

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: P333702-830

Luminaire Tested: **S125RDIW-S1090D470U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333702-830
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: S125RDIW-S1090D470U830-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5747.5 lumens
Efficiency: N/A
Efficacy: 124.4 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

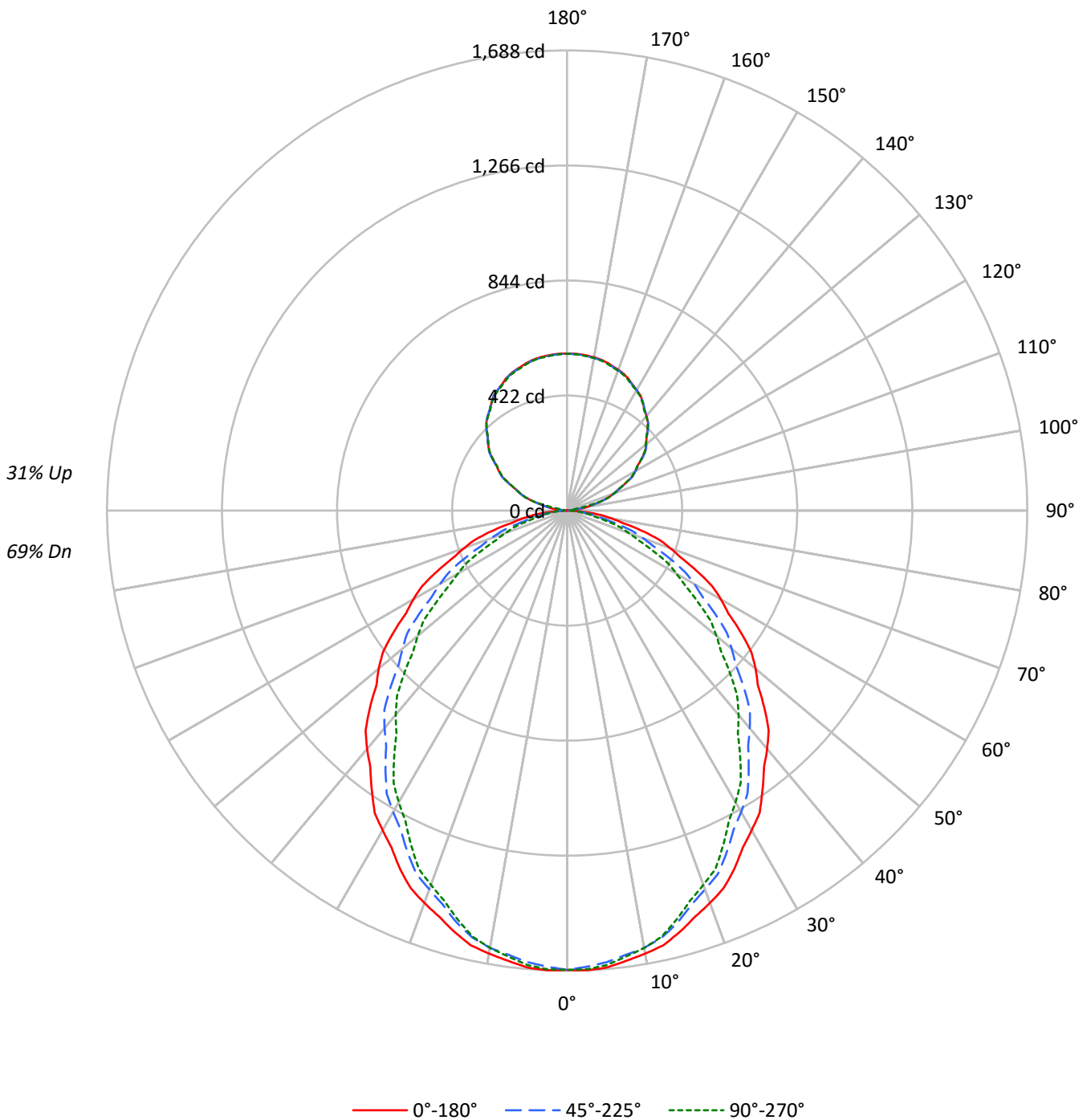
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	112	112	112	106	106	106	106	94	94	94	83	83	83	74	74	74	69
1	102	98	94	91	97	93	89	86	83	80	78	74	72	70	66	64	63	59
2	94	86	80	75	88	82	76	71	73	69	65	65	62	59	58	56	54	50
3	86	76	68	63	81	72	65	60	65	60	55	58	54	50	52	49	46	43
4	78	67	59	53	74	64	57	51	58	52	47	52	47	43	47	43	40	37
5	72	60	52	46	68	57	50	44	52	46	41	47	42	38	42	38	35	32
6	67	54	46	40	63	52	44	39	47	41	36	42	37	33	38	34	31	28
7	62	49	41	35	58	47	40	34	43	37	32	39	34	30	35	31	28	25
8	57	45	37	32	54	43	36	31	39	33	29	36	30	27	32	28	25	23
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	30	26	22	20
10	50	38	31	26	48	36	29	25	33	27	23	30	25	22	28	23	20	19

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	2.8
10°-20°	442.7	7.7
20°-30°	642.0	11.2
30°-40°	731.6	12.7
40°-50°	713.2	12.4
50°-60°	600.3	10.4
60°-70°	420.8	7.3
70°-80°	216.3	3.8
80°-90°	55.8	1.0
90°-100°	20.9	0.4
100°-110°	128.8	2.2
110°-120°	233.6	4.1
120°-130°	299.9	5.2
130°-140°	322.5	5.6
140°-150°	302.7	5.3
150°-160°	244.9	4.3
160°-170°	158.4	2.8
170°-180°	54.6	1.0
0°-30°	1243.1	21.6
0°-40°	1974.7	34.4
0°-60°	3288.2	57.2
0°-90°	3981.1	69.3
90°-120°	383.4	6.7
90°-150°	1308.5	22.8
90°-180°	1766.0	30.7
0°-180°	5747.5	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°	0	4	7	9	10	4
95°	24	22	7	9	9	31
105°	125	127	127	127	127	133
115°	235	237	238	236	234	233
125°	335	338	338	336	335	299
135°	418	420	419	418	416	322
145°	484	485	485	485	483	303
155°	533	531	531	532	529	245
165°	562	560	560	563	559	159
175°	575	573	573	576	573	55
180°	575	575	575	575	575	



TEST NUMBER: P333702-830

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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°	23.5	22.1	20.6	19.2	17.8	17.0	16.9	16.8	16.7	16.6	16.7
90°	0.5	1.2	2.0	2.7	3.5	4.1	4.8	5.5	6.1	6.8	7.3
92.5°	6.6	6.0	5.5	5.0	4.4	4.4	5.1	5.7	6.2	6.8	7.3
95°	24.3	24.0	23.8	23.5	23.2	21.2	17.6	14.0	10.5	6.8	7.3
97.5°	50.7	51.3	51.7	52.3	52.8	49.5	42.3	35.3	28.1	21.0	18.3
100°	71.2	71.5	71.8	72.1	72.4	72.7	73.0	73.4	73.8	74.2	60.0
102.5°	92.0	92.4	92.7	93.1	93.5	93.8	94.0	94.2	94.4	94.6	92.0
105°	125.4	125.7	126.1	126.5	126.9	127.1	127.1	127.1	127.1	127.1	127.1
107.5°	159.9	159.9	159.9	159.9	159.9	160.0	160.2	160.4	160.6	160.8	160.9
110°	182.5	182.5	182.5	182.5	182.5	182.6	182.8	182.9	183.1	183.3	183.0



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CATALOG NUMBER: S125RDIW-S1090D470U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	203.7	203.9	204.1	204.3	204.5	204.7	204.8	205.0	205.1	205.2	204.8
115°	235.4	235.8	236.3	236.8	237.2	237.5	237.6	237.7	237.8	237.9	237.5
117.5°	268.2	268.2	268.2	268.2	268.2	268.3	268.6	269.0	269.4	269.8	269.3
120°	288.7	288.6	288.5	288.4	288.3	288.4	288.7	289.0	289.3	289.5	289.4
122.5°	306.8	307.1	307.5	307.8	308.2	308.4	308.6	308.7	308.9	309.0	308.8
125°	334.7	335.4	336.0	336.7	337.3	337.7	337.7	337.7	337.7	337.7	337.3
127.5°	361.4	361.9	362.4	362.9	363.4	363.5	363.4	363.4	363.4	363.3	363.1
130°	377.8	378.2	378.7	379.2	379.7	379.9	380.0	380.1	380.2	380.3	380.0
132.5°	394.2	394.7	395.3	395.8	396.3	396.5	396.3	396.2	395.9	395.7	395.7
135°	417.5	418.0	418.6	419.1	419.7	419.9	419.7	419.5	419.3	419.1	419.0
137.5°	438.8	439.3	439.8	440.4	440.8	441.0	440.8	440.6	440.5	440.3	440.4
140°	452.8	453.0	453.2	453.4	453.6	453.6	453.6	453.5	453.4	453.3	453.5
142.5°	465.4	465.6	465.7	465.8	465.9	466.0	466.2	466.3	466.5	466.6	466.6
145°	484.0	484.2	484.4	484.6	484.7	484.8	484.8	484.8	484.8	484.8	484.9
147.5°	500.2	500.1	500.1	500.0	500.0	500.0	500.2	500.3	500.4	500.5	500.6
150°	510.4	510.2	510.0	509.8	509.6	509.6	509.8	510.0	510.2	510.4	510.6
152.5°	520.3	519.9	519.4	519.1	518.6	518.5	518.7	518.9	519.1	519.2	519.4
155°	533.0	532.4	531.9	531.3	530.7	530.6	530.7	530.9	531.1	531.3	531.6
157.5°	542.8	542.4	542.2	541.8	541.4	541.3	541.3	541.3	541.3	541.4	541.7
160°	549.6	549.0	548.5	547.9	547.3	547.1	547.2	547.3	547.4	547.5	547.9
162.5°	555.1	554.5	553.9	553.4	552.8	552.6	552.7	552.8	552.9	553.0	553.5
165°	562.4	561.8	561.3	560.7	560.2	559.9	560.0	560.1	560.2	560.2	560.8
167.5°	567.9	567.3	566.8	566.1	565.5	565.2	565.3	565.4	565.5	565.6	566.4
170°	571.0	570.3	569.6	568.9	568.3	568.0	568.1	568.2	568.3	568.4	569.1
172.5°	573.0	572.3	571.7	571.0	570.3	570.1	570.2	570.4	570.6	570.8	571.5
175°	575.2	574.7	574.1	573.5	573.0	572.7	572.8	572.9	573.0	573.1	573.8
177.5°	576.3	575.8	575.3	574.9	574.4	574.2	574.3	574.4	574.5	574.6	575.0
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2



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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°	16.8	16.9	17.0	17.0	16.8	16.7	16.5	16.3
90°	7.7	8.2	8.7	9.1	9.4	9.7	10.0	10.3
92.5°	7.7	8.2	8.7	9.0	9.1	9.3	9.4	9.5
95°	7.7	8.2	8.7	9.0	9.0	9.0	9.0	9.0
97.5°	15.6	13.0	10.3	9.0	9.0	9.0	9.0	9.0
100°	46.0	31.9	17.7	10.5	10.1	9.7	9.3	9.0
102.5°	89.4	86.6	84.0	79.5	73.0	66.5	60.0	53.6
105°	127.1	127.1	127.1	127.1	127.0	126.9	126.8	126.7
107.5°	160.9	160.9	160.9	160.8	160.5	160.2	159.9	159.7
110°	182.8	182.5	182.2	182.1	182.2	182.3	182.4	182.5



TEST NUMBER: P333702-830

CATALOG NUMBER: S125RDIW-S1090D470U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	204.4	204.1	203.8	203.5	203.4	203.2	203.1	202.9
115°	237.1	236.8	236.4	235.9	235.4	234.8	234.2	233.7
117.5°	268.7	268.2	267.8	267.4	267.1	266.9	266.6	266.5
120°	289.2	289.0	288.8	288.4	287.9	287.5	287.0	286.5
122.5°	308.6	308.4	308.2	307.8	307.3	306.7	306.2	305.7
125°	337.0	336.6	336.2	335.8	335.5	335.3	335.0	334.7
127.5°	362.9	362.7	362.5	362.0	361.3	360.6	359.9	359.2
130°	379.8	379.5	379.2	378.8	378.3	377.9	377.4	376.9
132.5°	395.6	395.5	395.5	395.2	394.7	394.3	393.8	393.3
135°	418.8	418.6	418.4	418.0	417.5	416.9	416.3	415.8
137.5°	440.4	440.5	440.5	440.3	439.7	439.2	438.8	438.3
140°	453.6	453.8	454.0	453.8	453.3	452.7	452.1	451.6
142.5°	466.7	466.7	466.7	466.5	465.9	465.3	464.8	464.2
145°	485.0	485.1	485.2	484.9	484.4	483.8	483.2	482.7
147.5°	500.8	500.9	501.0	500.7	500.0	499.4	498.6	497.9
150°	510.8	511.0	511.1	510.9	510.1	509.3	508.6	507.8
152.5°	519.6	519.8	520.0	519.8	519.1	518.4	517.7	517.1
155°	531.9	532.2	532.4	532.2	531.4	530.7	529.9	529.1
157.5°	542.0	542.2	542.5	542.3	541.6	540.8	540.1	539.3
160°	548.3	548.7	549.0	548.8	548.1	547.3	546.6	545.8
162.5°	554.0	554.6	555.1	555.0	554.1	553.3	552.4	551.6
165°	561.5	562.0	562.6	562.5	561.8	560.9	560.2	559.4
167.5°	567.0	567.7	568.4	568.4	567.4	566.6	565.7	564.9
170°	569.9	570.7	571.5	571.4	570.5	569.7	568.8	568.0
172.5°	572.1	572.8	573.5	573.4	572.6	571.7	570.9	570.0
175°	574.6	575.3	576.1	576.1	575.2	574.4	573.5	572.7
177.5°	575.6	576.1	576.6	576.6	576.0	575.4	574.8	574.2
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2

(END OF REPORT)