

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: P333706-940

Luminaire Tested: **S125RDIW-S1090D770U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333706-940
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-S1090D770U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6504.2 lumens
Efficiency: N/A
Efficacy: 121.3 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: General Diffuse

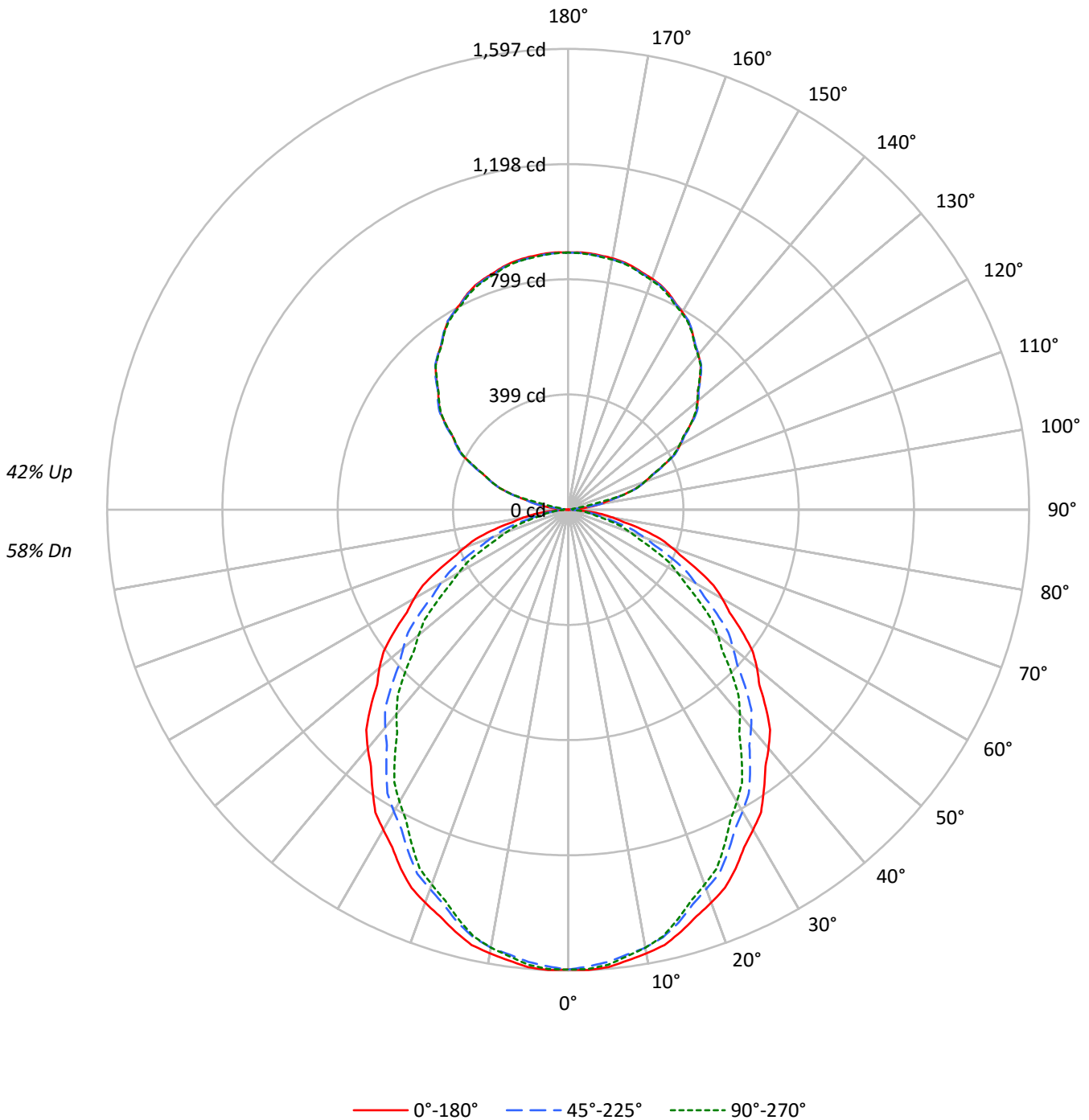
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	88	93	89	86	83	77	75	73	66	65	63	56	55	54	49
2	91	84	78	72	85	78	73	68	68	64	61	59	56	53	50	48	46	42
3	83	74	67	61	77	69	63	57	60	55	51	52	48	45	44	42	39	36
4	76	66	58	52	71	61	54	49	54	48	44	47	42	39	40	37	34	31
5	70	59	50	44	65	55	48	42	48	42	38	42	37	34	36	33	30	27
6	65	53	44	39	60	49	42	37	44	38	33	38	33	30	33	29	26	24
7	60	48	40	34	56	45	38	32	40	34	29	35	30	26	30	26	24	21
8	56	43	36	30	52	41	34	29	36	30	26	32	27	24	28	24	21	19
9	52	40	32	27	48	37	31	26	33	28	24	29	25	21	26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21	27	23	19	24	20	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10293	10293	10293
5°	10317	10200	10263
10°	10239	10105	10105
15°	10117	9900	9819
20°	9961	9614	9498
25°	9779	9333	9128
30°	9552	9004	8717
35°	9320	8665	8257
40°	9104	8312	7804
45°	8840	7916	7311
50°	8575	7486	6797
55°	8268	7076	6248
60°	7962	6577	5660
65°	7597	5997	4985
70°	7183	5274	4296
75°	6608	4447	3573
80°	5821	3492	2998
85°	4905	2853	2675



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	2.3
10°-20°	418.8	6.4
20°-30°	607.3	9.3
30°-40°	692.2	10.6
40°-50°	674.7	10.4
50°-60°	567.9	8.7
60°-70°	398.1	6.1
70°-80°	204.6	3.1
80°-90°	53.5	0.8
90°-100°	32.4	0.5
100°-110°	199.6	3.1
110°-120°	362.0	5.6
120°-130°	464.6	7.1
130°-140°	499.8	7.7
140°-150°	469.1	7.2
150°-160°	379.5	5.8
160°-170°	245.4	3.8
170°-180°	84.6	1.3
0°-30°	1176.0	18.1
0°-40°	1868.2	28.7
0°-60°	3110.9	47.8
0°-90°	3767.1	57.9
90°-120°	594.1	9.1
90°-150°	2027.6	31.2
90°-180°	2737.0	42.1
0°-180°	6504.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1594	1594	1594	1594	1594	
5°	1591	1586	1573	1585	1583	151
15°	1513	1505	1481	1479	1469	426
25°	1372	1353	1310	1294	1281	631
35°	1182	1152	1099	1065	1047	740
45°	968	931	867	820	800	746
55°	734	694	628	576	555	657
65°	497	455	392	346	326	492
75°	265	228	178	153	143	280
85°	66	45	38	37	36	74
90°	1	6	11	14	16	5
95°	38	34	11	14	14	48
105°	194	197	197	197	196	206
115°	365	368	369	366	362	361
125°	519	523	523	521	519	463
135°	647	651	650	648	644	498
145°	750	751	751	752	748	469
155°	826	822	823	825	820	380
165°	872	868	868	872	867	246
175°	891	888	888	893	887	85
180°	891	891	891	891	891	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1596.7	1596.1	1595.4	1594.7	1594.1	1592.8	1590.6	1588.5	1586.4	1584.2	1586.4
5°	1591.4	1590.4	1589.3	1588.2	1587.2	1585.1	1582.2	1579.2	1576.3	1573.3	1576.0
7.5°	1575.7	1574.8	1573.7	1572.7	1571.6	1569.4	1565.8	1562.4	1558.8	1555.3	1557.2
10°	1561.3	1560.5	1559.7	1558.9	1558.1	1555.9	1552.1	1548.4	1544.6	1540.9	1541.7
12.5°	1544.9	1543.9	1542.9	1541.9	1540.9	1537.8	1532.9	1527.8	1522.8	1517.7	1518.3
15°	1513.1	1511.5	1509.9	1508.3	1506.7	1503.2	1497.5	1491.9	1486.3	1480.7	1480.4
17.5°	1477.3	1474.8	1472.4	1469.9	1467.4	1462.7	1455.6	1448.6	1441.5	1434.4	1433.1
20°	1449.4	1446.7	1444.0	1441.4	1438.7	1433.1	1424.5	1415.9	1407.4	1398.8	1397.5
22.5°	1418.5	1415.9	1413.2	1410.5	1407.8	1402.0	1393.0	1384.0	1375.0	1366.0	1363.4
25°	1372.3	1368.3	1364.3	1360.3	1356.3	1349.3	1339.4	1329.5	1319.6	1309.7	1306.3
27.5°	1319.4	1314.5	1309.6	1304.8	1299.8	1292.2	1281.6	1271.0	1260.3	1249.7	1244.9
30°	1280.9	1275.8	1270.7	1265.6	1260.5	1252.3	1241.1	1229.8	1218.6	1207.4	1201.2
32.5°	1243.2	1237.3	1231.4	1225.5	1219.5	1210.9	1199.4	1187.9	1176.4	1165.0	1158.2
35°	1182.1	1175.7	1169.3	1162.9	1156.5	1147.2	1135.1	1123.1	1111.1	1099.0	1091.3
37.5°	1122.1	1114.4	1106.5	1098.8	1090.9	1080.8	1068.4	1056.0	1043.6	1031.2	1021.8
40°	1079.8	1071.7	1063.7	1055.7	1047.7	1037.2	1024.4	1011.6	998.7	985.9	975.7
42.5°	1035.5	1027.3	1019.0	1010.8	1002.6	991.8	978.5	965.3	952.0	938.7	929.0
45°	967.9	960.1	952.3	944.6	936.8	925.6	910.9	896.2	881.5	866.7	856.0
47.5°	897.8	889.6	881.4	873.3	865.0	853.5	838.7	823.9	809.0	794.2	783.2
50°	853.5	844.6	835.8	827.0	818.1	806.1	790.9	775.6	760.4	745.1	733.9
52.5°	805.3	796.3	787.2	778.2	769.2	757.4	743.1	728.6	714.3	699.9	687.8
55°	734.3	725.8	717.2	708.6	700.1	688.3	673.3	658.4	643.4	628.4	616.4
57.5°	662.5	653.4	644.3	635.1	626.0	614.2	599.8	585.3	570.9	556.4	544.7
60°	616.4	607.0	597.6	588.3	578.9	566.9	552.5	538.1	523.6	509.2	497.4
62.5°	567.2	558.3	549.4	540.4	531.5	519.7	505.1	490.4	475.7	461.0	450.1
65°	497.1	488.0	478.9	469.8	460.7	449.2	435.0	420.8	406.6	392.4	381.7
67.5°	427.6	418.5	409.4	400.3	391.2	379.9	366.2	352.7	339.1	325.5	315.8
70°	380.4	371.3	362.2	353.1	344.0	332.8	319.4	306.0	292.7	279.3	271.0
72.5°	334.2	325.3	316.4	307.6	298.6	287.9	275.4	262.9	250.4	237.9	230.2
75°	264.8	256.8	248.8	240.8	232.7	223.1	211.9	200.6	189.4	178.2	172.3
77.5°	196.0	189.6	183.2	176.7	170.3	162.6	153.6	144.6	135.6	126.6	122.5
80°	156.5	150.1	143.7	137.2	130.8	123.9	116.4	108.9	101.4	93.9	91.5
82.5°	118.0	112.2	106.4	100.7	94.9	89.4	84.3	79.1	74.0	68.8	67.8
85°	66.2	61.3	56.5	51.7	46.9	43.9	42.5	41.2	39.9	38.5	38.3
87.5°	22.3	21.0	19.8	18.5	17.2	16.6	16.6	16.6	16.6	16.6	16.7
90°	0.6	1.9	3.0	4.2	5.4	6.4	7.5	8.6	9.5	10.6	11.3
92.5°	10.2	9.4	8.6	7.7	6.9	7.0	7.8	8.7	9.6	10.6	11.3
95°	37.6	37.2	36.7	36.4	35.9	32.9	27.3	21.8	16.1	10.6	11.3
97.5°	78.6	79.5	80.3	81.0	81.8	76.7	65.6	54.6	43.5	32.5	28.4
100°	110.3	110.8	111.2	111.6	112.1	112.6	113.2	113.8	114.4	114.9	93.1
102.5°	142.6	143.1	143.7	144.3	144.8	145.3	145.6	146.0	146.3	146.7	142.6
105°	194.2	194.8	195.5	196.0	196.6	196.9	196.9	196.9	196.9	196.9	196.9
107.5°	247.9	247.9	247.9	247.9	247.9	248.1	248.3	248.6	249.0	249.2	249.2
110°	282.8	282.8	282.8	282.8	282.8	282.9	283.2	283.6	283.8	284.1	283.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	315.6	315.9	316.3	316.6	317.0	317.3	317.4	317.6	317.8	318.0	317.4
115°	364.7	365.4	366.2	366.9	367.7	368.1	368.3	368.4	368.5	368.7	368.1
117.5°	415.6	415.5	415.5	415.5	415.4	415.7	416.3	416.9	417.4	417.9	417.2
120°	447.3	447.2	447.0	446.8	446.7	446.8	447.3	447.7	448.2	448.6	448.4
122.5°	475.3	475.9	476.4	477.0	477.6	478.0	478.1	478.3	478.6	478.8	478.5
125°	518.7	519.7	520.8	521.7	522.8	523.3	523.3	523.3	523.3	523.3	522.7
127.5°	560.0	560.8	561.5	562.2	562.9	563.3	563.2	563.1	563.0	562.9	562.6
130°	585.4	586.1	586.8	587.6	588.4	588.8	588.9	589.1	589.2	589.3	588.9
132.5°	610.7	611.6	612.5	613.3	614.2	614.5	614.1	613.8	613.5	613.1	613.1
135°	646.8	647.7	648.6	649.5	650.4	650.7	650.4	650.1	649.8	649.5	649.2
137.5°	680.0	680.8	681.5	682.3	683.1	683.3	683.1	682.8	682.5	682.2	682.3
140°	701.7	702.0	702.3	702.6	702.8	702.9	702.8	702.7	702.5	702.3	702.7
142.5°	721.2	721.4	721.6	721.8	721.9	722.1	722.4	722.6	722.7	723.0	723.0
145°	749.9	750.2	750.6	750.8	751.1	751.3	751.3	751.3	751.3	751.3	751.4
147.5°	775.1	775.0	774.9	774.9	774.8	774.9	775.1	775.2	775.3	775.5	775.7
150°	790.9	790.6	790.3	790.0	789.7	789.7	790.0	790.3	790.6	790.9	791.2
152.5°	806.2	805.6	804.9	804.3	803.6	803.4	803.8	804.1	804.3	804.6	804.9
155°	825.9	825.0	824.1	823.2	822.4	822.1	822.4	822.7	823.0	823.2	823.7
157.5°	841.1	840.6	840.1	839.5	839.0	838.7	838.7	838.8	838.8	838.8	839.4
160°	851.7	850.8	849.9	849.0	848.2	847.7	847.9	848.1	848.2	848.4	849.0
162.5°	860.1	859.3	858.4	857.5	856.6	856.2	856.4	856.6	856.7	856.8	857.6
165°	871.5	870.6	869.8	868.9	868.0	867.6	867.7	867.9	868.1	868.2	869.1
167.5°	879.9	879.0	878.2	877.3	876.3	875.9	876.1	876.2	876.4	876.6	877.5
170°	884.8	883.7	882.6	881.6	880.6	880.1	880.3	880.5	880.6	880.7	881.9
172.5°	887.9	886.9	885.8	884.8	883.8	883.4	883.7	884.0	884.2	884.5	885.5
175°	891.4	890.5	889.6	888.7	887.8	887.4	887.6	887.7	887.9	888.1	889.2
177.5°	892.9	892.2	891.5	890.8	890.1	889.7	889.9	890.0	890.1	890.3	891.1
180°	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1588.5	1590.6	1592.8	1593.7	1593.5	1593.3	1593.0	1592.9
5°	1578.7	1581.4	1584.0	1585.1	1584.6	1584.0	1583.5	1583.0
7.5°	1559.1	1560.9	1562.8	1563.4	1562.8	1562.3	1561.7	1561.0
10°	1542.5	1543.3	1544.1	1544.1	1543.3	1542.5	1541.7	1540.9
12.5°	1518.9	1519.5	1520.1	1519.7	1518.5	1517.3	1516.1	1514.8
15°	1480.2	1479.9	1479.6	1478.3	1475.9	1473.5	1471.1	1468.6
17.5°	1431.7	1430.4	1429.1	1427.5	1425.4	1423.4	1421.5	1419.5
20°	1396.2	1394.8	1393.5	1391.6	1389.2	1386.8	1384.4	1382.0
22.5°	1360.8	1358.2	1355.6	1353.3	1351.3	1349.3	1347.3	1345.3
25°	1302.8	1299.3	1295.8	1292.6	1289.7	1286.7	1283.8	1280.9
27.5°	1240.0	1235.2	1230.3	1226.5	1223.6	1220.8	1217.9	1215.1
30°	1195.1	1188.9	1182.8	1178.5	1176.1	1173.7	1171.3	1168.9
32.5°	1151.5	1144.6	1137.8	1132.9	1129.9	1126.9	1123.7	1120.7
35°	1083.5	1075.8	1068.0	1062.3	1058.5	1054.8	1051.1	1047.3
37.5°	1012.5	1003.3	993.9	987.5	983.8	980.2	976.5	972.9
40°	965.5	955.4	945.2	938.5	935.3	932.1	928.9	925.7
42.5°	919.3	909.5	899.7	892.5	887.8	883.2	878.4	873.7
45°	845.3	834.6	823.9	816.5	812.5	808.5	804.5	800.5
47.5°	772.2	761.2	750.2	742.4	738.0	733.5	729.2	724.7
50°	722.6	711.4	700.2	692.6	688.6	684.6	680.6	676.5
52.5°	675.7	663.6	651.5	643.5	639.4	635.4	631.4	627.4
55°	604.3	592.3	580.2	572.0	567.8	563.5	559.2	554.9
57.5°	532.9	521.1	509.3	501.5	497.8	493.9	490.1	486.3
60°	485.6	473.9	462.1	454.2	450.2	446.2	442.2	438.2
62.5°	439.3	428.3	417.4	409.9	405.9	401.9	397.9	393.9
65°	371.0	360.3	349.6	342.2	338.2	334.2	330.2	326.2
67.5°	305.9	296.1	286.3	279.8	276.6	273.4	270.2	267.0
70°	262.7	254.4	246.1	240.3	237.1	233.9	230.7	227.5
72.5°	222.6	214.9	207.2	202.3	200.2	198.0	195.9	193.8
75°	166.4	160.5	154.6	150.7	148.8	147.0	145.1	143.2
77.5°	118.4	114.3	110.1	107.4	106.0	104.6	103.3	101.8
80°	89.1	86.7	84.3	82.8	82.2	81.7	81.1	80.6
82.5°	66.6	65.5	64.4	63.7	63.3	63.0	62.7	62.3
85°	38.0	37.7	37.5	37.2	36.9	36.6	36.4	36.1
87.5°	16.9	17.0	17.1	17.1	17.0	16.9	16.8	16.7
90°	12.0	12.8	13.5	14.1	14.5	15.0	15.4	15.9
92.5°	12.0	12.8	13.5	14.0	14.2	14.4	14.6	14.8
95°	12.0	12.8	13.5	13.9	13.9	13.9	13.9	13.9
97.5°	24.3	20.1	16.0	13.9	13.9	13.9	13.9	13.9
100°	71.2	49.3	27.5	16.2	15.6	15.1	14.4	13.9
102.5°	138.4	134.3	130.1	123.1	113.1	103.1	93.1	83.1
105°	196.9	196.9	196.9	196.8	196.7	196.5	196.4	196.3
107.5°	249.3	249.3	249.3	249.1	248.7	248.3	247.8	247.4
110°	283.2	282.8	282.3	282.2	282.3	282.5	282.7	282.8



TEST NUMBER: P333706-940

CATALOG NUMBER: S125RDIW-S1090D770U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	316.8	316.3	315.7	315.3	315.1	315.0	314.7	314.5
115°	367.5	366.9	366.3	365.6	364.7	363.8	362.9	362.0
117.5°	416.4	415.7	414.9	414.4	413.9	413.6	413.2	412.9
120°	448.1	447.7	447.5	446.9	446.2	445.5	444.8	444.0
122.5°	478.1	477.9	477.6	477.0	476.2	475.3	474.5	473.6
125°	522.1	521.6	520.9	520.4	520.0	519.5	519.2	518.7
127.5°	562.3	562.0	561.7	561.0	559.8	558.7	557.7	556.6
130°	588.5	588.1	587.6	587.0	586.3	585.6	584.8	584.1
132.5°	613.0	612.9	612.8	612.4	611.6	610.9	610.2	609.5
135°	648.9	648.6	648.4	647.7	646.8	646.0	645.1	644.2
137.5°	682.4	682.4	682.5	682.2	681.4	680.6	679.8	679.1
140°	702.9	703.2	703.6	703.2	702.3	701.5	700.6	699.7
142.5°	723.1	723.2	723.2	722.8	721.9	721.0	720.1	719.3
145°	751.5	751.7	751.8	751.4	750.6	749.7	748.9	748.0
147.5°	775.9	776.1	776.2	775.8	774.8	773.7	772.7	771.6
150°	791.5	791.8	792.1	791.7	790.4	789.3	788.1	786.9
152.5°	805.2	805.5	805.8	805.4	804.3	803.3	802.3	801.2
155°	824.1	824.6	825.0	824.7	823.5	822.3	821.2	819.9
157.5°	839.8	840.3	840.7	840.3	839.2	838.0	836.9	835.7
160°	849.5	850.2	850.7	850.4	849.3	848.1	846.9	845.7
162.5°	858.4	859.3	860.1	859.9	858.6	857.3	856.0	854.7
165°	870.0	870.8	871.7	871.6	870.4	869.2	868.1	866.8
167.5°	878.6	879.7	880.7	880.7	879.3	878.0	876.6	875.3
170°	883.1	884.3	885.5	885.4	884.0	882.7	881.4	880.1
172.5°	886.5	887.6	888.7	888.5	887.3	885.9	884.6	883.2
175°	890.4	891.5	892.7	892.6	891.4	890.0	888.7	887.3
177.5°	891.9	892.7	893.6	893.5	892.5	891.6	890.6	889.7
180°	891.4	891.4	891.4	891.4	891.4	891.4	891.4	891.4

(END OF REPORT)