

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: P333440-940

Luminaire Tested: **S125DIW-S1090D770U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333440-940
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: S125DIW-S1090D770U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6698.3 lumens
Efficiency: N/A
Efficacy: 125.0 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: General Diffuse

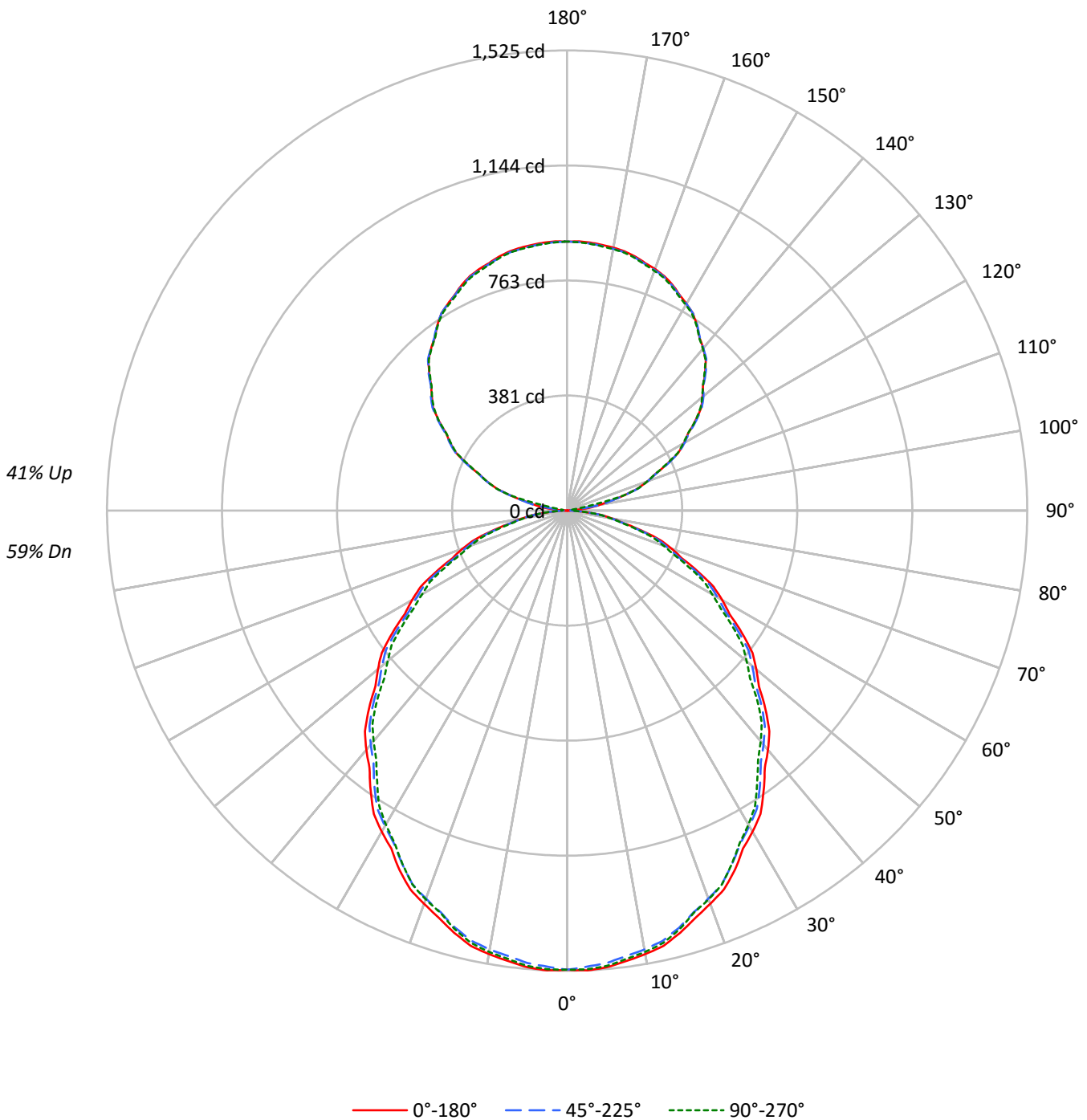
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	76	76	76	65	65	65	59
1	100	95	91	88	93	89	86	83	77	75	73	67	65	63	57	56	54	50
2	91	83	77	72	84	78	72	68	68	64	60	59	55	53	50	48	46	42
3	83	73	66	60	77	69	62	57	60	55	50	52	48	45	44	41	39	35
4	76	65	57	51	70	61	54	48	53	48	43	46	42	38	40	36	33	30
5	70	58	49	43	65	54	47	41	48	42	37	41	37	33	36	32	29	26
6	64	52	44	38	60	49	41	36	43	37	32	37	33	29	32	29	26	23
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	30	26	23	20
8	55	43	35	29	51	40	33	28	36	30	25	31	26	23	27	23	20	18
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	21	19	16
10	48	36	28	24	45	34	27	23	30	24	21	27	22	19	23	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9827	9827	9827
5°	9849	9756	9818
10°	9789	9686	9742
15°	9682	9570	9610
20°	9531	9407	9423
25°	9368	9213	9204
30°	9165	9004	8959
35°	8949	8779	8656
40°	8728	8535	8413
45°	8488	8312	8147
50°	8225	8043	7801
55°	7970	7739	7523
60°	7665	7432	7167
65°	7303	7065	6825
70°	6956	6637	6411
75°	6338	6128	5916
80°	5642	5553	5415
85°	4905	4994	4728



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.5	2.1
10°-20°	405.3	6.1
20°-30°	598.4	8.9
30°-40°	698.2	10.4
40°-50°	701.3	10.5
50°-60°	615.6	9.2
60°-70°	458.7	6.8
70°-80°	262.3	3.9
80°-90°	78.2	1.2
90°-100°	32.4	0.5
100°-110°	199.6	3.0
110°-120°	362.0	5.4
120°-130°	464.6	6.9
130°-140°	499.8	7.5
140°-150°	469.1	7.0
150°-160°	379.5	5.7
160°-170°	245.4	3.7
170°-180°	84.6	1.3
0°-30°	1147.1	17.1
0°-40°	1845.3	27.5
0°-60°	3162.2	47.2
0°-90°	3961.2	59.1
90°-120°	594.1	8.9
90°-150°	2027.6	30.3
90°-180°	2737.0	40.9
0°-180°	6698.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1519	1516	1505	1515	1514	144
15°	1448	1444	1431	1437	1437	408
25°	1315	1308	1293	1295	1292	605
35°	1135	1130	1114	1107	1098	710
45°	929	924	910	896	892	716
55°	708	703	687	677	668	632
65°	478	475	462	452	447	474
75°	254	251	246	242	237	271
85°	66	67	67	66	64	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°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1525.4	1524.8	1524.1	1523.5	1522.9	1521.4	1519.3	1517.2	1515.0	1512.9	1515.0
5°	1519.2	1518.7	1518.1	1517.6	1517.1	1515.5	1512.8	1510.1	1507.4	1504.8	1507.2
7.5°	1505.2	1504.7	1504.1	1503.6	1503.1	1501.3	1498.3	1495.4	1492.5	1489.5	1491.9
10°	1492.7	1492.2	1491.7	1491.1	1490.6	1488.8	1485.9	1482.9	1480.0	1477.0	1479.2
12.5°	1477.3	1476.3	1475.3	1474.4	1473.5	1471.6	1468.8	1466.2	1463.4	1460.6	1462.4
15°	1448.1	1447.3	1446.5	1445.7	1444.9	1443.1	1440.1	1437.2	1434.2	1431.3	1432.6
17.5°	1414.7	1413.5	1412.3	1411.1	1410.0	1407.8	1404.8	1401.8	1398.7	1395.6	1397.3
20°	1386.8	1386.3	1385.7	1385.2	1384.6	1382.6	1379.1	1375.6	1372.2	1368.7	1370.6
22.5°	1358.8	1357.9	1356.9	1355.9	1355.0	1352.8	1349.6	1346.3	1343.1	1339.8	1341.0
25°	1314.6	1313.2	1311.9	1310.5	1309.2	1306.8	1303.3	1299.8	1296.4	1292.9	1293.4
27.5°	1262.8	1261.9	1261.1	1260.3	1259.5	1257.4	1253.7	1250.2	1246.6	1243.0	1243.1
30°	1229.0	1228.2	1227.4	1226.6	1225.8	1223.4	1219.4	1215.4	1211.4	1207.4	1206.8
32.5°	1192.5	1191.2	1190.0	1188.7	1187.6	1185.2	1181.5	1177.9	1174.4	1170.8	1169.8
35°	1135.1	1134.1	1133.0	1131.9	1130.9	1128.5	1124.7	1121.0	1117.2	1113.5	1112.1
37.5°	1075.7	1074.3	1073.0	1071.7	1070.3	1067.9	1064.3	1060.9	1057.3	1053.8	1051.8
40°	1035.3	1033.9	1032.6	1031.3	1029.9	1027.3	1023.6	1019.8	1016.1	1012.4	1010.0
42.5°	991.9	990.8	989.7	988.6	987.4	985.0	981.2	977.5	973.7	970.0	967.8
45°	929.3	928.3	927.2	926.1	925.1	922.9	919.7	916.5	913.3	910.1	906.9
47.5°	861.9	861.9	862.0	862.1	862.1	860.2	856.4	852.5	848.6	844.8	841.5
50°	818.6	817.8	817.0	816.2	815.4	813.3	810.1	806.9	803.7	800.5	797.0
52.5°	774.3	773.6	773.1	772.5	772.0	769.9	766.5	763.0	759.6	756.2	753.1
55°	707.8	707.0	706.2	705.4	704.6	702.3	698.6	694.8	691.1	687.3	684.9
57.5°	637.8	637.3	636.9	636.5	636.1	634.3	631.1	627.9	624.8	621.6	618.5
60°	593.4	592.4	591.3	590.2	589.2	587.2	584.2	581.3	578.4	575.4	572.7
62.5°	547.2	546.4	545.5	544.7	543.9	542.2	539.6	537.1	534.6	532.1	529.1
65°	477.9	477.3	476.8	476.3	475.7	474.0	471.1	468.1	465.2	462.3	459.9
67.5°	410.7	409.6	408.5	407.3	406.3	404.6	402.3	400.2	398.0	395.8	393.8
70°	368.4	367.0	365.7	364.4	363.0	361.1	358.7	356.3	353.9	351.5	349.9
72.5°	322.2	321.2	320.3	319.4	318.5	317.3	315.8	314.1	312.6	311.0	309.2
75°	254.0	253.4	252.9	252.4	251.8	250.9	249.6	248.3	246.9	245.6	244.8
77.5°	191.2	190.9	190.7	190.6	190.3	189.8	189.0	188.3	187.6	186.8	186.4
80°	151.7	151.7	151.7	151.7	151.7	151.4	150.9	150.3	149.8	149.3	149.0
82.5°	117.0	116.5	116.2	115.7	115.3	115.0	114.9	114.9	114.7	114.6	114.1
85°	66.2	66.4	66.7	67.0	67.2	67.4	67.4	67.4	67.4	67.4	67.1
87.5°	26.1	26.4	26.6	26.8	27.1	27.2	27.2	27.2	27.2	27.2	27.3
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°	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6	1521.6
2.5°	1517.2	1519.3	1521.4	1522.4	1522.2	1522.0	1521.8	1521.6
5°	1509.6	1512.0	1514.4	1515.5	1515.2	1514.9	1514.7	1514.4
7.5°	1494.2	1496.6	1499.0	1500.0	1499.8	1499.5	1499.2	1499.0
10°	1481.3	1483.5	1485.6	1486.6	1486.3	1486.0	1485.8	1485.5
12.5°	1464.1	1465.8	1467.5	1468.4	1468.3	1468.2	1468.2	1468.1
15°	1434.0	1435.3	1436.6	1437.3	1437.3	1437.3	1437.3	1437.3
17.5°	1399.0	1400.6	1402.3	1402.5	1401.1	1399.8	1398.5	1397.1
20°	1372.4	1374.3	1376.2	1376.4	1375.1	1373.8	1372.4	1371.1
22.5°	1342.3	1343.5	1344.7	1344.9	1344.0	1343.1	1342.2	1341.2
25°	1294.0	1294.5	1295.0	1294.9	1294.1	1293.2	1292.4	1291.6
27.5°	1243.2	1243.3	1243.5	1243.1	1242.3	1241.5	1240.7	1239.9
30°	1206.3	1205.8	1205.2	1204.6	1203.8	1203.0	1202.2	1201.4
32.5°	1168.9	1167.9	1167.0	1165.7	1164.3	1162.9	1161.4	1159.9
35°	1110.8	1109.5	1108.1	1106.4	1104.3	1102.2	1100.0	1097.9
37.5°	1049.8	1047.8	1045.9	1044.3	1043.0	1041.8	1040.5	1039.4
40°	1007.5	1005.1	1002.7	1001.1	1000.3	999.5	998.7	997.9
42.5°	965.6	963.4	961.3	959.5	958.3	957.1	955.8	954.6
45°	903.7	900.4	897.2	895.2	894.4	893.6	892.8	892.0
47.5°	838.3	835.0	831.8	829.2	827.3	825.5	823.6	821.7
50°	793.5	790.1	786.6	783.9	782.0	780.2	778.3	776.4
52.5°	750.1	747.1	744.0	741.5	739.3	737.3	735.2	733.1
55°	682.5	680.1	677.7	675.6	673.7	671.8	669.9	668.1
57.5°	615.5	612.3	609.2	607.2	606.2	605.1	604.1	603.1
60°	570.1	567.4	564.7	562.4	560.5	558.7	556.8	554.9
62.5°	526.3	523.4	520.5	518.4	516.9	515.5	514.0	512.6
65°	457.4	455.0	452.6	450.8	449.8	448.7	447.6	446.6
67.5°	391.7	389.7	387.6	386.3	385.7	385.0	384.4	383.8
70°	348.3	346.7	345.1	343.8	342.7	341.6	340.5	339.5
72.5°	307.5	305.6	303.8	302.4	301.3	300.2	299.2	298.1
75°	244.0	243.2	242.4	241.4	240.3	239.2	238.2	237.1
77.5°	185.8	185.4	184.9	184.3	183.5	182.8	182.0	181.3
80°	148.7	148.5	148.2	147.8	147.2	146.7	146.2	145.6
82.5°	113.6	113.2	112.7	112.4	112.3	112.2	112.1	111.9
85°	66.9	66.6	66.3	65.9	65.4	64.8	64.3	63.8
87.5°	27.5	27.6	27.7	27.6	27.3	26.9	26.7	26.3
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: P333440-940

CATALOG NUMBER: S125DIW-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)