

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: P333441-940

Luminaire Tested: **S125DIW-S1090D770U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333441-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
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-F1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6334.8 lumens
Efficiency: N/A
Efficacy: 118.2 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: Semi-Direct

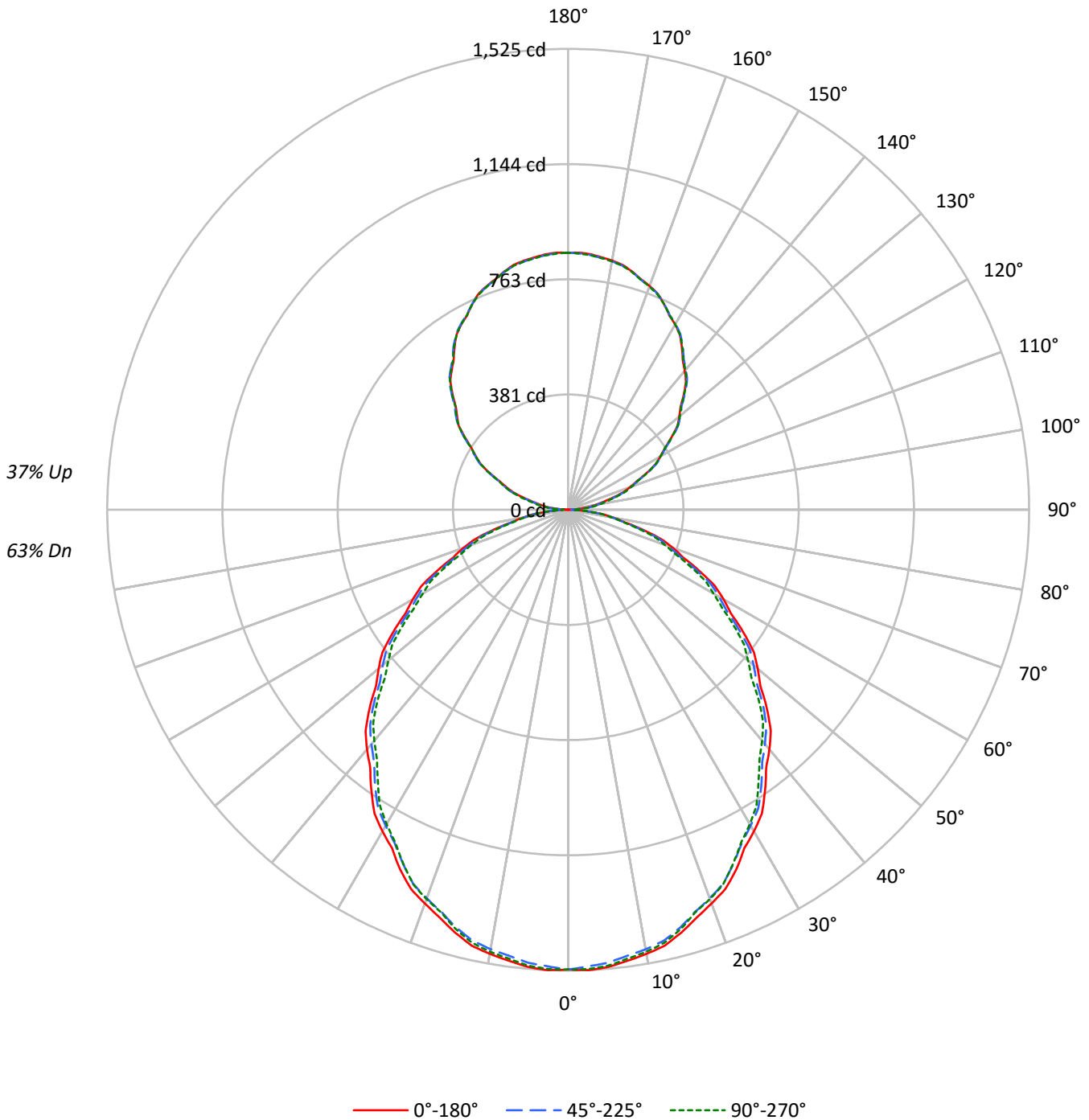
Input Watts (W): 53.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	63
1	101	96	92	88	94	90	87	84	79	77	74	69	67	65	60	58	57	53
2	92	84	78	72	85	79	73	69	69	65	61	61	57	54	52	50	48	44
3	83	74	66	60	78	69	63	57	61	56	52	54	49	46	46	43	41	37
4	76	65	57	51	71	62	54	49	54	49	44	48	43	39	42	38	35	32
5	70	58	50	44	65	55	47	42	49	43	38	43	38	34	37	34	31	28
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24	22
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	29	24	21	19
9	52	39	32	26	49	37	30	25	33	28	23	30	25	21	26	22	19	17
10	48	36	29	24	45	34	28	23	31	25	21	28	23	19	24	21	18	16

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	2.3
10°-20°	405.3	6.4
20°-30°	598.4	9.4
30°-40°	698.2	11.0
40°-50°	701.3	11.1
50°-60°	615.6	9.7
60°-70°	458.7	7.2
70°-80°	262.3	4.1
80°-90°	78.2	1.2
90°-100°	57.0	0.9
100°-110°	168.2	2.7
110°-120°	285.0	4.5
120°-130°	375.0	5.9
130°-140°	420.2	6.6
140°-150°	411.8	6.5
150°-160°	345.9	5.5
160°-170°	229.9	3.6
170°-180°	80.5	1.3
0°-30°	1147.1	18.1
0°-40°	1845.3	29.1
0°-60°	3162.2	49.9
0°-90°	3961.2	62.5
90°-120°	510.2	8.1
90°-150°	1717.2	27.1
90°-180°	2374.0	37.5
0°-180°	6334.8	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	6
95°	43	45	51	55	57	46
105°	151	154	158	162	164	161
115°	285	288	289	289	288	282
125°	416	420	421	420	419	373
135°	541	545	546	546	544	417
145°	656	659	661	661	659	410
155°	751	751	751	754	751	346
165°	816	815	816	818	814	230
175°	849	846	846	849	845	81
180°	851	851	851	851	851	



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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	6.5	7.5	8.6	9.5	10.6	11.3
92.5°	16.1	16.9	17.7	18.5	19.4	20.3	21.7	22.9	24.2	25.4	26.4
95°	43.1	43.3	43.6	43.9	44.2	45.1	46.5	48.1	49.5	51.0	52.0
97.5°	71.5	71.6	71.7	71.9	72.0	73.0	75.1	77.1	79.1	81.1	82.1
100°	92.6	92.6	92.6	92.6	92.6	93.6	95.5	97.5	99.3	101.3	102.6
102.5°	115.5	116.0	116.6	117.2	117.8	118.6	119.6	120.6	121.5	122.4	123.9
105°	151.0	151.7	152.4	153.1	153.9	154.7	155.6	156.4	157.3	158.2	159.1
107.5°	190.1	190.8	191.6	192.3	193.1	193.8	194.5	195.1	195.8	196.4	196.9
110°	217.1	217.8	218.6	219.4	220.1	220.6	221.1	221.5	221.9	222.4	222.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	244.7	245.0	245.4	245.8	246.2	246.6	247.2	247.8	248.3	248.9	249.1
115°	285.3	285.9	286.5	287.0	287.7	288.1	288.4	288.6	289.0	289.3	289.1
117.5°	326.1	326.4	326.6	326.9	327.2	327.4	327.7	328.0	328.2	328.5	328.6
120°	351.5	352.2	352.9	353.7	354.5	354.9	355.0	355.2	355.3	355.4	355.4
122.5°	379.1	379.3	379.6	379.9	380.1	380.4	380.8	381.2	381.6	381.9	381.8
125°	416.3	417.2	418.1	419.0	419.9	420.4	420.5	420.7	420.9	421.0	420.7
127.5°	456.1	456.6	457.1	457.6	458.1	458.4	458.6	458.8	459.0	459.1	459.0
130°	479.9	480.6	481.4	482.1	482.9	483.4	483.7	483.9	484.3	484.6	484.4
132.5°	503.7	505.0	506.1	507.4	508.5	509.2	509.1	509.0	509.0	508.9	508.8
135°	541.4	542.3	543.2	544.1	545.0	545.5	545.6	545.8	546.0	546.1	546.1
137.5°	576.9	577.8	578.6	579.5	580.4	580.9	581.3	581.6	581.9	582.3	582.5
140°	599.8	600.5	601.2	601.9	602.7	603.2	603.7	604.1	604.6	605.0	605.3
142.5°	622.5	623.1	623.8	624.4	625.0	625.5	626.2	626.7	627.2	627.8	627.9
145°	656.0	656.6	657.2	657.7	658.4	658.9	659.3	659.8	660.2	660.7	660.7
147.5°	687.0	687.3	687.6	688.0	688.3	688.6	688.9	689.3	689.6	690.0	690.4
150°	707.7	707.5	707.3	707.2	707.0	707.3	707.8	708.5	709.0	709.6	709.6
152.5°	724.6	724.8	725.0	725.2	725.4	725.6	725.9	726.1	726.3	726.6	726.9
155°	750.6	750.6	750.6	750.6	750.6	750.7	750.9	751.0	751.2	751.4	751.9
157.5°	774.0	773.6	773.3	773.0	772.7	772.6	772.8	772.8	773.0	773.2	773.7
160°	787.7	787.3	786.8	786.4	786.0	785.8	786.0	786.1	786.2	786.4	787.0
162.5°	800.0	799.6	799.2	799.0	798.6	798.4	798.5	798.5	798.5	798.6	799.3
165°	816.2	815.9	815.6	815.3	815.0	814.9	815.1	815.2	815.4	815.6	816.1
167.5°	830.0	829.4	828.8	828.2	827.6	827.3	827.3	827.3	827.3	827.3	828.2
170°	837.4	836.8	836.2	835.6	835.0	834.7	834.7	834.7	834.7	834.7	835.6
172.5°	842.7	842.0	841.5	840.9	840.3	840.0	840.0	840.0	840.0	840.0	840.9
175°	848.6	848.0	847.5	846.9	846.2	846.0	846.0	846.0	846.0	846.0	846.9
177.5°	851.7	851.2	850.7	850.2	849.8	849.5	849.4	849.3	849.2	849.0	849.7
180°	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6



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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	13.6	14.1	14.5	15.0	15.4	15.9
92.5°	27.4	28.4	29.3	30.0	30.3	30.6	30.9	31.2
95°	53.1	54.0	55.1	55.7	56.1	56.4	56.6	56.9
97.5°	83.1	84.1	85.1	85.6	85.8	86.0	86.1	86.3
100°	103.9	105.2	106.6	107.4	107.7	108.0	108.3	108.5
102.5°	125.4	126.8	128.2	129.1	129.6	130.0	130.4	130.8
105°	160.0	160.9	161.8	162.4	162.8	163.3	163.7	164.2
107.5°	197.3	197.8	198.2	198.4	198.4	198.4	198.3	198.3
110°	223.3	223.7	224.2	224.4	224.2	224.0	223.9	223.7



TEST NUMBER: P333441-940

CATALOG NUMBER: S125DIW-S1090D770U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	249.3	249.5	249.7	249.7	249.4	249.1	248.9	248.6
115°	289.0	288.8	288.6	288.6	288.4	288.3	288.1	287.9
117.5°	328.7	328.8	329.0	328.7	328.1	327.5	326.9	326.4
120°	355.4	355.4	355.4	355.2	354.6	354.0	353.4	352.8
122.5°	381.7	381.6	381.5	381.2	380.7	380.2	379.8	379.3
125°	420.4	420.1	419.8	419.6	419.5	419.3	419.2	419.0
127.5°	458.9	458.7	458.5	458.3	458.1	457.7	457.4	457.2
130°	484.3	484.1	483.9	483.8	483.5	483.1	482.9	482.6
132.5°	508.6	508.5	508.4	508.0	507.7	507.2	506.8	506.4
135°	546.1	546.1	546.1	545.8	545.2	544.7	544.0	543.5
137.5°	582.6	582.8	583.0	582.6	581.9	581.2	580.5	579.7
140°	605.6	605.9	606.2	606.0	605.3	604.5	603.8	603.1
142.5°	628.1	628.3	628.5	628.2	627.5	626.8	626.0	625.3
145°	660.7	660.7	660.7	660.4	660.0	659.5	659.1	658.6
147.5°	690.7	691.1	691.4	691.1	690.1	689.1	688.1	687.2
150°	709.6	709.6	709.6	709.4	709.2	708.9	708.6	708.3
152.5°	727.3	727.6	728.0	727.9	727.4	726.8	726.3	725.8
155°	752.5	753.0	753.7	753.6	752.9	752.2	751.4	750.6
157.5°	774.4	774.9	775.5	775.3	774.4	773.4	772.4	771.4
160°	787.6	788.2	788.7	788.7	787.9	787.2	786.5	785.8
162.5°	800.0	800.7	801.4	801.4	800.5	799.6	798.8	797.9
165°	816.7	817.3	817.9	817.7	816.9	816.0	815.1	814.2
167.5°	829.1	830.0	830.8	830.8	829.9	829.0	828.1	827.2
170°	836.5	837.4	838.3	838.2	837.1	836.2	835.1	834.1
172.5°	841.8	842.7	843.6	843.6	842.7	841.7	840.8	839.9
175°	847.7	848.6	849.5	849.4	848.4	847.4	846.3	845.3
177.5°	850.4	851.1	851.9	851.8	851.0	850.2	849.4	848.5
180°	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6

(END OF REPORT)