9
45°	982.3	981.2	980.1	978.9	977.8	975.5	972.1	968.7	965.4	962.0	958.6
47.5°	911.1	911.1	911.2	911.3	911.3	909.3	905.2	901.1	897.0	893.0	889.5
50°	865.3	864.4	863.6	862.7	861.9	859.7	856.3	852.9	849.5	846.1	842.4
52.5°	818.4	817.7	817.2	816.5	816.0	813.8	810.2	806.5	803.0	799.3	796.1
55°	748.2	747.3	746.5	745.6	744.8	742.3	738.4	734.4	730.5	726.5	724.0
57.5°	674.1	673.6	673.3	672.8	672.3	670.4	667.0	663.7	660.4	657.0	653.7
60°	627.3	626.1	625.0	623.9	622.7	620.7	617.6	614.4	611.3	608.2	605.4
62.5°	578.4	577.5	576.6	575.7	574.9	573.1	570.3	567.7	565.1	562.4	559.3
65°	505.1	504.5	504.0	503.4	502.8	501.1	497.9	494.8	491.7	488.6	486.1
67.5°	434.1	432.9	431.8	430.6	429.4	427.6	425.3	423.0	420.7	418.4	416.2
70°	389.4	388.0	386.5	385.1	383.7	381.7	379.2	376.6	374.1	371.6	369.9
72.5°	340.5	339.5	338.6	337.6	336.7	335.4	333.8	332.1	330.5	328.8	326.9
75°	268.4	267.9	267.3	266.7	266.2	265.2	263.8	262.4	261.0	259.6	258.7
77.5°	202.1	201.8	201.6	201.4	201.1	200.7	199.8	199.1	198.3	197.5	197.0
80°	160.3	160.3	160.3	160.3	160.3	160.0	159.5	158.9	158.3	157.8	157.5
82.5°	123.7	123.2	122.8	122.3	121.9	121.6	121.5	121.4	121.2	121.1	120.6
85°	69.9	70.2	70.5	70.8	71.1	71.3	71.3	71.3	71.3	71.3	71.0
87.5°	27.5	27.7	27.8	27.9	28.0	28.0	27.9	27.8	27.6	27.5	27.6
90°	0.4	0.9	1.5	2.1	2.7	3.3	3.8	4.3	4.8	5.4	5.7
92.5°	5.1	4.7	4.3	3.9	3.5	3.5	4.0	4.4	4.9	5.4	5.7
95°	18.9	18.8	18.6	18.3	18.1	16.6	13.8	10.9	8.1	5.4	5.7
97.5°	39.7	40.1	40.4	40.8	41.3	38.6	33.1	27.5	22.0	16.4	14.3
100°	55.6	55.9	56.1	56.3	56.6	56.7	57.1	57.4	57.7	58.0	46.9
102.5°	71.9	72.2	72.5	72.8	73.0	73.2	73.4	73.6	73.8	74.0	71.9
105°	97.9	98.2	98.6	98.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2
107.5°	125.0	125.0	125.0	125.0	125.0	125.1	125.3	125.4	125.5	125.6	125.6
110°	142.6	142.6	142.6	142.6	142.6	142.7	142.8	143.0	143.1	143.3	143.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	159.1	159.3	159.5	159.7	159.9	159.9	160.0	160.1	160.2	160.3	160.0
115°	183.9	184.3	184.6	185.0	185.4	185.6	185.7	185.8	185.9	185.9	185.6
117.5°	209.5	209.5	209.5	209.5	209.5	209.6	209.9	210.2	210.5	210.8	210.4
120°	225.6	225.5	225.5	225.4	225.3	225.4	225.6	225.7	226.0	226.2	226.1
122.5°	239.7	240.0	240.3	240.5	240.8	241.0	241.1	241.2	241.3	241.4	241.3
125°	261.6	262.0	262.6	263.1	263.6	263.9	263.9	263.9	263.9	263.9	263.5
127.5°	282.4	282.8	283.1	283.5	283.9	284.1	284.0	284.0	283.9	283.9	283.7
130°	295.2	295.6	296.0	296.3	296.7	296.9	297.0	297.0	297.1	297.2	297.0
132.5°	308.0	308.4	308.9	309.2	309.7	309.8	309.7	309.5	309.3	309.2	309.2
135°	326.2	326.6	327.1	327.5	327.9	328.1	327.9	327.8	327.6	327.5	327.3
137.5°	342.9	343.3	343.7	344.0	344.4	344.6	344.4	344.3	344.1	344.0	344.0
140°	353.8	354.0	354.1	354.3	354.4	354.5	354.4	354.3	354.2	354.2	354.3
142.5°	363.7	363.8	363.9	363.9	364.0	364.1	364.3	364.4	364.5	364.6	364.6
145°	378.1	378.3	378.4	378.6	378.7	378.8	378.8	378.8	378.8	378.8	378.9
147.5°	390.8	390.8	390.8	390.7	390.7	390.7	390.8	390.9	391.0	391.1	391.2
150°	398.8	398.7	398.5	398.3	398.2	398.2	398.3	398.5	398.7	398.8	399.0
152.5°	406.5	406.2	405.9	405.6	405.2	405.1	405.3	405.5	405.6	405.8	405.9
155°	416.5	416.0	415.6	415.1	414.7	414.5	414.7	414.8	415.0	415.1	415.4
157.5°	424.1	423.9	423.6	423.3	423.1	422.9	422.9	423.0	423.0	423.0	423.2
160°	429.4	429.0	428.6	428.1	427.7	427.5	427.5	427.6	427.7	427.8	428.1
162.5°	433.8	433.3	432.8	432.3	432.0	431.8	431.9	431.9	432.0	432.1	432.4
165°	439.4	439.0	438.6	438.1	437.7	437.5	437.5	437.6	437.7	437.8	438.2
167.5°	443.7	443.3	442.8	442.3	441.9	441.7	441.8	441.9	442.0	442.0	442.5
170°	446.1	445.6	445.1	444.6	444.0	443.8	443.9	443.9	444.0	444.1	444.7
172.5°	447.7	447.2	446.7	446.2	445.6	445.4	445.5	445.7	445.8	446.0	446.5
175°	449.4	449.0	448.6	448.1	447.7	447.5	447.5	447.6	447.7	447.8	448.4
177.5°	450.3	449.9	449.5	449.2	448.8	448.7	448.7	448.8	448.8	448.9	449.3
180°	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4	1608.4
2.5°	1603.6	1605.9	1608.2	1609.2	1609.0	1608.7	1608.5	1608.4
5°	1595.6	1598.2	1600.7	1601.9	1601.6	1601.3	1601.0	1600.7
7.5°	1579.4	1582.0	1584.4	1585.5	1585.3	1585.0	1584.7	1584.4
10°	1565.8	1568.0	1570.3	1571.3	1571.0	1570.7	1570.5	1570.2
12.5°	1547.6	1549.4	1551.1	1552.1	1552.0	1551.9	1551.9	1551.8
15°	1515.7	1517.1	1518.5	1519.3	1519.3	1519.3	1519.3	1519.3
17.5°	1478.8	1480.5	1482.2	1482.4	1481.0	1479.6	1478.2	1476.8
20°	1450.7	1452.6	1454.6	1454.9	1453.5	1452.1	1450.7	1449.3
22.5°	1418.8	1420.1	1421.4	1421.5	1420.6	1419.7	1418.7	1417.7
25°	1367.7	1368.3	1368.9	1368.7	1367.8	1367.0	1366.1	1365.3
27.5°	1314.1	1314.2	1314.4	1314.0	1313.2	1312.3	1311.5	1310.6
30°	1275.1	1274.5	1273.9	1273.3	1272.4	1271.6	1270.7	1269.9
32.5°	1235.5	1234.4	1233.5	1232.2	1230.7	1229.2	1227.6	1226.1
35°	1174.1	1172.7	1171.3	1169.5	1167.2	1165.0	1162.7	1160.5
37.5°	1109.7	1107.6	1105.5	1103.8	1102.5	1101.2	1099.9	1098.6
40°	1065.0	1062.4	1059.9	1058.2	1057.3	1056.5	1055.6	1054.8
42.5°	1020.7	1018.3	1016.1	1014.2	1013.0	1011.6	1010.3	1009.0
45°	955.2	951.8	948.4	946.2	945.4	944.5	943.7	942.8
47.5°	886.1	882.6	879.2	876.5	874.5	872.5	870.5	868.6
50°	838.8	835.1	831.4	828.6	826.6	824.6	822.7	820.7
52.5°	792.9	789.7	786.5	783.7	781.5	779.3	777.1	774.9
55°	721.4	718.9	716.3	714.1	712.1	710.1	708.1	706.2
57.5°	650.5	647.2	643.9	641.8	640.7	639.6	638.6	637.4
60°	602.6	599.7	596.9	594.5	592.5	590.5	588.5	586.5
62.5°	556.3	553.3	550.2	547.9	546.4	544.9	543.3	541.8
65°	483.5	481.0	478.4	476.5	475.4	474.3	473.2	472.0
67.5°	414.1	411.9	409.7	408.3	407.6	407.0	406.3	405.7
70°	368.2	366.5	364.8	363.4	362.2	361.1	360.0	358.8
72.5°	325.0	323.0	321.1	319.6	318.5	317.4	316.2	315.1
75°	257.9	257.0	256.2	255.1	254.0	252.9	251.8	250.6
77.5°	196.4	196.0	195.5	194.8	194.0	193.2	192.4	191.6
80°	157.2	156.9	156.7	156.2	155.6	155.0	154.5	153.9
82.5°	120.1	119.6	119.1	118.8	118.7	118.6	118.5	118.3
85°	70.7	70.4	70.1	69.7	69.1	68.5	68.0	67.4
87.5°	27.7	27.7	27.8	27.6	27.2	26.9	26.4	26.0
90°	6.0	6.4	6.8	7.1	7.4	7.5	7.7	8.0
92.5°	6.0	6.4	6.8	7.1	7.2	7.3	7.4	7.4
95°	6.0	6.4	6.8	7.0	7.0	7.0	7.0	7.0
97.5°	12.3	10.1	8.0	7.0	7.0	7.0	7.0	7.0
100°	35.9	24.9	13.9	8.2	7.9	7.6	7.3	7.0
102.5°	69.7	67.7	65.6	62.0	57.0	52.0	46.9	41.9
105°	99.2	99.2	99.2	99.2	99.2	99.1	99.1	99.0
107.5°	125.7	125.7	125.7	125.6	125.5	125.2	125.0	124.7
110°	142.8	142.6	142.4	142.3	142.4	142.4	142.5	142.6



TEST NUMBER: P333256-830

CATALOG NUMBER: S125DIP-S1090D365U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	159.8	159.5	159.2	159.0	158.9	158.8	158.7	158.6
115°	185.3	185.0	184.7	184.4	183.9	183.5	183.0	182.6
117.5°	210.0	209.6	209.2	209.0	208.8	208.6	208.4	208.2
120°	225.9	225.7	225.6	225.4	225.0	224.6	224.2	223.9
122.5°	241.1	241.0	240.8	240.5	240.1	239.7	239.2	238.8
125°	263.3	263.0	262.7	262.4	262.2	262.0	261.7	261.6
127.5°	283.5	283.3	283.2	282.9	282.3	281.7	281.3	280.7
130°	296.7	296.5	296.3	296.0	295.7	295.3	294.9	294.5
132.5°	309.1	309.1	309.0	308.8	308.4	308.0	307.6	307.4
135°	327.3	327.1	326.9	326.6	326.2	325.7	325.3	324.8
137.5°	344.1	344.1	344.1	343.9	343.6	343.2	342.8	342.4
140°	354.5	354.6	354.8	354.6	354.2	353.7	353.3	352.8
142.5°	364.6	364.7	364.7	364.5	364.0	363.5	363.2	362.7
145°	379.0	379.0	379.1	378.9	378.5	378.1	377.6	377.1
147.5°	391.2	391.3	391.4	391.2	390.7	390.1	389.6	389.1
150°	399.1	399.3	399.4	399.2	398.6	398.0	397.4	396.8
152.5°	406.0	406.1	406.3	406.1	405.6	405.1	404.5	404.0
155°	415.6	415.8	416.0	415.8	415.3	414.6	414.1	413.5
157.5°	423.5	423.7	424.0	423.8	423.2	422.5	422.0	421.4
160°	428.4	428.7	429.0	428.9	428.2	427.6	427.1	426.5
162.5°	432.9	433.3	433.8	433.6	432.9	432.3	431.7	431.0
165°	438.7	439.1	439.6	439.5	438.9	438.3	437.7	437.2
167.5°	443.1	443.6	444.1	444.0	443.4	442.7	442.1	441.4
170°	445.3	445.9	446.5	446.5	445.8	445.2	444.4	443.7
172.5°	447.0	447.6	448.1	448.1	447.4	446.7	446.0	445.4
175°	448.9	449.6	450.2	450.2	449.4	448.7	448.1	447.4
177.5°	449.8	450.2	450.5	450.5	450.1	449.6	449.1	448.7
180°	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4

(END OF REPORT)