

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: P333274-830

Luminaire Tested: **S125DIP-S1090D810U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333274-830
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-S1090D810U830-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7240.7 lumens
Efficiency: N/A
Efficacy: 133.1 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: General Diffuse

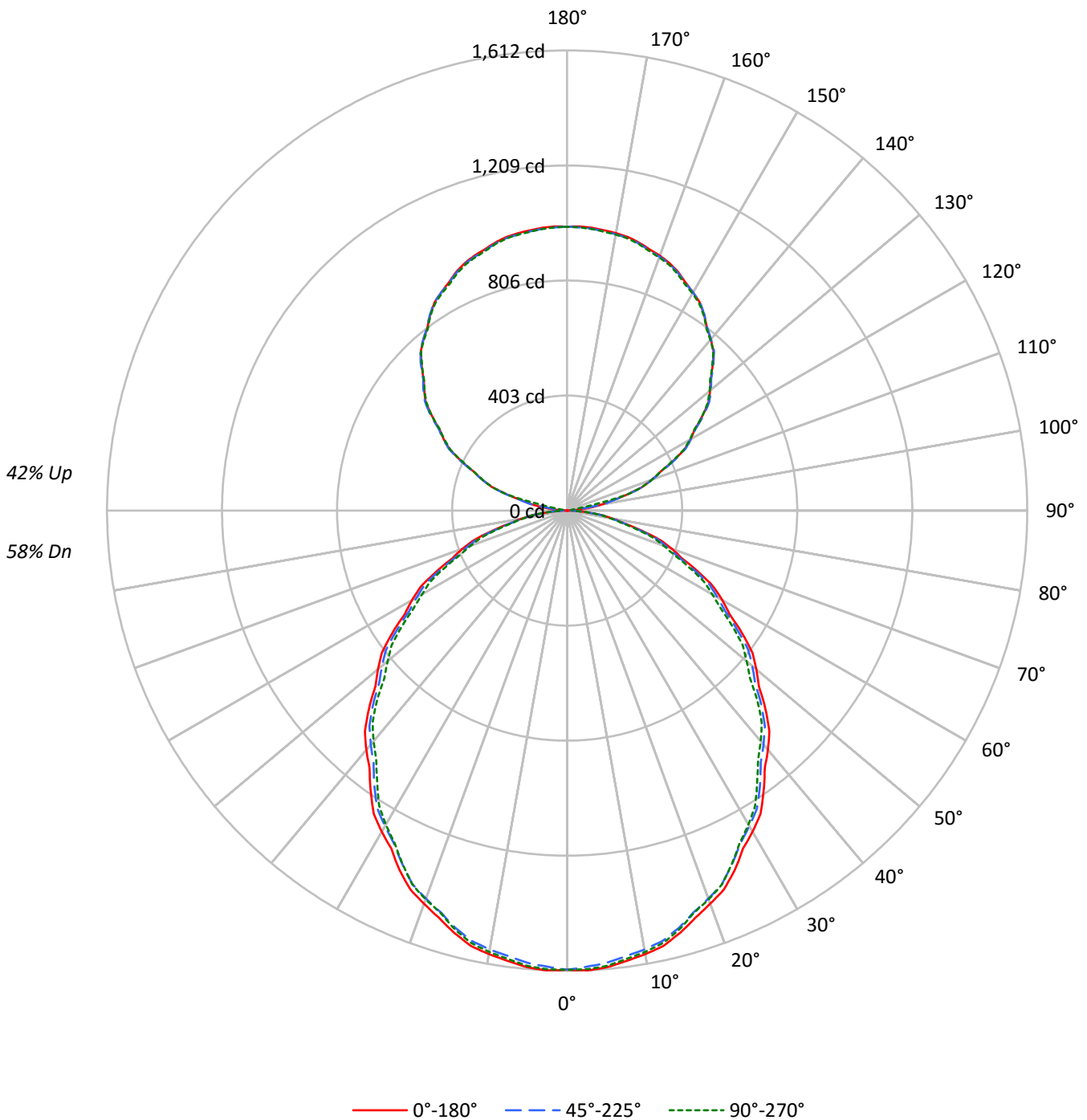
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	99	95	91	88	93	89	85	82	77	74	72	66	64	62	56	55	53	49
2	91	83	77	71	84	78	72	67	67	63	60	58	55	52	49	47	45	41
3	83	73	65	59	77	68	62	56	59	54	50	51	47	44	43	41	38	34
4	76	65	57	50	70	60	53	48	53	47	43	46	41	38	39	36	33	29
5	69	58	49	43	64	54	47	41	47	41	37	41	36	33	35	31	29	26
6	64	52	43	38	59	49	41	36	43	37	32	37	32	29	32	28	25	22
7	59	47	39	33	55	44	37	31	39	33	28	34	29	25	29	25	22	20
8	55	42	35	29	51	40	33	28	35	29	25	31	26	23	27	23	20	18
9	51	39	31	26	48	37	30	25	32	27	23	28	24	20	25	21	18	16
10	48	36	28	23	45	34	27	22	30	24	20	26	22	18	23	19	17	15

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	2.1
10°-20°	428.4	5.9
20°-30°	632.5	8.7
30°-40°	738.0	10.2
40°-50°	741.2	10.2
50°-60°	650.7	9.0
60°-70°	484.8	6.7
70°-80°	277.2	3.8
80°-90°	82.7	1.1
90°-100°	36.1	0.5
100°-110°	222.7	3.1
110°-120°	403.9	5.6
120°-130°	518.4	7.2
130°-140°	557.5	7.7
140°-150°	523.3	7.2
150°-160°	423.3	5.8
160°-170°	273.8	3.8
170°-180°	94.4	1.3
0°-30°	1212.5	16.7
0°-40°	1950.5	26.9
0°-60°	3342.4	46.2
0°-90°	4187.2	57.8
90°-120°	662.7	9.2
90°-150°	2262.0	31.2
90°-180°	3054.0	42.2
0°-180°	7240.7	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°	1	7	12	15	18	6
95°	42	38	12	15	16	54
105°	217	219	220	220	219	230
115°	407	410	411	408	404	403
125°	579	584	584	581	579	517
135°	722	726	725	723	719	556
145°	837	838	838	839	834	523
155°	921	917	918	920	915	424
165°	972	968	969	972	967	275
175°	994	990	991	996	990	95
180°	994	994	994	994	994	



TEST NUMBER: P333274-830

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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°	27.6	27.9	28.2	28.4	28.7	28.8	28.8	28.8	28.8	28.8	29.0
90°	0.8	2.1	3.4	4.7	5.9	7.2	8.4	9.5	10.7	11.8	12.6
92.5°	11.3	10.5	9.5	8.6	7.7	7.7	8.8	9.8	10.7	11.8	12.6
95°	42.0	41.6	41.0	40.5	40.1	36.7	30.4	24.2	18.0	11.8	12.6
97.5°	87.8	88.6	89.4	90.4	91.2	85.6	73.2	60.9	48.5	36.3	31.7
100°	123.1	123.6	124.0	124.6	125.1	125.6	126.3	127.0	127.6	128.3	103.9
102.5°	159.1	159.7	160.3	160.9	161.6	162.0	162.5	162.9	163.2	163.6	159.0
105°	216.7	217.4	218.0	218.7	219.3	219.6	219.6	219.6	219.6	219.6	219.6
107.5°	276.5	276.5	276.5	276.5	276.5	276.7	277.0	277.4	277.7	278.1	278.1
110°	315.5	315.5	315.5	315.5	315.5	315.7	315.9	316.3	316.6	317.0	316.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	352.0	352.4	352.8	353.3	353.6	353.9	354.1	354.3	354.5	354.7	354.1
115°	406.9	407.7	408.5	409.3	410.2	410.7	410.9	410.9	411.1	411.3	410.7
117.5°	463.6	463.6	463.5	463.5	463.5	463.8	464.4	465.1	465.7	466.3	465.4
120°	499.0	498.9	498.7	498.5	498.3	498.5	499.0	499.5	500.0	500.5	500.2
122.5°	530.3	530.9	531.5	532.2	532.7	533.2	533.4	533.7	533.9	534.1	533.8
125°	578.6	579.8	580.9	582.1	583.2	583.8	583.8	583.8	583.8	583.8	583.2
127.5°	624.8	625.6	626.4	627.3	628.0	628.4	628.3	628.2	628.1	628.0	627.6
130°	653.1	653.9	654.7	655.5	656.4	656.9	657.0	657.1	657.3	657.5	657.0
132.5°	681.4	682.3	683.2	684.2	685.2	685.5	685.1	684.8	684.4	684.0	683.9
135°	721.6	722.6	723.6	724.6	725.6	725.9	725.6	725.2	724.9	724.6	724.2
137.5°	758.7	759.5	760.3	761.2	762.0	762.3	762.0	761.8	761.5	761.1	761.2
140°	782.8	783.2	783.4	783.8	784.1	784.2	784.0	783.9	783.7	783.5	783.9
142.5°	804.6	804.8	805.0	805.2	805.4	805.6	805.9	806.1	806.3	806.5	806.6
145°	836.6	837.0	837.3	837.6	837.9	838.1	838.1	838.1	838.1	838.1	838.3
147.5°	864.6	864.6	864.5	864.4	864.4	864.4	864.6	864.8	865.1	865.3	865.4
150°	882.3	882.0	881.7	881.4	881.0	881.0	881.4	881.7	882.0	882.3	882.7
152.5°	899.5	898.7	898.0	897.3	896.5	896.4	896.6	897.0	897.3	897.7	898.0
155°	921.4	920.4	919.5	918.4	917.5	917.1	917.5	917.8	918.1	918.4	918.9
157.5°	938.3	937.7	937.2	936.6	935.9	935.7	935.8	935.8	935.8	935.9	936.3
160°	950.2	949.1	948.2	947.2	946.2	945.8	945.9	946.1	946.3	946.4	947.1
162.5°	959.6	958.6	957.6	956.6	955.6	955.3	955.4	955.5	955.7	955.9	956.8
165°	972.2	971.3	970.3	969.3	968.3	967.9	968.1	968.3	968.4	968.6	969.6
167.5°	981.7	980.7	979.7	978.6	977.6	977.2	977.3	977.5	977.7	977.9	979.0
170°	987.0	985.8	984.7	983.5	982.4	981.9	982.0	982.2	982.4	982.6	983.9
172.5°	990.5	989.4	988.3	987.1	985.9	985.5	985.8	986.1	986.4	986.7	987.9
175°	994.4	993.3	992.4	991.5	990.4	990.0	990.1	990.3	990.5	990.7	992.0
177.5°	996.2	995.3	994.6	993.8	993.0	992.7	992.8	992.9	993.1	993.2	994.1
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4



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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°	29.1	29.3	29.5	29.4	29.0	28.7	28.3	28.0
90°	13.5	14.2	15.1	15.7	16.2	16.7	17.2	17.7
92.5°	13.5	14.2	15.1	15.6	15.8	16.0	16.3	16.5
95°	13.5	14.2	15.1	15.5	15.5	15.5	15.5	15.5
97.5°	27.1	22.4	17.8	15.5	15.5	15.5	15.5	15.5
100°	79.5	55.0	30.6	18.1	17.4	16.8	16.1	15.5
102.5°	154.4	149.8	145.2	137.3	126.1	115.0	103.9	92.7
105°	219.6	219.6	219.6	219.6	219.4	219.2	219.0	219.0
107.5°	278.1	278.1	278.1	278.0	277.5	276.9	276.4	276.0
110°	315.9	315.5	315.0	314.8	315.0	315.2	315.3	315.5



TEST NUMBER: P333274-830

CATALOG NUMBER: S125DIP-S1090D810U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	353.5	352.8	352.2	351.8	351.6	351.3	351.1	350.9
115°	410.0	409.3	408.7	407.8	406.9	405.9	404.9	404.0
117.5°	464.6	463.7	462.9	462.2	461.8	461.4	461.0	460.5
120°	499.8	499.5	499.2	498.6	497.8	497.0	496.2	495.3
122.5°	533.5	533.1	532.8	532.2	531.2	530.3	529.3	528.4
125°	582.5	581.8	581.2	580.6	580.1	579.6	579.1	578.6
127.5°	627.3	627.0	626.6	625.8	624.6	623.4	622.2	620.9
130°	656.5	656.0	655.5	654.9	654.0	653.3	652.4	651.6
132.5°	683.8	683.7	683.6	683.2	682.4	681.6	680.7	680.0
135°	724.0	723.6	723.3	722.6	721.6	720.7	719.6	718.7
137.5°	761.3	761.3	761.4	761.0	760.2	759.3	758.5	757.6
140°	784.2	784.6	784.9	784.6	783.5	782.6	781.6	780.6
142.5°	806.7	806.7	806.8	806.3	805.4	804.4	803.4	802.4
145°	838.4	838.6	838.8	838.3	837.4	836.4	835.4	834.4
147.5°	865.6	865.8	866.0	865.5	864.3	863.2	862.0	860.8
150°	883.0	883.4	883.6	883.2	881.8	880.5	879.2	877.9
152.5°	898.3	898.6	899.0	898.5	897.4	896.2	895.0	893.8
155°	919.5	919.9	920.4	920.0	918.7	917.4	916.1	914.7
157.5°	936.9	937.5	937.9	937.5	936.2	934.9	933.6	932.3
160°	947.7	948.4	949.0	948.8	947.4	946.1	944.8	943.5
162.5°	957.7	958.7	959.5	959.3	957.8	956.4	955.0	953.6
165°	970.5	971.5	972.5	972.3	971.0	969.7	968.4	967.0
167.5°	980.2	981.4	982.6	982.4	980.9	979.5	978.0	976.6
170°	985.1	986.5	987.8	987.7	986.3	984.8	983.3	981.8
172.5°	989.0	990.2	991.5	991.3	989.8	988.4	986.8	985.3
175°	993.3	994.6	995.9	995.8	994.4	992.9	991.5	990.0
177.5°	995.0	995.9	996.8	996.8	995.7	994.7	993.6	992.6
180°	994.4	994.4	994.4	994.4	994.4	994.4	994.4	994.4

(END OF REPORT)