

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: P331745-830

Luminaire Tested: **S122RDIP-S1005D530U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331745-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDIP-S1005D530U830-4F0-1E-UDD-F1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1005 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

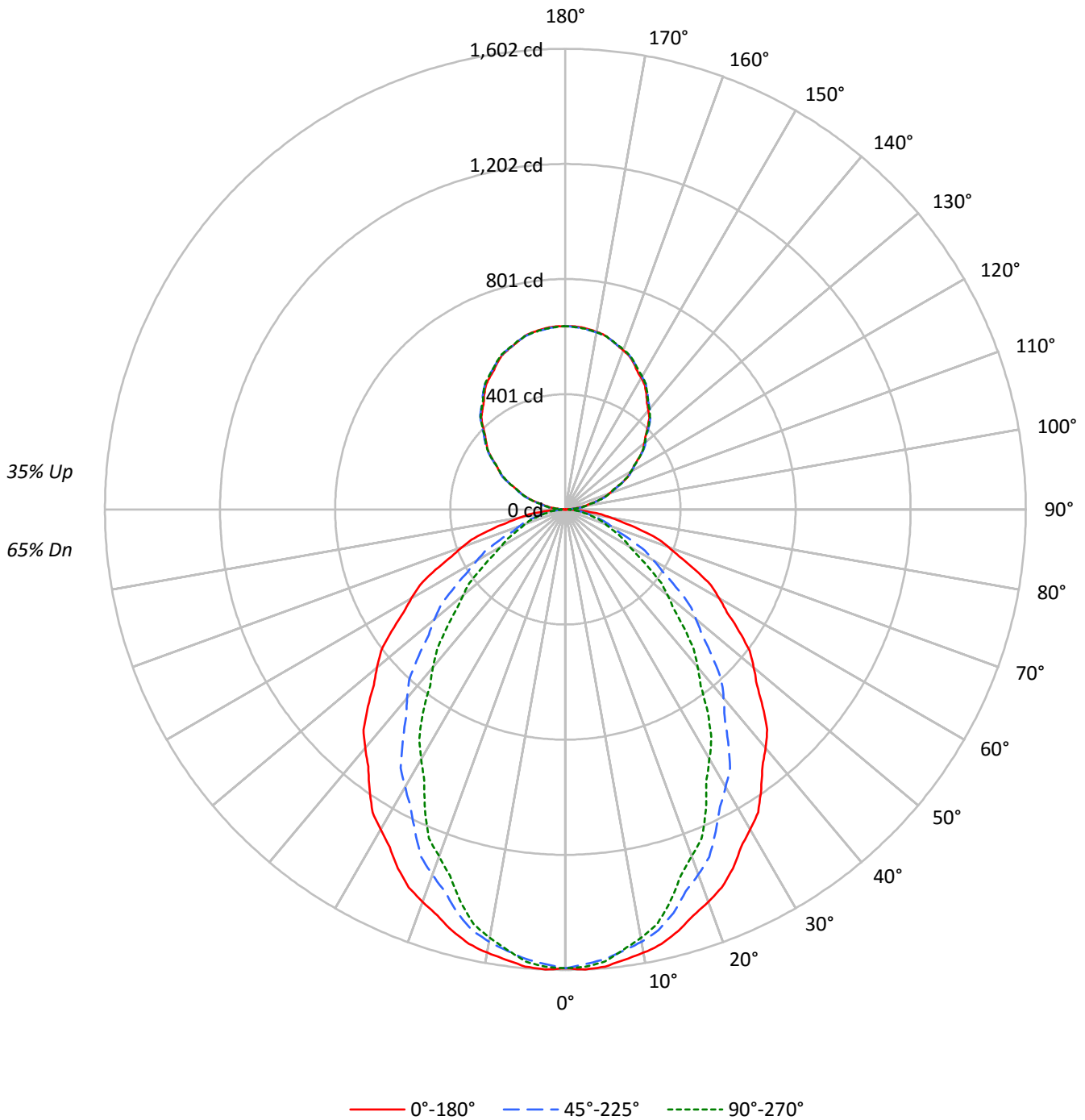
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5066.3 lumens  
Efficiency: N/A  
Efficacy: 91.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 55.1  
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	50	30	10	0	
RCR																						
0	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65				
1	102	98	94	90	96	92	89	86	81	79	77	72	70	68	63	61	60	56				
2	93	86	80	75	87	81	76	71	72	68	64	64	61	58	56	54	52	48				
3	85	76	69	63	80	72	66	60	64	59	55	57	53	50	50	47	45	41				
4	78	68	60	54	74	64	57	52	57	52	47	51	47	43	45	42	39	36				
5	72	61	53	47	68	58	50	45	52	46	41	46	42	38	41	37	34	32				
6	67	55	47	41	63	52	45	40	47	41	37	42	37	34	37	34	31	28				
7	62	50	42	36	58	47	40	35	43	37	33	38	34	30	34	30	28	25				
8	58	46	38	33	54	43	36	31	39	33	29	35	31	27	32	28	25	23				
9	54	42	34	29	51	40	33	28	36	30	26	33	28	25	29	26	23	21				
10	51	39	31	27	48	37	30	26	34	28	24	30	26	22	27	24	21	19				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	25770	25770	25770
5°	25869	25449	25590
10°	25671	25032	24819
15°	25377	24289	23590
20°	24967	23230	22063
25°	24549	22026	20587
30°	23968	20789	18690
35°	23402	19446	17026
40°	22835	18054	15099
45°	22165	16493	13358
50°	21481	14913	11645
55°	20777	13216	10001
60°	19963	11428	8302
65°	19037	9605	7561
70°	17934	7912	6954
75°	16581	7211	6488
80°	14635	6453	5904
85°	11504	5076	5076



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.4	2.9
10°-20°	410.2	8.1
20°-30°	576.1	11.4
30°-40°	628.2	12.4
40°-50°	577.6	11.4
50°-60°	453.6	9.0
60°-70°	295.8	5.8
70°-80°	152.5	3.0
80°-90°	42.1	0.8
90°-100°	40.4	0.8
100°-110°	125.3	2.5
110°-120°	214.3	4.2
120°-130°	281.8	5.6
130°-140°	316.2	6.2
140°-150°	310.1	6.1
150°-160°	260.1	5.1
160°-170°	172.5	3.4
170°-180°	60.3	1.2
0°-30°	1135.7	22.4
0°-40°	1763.9	34.8
0°-60°	2795.1	55.2
0°-90°	3285.4	64.8
90°-120°	380.0	7.5
90°-150°	1288.0	25.4
90°-180°	1781.0	35.2
0°-180°	5066.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1596	1596	1596	1596	1596	
5°	1596	1588	1570	1582	1579	151
15°	1518	1500	1453	1426	1411	427
25°	1378	1329	1236	1179	1156	633
35°	1187	1111	987	899	864	743
45°	971	871	722	623	585	749
55°	738	623	470	386	355	659
65°	498	381	251	205	198	494
75°	266	168	116	106	104	281
85°	62	33	27	27	27	73
90°	1	7	19	18	18	4
95°	28	33	34	34	33	32
105°	116	117	118	119	119	122
115°	215	218	217	217	215	213
125°	313	317	316	314	314	279
135°	405	410	412	411	410	312
145°	491	495	498	499	497	307
155°	562	563	565	567	566	258
165°	611	611	611	614	612	172
175°	636	634	633	637	634	60
180°	637	637	637	637	637	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1596.1	1596.1	1596.1	1596.1	1596.1	1596.1	1596.1	1596.1	1596.1	1596.1	1596.1
2.5°	1601.9	1600.6	1599.3	1598.1	1596.8	1594.7	1591.9	1589.1	1586.3	1583.5	1586.0
5°	1596.1	1594.5	1592.9	1591.3	1589.7	1586.9	1582.6	1578.5	1574.3	1570.2	1573.0
7.5°	1579.7	1577.7	1575.7	1573.7	1571.7	1568.3	1563.4	1558.5	1553.7	1548.8	1549.6
10°	1565.8	1563.6	1561.3	1559.1	1556.8	1552.5	1546.1	1539.6	1533.2	1526.8	1525.9
12.5°	1548.5	1545.7	1542.9	1540.2	1537.5	1531.9	1523.7	1515.5	1507.3	1499.1	1497.3
15°	1518.2	1514.6	1511.1	1507.5	1504.0	1496.8	1485.9	1475.0	1464.1	1453.1	1447.1
17.5°	1480.8	1475.5	1470.1	1464.7	1459.3	1449.6	1435.6	1421.6	1407.6	1393.6	1386.4
20°	1453.1	1446.7	1440.3	1433.9	1427.5	1416.3	1400.1	1384.1	1368.1	1352.0	1344.0
22.5°	1423.1	1415.9	1408.7	1401.6	1394.3	1381.7	1363.6	1345.5	1327.4	1309.3	1298.9
25°	1378.0	1367.7	1357.4	1347.2	1336.9	1321.3	1300.0	1278.8	1257.6	1236.4	1223.3
27.5°	1323.7	1312.6	1301.4	1290.2	1279.0	1261.5	1237.7	1213.7	1189.9	1166.0	1150.7
30°	1285.6	1273.4	1261.2	1249.0	1236.8	1217.9	1192.1	1166.5	1140.9	1115.1	1098.7
32.5°	1248.6	1234.4	1220.1	1205.9	1191.6	1171.4	1145.2	1119.0	1092.8	1066.6	1047.9
35°	1187.3	1171.0	1154.6	1138.2	1121.9	1099.6	1071.3	1043.1	1014.8	986.6	966.4
37.5°	1126.1	1108.1	1090.1	1072.1	1054.2	1030.2	1000.0	970.0	939.8	909.7	887.5
40°	1083.4	1064.1	1044.8	1025.6	1006.4	981.1	950.0	918.9	887.7	856.6	833.8
42.5°	1039.4	1019.2	998.9	978.5	958.3	932.1	899.9	867.7	835.6	803.4	779.9
45°	970.7	949.1	927.7	906.2	884.7	857.1	823.3	789.7	755.9	722.3	699.5
47.5°	903.6	880.9	858.1	835.3	812.5	783.7	748.9	714.1	679.3	644.5	621.9
50°	855.2	832.4	809.5	786.7	763.9	734.9	699.6	664.3	629.0	593.7	571.6
52.5°	807.8	783.9	760.2	736.3	712.5	683.3	648.8	614.3	579.7	545.2	523.8
55°	738.1	713.1	688.1	663.0	638.0	608.1	573.4	538.8	504.2	469.5	450.2
57.5°	666.8	641.1	615.4	589.7	564.0	534.5	501.2	467.9	434.6	401.2	383.6
60°	618.2	592.6	566.8	541.2	515.5	486.2	453.1	420.0	386.9	353.9	337.5
62.5°	570.9	545.2	519.5	493.8	468.2	439.5	408.0	376.5	345.0	313.5	297.8
65°	498.3	472.3	446.4	420.4	394.4	366.9	338.0	309.2	280.2	251.4	240.4
67.5°	428.4	402.7	376.8	351.0	325.2	299.3	273.3	247.3	221.3	195.3	190.3
70°	379.9	354.9	329.8	304.8	279.7	256.2	234.0	211.9	189.7	167.6	164.4
72.5°	333.7	309.6	285.7	261.6	237.6	216.7	199.0	181.2	163.3	145.6	142.9
75°	265.8	243.3	220.8	198.4	175.9	159.2	148.3	137.4	126.5	115.6	113.3
77.5°	199.1	179.4	159.7	140.0	120.2	107.7	102.5	97.2	91.9	86.7	85.4
80°	157.4	141.1	124.7	108.3	92.0	82.2	79.0	75.8	72.6	69.4	68.1
82.5°	119.3	106.5	93.8	81.0	68.2	60.7	58.5	56.4	54.2	52.0	51.3
85°	62.1	55.3	48.6	41.8	35.2	31.3	30.3	29.4	28.4	27.4	27.4
87.5°	18.6	16.9	15.1	13.3	11.5	10.9	11.4	12.0	12.4	13.0	12.7
90°	0.6	2.0	3.4	4.8	6.3	8.3	10.9	13.6	16.2	18.9	18.6
92.5°	9.6	10.7	11.7	12.7	13.8	14.6	15.3	15.8	16.5	17.1	17.2
95°	28.0	29.1	30.3	31.6	32.7	33.5	33.6	33.9	34.1	34.4	34.4
97.5°	51.1	52.1	53.2	54.2	55.2	56.0	56.5	56.9	57.4	57.9	57.9
100°	68.2	69.2	70.1	71.2	72.1	72.8	73.1	73.4	73.8	74.2	74.2
102.5°	86.3	87.1	87.8	88.6	89.4	90.0	90.5	90.9	91.3	91.8	91.9
105°	115.6	115.9	116.3	116.6	117.0	117.3	117.5	117.7	118.0	118.3	118.5
107.5°	145.1	145.5	146.1	146.6	147.1	147.4	147.4	147.4	147.4	147.4	147.5
110°	163.9	164.7	165.3	166.1	166.8	167.1	167.1	167.1	167.1	167.1	167.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	184.5	185.3	186.0	186.7	187.5	187.8	187.7	187.6	187.5	187.4	187.1
115°	215.0	215.7	216.4	217.2	217.8	218.1	217.8	217.6	217.4	217.2	217.1
117.5°	245.3	246.3	247.2	248.2	249.1	249.3	248.6	247.9	247.2	246.6	246.3
120°	265.5	266.5	267.4	268.3	269.4	269.4	268.3	267.4	266.5	265.5	265.5
122.5°	284.0	285.1	286.3	287.5	288.6	288.8	288.1	287.5	286.8	286.2	285.9
125°	312.8	313.9	315.0	316.0	317.1	317.4	317.1	316.8	316.4	316.0	315.7
127.5°	340.8	342.2	343.6	345.0	346.3	346.8	346.4	345.9	345.5	345.1	344.6
130°	358.5	360.1	361.6	363.2	364.7	365.3	365.1	364.9	364.7	364.4	364.2
132.5°	378.2	379.6	380.8	382.1	383.3	384.0	384.1	384.1	384.2	384.2	383.7
135°	404.7	406.0	407.4	408.7	410.0	410.8	410.9	411.2	411.5	411.7	411.6
137.5°	432.5	433.7	434.7	435.8	436.9	437.5	437.9	438.2	438.5	438.8	438.7
140°	449.3	450.4	451.5	452.5	453.6	454.5	455.1	455.6	456.3	456.9	456.9
142.5°	466.6	467.6	468.7	469.8	470.8	471.6	472.0	472.4	472.8	473.2	473.3
145°	491.3	492.1	492.9	493.8	494.6	495.4	496.1	496.8	497.6	498.2	498.3
147.5°	513.3	514.3	515.3	516.3	517.3	518.0	518.5	519.0	519.4	520.0	520.2
150°	528.4	529.0	529.8	530.5	531.2	531.8	532.3	532.7	533.2	533.8	534.0
152.5°	541.7	542.4	543.1	543.8	544.5	545.2	545.7	546.3	546.9	547.5	547.9
155°	561.7	562.0	562.4	562.7	563.1	563.5	563.8	564.2	564.5	564.9	565.5
157.5°	578.7	579.0	579.2	579.5	579.8	579.9	580.1	580.4	580.6	580.8	581.6
160°	589.1	589.3	589.6	589.7	590.0	590.2	590.3	590.4	590.6	590.7	591.4
162.5°	598.5	598.6	598.6	598.7	598.7	598.8	598.9	599.1	599.2	599.3	600.1
165°	611.1	611.0	610.9	610.8	610.7	610.6	610.6	610.6	610.6	610.6	611.4
167.5°	621.6	621.3	620.9	620.6	620.2	620.0	620.0	620.0	619.9	619.9	620.8
170°	627.3	626.9	626.5	626.1	625.8	625.6	625.5	625.3	625.2	625.1	625.9
172.5°	631.1	630.7	630.4	630.0	629.7	629.4	629.3	629.2	629.1	629.0	629.8
175°	635.8	635.5	635.1	634.8	634.4	634.1	633.9	633.7	633.4	633.1	634.0
177.5°	637.8	637.4	637.2	636.9	636.6	636.4	636.2	636.0	635.8	635.7	636.2
180°	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1596.1	1596.1	1596.1	1596.1	1596.1	1596.1	1596.1	1596.1
2.5°	1588.6	1591.1	1593.7	1594.7	1594.2	1593.7	1593.2	1592.7
5°	1575.9	1578.9	1581.7	1582.6	1581.7	1580.7	1579.8	1578.9
7.5°	1550.4	1551.2	1552.1	1551.7	1550.0	1548.3	1546.7	1545.0
10°	1524.8	1523.9	1523.0	1521.5	1519.6	1517.7	1515.7	1513.8
12.5°	1495.6	1493.8	1492.1	1489.7	1486.5	1483.3	1480.1	1476.9
15°	1441.0	1434.8	1428.7	1424.1	1420.9	1417.7	1414.5	1411.3
17.5°	1379.1	1371.9	1364.6	1358.2	1352.7	1347.2	1341.6	1336.1
20°	1336.0	1327.9	1319.9	1312.4	1305.3	1298.3	1291.2	1284.1
22.5°	1288.6	1278.3	1267.9	1260.1	1254.9	1249.6	1244.3	1239.1
25°	1210.1	1197.0	1183.8	1174.9	1170.0	1165.2	1160.4	1155.6
27.5°	1135.3	1119.9	1104.6	1093.1	1085.4	1077.8	1070.2	1062.5
30°	1082.4	1066.0	1049.6	1037.2	1028.5	1019.8	1011.2	1002.5
32.5°	1029.3	1010.6	991.8	978.5	970.3	962.1	953.9	945.8
35°	946.1	926.0	905.7	892.0	885.0	877.9	870.8	863.8
37.5°	865.2	842.9	820.6	805.4	797.4	789.3	781.2	773.1
40°	811.0	788.2	765.4	749.9	741.5	733.1	724.8	716.4
42.5°	756.3	732.7	709.2	693.3	685.2	677.1	669.1	661.0
45°	676.7	653.8	631.0	615.9	608.1	600.4	592.7	585.0
47.5°	599.2	576.6	553.8	539.0	532.1	525.1	518.0	511.0
50°	549.4	527.3	505.1	490.6	483.9	477.1	470.4	463.6
52.5°	502.4	481.0	459.7	445.8	439.6	433.4	427.2	420.9
55°	430.9	411.7	392.4	379.8	373.6	367.5	361.5	355.3
57.5°	366.0	348.3	330.6	319.2	314.1	309.0	303.9	298.7
60°	321.1	304.8	288.4	277.7	272.5	267.4	262.2	257.1
62.5°	282.3	266.6	251.1	241.7	238.7	235.5	232.4	229.4
65°	229.5	218.6	207.6	201.7	200.8	199.8	198.9	197.9
67.5°	185.3	180.3	175.2	172.2	171.3	170.2	169.2	168.1
70°	161.2	158.0	154.8	152.5	151.2	149.9	148.6	147.3
72.5°	140.3	137.5	134.8	133.1	132.3	131.6	130.7	130.0
75°	111.0	108.9	106.6	105.3	105.0	104.6	104.3	104.0
77.5°	84.1	82.8	81.5	80.6	80.1	79.6	79.1	78.6
80°	66.7	65.5	64.2	63.5	63.5	63.5	63.5	63.5
82.5°	50.4	49.7	48.9	48.5	48.5	48.5	48.5	48.5
85°	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4
87.5°	12.4	12.1	11.8	11.7	11.7	11.7	11.7	11.8
90°	18.4	18.1	17.8	17.8	17.9	18.0	18.2	18.3
92.5°	17.2	17.2	17.2	17.3	17.3	17.3	17.4	17.4
95°	34.4	34.4	34.4	34.3	34.0	33.8	33.6	33.4
97.5°	57.9	57.9	57.9	57.8	57.8	57.8	57.8	57.7
100°	74.2	74.2	74.2	74.1	74.0	73.9	73.8	73.6
102.5°	92.0	92.1	92.2	92.2	92.1	91.9	91.8	91.7
105°	118.8	118.9	119.2	119.3	119.3	119.3	119.3	119.3
107.5°	147.6	147.7	147.8	147.5	146.9	146.5	145.9	145.3
110°	167.1	167.1	167.1	167.0	166.6	166.3	165.9	165.5





TEST NUMBER: P331745-830

CATALOG NUMBER: S122RDIP-S1005D530U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	186.8	186.5	186.2	186.0	185.7	185.4	185.1	184.9
115°	216.9	216.8	216.7	216.4	216.0	215.7	215.4	215.0
117.5°	246.0	245.7	245.4	245.2	244.8	244.4	244.0	243.6
120°	265.5	265.5	265.5	265.3	264.9	264.7	264.3	263.9
122.5°	285.6	285.3	285.0	284.7	284.5	284.2	284.0	283.7
125°	315.3	315.0	314.6	314.3	314.2	314.1	314.0	313.9
127.5°	344.2	343.7	343.4	342.9	342.5	342.1	341.8	341.4
130°	363.9	363.7	363.4	363.1	362.6	362.1	361.7	361.2
132.5°	383.1	382.6	382.1	381.6	381.3	380.9	380.5	380.1
135°	411.5	411.3	411.2	410.9	410.7	410.3	409.9	409.5
137.5°	438.6	438.5	438.4	438.1	437.6	437.2	436.7	436.2
140°	456.9	456.9	456.9	456.7	456.1	455.6	455.2	454.7
142.5°	473.3	473.4	473.5	473.3	472.9	472.4	471.9	471.5
145°	498.5	498.6	498.7	498.5	498.0	497.6	497.1	496.6
147.5°	520.5	520.8	521.0	520.9	520.5	520.0	519.5	519.1
150°	534.4	534.8	535.2	535.2	534.8	534.4	534.0	533.8
152.5°	548.4	548.8	549.3	549.3	548.8	548.4	547.9	547.5
155°	566.1	566.7	567.3	567.4	567.0	566.7	566.3	566.0
157.5°	582.4	583.2	584.1	584.2	583.6	583.1	582.5	581.8
160°	592.1	592.9	593.5	593.7	593.2	592.8	592.2	591.7
162.5°	600.9	601.7	602.6	602.7	602.1	601.5	601.0	600.4
165°	612.3	613.1	613.9	614.1	613.4	612.8	612.3	611.6
167.5°	621.6	622.5	623.3	623.4	622.7	622.2	621.5	620.9
170°	626.8	627.6	628.4	628.5	627.7	627.1	626.3	625.7
172.5°	630.7	631.5	632.3	632.4	631.7	630.9	630.2	629.5
175°	634.8	635.7	636.5	636.6	635.8	635.1	634.4	633.7
177.5°	636.8	637.3	637.9	637.9	637.3	636.8	636.2	635.7
180°	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9

(END OF REPORT)