

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: P333265-830

Luminaire Tested: **S125DIP-S1090D590U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333265-830  
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-S1090D590U830-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6414.3 lumens  
Efficiency: N/A  
Efficacy: 131.4 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

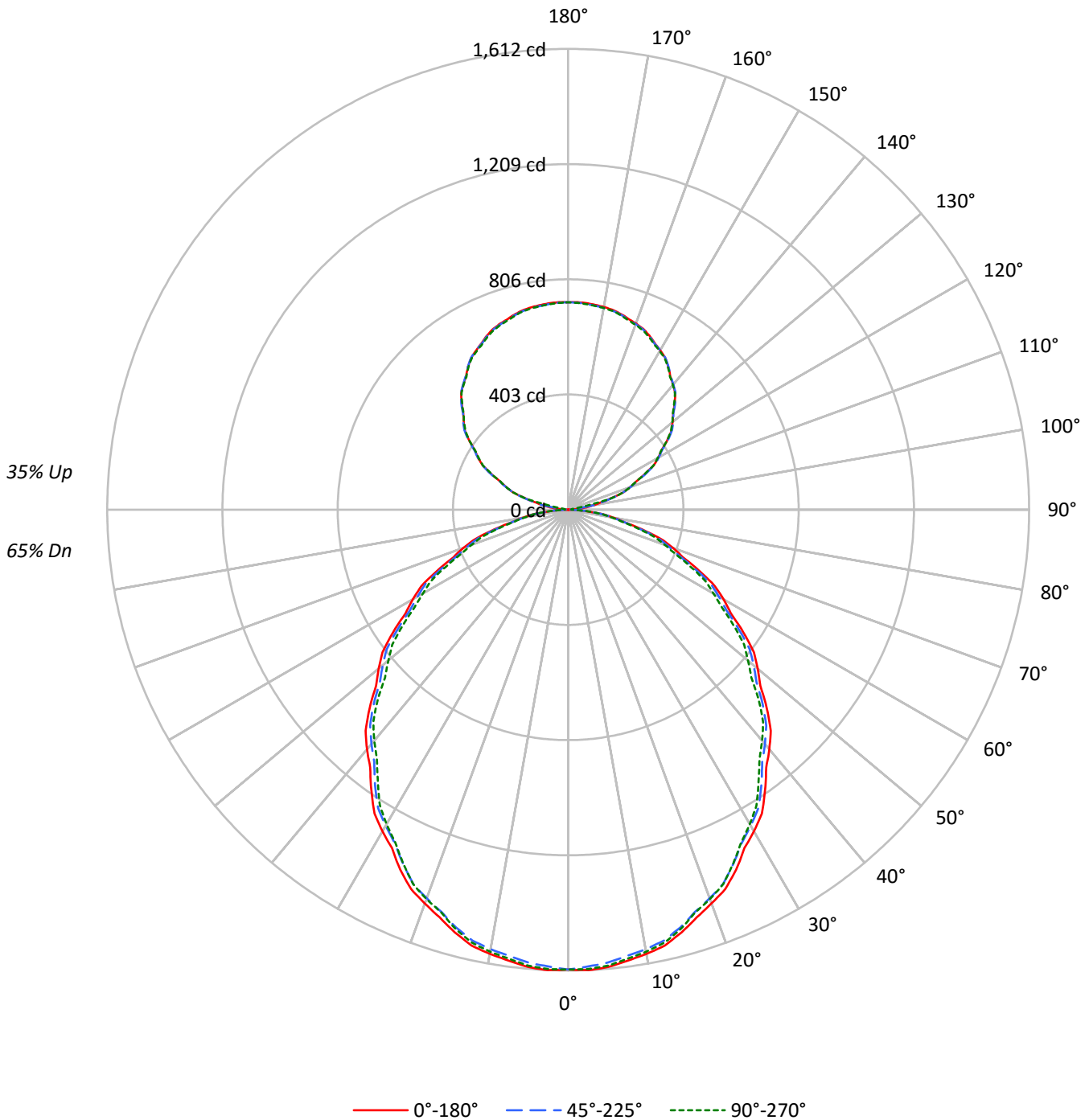
Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	65
1	101	97	93	89	95	91	88	84	80	78	75	71	69	67	62	60	59	55
2	92	84	78	73	86	80	74	69	71	66	62	62	59	56	54	52	50	46
3	84	74	67	61	79	70	63	58	62	57	52	55	51	47	48	45	42	39
4	77	66	58	51	72	62	55	49	55	49	45	49	44	41	43	39	36	33
5	71	59	50	44	66	55	48	42	50	43	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	38	34	40	35	31	35	31	28	25
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25	22
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	30	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	26	22	28	23	20	25	21	18	16

**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	2.4
10°-20°	428.4	6.7
20°-30°	632.5	9.9
30°-40°	738.0	11.5
40°-50°	741.2	11.6
50°-60°	650.7	10.1
60°-70°	484.8	7.6
70°-80°	277.2	4.3
80°-90°	82.2	1.3
90°-100°	26.4	0.4
100°-110°	162.5	2.5
110°-120°	294.7	4.6
120°-130°	378.2	5.9
130°-140°	406.7	6.3
140°-150°	381.8	6.0
150°-160°	308.8	4.8
160°-170°	199.7	3.1
170°-180°	68.9	1.1
0°-30°	1212.5	18.9
0°-40°	1950.5	30.4
0°-60°	3342.4	52.1
0°-90°	4186.6	65.3
90°-120°	483.5	7.5
90°-150°	1650.2	25.7
90°-180°	2228.0	34.7
0°-180°	6414.3	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	5	9	11	13	5
95°	31	28	9	11	11	39
105°	158	160	160	160	160	168
115°	297	299	300	298	295	294
125°	422	426	426	424	422	377
135°	526	529	529	527	524	406
145°	610	611	611	612	609	382
155°	672	669	670	671	667	310
165°	709	706	707	709	706	200
175°	726	722	723	727	722	69
180°	726	726	726	726	726	



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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	27.8	28.0	28.2	28.4	28.5	28.4	28.3	28.3	28.2	28.3
90°	0.6	1.5	2.5	3.4	4.3	5.3	6.1	7.0	7.7	8.6	9.2
92.5°	8.3	7.6	7.0	6.3	5.6	5.7	6.4	7.2	7.8	8.6	9.2
95°	30.6	30.3	30.0	29.6	29.2	26.8	22.2	17.7	13.1	8.6	9.2
97.5°	64.0	64.7	65.3	65.9	66.5	62.4	53.4	44.4	35.4	26.5	23.1
100°	89.8	90.2	90.5	90.9	91.2	91.6	92.2	92.7	93.1	93.6	75.8
102.5°	116.0	116.5	117.0	117.4	117.8	118.2	118.5	118.9	119.1	119.4	116.0
105°	158.1	158.5	159.1	159.6	160.0	160.2	160.2	160.2	160.2	160.2	160.2
107.5°	201.8	201.8	201.8	201.8	201.8	201.9	202.1	202.4	202.6	202.8	202.8
110°	230.2	230.2	230.2	230.2	230.2	230.3	230.5	230.7	231.0	231.2	230.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	256.8	257.1	257.4	257.7	258.0	258.2	258.4	258.4	258.6	258.7	258.4
115°	296.8	297.5	298.0	298.6	299.3	299.6	299.7	299.8	299.9	300.1	299.6
117.5°	338.3	338.2	338.2	338.2	338.2	338.4	338.8	339.3	339.7	340.2	339.6
120°	364.1	363.9	363.8	363.7	363.5	363.7	364.1	364.4	364.8	365.1	364.9
122.5°	386.8	387.3	387.8	388.2	388.7	389.0	389.2	389.4	389.5	389.6	389.5
125°	422.2	423.0	423.8	424.6	425.5	425.9	425.9	425.9	425.9	425.9	425.5
127.5°	455.8	456.4	457.0	457.6	458.2	458.5	458.4	458.4	458.3	458.2	457.9
130°	476.5	477.0	477.7	478.2	478.8	479.2	479.3	479.5	479.6	479.7	479.3
132.5°	497.1	497.8	498.5	499.2	499.8	500.1	499.8	499.5	499.3	499.1	499.0
135°	526.5	527.2	527.9	528.6	529.3	529.6	529.3	529.0	528.9	528.6	528.4
137.5°	553.5	554.1	554.7	555.3	555.9	556.2	555.9	555.7	555.5	555.3	555.3
140°	571.1	571.4	571.6	571.8	572.0	572.1	572.0	571.8	571.7	571.7	571.8
142.5°	587.0	587.2	587.3	587.5	587.6	587.8	588.0	588.1	588.2	588.4	588.4
145°	610.4	610.6	610.9	611.1	611.3	611.4	611.4	611.4	611.4	611.4	611.5
147.5°	630.7	630.7	630.7	630.7	630.6	630.7	630.7	630.9	631.0	631.2	631.4
150°	643.7	643.5	643.2	643.0	642.7	642.7	643.0	643.2	643.5	643.7	643.9
152.5°	656.2	655.6	655.2	654.6	654.0	653.9	654.1	654.4	654.6	654.9	655.2
155°	672.2	671.5	670.8	670.1	669.3	669.1	669.3	669.6	669.8	670.1	670.4
157.5°	684.6	684.1	683.7	683.2	682.9	682.7	682.7	682.7	682.7	682.8	683.2
160°	693.1	692.5	691.7	691.0	690.3	690.0	690.1	690.2	690.3	690.5	691.0
162.5°	700.0	699.4	698.6	697.9	697.2	696.9	697.0	697.1	697.2	697.4	698.0
165°	709.3	708.6	707.8	707.2	706.4	706.2	706.2	706.3	706.5	706.6	707.3
167.5°	716.1	715.5	714.7	714.0	713.2	712.9	713.0	713.1	713.2	713.4	714.3
170°	720.1	719.3	718.4	717.6	716.7	716.3	716.4	716.6	716.7	716.8	717.7
172.5°	722.6	721.8	721.0	720.1	719.3	719.0	719.2	719.4	719.6	719.8	720.7
175°	725.5	724.7	724.0	723.3	722.6	722.3	722.4	722.6	722.6	722.7	723.7
177.5°	726.7	726.1	725.6	725.0	724.4	724.2	724.2	724.3	724.4	724.5	725.3
180°	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5



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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°	28.5	28.6	28.7	28.6	28.2	27.8	27.4	27.1
90°	9.8	10.4	11.0	11.5	11.9	12.2	12.5	12.9
92.5°	9.8	10.4	11.0	11.4	11.5	11.7	11.9	12.1
95°	9.8	10.4	11.0	11.3	11.3	11.3	11.3	11.3
97.5°	19.7	16.3	13.0	11.3	11.3	11.3	11.3	11.3
100°	58.0	40.2	22.3	13.2	12.7	12.3	11.8	11.3
102.5°	112.6	109.2	105.9	100.2	92.0	83.9	75.8	67.7
105°	160.2	160.2	160.2	160.2	160.0	159.9	159.9	159.7
107.5°	202.9	202.9	202.9	202.7	202.5	202.1	201.7	201.3
110°	230.5	230.2	229.8	229.7	229.8	229.9	230.1	230.2





TEST NUMBER: P333265-830

CATALOG NUMBER: S125DIP-S1090D590U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	257.9	257.4	256.9	256.7	256.5	256.3	256.2	256.0
115°	299.1	298.6	298.1	297.6	296.8	296.1	295.4	294.7
117.5°	338.9	338.3	337.7	337.2	337.0	336.6	336.3	336.0
120°	364.7	364.4	364.2	363.7	363.2	362.6	361.9	361.4
122.5°	389.2	389.0	388.7	388.2	387.6	386.8	386.2	385.5
125°	425.0	424.4	424.0	423.6	423.2	422.8	422.5	422.2
127.5°	457.6	457.4	457.1	456.6	455.6	454.8	453.9	453.0
130°	479.0	478.6	478.2	477.8	477.2	476.5	476.0	475.4
132.5°	498.9	498.8	498.8	498.4	497.9	497.2	496.6	496.1
135°	528.1	527.9	527.6	527.2	526.5	525.8	525.0	524.3
137.5°	555.3	555.4	555.4	555.2	554.6	553.9	553.4	552.7
140°	572.1	572.3	572.6	572.3	571.7	570.9	570.2	569.5
142.5°	588.5	588.5	588.6	588.2	587.6	586.8	586.1	585.4
145°	611.7	611.8	611.9	611.6	610.9	610.2	609.4	608.7
147.5°	631.5	631.7	631.8	631.4	630.6	629.7	628.9	628.0
150°	644.1	644.4	644.6	644.3	643.4	642.3	641.4	640.5
152.5°	655.3	655.6	655.8	655.5	654.7	653.8	652.9	652.1
155°	670.8	671.1	671.5	671.2	670.2	669.3	668.4	667.3
157.5°	683.5	683.9	684.3	684.0	683.1	682.0	681.1	680.1
160°	691.4	691.9	692.4	692.1	691.2	690.2	689.3	688.3
162.5°	698.7	699.4	700.0	699.8	698.8	697.8	696.7	695.6
165°	708.0	708.8	709.5	709.4	708.4	707.5	706.5	705.5
167.5°	715.1	716.0	716.8	716.7	715.7	714.5	713.5	712.4
170°	718.8	719.7	720.7	720.6	719.5	718.4	717.4	716.3
172.5°	721.5	722.5	723.3	723.2	722.1	721.0	719.9	718.9
175°	724.6	725.6	726.6	726.5	725.5	724.3	723.3	722.2
177.5°	725.9	726.6	727.3	727.2	726.4	725.7	724.9	724.2
180°	725.5	725.5	725.5	725.5	725.5	725.5	725.5	725.5

(END OF REPORT)