

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: P333589-830

Luminaire Tested: **S125RDIP-S1090D590U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333589-830
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: S125RDIP-S1090D590U830-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6209.1 lumens
Efficiency: N/A
Efficacy: 127.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

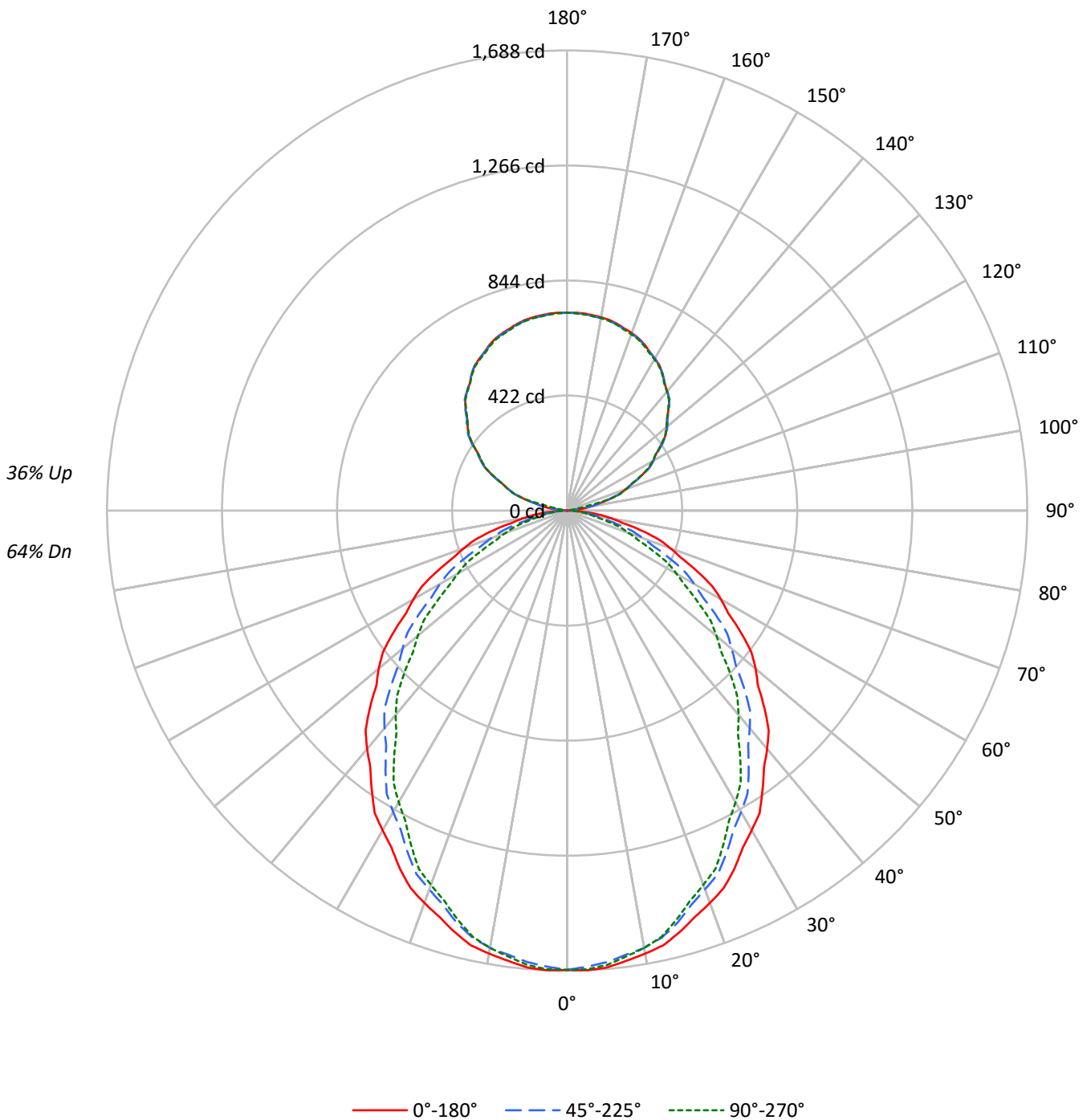
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	64
1	101	97	93	90	95	91	88	85	80	78	76	71	69	67	62	60	59	55
2	92	85	79	74	87	80	75	70	71	67	63	62	59	56	54	52	50	46
3	84	75	68	62	79	71	64	59	63	58	53	55	51	48	49	45	43	39
4	77	67	59	52	73	63	56	50	56	50	46	50	45	41	44	40	37	34
5	71	60	51	45	67	56	49	43	50	44	40	45	40	36	39	36	33	30
6	66	54	45	39	62	51	43	38	45	39	35	40	36	32	36	32	29	26
7	61	49	40	35	57	46	39	33	41	35	31	37	32	28	33	29	26	23
8	57	44	36	31	53	42	35	30	38	32	28	34	29	25	30	26	23	21
9	53	40	33	28	50	38	32	27	35	29	25	31	26	23	28	24	21	19
10	49	37	30	25	47	35	29	24	32	26	22	29	24	21	26	22	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10880	10880	10880
5°	10906	10781	10847
10°	10823	10681	10681
15°	10694	10465	10380
20°	10529	10162	10040
25°	10337	9865	9648
30°	10097	9517	9214
35°	9851	9159	8728
40°	9622	8786	8250
45°	9344	8368	7728
50°	9064	7913	7185
55°	8740	7479	6604
60°	8415	6952	5983
65°	8031	6339	5269
70°	7593	5574	4539
75°	6984	4699	3778
80°	6152	3689	3169
85°	5180	3016	2831



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	2.6
10°-20°	442.7	7.1
20°-30°	642.0	10.3
30°-40°	731.6	11.8
40°-50°	713.2	11.5
50°-60°	600.3	9.7
60°-70°	420.8	6.8
70°-80°	216.3	3.5
80°-90°	56.1	0.9
90°-100°	26.4	0.4
100°-110°	162.5	2.6
110°-120°	294.7	4.7
120°-130°	378.2	6.1
130°-140°	406.7	6.6
140°-150°	381.8	6.1
150°-160°	308.8	5.0
160°-170°	199.7	3.2
170°-180°	68.9	1.1
0°-30°	1243.1	20.0
0°-40°	1974.7	31.8
0°-60°	3288.2	53.0
0°-90°	3981.4	64.1
90°-120°	483.5	7.8
90°-150°	1650.2	26.6
90°-180°	2228.0	35.9
0°-180°	6209.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1685	1685	1685	1685	1685	
5°	1682	1677	1663	1675	1673	159
15°	1599	1591	1565	1563	1552	451
25°	1451	1430	1384	1368	1354	667
35°	1250	1218	1162	1126	1107	782
45°	1023	984	916	867	846	789
55°	776	734	664	609	586	694
65°	526	481	415	366	345	520
75°	280	241	188	161	151	296
85°	70	48	41	39	38	79
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°	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7
2.5°	1687.7	1687.1	1686.4	1685.6	1685.0	1683.6	1681.3	1679.0	1676.8	1674.5	1676.8
5°	1682.2	1681.0	1679.9	1678.8	1677.6	1675.5	1672.4	1669.2	1666.1	1663.0	1665.8
7.5°	1665.6	1664.5	1663.4	1662.4	1661.2	1658.9	1655.1	1651.4	1647.7	1644.0	1646.0
10°	1650.3	1649.4	1648.6	1647.8	1646.9	1644.5	1640.6	1636.6	1632.7	1628.7	1629.6
12.5°	1633.0	1631.9	1630.9	1629.8	1628.7	1625.5	1620.2	1614.9	1609.6	1604.2	1604.9
15°	1599.4	1597.7	1596.0	1594.3	1592.6	1588.8	1582.9	1577.0	1571.0	1565.1	1564.8
17.5°	1561.5	1558.9	1556.3	1553.7	1551.0	1546.1	1538.6	1531.2	1523.6	1516.2	1514.8
20°	1532.0	1529.2	1526.4	1523.5	1520.7	1514.8	1505.7	1496.7	1487.6	1478.6	1477.2
22.5°	1499.4	1496.6	1493.7	1490.9	1488.1	1482.0	1472.4	1462.9	1453.4	1443.9	1441.1
25°	1450.6	1446.3	1442.1	1437.8	1433.6	1426.3	1415.8	1405.3	1394.9	1384.4	1380.7
27.5°	1394.6	1389.4	1384.2	1379.1	1373.9	1365.8	1354.6	1343.4	1332.2	1321.0	1315.9
30°	1353.9	1348.5	1343.1	1337.8	1332.4	1323.7	1311.8	1300.0	1288.1	1276.2	1269.7
32.5°	1314.1	1307.9	1301.6	1295.3	1289.0	1279.9	1267.7	1255.7	1243.5	1231.4	1224.3
35°	1249.5	1242.7	1236.0	1229.2	1222.4	1212.6	1199.9	1187.1	1174.4	1161.7	1153.5
37.5°	1186.1	1177.9	1169.6	1161.4	1153.1	1142.5	1129.3	1116.2	1103.1	1090.0	1080.1
40°	1141.3	1132.8	1124.4	1115.9	1107.4	1096.4	1082.8	1069.2	1055.6	1042.1	1031.3
42.5°	1094.5	1085.8	1077.1	1068.4	1059.7	1048.3	1034.3	1020.3	1006.3	992.2	981.9
45°	1023.0	1014.8	1006.6	998.4	990.2	978.4	962.8	947.3	931.7	916.2	904.8
47.5°	949.0	940.3	931.6	923.0	914.4	902.2	886.6	870.8	855.2	839.5	827.8
50°	902.1	892.8	883.4	874.1	864.8	852.1	835.9	819.8	803.7	787.6	775.7
52.5°	851.2	841.7	832.1	822.6	813.0	800.6	785.4	770.2	755.0	739.8	727.0
55°	776.2	767.1	758.1	749.0	740.0	727.5	711.7	695.9	680.0	664.2	651.5
57.5°	700.3	690.7	681.0	671.3	661.7	649.2	634.0	618.7	603.4	588.1	575.7
60°	651.5	641.6	631.7	621.8	611.9	599.3	584.0	568.7	553.5	538.2	525.8
62.5°	599.6	590.1	580.7	571.2	561.8	549.3	533.9	518.3	502.8	487.3	475.8
65°	525.5	515.9	506.2	496.6	487.0	474.8	459.8	444.8	429.8	414.8	403.5
67.5°	451.9	442.3	432.7	423.1	413.5	401.5	387.1	372.8	358.4	344.0	333.8
70°	402.1	392.5	382.9	373.2	363.6	351.8	337.6	323.5	309.3	295.2	286.4
72.5°	353.3	343.8	334.4	325.1	315.7	304.3	291.2	277.9	264.7	251.5	243.4
75°	279.9	271.5	263.0	254.5	246.0	235.8	223.9	212.1	200.2	188.3	182.1
77.5°	207.2	200.4	193.6	186.8	180.0	171.8	162.4	152.9	143.4	133.8	129.5
80°	165.4	158.6	151.8	145.1	138.3	130.9	123.0	115.1	107.2	99.2	96.7
82.5°	124.7	118.6	112.4	106.4	100.3	94.5	89.1	83.6	78.2	72.8	71.6
85°	69.9	64.8	59.8	54.7	49.6	46.4	45.0	43.5	42.1	40.7	40.4
87.5°	23.6	22.1	20.7	19.3	17.9	17.2	17.2	17.2	17.1	17.0	17.2
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°	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7
2.5°	1679.0	1681.3	1683.6	1684.5	1684.3	1684.1	1683.9	1683.7
5°	1668.7	1671.5	1674.3	1675.5	1674.9	1674.3	1673.8	1673.2
7.5°	1647.9	1649.9	1651.9	1652.6	1651.9	1651.3	1650.7	1650.0
10°	1630.4	1631.3	1632.1	1632.1	1631.3	1630.4	1629.6	1628.7
12.5°	1605.5	1606.1	1606.8	1606.4	1605.1	1603.8	1602.5	1601.2
15°	1564.5	1564.2	1564.0	1562.5	1560.0	1557.5	1554.9	1552.4
17.5°	1513.3	1511.9	1510.5	1508.8	1506.7	1504.6	1502.5	1500.4
20°	1475.7	1474.3	1472.9	1470.9	1468.4	1465.8	1463.3	1460.8
22.5°	1438.4	1435.6	1432.9	1430.4	1428.3	1426.3	1424.1	1422.0
25°	1377.1	1373.4	1369.7	1366.3	1363.2	1360.1	1357.0	1353.9
27.5°	1310.7	1305.6	1300.4	1296.4	1293.4	1290.3	1287.3	1284.4
30°	1263.2	1256.7	1250.2	1245.7	1243.1	1240.6	1238.0	1235.5
32.5°	1217.1	1209.8	1202.7	1197.5	1194.3	1191.1	1187.8	1184.6
35°	1145.3	1137.1	1128.9	1122.9	1118.9	1114.9	1111.0	1107.0
37.5°	1070.3	1060.5	1050.6	1043.8	1039.9	1036.0	1032.2	1028.3
40°	1020.6	1009.8	999.1	992.0	988.6	985.2	981.8	978.5
42.5°	971.7	961.3	951.0	943.4	938.4	933.5	928.5	923.5
45°	893.5	882.2	870.9	863.1	858.8	854.6	850.4	846.1
47.5°	816.2	804.6	793.0	784.8	780.0	775.3	770.7	766.0
50°	763.8	752.0	740.1	732.1	727.8	723.6	719.3	715.1
52.5°	714.3	701.4	688.6	680.1	675.9	671.7	667.4	663.2
55°	638.8	626.0	613.3	604.6	600.1	595.6	591.1	586.5
57.5°	563.3	550.8	538.4	530.1	526.1	522.1	518.0	514.1
60°	513.3	500.9	488.4	480.1	475.9	471.6	467.4	463.2
62.5°	464.3	452.7	441.2	433.3	429.0	424.8	420.6	416.3
65°	392.2	380.9	369.6	361.7	357.5	353.3	349.0	344.8
67.5°	323.4	313.0	302.7	295.8	292.4	289.0	285.6	282.2
70°	277.7	268.9	260.1	254.0	250.6	247.2	243.8	240.4
72.5°	235.3	227.2	219.0	213.9	211.6	209.3	207.1	204.8
75°	175.9	169.7	163.4	159.3	157.3	155.3	153.4	151.4
77.5°	125.2	120.8	116.4	113.5	112.1	110.6	109.1	107.6
80°	94.2	91.6	89.1	87.5	86.9	86.3	85.8	85.2
82.5°	70.4	69.2	68.1	67.3	66.9	66.5	66.3	65.9
85°	40.2	39.9	39.6	39.3	39.0	38.7	38.5	38.2
87.5°	17.2	17.3	17.4	17.4	17.2	17.2	17.0	16.9
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: P333589-830

CATALOG NUMBER: S125RDIP-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)